



# V

## Selected Issues in Mature Financial Systems: EMU, Banking System Performance, and Supervision and Regulation

This chapter examines three issues related to developments in mature markets. As January 1999 approaches, the broader framework for financial surveillance and supervision, for ensuring financial stability, and for crisis management within the European Economic and Monetary Union (EMU) is still evolving. Against the background of implementation of the new pan-European payments system, and the likely challenges in the development of pan-European money markets and European banking systems, the first section of this chapter examines remaining challenges in setting up the EMU framework for ensuring financial stability and crisis management.

The second section discusses the performance of the Group of Seven banking systems, where the most serious challenges and risks are in Japan. Seven years after the bursting of the asset price bubble, Japan's financial system problems have still not been resolved. While asset quality has continued to deteriorate, new problems have emerged, associated with Japanese bank exposures to crisis countries in Asia, worsening financial conditions in Japan's nonfinancial corporate sector, and emerging problems in the nonbank sector. The authorities have adopted a new strategy to resolve problems in the financial system, including the commitment of public funds to recapitalize and restructure banks, a new supervisory framework, and a timetable for deregulating the financial sector. While these measures and blueprints are promising, the first-round implementation of bank recapitalization raised concerns in international markets about the authorities' commitment to its new approach. Moreover, details about the new supervisory agency left markets and the international community with doubts about the ability of the new agency to achieve what is required over the near term. This section also reviews the relatively good performances of the banking systems in Canada, the United States, and the United Kingdom, where the main risk is that some of them (the United States and the United Kingdom) appear to be at or near the top of a credit cycle, which is when banks tend to take on increasingly risky concentrations of loans in an effort to maintain high profitability. In Germany, relatively good performance has been tarnished somewhat by exposures to Asian countries in crisis, and in France and Italy, challenges remain for improving performance and asset quality.

The third section of the chapter discusses initiatives and remaining challenges of Group of Ten financial supervisors and regulators in their ongoing efforts to further improve financial infrastructures, encourage good private risk management and controls, improve capital adequacy requirements, and build stronger international coordination mechanisms.

### European Monetary Union

#### Implementation of TARGET

One of the main objectives of the TARGET payments system—a central feature of the financial infrastructure of EMU—is to help safeguard the prospective pan-European financial markets and financial institutions from systemic events.<sup>1</sup> The system is composed of as many real-time gross settlement (RTGS) national payments systems as there are EMU members, linked to each other through a communications network. Cross-border payments are settled through the accounts of national central banks. Until a few years ago, most European payments systems were instead some combination of end-of-day settlement and/or netting systems, some with several settlement periods. In non-RTGS systems, financial institutions accumulate very large open positions against counterparties and run the risk of losses due to settlement failures. The advantage of RTGS systems is that each payment is made final as it occurs, so that large outstanding positions are not accumulated. This was a key reason why the EU made the decision to have national authorities incur the considerable costs to establish TARGET as a network of RTGS systems.

The 1997 Capital Markets report noted that TARGET might face competition for providing payments settlement services from other RTGS systems in Europe and private netting schemes. There is the impression in Europe that the official perception that a significant share of high-value payments—the kind of payments with systemic risk components—would be sent through TARGET might turn out to be erroneous.

<sup>1</sup>International Monetary Fund (1997), pp. 170–74, describes the main features of the TARGET structure.

Large-value transactions use intraday credit, and the requirement of collateral for obtaining intraday credit within TARGET means that institutions will have to acquire and maintain collateral. Because maintaining collateral is costly, institutions might choose to use alternative netting systems, such as Euro Clearing System (ECS) and Euro Access Frankfurt 2 (EAF2),<sup>2</sup> (which are settled at regular intervals<sup>3</sup>), for the bulk of their high-value transactions and might use TARGET only for “time critical” payments that need intraday credit.

The cost of collateral is difficult to assess because it depends on the trading opportunities lost on the underlying assets. Although some market participants consider this cost as a major hurdle in using TARGET for high-value payments, there are factors that can offset some of the cost. Both systems envisaged in EMU for depositing collateral (“pooling” and “earmarking”) may allow institutions to substitute the underlying assets on a daily basis and therefore to trade them as long as they have other eligible assets to replace them in deposit as collateral.<sup>4</sup>

Cost per transaction will be another determinant of the volume of transactions sent through TARGET. The TARGET price structure is the following: 1.75 euros for each of the first 100 transactions a month, 1 euro for each of the next 900 transactions a month, and 0.80 euro for each subsequent transaction in excess of 1,000 a month. This cost is considerably lower than earlier estimates by the European Monetary Institute (EMI), but remains high in relation to competing netting schemes. ECS and EAF2 have announced they will charge a price close to 0.25 euro for each payment.<sup>5</sup>

On July 8, 1998, the European Central Bank (ECB) announced the conditions under which London-based institutions and other non-euro credit institutions are permitted to access TARGET.<sup>6</sup> The conditions are im-

posed to assure that “non-euro credit institutions will always be in a position to reimburse intraday credit in due time, thus avoiding any need for overnight central bank credit in euro.” “Safeguards will be based on the intraday credit being capped, on an early liquidity deadline and on a system of penalties in the event of a failure to reimburse the intraday credit.”<sup>7</sup> To avoid these conditions, London-based institutions might access TARGET via subsidiaries or branches based in EMU, and these institutions will need to acquire and maintain a pool of eligible euro assets if they want to receive intraday credit.<sup>8</sup> Using a subsidiary or a branch in an EMU country would imply more steps in the transaction and entail additional costs and risks.

The above cost and logistical considerations suggest that the TARGET payments system may not realize all of the systemic risk reductions envisioned when the system was designed, because the overwhelming majority of high-value transactions might be channeled through private and quasi-public netting systems. Although some of these systems (such as EAF2) would avoid accumulating large net exposures by introducing intraday settlement and all of them would have to satisfy the Lamfalussy standards for clearing houses,<sup>9</sup> this is a potential problem, because some of these netting settlement systems would be considered too large to fail and would have to be underwritten and guaranteed by their respective governments. A less costly alternative for managing these risks would be to encourage the use of TARGET by abandoning the policy of full cost recovery and by reducing the need for using collateral for obtaining intraday credit, perhaps by charging fees instead as in U.S. Fedwire.<sup>10</sup> Having the bulk of high-value payments settled in real time across TARGET could minimize the potential for problems in one European bank or banking system cascading through the euro zone.

## Financial Stability and Crisis Management

Ensuring financial stability within EMU will be particularly challenging in the early years, when there might be several tendencies for systemic risks to increase temporarily. First, as already noted, there is the possibility that TARGET will not yield the expected

<sup>2</sup>ECS is the privately owned net clearing system of the European Bankers' Association (EBA). EAF2 is a net clearing system based in Germany but allowing remote membership.

<sup>3</sup>In ECS, settlement is at the end of the day, whereas in EAF2 bilateral and multilateral settlement clearings alternate continuously during the day.

<sup>4</sup>In a pooling system counterparties may substitute underlying assets on a daily basis by definition because individual assets in the pool are not linked to specific credit operations with the European System of Central Banks (ESCB). In an earmarking system, specific identifiable assets are linked to each credit operation but national central banks adopting this system may still permit their substitution (see European Monetary Institute (1997), p. 43).

<sup>5</sup>See Bank of England (1998), p. 19.

<sup>6</sup>The conditions are as follows: (1) credit institutions can receive collateralized intraday credit from their national central bank up to a ceiling of 1 billion euro; (2) after 5 p.m. credit institutions can only make payments out of positive balances; (3) a penalty rate of 5 percentage points over the marginal lending rate is imposed for spillovers; (4) balances with the national central bank will be remunerated at rates to be set between 0 percent and the rate of the ESCB's deposit facility; and (5) collateral is to be of the same quality as the ESCB eligible assets, and collateral could be introduced in the Tier 2 list of all national central banks with the risk to be borne by non-euro national central banks.

<sup>7</sup>July 8, 1998 press release from the ECB, “Conditions for the participation of non-Euro area EU national central banks and credit institutions in TARGET,” website: [www.ecb.int](http://www.ecb.int).

<sup>8</sup>Unless some national central banks include—after approval by the ECB—sterling-denominated assets in their list of Tier 2 collateral.

<sup>9</sup>The Lamfalussy standards provide minimum standards for the design and operation of cross-border and multicurrency netting and settlement schemes (see Bank for International Settlements (1990)).

<sup>10</sup>Another possibility is to try to make TARGET more attractive while satisfying the cost-recovery principle. This result could perhaps be obtained not by lowering the price but by taking advantage of the unique features of TARGET that would allow it to offer additional services.

reductions in systemic risk. Second, as new pan-European markets emerge, the growth of cross-border unsecured interbank lending could result in a higher risk of contagion, at least until the creation of an EMU-wide repo market, and the widespread use of secured (collateralized) interbank credit lines. Third, the euro is expected to accelerate the restructuring of European banking systems in an environment in which it may be difficult to close banks and to reduce costs through downsizing. In such an environment, inefficient and unprofitable institutions may continue to operate engaging in increasingly risky activities.

These tendencies to raise systemic risk may not be felt immediately, because market integration and bank restructuring may not occur quickly. This would delay the creation of pan-European markets and a pan-European banking system—and the considerable benefits for investors and consumers—but it would also provide time for adjustment. In any event, current limited cross-border mergers among European banks, gradually increasing competitive pressures in the retail sector, widespread public ownership, and still underdeveloped capital markets may provide some EMU countries with more time for the restructuring of banking systems, and the ability to continue to rely on decentralized arrangements for market surveillance and crisis management, based on home country supervision, for example. Through time, the introduction of the euro is expected to encourage the creation of a set of pan-European markets and institutions, which may require the centralization of financial surveillance, systemic risk management, and crisis resolution. Institutional arrangements in other advanced countries, including those in EMU, indicate that the central bank may be a natural place to centralize some of these functions. By drawing briefly on advanced country practices and experiences, and academic and policy literatures, the remaining parts of this section provide some perspective on these issues.<sup>11</sup> Boxes 5.1 and 5.2 provide details about the relatively complicated separation of responsibilities between the ECB, the national central banks, national supervisors, and treasuries mandated by the Maastricht Treaty and EU legislation (including financial directives).

Against this background, the thinking and planning about crisis management is still evolving. Whereas some understanding is likely to be reached before the start of EMU, important decisions have yet to be made that will influence the way in which EMU countries would resolve a bank liquidity crisis that occurs, for example, at the fine line between monetary policy operations and liquidity support for systemically important private financial institutions. The possible need for further decisions, despite already detailed implementation of other aspects of EMU, reflects the “nar-

row” concept of central banking envisioned in the Maastricht Treaty. The ECB has been given the mandate to focus almost exclusively on monetary policy, and has been given only a limited, peripheral role in banking supervision and no responsibility for providing liquidity support to individual financial institutions.<sup>12</sup> In order to implement the vision of the treaty, the EMI has organized its work to maintain a clear separation between monetary policy operations and the provision of liquidity for other reasons. The LOLR responsibility has not been assigned to any institution in EMU; consequently, there is no central provider or coordinator of emergency liquidity in the event of a crisis.

It is unclear how a bank crisis would be handled under the current institutional framework (see Box 5.1), especially if it is a pan-European bank for which supervisory and regulatory responsibilities would be shared to some extent. The main issue is whether there are effective mechanisms and understandings in place for the ESCB and/or the national central banks if it becomes apparent that a particular financial institution is having difficulties in financing some of its payments instructions sent either across TARGET for real-time settlement or across one of the alternative netting payments systems within Europe. For such situations, there is no conceptual framework that is uniformly seen as appropriate by practitioners and academics, and EMU policymakers will have to decide on a clear framework, which does not seem to be in place yet. However, it has been suggested by some European authorities that understandings have been reached by all EU supervisors through memoranda of understanding about how to deal with cross-border crises, and that discussions about the LOLR function are under way.

Some have argued that to avoid moral hazard, central banks should use only open market operations to deal with a liquidity crisis.<sup>13</sup> By contrast, others have argued that if there is a systemic event in which there is little, or no, doubt about solvency—as with the 1985 Bank of New York computer failure—then the central bank should have the possibility of discounting assets other than eligible collateral.<sup>14</sup> Similarly, there is a diversity of experience and practice among the major central banks. In both the United States and the United Kingdom (and in some other advanced countries), for example, central banks have considerable discretion to decide what kind of collateral to accept in exceptional circumstances to provide liquidity to the banking system. By contrast, in Germany, the Bundesbank has almost no discretion about what kind of collateral it can

<sup>12</sup>By contrast, a “broad” concept of central banking would include other financial policy functions such as a mandate for ensuring financial stability and for providing liquidity support to financial institutions, at times through a lender-of-last-resort (LOLR) mandate.

<sup>13</sup>See, for example, Goodfriend and King (1988).

<sup>14</sup>See, for example, Folkerts-Landau and Garber (1994).

<sup>11</sup>These points are covered in detail in Prati and Schinasi (1998).

### Box 5.1. ESCB Role in Prudential Supervision and Financial Stability

The ESCB Statute (Art. 25(1)) and the Maastricht Treaty (Art. 105(4, 5, 6)) assign to the ESCB some functions related to prudential supervision and the stability of the financial system. In addition, they give the ESCB an explicit role in promoting the smooth functioning of the payment system (Art. 22 of the Statute and Art. 105(2) of the Treaty). The 1997 *Annual Report* of the EMI (pp. 61–63) indicates how the EMI and the Banking Supervisory Sub-Committee expect these provisions to be implemented in EMU. Article 25(1) of the ESCB Statute envisions a specific advisory function for the ECB in the field of Community legislation relating to the prudential supervision of credit institutions and the stability of the financial system. The EMI report specifies that this function refers to the scope and implementation of Community legislation in these fields and that it should be considered “optional,” offering the ECB an instrument by which it would be able to contribute to EU legislation. Article 105(4) of the Treaty (which applies to all EU countries with the exception of the United Kingdom) contemplates a somewhat stronger role for the ECB by stipulating that it must be consulted on draft Community and national legislation falling within its field of competence. A draft Council Decision proposed by the European Commission in February 1998 and not yet approved identifies the precise scope of this provision indicating that the ECB should be consulted on rules regarding financial institutions insofar as they materially influence the stability of financial institutions and markets.

Article 105(5) of the Treaty stipulates that “the ESCB shall contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system.” The EMI report indicates that the main objective of this provision is to ensure an effective interaction between the ESCB and the national supervisory authorities. It has been agreed that this interaction will take two forms. First, the ESCB, and in particular the ECB, will promote cooperation among the EU national supervisory authorities (all of them, regardless of the fact that Art. 105(5) applies only to countries participating in EMU) with a view to achieving “a common understand-

ing on relevant supervisory policy issues.” This ECB function will be performed with the assistance of a specific committee, composed of national supervisors and national central banks representatives, and is expected “to supplement” the current framework for multilateral cooperation within the EU and “to interact smoothly” with the cooperation promoted by other supervisory forums (the Banking Advisory Committee and the Groupe de Contact at the EU level and the Basle Committee at the Group of Ten level). Second, and more important, the EMI report indicates what common understanding has been reached among banking supervisors on the basic features of the flow of information to the ESCB, in light of the relevant provisions of the Bank of Credit and Commerce International Directive. The ESCB is not going to receive supervisory information on a systematic basis, so that it cannot use it for internal risk management,<sup>1</sup> but banking supervisors “will be prepared to consider” requests from the ESCB in this area and, in the event of a banking crisis with systemic implications, to inform the ESCB on a case-by-case basis. A similar earlier agreement reached in 1994 between the Banking Supervisory Sub-Committee and the Payments System Sub-Committee disciplined the flow of information between supervisory authorities and national central banks as overseers of national payments systems in the event of a payment system crisis. This agreement did not mention the ECB and will need to be updated in this respect.

Article 105(6) of the Treaty contemplates the possibility that, upon initiative of the European Commission, the EU Council of Ministers acting “unanimously” may assign “specific tasks” to the ECB in the area of prudential supervision. In this regard, the EMI report (page 62) states that “at this stage, it is felt that it would be premature to envisage any transfer of supervisory powers from national authorities to the ECB.”

<sup>1</sup>This is already the general agreement regulating relationships between central banks and supervisors in most EMU countries.

accept, and there has been no instance in which uncolateralized intervention was necessary.

The German system is an important benchmark for examining how crisis management might take place within EMU, because the ESCB statute is similar to that of the Bundesbank in many respects. In Germany, the Bundesbank—like the ECB—has no explicit responsibility for safeguarding the stability of the financial system and it does not have a mandate as a LOLR. Indeed, the German framework for dealing with crises seems to be constructed so as to avoid a role for the Bundesbank in providing funds in rescue operations. The system, in effect, has three lines of defense:

- (1) supervision and regulation by an independent body;
- (2) short-term liquidity assistance from the Liquidity Consortium Bank combined with brokered market solutions;
- (3) deposit insurance and, if necessary, public funds. In practice, the Liquidity Consortium Bank—in which the Bundesbank has a stake<sup>15</sup>—has been able to

<sup>15</sup>The Liquidity Consortium Bank is a specialized institution with the objective of ensuring the due settlement of domestic and external payments among banks. It grants short-term liquidity assistance in the event of temporary illiquidity faced by sound financial institutions. The Bundesbank holds 30 percent of the bank’s capital; all categories of banks hold the residual amount.

**Box 5.2. Remaining Scope for Lender-of-Last-Resort Operations in EMU**

To evaluate the remaining scope for lender-of-last-resort (LOLR) operations in EMU, it is necessary to distinguish between the case of a local liquidity crisis affecting a large institution located in an EMU country and the case of a general liquidity crisis affecting the entire EMU. In case of a local liquidity crisis, the key issue is whether national central banks can provide liquidity support to troubled institutions without ECB authorization. This turns on whether the ECB's Governing Council will prohibit national central banks from purchasing noneligible collateral (commercial paper or loans) from illiquid institutions, which they might purchase under an article in the ESCB statute that allows these banks to engage in activities "performed on the responsibility and liability of national central banks" (Art. 14.4).<sup>1</sup> National central banks have scope for such operations, unless the ECB's Governing Council prohibits them by a qualified majority vote because the operation "interferes with the objectives and tasks of the ESCB" (Art. 14.4) or with guidelines and instructions issued according to articles 12.1 and 14.3 of the Statute.<sup>2</sup> Whether the Governing Council

<sup>1</sup>Art. 14.4 of the ESCB Statute. This article was probably meant to give some leeway to national central banks in performing functions with limited liquidity impact at the EMU level, like payment of employees' salaries or purchases of shares and real estate for the pension fund of national central banks, but the issue is whether it can be given a more extensive interpretation.

<sup>2</sup>Art. 12.1 stipulates, "The Governing Council shall adopt the guidelines and take the decisions necessary to ensure the performance of the tasks entrusted to the ESCB under this Treaty and this Statute." Art. 14.3 stipulates, "The national central banks are integral part of the ESCB and shall act in accordance with the guidelines and instructions of the ECB. The Governing

of the ECB will clarify this issue or maintain ambiguity remains to be seen.

National central banks may also consider indirect ways of assisting a bank experiencing severe liquidity problems. One possibility would be to swap some of the bank's illiquid assets for liquid assets in the balance sheet of the national central bank with the latter effectively taking up the credit risk on the illiquid assets. Another possibility would be for the national central bank to guarantee the institution in trouble (or undertake other similar off-balance-sheet activities), as the Bank of England did during the 1991–93 recession when several clearing banks withdrew wholesale funds from small banks and building societies.<sup>3</sup> The Governing Council of the ECB,

Council shall take the necessary steps to ensure compliance with the guidelines and instructions of the ECB, and shall require that any necessary information be given to it." Art. 18.1 does not prohibit these operations even though it requires that lending should be based on "adequate collateral"; this article refers to the ESCB, and not national central banks and is part of the chapter, "Monetary functions and operations of the ESCB." Schoemaker (1995, pp. 8–9) discusses this ambiguity.

<sup>3</sup>After the clearing banks pulled wholesale funds from smaller banks, some medium-sized banks also began to have funding pressures. The Bank of England provided indirect liquidity support in the form of guarantees without which clearing banks would have not funded the troubled banks. When liquidity problems in some institutions became solvency problems, the Bank of England made provisions against the losses associated with the guarantees. Knowledge of bank balance sheets (some of the banks in trouble had capital ratios in the 12–15 percent range) allowed the Bank of England to identify 40 banks to which it provided guarantees. Neither the Bank of England nor the clearing banks made the guarantees public until the need for provisions was announced.

identify solvent institutions to which short-term liquidity assistance should be provided thanks to the close cooperation between this bank, the independent supervisory authority, and the Bundesbank. This close cooperation has also allowed the Bundesbank to be involved in resolving problems by encouraging strong banks with ample liquidity to purchase illiquid, but sound, assets from troubled institutions in need of liquidity. Deposit insurance and public funds have been used to deal with insolvent institutions.

There are a number of reasons why such a framework (three lines of defense, with no central bank funds) might not be immediately applicable in the event of a crisis within EMU. First, there is no analogue of the Liquidity Consortium Bank in other EMU countries nor is one planned at the EMU level. Second, even if such institutions existed in each EMU country, they would seem inadequate in relation to the size and the cross-border systemic implications of a liquidity crisis involving a major pan-European bank-

ing group, unless such institutions were endowed with considerable resources and had a much larger access to supervisory information than what national supervisors are likely to provide to the ECB. Third, the current agreement about sharing information between the ECB and the national supervisors—which can be summarized by the formula "no real obligation, no real obstacle, and some understanding" (see Box 5.1)—would probably not give the ECB the same authority as the Bundesbank in brokering a solution to a banking crisis at the EMU level. The ECB could play this role only if it were perceived to have the same access to supervisory information at the EMU level that the Bundesbank has at the German level or if it had an independent authority to inspect counterparties in order to assess creditworthiness. Fourth, the German system worked well in an environment with relatively underdeveloped capital markets and a large share of public ownership in the banking system, which implied that any crisis would take place "in slow mo-

however, may argue on the basis of Art. 14.4 that, although such operations do not necessarily have an impact on bank liquidity at the EMU level, they “interfere with the objectives and tasks of the ESCB.” As a consequence, the Council may issue guidelines prohibiting similar on- and off-balance-sheet operations of the national central banks or specifying that its prior authorization is required. Once more, it remains to be seen whether the Council will clarify the issue or prefer to maintain some ambiguity.<sup>4</sup>

If the guidelines are going to be strict enough to prevent national central banks from providing any form of direct or indirect liquidity assistance to a bank in trouble, there may be remaining leeway for national central banks through the definition of eligible Tier 2 collateral.<sup>5</sup> Because eligible collateral must be accepted by all national central banks, the ECB Governing Council would have to approve such a proposal. It is unknown how this approval process would work in practice in the midst of a

<sup>4</sup>The occasion for clarifying this issue may be the issuance of the guidelines for the management of domestic assets and liabilities of national central banks expected by end-1998, although they may not be made public. The original purpose of these guidelines, which are still being drafted by the EMI, is to discipline not the provision of emergency liquidity assistance but only those operations of national central banks that do not reflect monetary policy decisions of the ESCB (for example, changes in each national central bank’s own bond portfolio).

<sup>5</sup>Tier 2 assets will be accepted EMU-wide as collateral, but, whereas losses on Tier 1 collateral would be shared across the ESCB, losses on Tier 2 collateral would be borne by the national central bank that proposes it.

crisis, but cases can be imagined in which it would be costly, and pose systemic risks, to wait for such an approval process. Some have suggested that such crisis situations would be dealt with on an ad hoc, case-by-case basis, in order to avoid allowing national central banks to propose, and the Council to approve, the inclusion on a permanent basis of additional assets in the list of Tier 2 eligible collateral.

In case of a general liquidity crisis, reflecting, for example, gridlock in an EMU payments system or TARGET, the ECB may need to provide liquidity to avert a systemwide crisis. In some instances, collateralized intraday credit and extraordinary open market operations may be sufficient to inject the necessary funds. In other instances, these operations may not suffice because of lack of eligible collateral. The latter situation may arise, for example, because of a sudden increase in the volume of payments in RTGS systems like the one that took place in CHAPS, the U.K. large-value payment system, during the pound crisis of September 1992, which caused foreign exchange transactions to double.<sup>6</sup> If banks do not have enough eligible collateral to obtain intraday credit, the probability of a systemic event could rise significantly and force the ESCB to accept noneligible paper as collateral for payments system overdrafts or open market operations. The 1987 stock market crash is another example of general liquidity crisis in which the U.S. Federal Reserve made clear that banks would have unrestricted access to the discount window so that they could keep their credit lines to brokers and securities houses open.

<sup>6</sup>Schoenmaker (1995, p.7).

tion” in relation to what could happen with EMU-wide capital markets and banking systems. Finally, in an integrated EMU banking system with several EMU-wide institutions, the use of deposit insurance schemes and treasury funds would take time to determine how the financial responsibilities would be shared among national authorities, and could delay the resolution of a problem bank.

In the current institutional framework—composed of the Maastricht Treaty, the Statute of the ESCB, and the regulations and guidelines issued by the EMI—considerable uncertainty remains about the scope that national central banks might have in providing emergency liquidity assistance to troubled banks (see Box 5.2). In all relevant cases, however, the ECB appears to have either to inject extra funds into the system in the event of a general liquidity crisis or to make a decision about whether national central banks should be allowed to intervene in a local liquidity crisis. This requires access to intimate knowledge of counterparty

institutions. Supervisory information would be necessary to assess the credit risk that such operations would involve in the event that noneligible collateral needed to be accepted. Moreover, the ECB would certainly be unable to rely on market assessments to distinguish between a liquidity and a solvency crisis.<sup>16</sup>

Even if the ECB is going to be minimally involved in the management of liquidity crises—possibly only to authorize or deny LOLR operations of national central banks—the current arrangements between national supervisors and the ECB about the exchange of supervisory information seem inadequate during a fast-breaking crisis. An arrangement in which the ECB does not have independent access to supervisory information on a systematic basis and in which bank-

<sup>16</sup>In most liquidity crises—an exception was the Bank of New York case in 1985—the solvency of the institution in difficulty was suspect in the market, otherwise it would have been able to borrow from the money market to meet its liquidity needs.

ing supervisors “will be prepared to inform the ESCB on a case-by-case basis should a banking crisis arise” is making the ECB entirely dependent on national supervisory authorities for the information needed to make relevant decisions. In addition, the new framework is not clear about the understandings of the ECB, the 11 national central banks, the 11 supervisory authorities, and possibly the 11 treasuries in EMU. In the event of a crisis involving a European banking group, clarity and transparency about the sharing of information would greatly facilitate coordination and management during the early stages of a financial problem or crisis.

In EMU, the limited agreement on information sharing probably reflects the fact that no clear LOLR function has been attributed to the ESCB and that, at present, there does not seem to be a fully worked-out framework for crisis management in EMU. Current understandings seem to imply that crises would be managed through ad hoc arrangements to do whatever is necessary to avert systemic problems. The idea may be that in the event of a crisis, a national central bank or a national authority would find a way to provide liquidity support, and then central banks and supervisors would quietly pursue longer lasting solutions, including finding buyers.<sup>17</sup> Whereas this lack of transparency may be interpreted as “constructive ambiguity”<sup>18</sup> aimed at reducing moral hazard, the current understandings and arrangements within EMU would need to develop further significantly before they could be workable in an environment in which *speed* is increasingly becoming a critical factor in the handling of financial and systemic crises. It is believed by some European authorities that, once established, such arrangements may well not be disclosed to the general public because to do so would increase moral hazard.

The current decentralized approach leaves neither national central banks nor national governments clearly responsible for supervision of pan-European banks or for ensuring EMU-wide financial market stability. As European banking groups emerge, the ques-

tions of whether national central banks could adequately assess the risks of contagion and whether the home country central bank of each bank could be easily identified will become increasingly relevant. In addition, decentralized LOLR policies may create an uneven playing field and introduce different levels of moral hazard across EMU. At the same time, the ECB will be at the center of European financial markets without the tools necessary for independently assessing creditworthiness of counterparties or the tools to provide direct support to solvent but illiquid institutions. This is not likely to be sustainable, and the ECB may soon be forced to assume a leading and coordinating role in crisis management and banking supervision.

## Developments in Group of Seven Country Banking Systems

### Resolving Japan’s Financial System Problems

This subsection discusses the main issues in resolving Japan’s financial system problems, and the measures taken by the authorities to address them. It reviews developments in Japan’s banking system since the 1997 Capital Markets report, followed by an analysis of the size of the asset quality problem, based on official figures and market estimates. Next, it presents market views on why it has taken so long to address these problems, and describes the “new approach” recently adopted by the authorities to resolve banking system problems and plans for implementing Big Bang financial sector reforms. The section concludes with an examination of the remaining challenges and risks in implementing this bold new approach.

### Recent Developments

During FY1997, the Japanese financial system experienced three waves of financial turbulence. First, in April 1997, Nissan Mutual was declared insolvent (the first failure of an insurance company in the post-World War II period) and 2 of the major 20 banks announced major restructuring plans. The national “city” bank Hokkaido-Takushoku (HTB) announced a plan to merge with a regional bank, and Nippon Credit Bank (NCB) announced debt charge-offs that reduced its BIS capital ratio to less than 3 percent.<sup>19</sup> HTB’s plans to merge soon stalled over the quality of its assets and were postponed *sine die* in September 1997.

The second wave came on November 3, 1997, when Sanyo Securities became the first Japanese securities

<sup>17</sup>The role that treasuries would play in crisis management in EMU is another open question. Whereas treasuries may be the ultimate providers of funds for bank rescues, it is unlikely that they could be the immediate source of liquidity. This also reflects the Maastricht Treaty limits to the monetary financing of the public sector, which imply that any pool of liquidity set aside by the treasuries to deal with banking crises would need to be created *ex ante*.

<sup>18</sup>For an alternative, see Box 5.9 on the memorandum of understanding between the Bank of England and the new supervisory authority. Although untested, this arrangement unambiguously assigns responsibilities but maintains “constructive ambiguity” about the means that will be employed in dealing with an emergency situation (“The form of the response would depend on the nature of the event and would be determined at the time,” paragraph 12) and on *whether* support will be granted (“the Bank and the FSA would need to work together very closely and they would immediately inform the Treasury, in order to give the Chancellor of the Exchequer the option of refusing support action,” paragraph 13).

<sup>19</sup>NCB underwent a major restructuring that reduced equity capital by 70 percent, including private recapitalization, liquidation of three nonbank financial affiliates, and withdrawal from overseas activities. As the restructuring proceeded, NCB entered into a small cross-shareholding with Bankers Trust, but problems remained.

### Box 5.3. Turbulence in the Japanese Interbank Market

The Japanese interbank market has experienced episodes of considerable turbulence in the recent period. The turbulence originated in the first week of November 1997, when Sanyo Securities, a second-tier brokerage, filed for the commencement of reorganization proceedings. Market concerns were heightened when the reorganization of Sanyo resulted in the first-ever default on the overnight call money market. Subsequently, in the wake of this turbulence, Hokkaido Takushoko Bank (then one of the top 20 banks) failed on November 17 and Yamaichi Securities (then the fourth-largest brokerage) announced on November 24 that it would close. Observers have disagreed, however, on the extent to which the turbulence caused, or merely exposed, the weaknesses of these institutions. It is clear, though, that the turbulence was marked by dramatic shifts in interbank market rates.

Interbank market rates quickly rose to reflect the increased level of market concerns. The Japan premium—the premium over LIBOR that Japanese banks pay compared with other international banks—for three-month U.S. dollars shot up from under 10 basis points in the first week of November to about 110 basis points in the first week of December (about double the previous record high). The TIBOR (Tokyo interbank offered rate) also increased sharply, with the rate on one-month funds rising from around 50 basis points in the first week of November to around 110 basis points in the first week of December (see Figure 5.1).

The TIBOR, which is a trimmed average (disposing of the two highest and two lowest quotes), does not fully show the extent to which the interbank market also segmented in this period. That is, the interbank market began to demand high rates from institutions viewed as weak counterparties, similar to what happened in a number of other Asian markets during the emerging markets crisis. For example, the TIBOR spread between Sakura Bank (then rumored to be experiencing difficulties) and Bank of Tokyo-Mitsubishi (viewed as among the stronger Japanese banks) widened from virtually zero in early November 1997 to about 20 basis points in early December, and peaked at 35–40 basis points in January 1998; the LIBOR spread between the two banks widened considerably as well. This “tiering” occurred as the normal process of liquidity flow reportedly broke down. Market participants have suggested that major interbank players held large amounts of liquidity for themselves rather than passing it through to smaller institutions as

they had in the past. These developments left a number of institutions short of liquidity, which according to some market participants may have increased the risk of a systemic collapse.

The market for term liquidity was reportedly especially tight, reflecting concerns that funds would not be available in the run-up to the end of the fiscal year in March 1998 and that smaller counterparties would not survive until then. This may account for the widening in the spread between six-month and one-month TIBOR rates early in January 1998, as the spread rose from virtually zero (and even negative in late December 1997) to about 25 basis points in the second week of January, where it generally traded until a sharp increase in the one-month rate brought the spread down abruptly toward the end of February.

Following interventions by the Bank of Japan (see Box 5.4), and in response to the announced ¥30 trillion package of emergency financial measures, the Japan premium and Tokyo interbank rates eased. The Japan premium declined from over 60 basis points to about 20 basis points between end-February and mid-March 1998, and the one-month TIBOR dropped from about 130 basis points to about 50 basis points over the same period. In the event, the end of the fiscal year was rather uneventful in the Tokyo market, owing, *inter alia*, to the injection of public funds and changes in accounting rules regarding the valuation of equity holdings.

While market concerns have eased significantly since the turbulence, and the Bank of Japan’s assets have declined from their recent peaks, concerns persisted after the end of the fiscal year. In April 1998, TIBOR remained somewhat above that attained at the same point in the previous year, with the one-month rate at about 61 basis points compared with about 57 basis points in April 1997, and the three-month rate at 68 basis points in April 1998 compared with 58 basis points in April 1997. The Japan premium remained at levels well above that attained at the same point in previous years, with the three-month U.S. dollar premium at 26 basis points, compared with 9 basis points in April 1997. The premium eased somewhat thereafter, but rose again in June 1998, after concerns surfaced about the financial condition of Long-Term Credit Bank. These developments likely reflected ongoing unease about the final resolution of the current situation and unresolved questions about the solvency of key institutions.

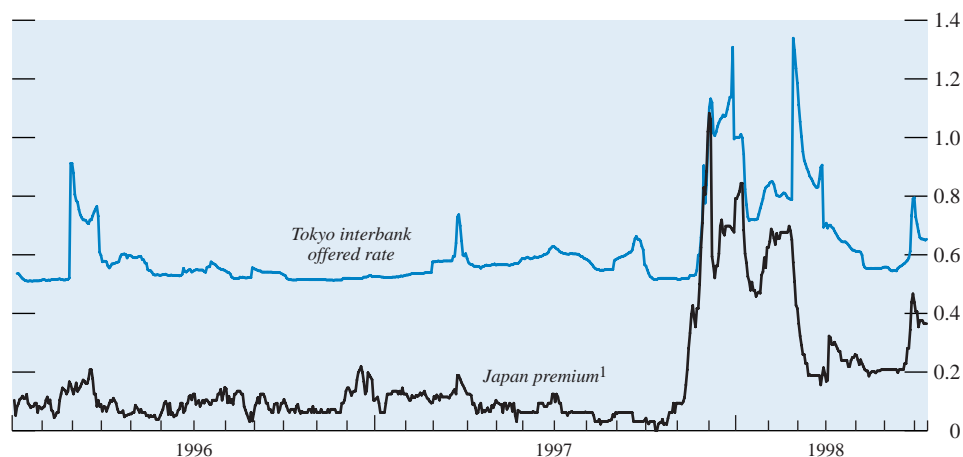
house since World War II to file for protection against its creditors.<sup>20</sup> Sanyo Securities had become a source

<sup>20</sup>Sanyo Securities applied for a reorganization, one of the six circumstances in which a Japanese company failing to repay debts and thus unable to continue their business activities can be broadly considered bankrupt. The most typical case occurs when banks suspend credit; other cases correspond to the three options for a company to file for reorganization (i.e., under the Reorganization and Rehabilitation Act, the Commercial Law, and the Composition Act), those in which the filing is done by stockholders or creditors, and filings for liquidation.

of apprehension in the previous months, after several insurance companies had been reluctant to roll over subordinated loans, reflecting concern that the broker—crippled by losses from loans to affiliates—would not survive the liberalization of brokerage fees in early 1998. The failure of Sanyo Securities entailed the default of some of its obligations, notably interbank liabilities. These defaults heightened concerns among market participants about the ability of Japanese financial institutions to honor their obligations and



**Figure 5.1. Japan Interbank Rates, January 4, 1996–July 13, 1998**  
(In percent)



Source: Bloomberg Financial Markets L.P.

<sup>1</sup>Premium paid over London interbank offered rate by Japanese banks for three-month U.S. dollars.

led to a major drop in liquidity in the interbank markets and a substantial rise in the Japan premium (see Box 5.3). On November 17, as a result of these pressures, HTB was unable to raise funds in the market and applied, with the support of its supervisors, to transfer problem loans to the Deposit Insurance Corporation (DIC) and normal assets and liabilities to Hokuyo Bank, a second-tier regional bank also based in Hokkaido.<sup>21</sup>

A third wave of turbulence began on November 24, when the 100-year-old Yamaichi Securities, the fourth largest securities house in Japan, announced its intention to cease all business because of growing liquidity problems. The closure reflected the recognition of past losses from *tobashi* (that is, stock-trade losses made on behalf of preferred customers), which had been hidden and reshuffled for six years, mainly in foreign accounts. Yamaichi's decision surprised the markets, because despite recent losses due to sanctions in connection with its involvement with a *sokaiya* group,<sup>22</sup>

<sup>21</sup>An inspection by the Ministry of Finance after HTB's collapse indicated that the bank had ¥940 billion in bad loans and ¥1.35 trillion in questionable loans, with liabilities exceeding assets by ¥840 billion, before accounting for ¥200 billion in bad loans to affiliates. (Financial statements filed later disclosed ¥1.14 trillion in nonperforming loans.) The resolution of HTB involves Hokuyo Bank and Chuo Trust Bank as receiving banks for good assets in the Hokkaido region and Honshu, respectively, and the Resolution and Collection Bank (RCB) taking over the doubtful and uncollectible loans. Transfers of substandard loans have been delayed over the value of loans. Chuo Bank planned to apply for DIC funds, to support the stock of good loans received from HTB.

<sup>22</sup>In 1997, the government investigated, prosecuted, and charged several companies in connection with similar crimes. According to accounts, *sokaiya* racketeers extort money from companies using

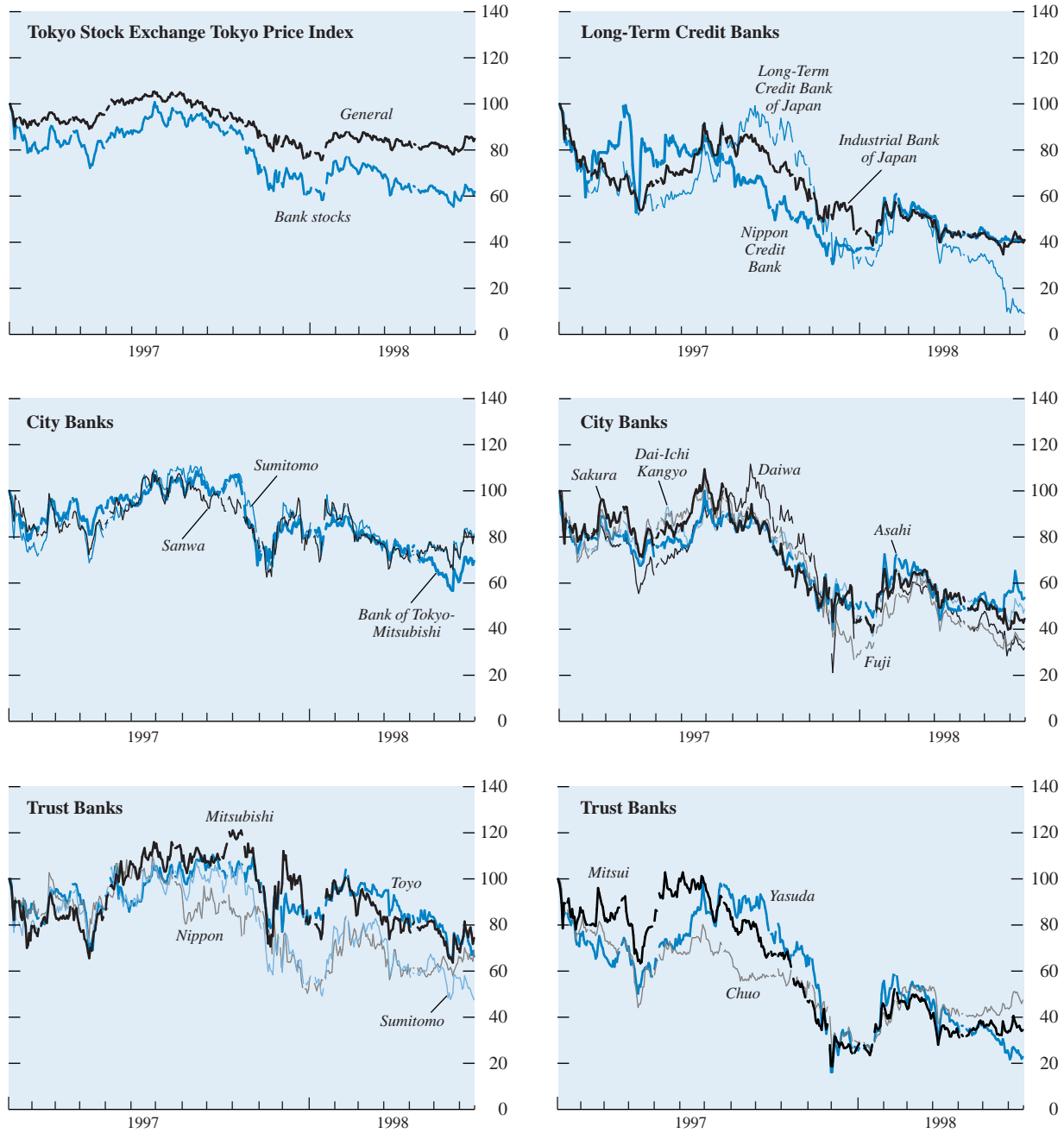
the company had long-held ties with the large Fuyo *keiretsu* (industrial group to which Fuji Bank is connected) and was considered solvent.

Prompt intervention by the Bank of Japan after the collapse of HTB and Yamaichi (Box 5.4) avoided the repetition of the financial disruptions that followed the collapse of Sanyo Securities, but overall market conditions continued to deteriorate in December. Changing market sentiment about the likelihood of bank closures was reflected in large deposit withdrawals from weak banks, and contributed to the decision by credit rating agencies to consider downgrades for several banks. Market discipline led to a tiering in stock markets, with marked declines in stock prices of weaker banks (Figure 5.2). This divergence was intensified by a spate of bad economic news in early December, which sent Japan's stock market to a six-year low, and raised pressures on banks whose capital bases were most vulnerable to changes in stock prices.<sup>23</sup> The imminent implementation of the new supervisory framework, which requires supervisors to take prompt corrective action whenever banks' capital-to-risky-asset ratio fall below a certain level, created additional constraints on banks, and was deemed partly responsible for the contraction in credit observed at that time.

the threat of disrupting shareholders meetings by asking management embarrassing questions. These threats have a large negative impact on minorities' shareholder rights. Most of the more than 3,000 listed companies schedule annual meetings at the exact same time just to avoid these risks.

<sup>23</sup>For most of the 1990s, banks have revalued their stockholdings, thereby reducing their hidden reserves to offset weak profits or operational losses. Most recently, the reduction in reserves (from ¥8 trillion in March 1997 to ¥2 trillion in March 1998) has resulted mainly from reductions in equity prices.

**Figure 5.2. Japan: Performance of Selected Bank Stocks, January 6, 1997–July 13, 1998**  
*(Index, January 6, 1997 = 100)*



Source: Bloomberg Financial Markets L.P.

In late December, the Liberal Democratic Party agreed to take emergency measures to stabilize financial markets and improve depositors' confidence. These measures—which improved the ability of the authorities to deal with the problems of the financial system—were preceded by the announcement that the

size of banks' impaired loans amounted to ¥76.7 trillion or 15.4 percent of GDP. The announced measures (discussed in more detail below) centered on strengthening the financial condition of the DIC and were accompanied by several regulatory changes that assisted the major banks in observing those prudential ratios,

### Box 5.4. The Expansion of the Bank of Japan's Balance Sheet

Starting in late 1997, the Japanese interbank market has experienced periods of significant turbulence. In that year normal mechanisms in the interbank market for distributing liquidity reportedly broke down amid the concerns raised by the failures of several financial institutions. In this environment, interbank lending rates rose sharply. To address these difficulties, the Bank of Japan stepped aggressively into the interbank, commercial paper, and repo markets at various points, providing large amounts of funds.

In addition to providing liquidity to the market in the immediate aftermath of the collapse of Hokkaido-Takushoku Bank (HTB) and Yamaichi Securities, the Bank of Japan's balance sheet continued to expand in early 1998 (see table). The Bank of Japan usually provides extra liquidity ahead of the end of the fiscal year, but the amount provided in late FY1997 was about five times as much as provided by end-FY1996, resulting in a 50 percent expansion of the Bank of Japan's balance sheet between end-October 1997 and end-March 1998. Increases in interventions by the Bank of Japan in the period often responded to market concerns reflected in interbank rates. Concerns peaked around the end of November, then eased somewhat in December as the Bank of Japan expanded its assets by ¥6.4 trillion, though rates remained at

high levels. Pressures began to build again in early 1998, and the Japan premium climbed from about 50 basis points in mid-January to about 65–70 basis points in February. In response, the Bank of Japan aggressively injected more funds into the markets. The Bank of Japan's assets rose by about ¥9 trillion during February. The expansion of the Bank of Japan's assets accelerated in the run-up to the end of the fiscal year, as its assets rose by another ¥15 trillion in the period between March 10 and March 31, 1998. In late June, it resumed large injections of liquidity, after lenders became restive on rumors concerning troubled Long-Term Credit Bank (LTCB) and money market interest rates rose again.

The Bank of Japan used a variety of mechanisms to intervene in financial markets, including repo operations (introduced at end-November 1997), commercial paper transactions, and Article 38 and Article 33 lending (these operations, known by the articles defining them in the Bank of Japan Law, are described in footnote 30 below). First, the Bank of Japan engaged in so called "twist operations," in which it provided about ¥6 trillion through repo operations with maturities usually stretching beyond the end of the fiscal year. These operations were targeted to satisfy a strong excess demand for longer maturities, which was widely reported in the markets to

#### Bank of Japan's Selected Accounts

(In billions of yen; end of period)

	Total Assets	Bills Purchased	Loans	JGBs in Custody	JGBs	Loans to the DIC	Deposits with Agencies	Cash Collateral in Exchange for JGBs	Other Accounts <sup>1</sup>	Bills Sold (Liabilities)
3/31/97	62,426	5,400	1,087		46,448	532	3,950		1,497	5,690
10/31/97	58,143	3,882	836		48,106	292	359		797	3,402
12/31/97	71,458	9,501	4,634	2,313	47,366	293	0		3,493	5,155
3/31/98	91,500	10,599	5,242	6,127	52,841	1,777	3,393	6,854		20,300
6/20/98	70,471	3,662	3,298	3,190	49,126	2,061	394	3,632		10,705
6/30/98	75,396	3,573	3,122	2,400	55,631	1,980	947	2,722		13,061

Source: Bank of Japan.

<sup>1</sup>Reflected as of March 31 among cash collateral in exchange for Japanese Government Bonds (JGBs).

most notably the permission to value securities at cost instead of the minimum of cost and market prices, and a first round of capital injections with public funds (Table 5.1). Although the shares of the weaker institutions surged, shares of stronger banks experienced only a moderate price increase, on the perception of a resurfacing of the "convoy system."

The package constituted the first time public funds were made available on a massive scale, and calmed markets and tided banks over to the end of the year. Virtually all major banks and three regional banks received capital injections, which were of similar magnitude. The injections complemented banks' attempts to improve capital ratios by reducing risk-weighted

assets, including through the sale or securitization of about ¥4 trillion in assets, the use of credit derivatives, and the issuance of nonvoting preferred stock in international markets (at a significant premium over U.S. treasury bonds).<sup>24</sup>

The major banks took up the room provided by access to public funds and changes in accounting meth-

<sup>24</sup>Firms, on their part, also turned to capital markets, boosting the issuance of corporate bonds and commercial paper by 55 percent and 12 percent, respectively. The government also adopted measures aimed at expanding the role of public institutions in financial intermediation, inter alia, by making available guarantees to ¥12 trillion in new loans during FY1997–FY1998.

have resulted from the reluctance of liquid banks to lend to weak banks—the way the interbank market would normally operate—at those maturities, in fear that borrowers would become insolvent by then. Second, Bank of Japan loans to financial institutions rose from ¥0.8 trillion in October 1997 to ¥5.2 trillion at the end of March 1998. More than half of this increase originated from the provision of funds for the unwinding of HTB's operations under Article 38 (these loans peaked at ¥3.8 trillion in November 1997, and stood at ¥3.2 trillion at end-March 1998), with collateralized lending to institutions that were weak but deemed solvent (Article 33 lending) accounting for most of the balance, which increased five-fold in the run-up to FY1998.

Third, the Bank of Japan engaged in operations to assist institutions in liquidating commercial paper when this market dried up. After the turbulence in November 1997, some institutions were unable to sell high-grade commercial paper in the commercial paper market in order to raise liquidity. In response to this situation, the Bank of Japan reactivated this market by buying eligible commercial paper, through prescreened auctions with institutions it normally conducts monetary policy operations with, including all of the top 19 banks. The Bank of Japan also increased its holdings of other commercial bills, with the combined stock of commercial paper and other bills as of end-March 1998 standing at ¥10.3 trillion, twice the level observed at the end of FY1996 (the average of this stock over the six months before the November 1997 turbulence was about ¥3 trillion). About half of that stock corresponded to holdings of commercial paper. Some market participants have suggested that the Bank of Japan exercised some discretion in depositing funds in individual financial institutions.

On March 31, 1998, the year-over-year increase in the Bank of Japan's balance sheet was about ¥30 trillion, a growth rate of 45 percent. About ¥6 trillion of this expansion was accounted for by double-counting of Bank of Japan repos, owing to tax considerations that favor the booking of these operations as securities lending with cash collateral. The Bank of Japan also attributed a significant part of another ¥6 trillion increase in its assets to

the rise in its holdings of Japanese Government Bonds (JGBs) linked to fiscal factors stemming from the issuance of financing bills to cover a fiscal gap between the beginning of the fiscal year and the approval of the budget (which occurred on April 8, 1998). On balance, the large provision of liquidity underpinning the expansion of the Bank of Japan's assets (more than 30 percent, after taking into account the two items above) was translated into only a modest increase in high-powered money. Despite the significant liquidity needs faced by some financial institutions and sectors after November 1997, which resulted in the provision in the period from mid-December to mid-March of about ¥20 trillion in funds maturing after the end of fiscal year, a large part of the liquidity injected by the Bank of Japan in the period was absorbed by ¥15 trillion in sales of Bank of Japan bills (monetary management paper). Examination of banks' balance sheets indicate a flight of customers' deposits from banks perceived as weaker to those perceived as strong, which was not reflected in any immediate significant rebalancing of the corresponding loan books.

The Bank of Japan's assets declined over subsequent months, but remained above precrisis levels. On June 20, 1998, its assets stood at about ¥70 trillion, about ¥7 trillion above the level at end-October 1997 (adjusted for double-counting of repos). Of this increase, more than half is due to commitments on behalf of failed institutions under Article 38 lending and loans to the DIC (both are guaranteed by the government). The decrease in Bank of Japan's assets between end-March and the third week of June reflected a decline in outstanding repos, and more markedly of "bills purchased" with the unwinding of the "twist" operations after the closure of banks' and firms' books, as well as of JGB holdings after the passage of the budget. In the last week of June, developments regarding the Long-Term Credit Bank put new pressures on money markets, especially for maturities over three months (that is, stretching beyond the semiannual closure of books on September 30), and were followed by significant injections of liquidity. Surpluses on money markets of more than ¥1 trillion became common and were reflected in an increase in Bank of Japan's holdings of JGBs.

ods to increase their provisions and write-offs (Table 5.2), while succeeding in most cases to boost their reported prudential capital ratio. The strongest banks among the 19 core banks increased their loan loss provisions and charge offs by a factor of three to five vis-à-vis the previous fiscal year. Provisions and write-offs for the core group as a whole doubled to ¥10.6 trillion. Because banks' net operating profits (*gyomu-juneki*) contracted sharply, especially among trust banks whose funding costs increased, the boost in provisions was translated into large negative pretax profits (*keijo rieki*) for most major banks, including all city banks. Typically, gross operating revenues declined, while general and administrative expenses were in

most cases stable or slightly higher. Despite the increase in provisions, several major banks continued to be downgraded by rating agencies, on concerns about profitability and asset quality. As a step to improve market confidence, the Governor of the Bank of Japan has in recent months encouraged banks to disclose their self-assessments (Box 5.5). More recently, one of the long-term credit banks announced the intention to merge with a trust bank.

#### *Size of the Bad Loan Problem*

The official release of the aggregate result of banks' preliminary self-assessments is a welcome acknowl-

**Table 5.1. Japan: Regulatory Changes in the Computation of Prudential Capitalization of Banks**

- Option to value stockholdings at purchase price instead of minimum between purchase and market price. Under the cost valuation method, latent losses need not to be subtracted from Tier 1 capital, and latent gains do not contribute to Tier 2 capital; under the minimum price method up to 45 percent of latent gains could be counted among Tier 2 capital. At the end of FY1997, 7 of the largest 19 banks carried unrealized losses on stockholdings, which added up to ¥1 trillion.
- Option to revalue real estate holdings, assigning the revaluation excess to a reserve, 45 percent of which could be counted as Tier 2 capital (the estimated value of this reserve for major banks adds to ¥1.2 trillion).
- Reduction of the risk weighting of loans with a guarantee from a public credit guarantee association to 10 percent (estimated to reduce risk-weighted assets by ¥6 trillion, freeing some ¥0.4 trillion in banks' capital).
- Postponement by one year of the 4 percent minimum capital to risk-weighted asset ratio requirement for those banks without overseas operations that had drawn up restructuring plans with a view to strengthening their capitalization in the period (of the 80 international banks in early 1997, around 35 have withdrawn from international operations, thus obtaining the grace period and halving their eventual capital adequacy requirement in relation to the 8 percent ratio required from other banks).

In addition, these regulatory changes were made following the amendment to the Basle Capital Accord:

- Option to fully account the formerly mandatory reserves for losses on trading account securities and the "Government Bond Price Fluctuation Reserves" in Tier 1 capital (contribution to Tier 1 capital of ¥0.1 trillion).
- Netting of compatible loans to and deposits from the same borrower.
- Reduction of capital requirement for securitized loans in which banks hold less than 8 percent of the subordinated portion to the amount of the residual risk (the measure also for the first time recognized this type of asset).
- Reduction of the weight of loans to securities houses (from 100 percent to 20 percent).

edgment that the size of problem loans is larger than has been indicated in the past (Box 5.5 describes the prudential classification used in the process, which is only partially reflected in nonperforming loan figures disclosed in banks' financial statements).<sup>25</sup> However, developments since these trial self-assessments were conducted suggest that Japan's debt overhang is larger than the figures announced in January. Market participants have formulated several estimates of the risks in Asian and corporate exposures and of potential problems in nonbanks, such as credit cooperatives and insurance companies.

<sup>25</sup>The expression "bad loans" is used hereafter in a generic sense. "Problem loans" is mostly used in reference to figures from banks' financial statements and correspond to nonperforming loans plus restructured loans and loans in support of customers. "Questionable" or "impaired" refers in general to the aggregate figure of loans in classes II, III, and IV under banks' self-assessment classification. The denominations of "substandard," "doubtful," and "loss" mirror those adopted by the Bank of Japan (see Table 5.3).

*Size of Problem Loans in the Banking Sector.* In May 1998, the 19 largest banks disclosed a total of ¥22 trillion in problem loans (a 20 percent increase vis-à-vis March 1997). This increase reflected new accounting rules, which accounted for 40 percent of the increase in disclosed problem loans (Table 5.4). Provisions were translated into a ¥5 trillion increase in specific provisions, but this did not correspond to a major reduction in banks' vulnerability. The aggregate ratio of provisioned problem loans to equity increased, especially when adjusted for reductions in the value of hidden reserves related to reductions in equity prices. Because of these adjustments, the ratio exceeded 100 percent for one city bank, and two of the seven trust banks.

As noted earlier, banks' self-assessments of impaired loans (net of reserves) were announced in January 1998 and totaled ¥76.7 trillion. According to banks' self-assessments, the core Japanese banks held ¥54 trillion in impaired loans, of which ¥45 trillion were classified as substandard, which corresponds to a ratio of impaired loans net of provisions to total loans of approximately 12 percent. The ratio of unprovisioned disclosed problem loans to total loans was 2 percent.

Banks were required to take a forward-looking approach to assessing asset quality. Compliance with this requirement has not been evaluated by supervisors, and the impact on asset quality of changes in economic conditions since September 1997 was largely unforeseen. There is no evidence that banks' self-assessments anticipated the further deterioration in asset quality. As a result, market participants have estimated the impact on the original self-assessment figures of the following considerations.

(1) According to BIS statistics, as of mid-1997, Japanese banks had a total of \$276 billion (about ¥36 trillion) in loans outstanding to entities in Asia outside Japan. According to the Bank of Japan, up to one-third of these loans were to foreign affiliates of Japanese companies, and there has been debate about whether parent companies in Japan would make good on the obligations of affiliates. However, self-assessment rules require that any foreign loan rescheduled due to a country's exchange rate problems should be classified, including loans to Japanese firms. According to markets, a conservative assumption is that the proportion of these exposures that might be impaired would equal the ratio of domestic impaired loans to total loans, which would add ¥5 trillion to the self-assessment figures.

(2) A potentially greater increase in problem loans originates in the deterioration in the financial condition of the nonfinancial corporate sector in Japan. Japanese firms are highly leveraged, with leverage ratios (liabilities relative to replaceable assets adjusted for land values) three times those of U.S. nonfinancial companies and corporate loans amounting to ¥550

**Table 5.2. Japan: Profit and Loss Accounts of the Major Banks in FY1997<sup>1</sup>***(In billions of Japanese yen unless otherwise stated)*

	Net Interest Revenue	Interest Margins	Net Interest Revenue/ Total Revenue (In percent)	Fees/Total Revenue (In percent)	Gyomu-Juneki <sup>2</sup>	Profits on Securities Holdings	Loan Loss Provisions	Keijo Rieki <sup>3</sup>
City banks								
Bank of Tokyo-Mitsubishi	623.6	1.5	66.2	10.3	342.9	197.4	1,549.1	-917.5
Dai-Ichi Kangyo Bank	554.7	1.6	77.9	10.3	323.1	292.7	752.9	-154.9
Sakura Bank	589.0	1.7	86.7	10.0	293.8	533.0	1,181.0	-417.2
Sumitomo Bank	585.7	1.6	83.0	9.8	308.1	136.8	1,072.9	-617.4
Fuji Bank	503.0	1.6	73.8	9.5	320.4	209.6	951.6	-576.3
Sanwa Bank	554.6	1.7	85.8	10.2	351.9	208.3	945.1	-413.4
Tokai Bank	303.5	1.5	72.1	10.1	173.0	155.1	391.5	-44.4
Asahi Bank	350.9	1.7	86.6	8.7	156.4	149.2	477.4	-189.8
Daiwa Bank	209.7	1.9	74.6	9.4	96.5	148.3	385.2	-151.2
Long-term credit banks								
Industrial Bank of Japan	277.3	1.2	70.5	19.4	230.7	68.0	647.3	-357.7
Long-Term Credit Bank of Japan	178.0	1.1	89.2	17.5	164.7	158.8	589.4	-320.0
Nippon Credit Bank	117.3	1.5	78.9	11.7	130.1	43.1	133.4	16.4
Trust banks								
Mitsubishi Trust	310.9	2.5	89.0	8.1	223.2	68.8	287.1	5.7
Sumitomo Trust	227.3	2.1	74.0	9.1	131.4	89.9	333.0	-93.5
Mitsui Trust	177.2	1.9	97.1	10.5	121.2	183.0	238.9	4.4
Yasuda Trust	161.1	2.5	90.0	13.7	92.4	30.8	261.1	-151.3
Toyo Trust	126.5	1.6	79.1	19.1	49.1	35.3	122.4	16.1
Chuo Trust	81.4	2.2	71.6	17.9	58.4	40.7	88.8	9.1
Nippon Trust	27.3	0.2	80.5	19.8	2.2	5.4	156.0	-200.7
Total	5,959.0	1.7	80.4	12.4	3,569.5	2,754.2	10,564.1	-4,553.6

Source: Fitch IBCA Ltd.

<sup>1</sup>Fiscal year ended March 31.<sup>2</sup>Net operating profits before specific loan loss charges and gains on the investment portfolio (source indicates that due to adjustments, this measure cannot be precisely calculated from public data).<sup>3</sup>Pretax, pre-special-item current profits that include those from securities holdings.

trillion. Further, even though Japanese lending rates have been at a historical low, interest coverage ratios (interest costs relative to operating surpluses) are higher than in other industrial countries and are expected to deteriorate (Table 5.5). Moreover, market analysts estimate that corporate profits will decline by 10–20 percent in FY1998. Finally, because 60 percent of banks' loans are to small and medium-sized enterprises, the recent increase in bankruptcies have a large bearing in their portfolios. The nonfinancial corporate sector in Japan had in FY1997 its worst year since World War II in terms of bankruptcies. The number of companies going bankrupt rose by 17 percent, and new bankruptcy-related debts increased by 64 percent.

Markets consider it unlikely that many of the bankruptcies in late 1997 were accounted for in self-assessments, even among the substandard loans, or that bankruptcies that occurred, or are likely to occur, in 1998 were anticipated. This is because prospects for corporate profitability (captured for instance by the consensus forecast) started to decline only during the last quarter of 1997. A conservative assumption would be that between 3 percent and 5 percent of corporate borrowing from banks are, or will become, impaired

in one way or another. This would add roughly another ¥20 trillion to the total potential debt overhang.

(3) About ¥10 trillion should be deducted from banks' self-assessments to reflect provisions made by banks in FY1997 (for most banks, those figures did not reflect provisions on September 30, 1997). On the other hand, according to market sources, problem loans to affiliated companies were underrecorded by ¥5 trillion.<sup>26</sup>

#### **Potential Problems in Nonbank Financial Sector.**

Among nonbank financial institutions, cooperatives (which account for about one-sixth of total loans in Japan) and insurance companies also face problems. Markets estimate that ¥18 trillion in cooperative loans are impaired (of which half constitute disclosed problem loans). In recent months, more than 30 coopera-

<sup>26</sup>Market estimates of banks' questionable loans, gross of reserves in banks' balance sheets and loans transferred to the Cooperative Credit Purchase Corporation (CCPC) (see below) would amount to between ¥100 trillion and ¥130 trillion. In late July, new self-assessment figures were released, indicating a marginal change in impaired loans gross of provisions. These figures are being examined by inspectors with a view of checking, inter alia, the accuracy with which they have reflected the quality of domestic and Asian loans.

### Box 5.5. Banks' Self-Assessments and the PCA Framework

The new classification system groups loans into four categories: “pass” or class I, “substandard” or class II, “doubtful” or class III, and “loss” or class IV (Table 5.3). Guidelines prepared by the Ministry of Finance establish that the classification of any loan should take into account the quality of the borrower and of collateral, which provide a forward-looking character to the classification, and help in assessing the potential magnitude of losses to be provisioned. The attempt to assess the potential magnitude of losses was implicit in another feature of the system: the split of loans for the purpose of classification. Under this arrangement, fractions of each loan would be reported in different classes, taking different risks into account. For instance, the fraction covered by collateral or guarantees might be recorded in classes I or II, depending on the quality and specificity of these enhancements. In the same vein, the part of a questionable loan already provisioned for would be deducted from the figure reported, and recorded in class I.

Banks became responsible for the amount of specific provisions set aside for individual loans, following guidelines prepared by the Japanese Association of Auditors. These guidelines suggested that provisions for loans in classes I and II should reflect the historical losses for these classes (the bad-debt result ratios), while write-offs and provisions for class III loans should take the amount appropriate for each debtor, and write-offs and provisions for class IV loans should be taken for the full amount of loss (in February 1998, the Bank of Japan published a study presenting historical transition rates for a sample of banks that could help in gauging adequate provision ratios). Although the ministerial guidelines put great emphasis on marking collateral values to market, they made few references to specific methods to account

for the multitude of liens that are usually attached to an important type of collateral—real estate. The approach also did not emphasize the cost of the time it may take to take control of such collateral, although, according to some sources, banks have traditionally attempted to account for this cost by discounting the market value of collateral. External auditors will be responsible for verifying the methodology used by banks for carrying out the self-assessments and certify the results. The profession, which comprises about 10,000 practitioners plus some foreign nationals (the comparable number in the United States is about 300,000), is expected to respond to the new requirements by expanding the number and improving the training of certified public accountants.

The new PCA framework in Japan broadly parallels the approach used in the United States, but has some key differences (see International Monetary Fund, 1997). First, trigger points for most actions are lower in Japan than in the United States. Second, while supervisors in the United States can use discretion only to strengthen their actions, in Japan, discretion is reserved to weaken the supervisors' actions. Third, the system in Japan introduces a distinction between banks with and without international activities, further lowering the trigger points for the latter (broadly, the capital ratio that triggers actions is 4 percent of risk-weighted assets for banks without international activities, compared with 8 percent for banks with international activities). Finally, while U.S. supervisors can order a bank into receivership or conservatorship in 90 days after the bank capital ratio has fallen below 2 percent, in Japan orders to suspend the whole or a part of a bank's business can be issued only after all capital is wiped out, or after the net value of assets is clearly expected to become negative.

tives have applied for resolution with support from the DIC, including 3 large ones.

The difficulties the life insurance industry is experiencing stem from two sources. First, asset quality broadly parallels that of the banking sector, although market participants generally believe that the average quality of borrowers from insurance companies is lower than that from banks. Second, insurers face a serious imbalance between the return on their assets and the cost of their liabilities (a large fraction of the stock of insurance policies still carries guaranteed returns around 5 percent). Although life insurance policies generate a surplus in current revenues (inter alia because actual mortality is lower than assumed mortality), the “negative spread” on the stock of older policies is eating into the industry's pool of capital (the nominal capitalization of the industry, that is, the difference between assets and reserves, amounted to ¥2.5 trillion in mid-1997). Moreover, market perceptions have been that many insurers started to hold unreal-

ized losses when the Nikkei index fell below 16,000. The sector has a ¥70 trillion loan portfolio (some of it to banks). Accounting for the relatively lower quality of borrowers, an estimate of ¥20 trillion in impaired loans would be reasonable. Problems in the insurance sector could translate into downward pressure in stock markets and specific problems for banks, because insurance companies are major holders of subordinated bank debt.

#### *Market Views on Why It Has Taken So Long to Deal with the Problem*

For most of the 1990s, the authorities' and banks' reactions to these problems have been slow. Although three agencies were created to help deal with the disposition of bad real estate assets, their scope was limited and they have achieved very little (Box 5.6). Deposit-taking institutions have set aside almost ¥40 trillion in provisions, but most problem loans are still

**Table 5.3. Japan: Self-Assessments of Loan Classifications**

Classification by Borrower <sup>1</sup>		Definition			
Bankrupt		Failed borrowers that are in bankruptcy or are in the process of liquidation, corporate adjustment and reorganization, or composition; or whose banking transactions have been suspended.			
De facto bankrupt		Borrowers with no legal or formal announcement of failure, but in serious financial difficulties. Firms without any prospect of reorganization.			
Close to bankruptcy		Borrowers in financial difficulties with a high possibility of failure in the future. Firms that are not in failure at present, but whose progress in formulating a management reform scheme has been slow and satisfactory.			
Marked		Borrowers that are in any of the following doubtful situations: (1) problems with lending terms such as restructuring or suspension of interest payments; (2) the possibility of default as seen in delayed repayment of principal or interest; (3) sluggish or unstable business performance; and (4) deteriorating financial condition.			
Sound		Borrowers with good business performance and in sound financial condition.			
Classification of Loans <sup>2</sup>		Definition			
Loss (L) (IV)		Uncollectible loans or those of no value. Includes the portion of loans to “bankrupt” or “de facto bankrupt” category of borrowers that are not secured by collateral or guarantees.			
Doubtful (D) (III)		Loans with concern over final collection or final value. Includes the unsecured loans to borrowers classified as “close to bankruptcy” and loans to “bankrupt” and “de facto bankrupt” borrowers of which collection through collateral and guarantees is uncertain.			
Substandard (S) (II)		Loans requiring attention when collecting. Includes loans to “marked” borrowers (excluding those secured by prime collateral) and loans to borrowers classified under “bankrupt,” “de facto bankrupt,” and “close to bankruptcy,” that can be collected through collateral and guarantees.			
Nonclassified (I)		Loans other than those included in the above three classifications.			
Relationship Between Categories of Borrowers and Loans					
		Classification by Loan			
		Loss (L)	Doubtful (D)	Substandard (S)	Nonclassified
Classification by Borrower	Bankrupt	Applicable	Applicable	Applicable	Applicable
	De facto bankrupt	Applicable	Applicable	Applicable	Applicable
	Close to bankruptcy	...	Applicable	Applicable	Applicable
	Marked	...	...	Applicable	Applicable
	Sound	...	...	...	Applicable

Source: Bank of Japan.

<sup>1</sup>The process of the change in the asset quality and the resultant loan loss ratio for each category are traced.

<sup>2</sup>(I) to (IV) refer to the categories used in the Ministry of Finance’s inspection.

being carried on bank balance sheets, many of them with little provisioning. Market participants have identified at least five reasons why Japan’s financial sector problems have not yet been resolved:

(1) Japanese banks and officials had for a long time believed that there was time to use current earnings to build provisions and to increase earnings power. As of April 1998, market participants were indicating that the authorities and the banks were “in a state of denial” about the size of the financial system problems and the efforts it would take to resolve them.

(2) Western investment banks operating in Japan have indicated that the Japanese financial system does

not yet have the legal infrastructure for dealing with debt restructuring in expeditious ways. The usual practice is thus to stretch out the maturity and carry the loan indefinitely.

(3) Japanese bank managers are perceived to have little if any incentive to alter their business practices. In particular, owing to the web of relationships between core shareholders and main customers, there are few incentives for them to improve banks’ profitability, inter alia, by aggressively pursuing collection efforts on bad loans.

(4) Although about ¥1 trillion in bad loans have been sold since March 1997, there are reasons why



**Table 5.4. Japan: Asset Quality of Major Banks in FY1997<sup>1</sup>**  
(In billions of Japanese yen unless otherwise stated)

	Risk-Weighted Assets		Loans		Problem Loans		Specific Reserves	Total Capital	Share of Tier 1 in Total Capital (In percent)	Nonperforming Loans Net of Reserves			
	Amount	Percent change FY97/FY96	Amount	Percent change FY97/FY96	New standard	Old standard				Tier 1 capital	In percent of adjusted equity <sup>2</sup>		
<b>City banks</b>													
Bank of Tokyo-Mitsubishi	57,488.0	-5.3	42,471.0	-2.9	2,250.0	1,889.0	1,318.0	4,905.0	50.0	38.0	32.4		
Dai-ichi Kangyo Bank	41,199.0	-4.1	35,023.0	-4.3	1,471.0	1,185.0	1,014.0	3,743.0	51.0	23.9	23.3		
Sakura Bank	37,501.0	-8.6	35,089.0	-4.7	1,475.0	1,140.0	930.0	3,423.0	50.0	31.9	31.6		
Sumitomo Bank	40,933.0	-7.1	35,930.0	-1.8	1,469.0	1,005.0	1,114.0	3,780.0	51.6	18.2	17.1		
Fuji Bank	37,760.0	-6.9	32,031.0	-5.9	1,693.0	1,318.0	1,027.0	3,554.0	50.9	36.8	42.0		
Sanwa Bank	37,952.0	-8.1	33,526.0	-6.9	1,288.0	873.0	929.0	3,646.0	50.0	19.7	18.3		
Tokai Bank	21,783.0	-6.0	20,310.0	-0.5	1,221.0	866.0	714.0	2,234.0	52.8	43.0	39.6		
Asahi Bank	20,370.0	-3.4	20,966.0	-2.4	995.0	704.0	513.0	1,912.0	50.0	50.3	48.6		
Daiwa Bank	11,170.0	-8.6	11,177.0	-3.8	958.0	673.0	448.0	1,150.0	51.9	85.3	127.7		
<b>Long-term credit banks</b>													
Industrial Bank of Japan	29,195.0	-8.3	23,242.0	-6.0	1,569.0	1,038.0	793.0	2,844.0	50.8	53.7	47.4		
Long-Term Credit Bank of Japan	19,727.0	-13.6	15,765.0	-16.4	1,379.0	1,031.0	707.0	2,037.0	50.0	66.0	84.0		
Nippon Credit Bank	9,725.0	-8.2	7,782.0	-14.3	1,732.0	1,249.0	673.0	...	...	...	...		
<b>Trust banks</b>													
Mitsubishi Trust	13,060.0	-7.6	12,542.0	-4.2	815.0	595.0	490.0	1,352.0	57.8	41.7	34.2		
Sumitomo Trust	11,915.0	-5.6	11,072.0	-8.0	1,134.0	828.0	646.0	1,179.0	53.3	77.7	73.4		
Mitsui Trust	9,342.0	-11.4	9,485.0	-10.4	857.0	671.0	547.0	972.0	57.8	55.2	51.5		
Yasuda Trust	6,259.0	-18.9	6,349.0	-28.4	820.0	743.0	361.0	849.0	52.6	102.8	173.8		
Toyo Trust	6,844.0	-0.3	7,878.0	-3.8	364.0	231.0	164.0	731.0	54.1	50.7	48.2		
Chuo Trust	2,903.0	-14.3	3,674.0	-11.0	285.0	228.0	140.0	370.0	62.4	63.1	85.2		
Nippon Trust	1,064.0	-15.2	13,001.0	-6.8	203.0	162.0	99.0	105.0	94.2	105.2	105.2		
<b>Total</b>	416,188.0	...	377,312.0	...	21,979.0	16,429.0	12,628.0	38,785.0	...	...	...		

Source: Fitch IBCA Ltd.

<sup>1</sup>Fiscal year ended March 31.

<sup>2</sup>Adjusted for holdings as securities.

**Table 5.5. Japan: Selected Corporate Financial Indicators**

	Selected Financial Ratios (In percent)					
	FY1994	FY1995	FY1996	FY1997	FY1998 <sup>1</sup>	
Financial expenses to sales	2.00	1.82	1.52	1.41	...	
Current profits to sales	2.01	2.58	2.78	2.66	2.64	
Financial expenses to profits	99.5	70.5	54.7	53.0	...	
Cash and deposits to borrowing						
All industries	28.0	25.7	24.9	23.5	...	
Nonmanufacturing	17.6	15.8	15.0	13.5	...	
Year-on-year change in sales	-0.6	1.1	5.1	0.6	-0.4	
Year-on-year change in profits	12.5	22.1	12.8	-4.3	-1.2	
	Implicit Corporate Debt-Service Coverage					
	1995	1996	Nov. 1996	Apr. 1997	Nov. 1997	Apr. 1998
Major industries						
Average interest rate (in percent)	2.8	2.5	2.6	2.5	2.4	2.4
Stock of corporate loans (in trillions of yen) <sup>2</sup>	484.5	488.7	478.6	480.7	477.9	476.6
Industrial shipments (1995 = 100)	100.0	102.7	107.5	103.8	103.7	95.8
Wholesale price index (1995 = 100)	100.0	101.6	101.0	103.1	101.5	100.3
Revenues <sup>3</sup>	100.0	104.3	108.5	107.0	105.3	96.1
Interest payments/revenues (1995 = 100)	100.0	88.0	85.0	83.0	80.0	87.0

Source: Bank of Japan.

<sup>1</sup>March 1998 (Tankan) projection.

<sup>2</sup>Loans from domestic licensed banks (April 1998 column shows March 1998 stock).

<sup>3</sup>Industrial shipments inflated by wholesale price index.

both suppliers and demanders of collateralized properties move slowly. Most suppliers—either the banks holding the bad paper, or the construction companies that borrowed—have little incentive to liquidate the questionable parts of their loan portfolios. Most bad “asset bubble” loans are seen by banks as zero cost, out-of-the-money “options” on the properties that lost value when the asset price bubble was deflated; that is, banks would receive little value by selling the loans, while low interest rates have reduced the costs of carrying them. Demand has been dampened by the multiplicity of liens on properties, problems of dealing with the ultimate borrowers, and other hurdles faced by potential buyers.

(5) In order for the government to force banks to restructure balance sheets (dispose of the loans), the construction industry would have to mark its assets to market, as tax regulations do not favor banks’ unilateral actions (as a rule, provisions and debt forgiveness are not automatically tax deductible). In the process, many firms in the construction- and property-related sector would likely be declared insolvent. Because the sector hires more than 10 percent of Japan’s labor force, there has been reluctance in forcing these companies to take this road unaided.

#### ***New Approach to Resolving Banking System Problems***

In the last three years, the authorities have on three occasions introduced measures to address aspects of

financial system problems. The first such occasion was in early 1996, when the decision was taken to reform the supervisory framework, after the large public outcry associated with the collapse and bailout of banks’ housing loan companies (*jusen*). The second was the announcement in late 1996 of Big Bang reforms, a blueprint to phase in free and open competition and permit market incentives to allocate capital within Japan. The third occasion was the passage of emergency measures in early 1998 in which the decision was taken to make available public funds to the DIC to enable it to guarantee all bank deposits until 2001 and to permit the recapitalization and restructuring of banks. These measures taken together constitute a bold new approach to resolving Japan’s financial system problems, including the promotion and creation of efficient and effective financial and capital markets in Japan. The bulk of these initiatives have been translated into law, and are scheduled to be implemented by 2001. More recently, a new impetus was given to initiatives for resolving real-estate-backed loans.

***Use of Public Funds to Protect Deposits and to Recapitalize, Restructure, and Consolidate Banks.*** In December 1997, the authorities decided to provide ¥30 trillion in public funds for the purpose of strengthening the DIC and to create a financial crisis management fund. In contrast to the vocal public opposition against providing public funds to resolve problems with the *jusen*, this most recent initiative re-

### Box 5.6. Resolution Agencies in Japan

The Cooperative Credit Purchase Company (CCPC) was created in 1993. The CCPC provided a mechanism to allow banks to transfer loans at a discount, thus satisfying requirements in the tax law, while avoiding bankruptcy of debtors (loan loss provisions are automatically tax deductible only when they follow the foreclosure of collateral or the sale of the loan at a loss). Banks remain responsible for covering the difference between the transfer price to CCPC and the final disposal price, and generally for managing the loan. Under its main mandate, the CCPC does not actively seek to resolve the assets under its care, and at its current pace, it will take another five to eight years to dispose of its inventory. Collections on an original portfolio of ¥15 trillion (purchased at a price of ¥5.7 trillion) have amounted to ¥1.1 trillion. Sales, which are most often arranged by debtors themselves, picked up in 1997, but are still low; moreover the disposal of the asset does not automatically entail a reduction in the debtor's liability, which occurs only after the three parties have received an agreement from the courts.

The Housing Loans Administration Corporation (HLAC) was created in 1996 to resolve within a 10-year period some 300,000 loans left by the seven failed housing financing companies affiliated with banks (the *jusen*), and received an endowment of ¥0.6 trillion for this purpose. The 1,100-strong HLAC has liquidated about one-fifth of its original ¥4.6 trillion portfolio, but claims that banks have knowingly transferred to *jusen* their worst assets, and that as much as 10 percent of the ¥1 trillion corporate loan book it built up may be tied up to criminal (*yakusa*) concerns—circumstances that have hampered a speedy sale of assets.

The Resolution and Collection Bank (RCB) was, until recently, in charge of the assets of failed credit cooperatives only. RCB is the successor of the Tokyo Kyoudou Bank created in 1995 to deal with assets left by the failure of credit unions in the Tokyo region. As of end-FY1997, the RCB had received loans with a face value of ¥1.5 trillion, at an average discount of about 70 percent. Although it is a bona fide resolution bank, the RCB has also been slow in selling assets. Despite the relatively high discount at which it received most of its assets (70–80 percent), the RCB had sold only 19 percent of its inventory by end-FY1997. In particular, by April 1998, it had sold only 18 percent of the assets received in the first half of 1997.

flected the recognition that the resources of the DIC were inadequate.<sup>27</sup>

The Deposit Insurance Act was amended to provide adequate financial resources to ensure the full protec-

<sup>27</sup>The projected income for the DIC in FY1996–FY2000 (including the surtax to protect deposits over ¥100 million) was ¥2.7 trillion, of which about ¥1.3 trillion was already committed by the time HTB failed. HTB's net liabilities amounted to ¥1.1 trillion.

tion of banks' deposits and most credits<sup>28</sup> until March 2001 and the efficient management of assets received from failed banks. It also provided a mechanism for the DIC to play a role in the consolidation of the banking sector. Three specific measures were taken for these purposes:

- The DIC was to receive ¥7 trillion in the form of government bonds, plus authority to borrow, with government guarantees up to ¥10 trillion, through the issuance of bonds or through lending from financial institutions or the Bank of Japan, if required, to meet liquidity needs in purchasing assets from failed institutions.
- The RCB had its authority expanded to permit it to take over assets from financial institutions other than credit cooperatives, and had its collection ability expanded. Also, the investigative powers of the DIC were expanded to cover the activities of the RCB.
- Under the new scheme, in addition to protecting depositors, the DIC was allowed to purchase doubtful and other nonperforming loans from failing institutions to facilitate mergers with healthy institutions or to create a new institution by combining two or more failing institutions.

The terms under which the DIC will purchase problem loans are still unknown, and no comprehensive valuation methods (for example, analysis of future cash flows under generally applied assumptions and specific parameters of individual loans) have been adopted. In the first operation using the new framework (announced in May 1998) these prices were not disclosed, but the recapitalization effort required from the original shareholders was small in proportion to the stock of substandard loans to be bought by the DIC. A related issue is that of the price paid by receiving banks for substandard loans. In the past, banks have received these loans at face value. As the quality of these assets deteriorated, the receiving bank faced growing problems. In extreme cases, such as that of Midori Bank, the government felt compelled to recapitalize the receiving bank without penalizing its shareholders. In light of this experience, the authorities have recognized the need for transferring substandard loans at a discount.

The objective of the financial management crisis account is to permit the DIC to increase the capital base of banks for any of the following purposes: (1) to support the merger of a failed bank (the receiving bank may need additional capital to support the received assets, independent of the quality or transfer price of these assets); (2) to avert systemic risks; and (3) to protect a region from the consequence of a liquidity crisis. Banks can apply to use this facility on a voluntary

<sup>28</sup>Senior debts were fully protected. Subordinated debt was not explicitly protected, and these creditors (often financial institutions) may be required to support some losses.

**Table 5.6. Japan: Planned Personnel and Other Expenses Included on the Application for the First-Round Capital Injection<sup>1</sup>***(In percent)*

	Reduction in Personnel Expenses		Reduction in Payments and Bonuses to Directors		Reduction in Number of Employees		Reduction in Number of Directors		Reduction in Other Expenses	
	FY1998 versus FY1997	FY2001 versus FY1998	FY1998 versus FY1997	FY2001 versus FY1998	FY1998 versus FY1997	FY2001 versus FY1998	FY1998 versus FY1997	FY2001 versus FY1998	FY1998 versus FY1997	FY2001 versus FY1998
<b>City banks</b>										
Bank of Tokyo-Mitsubishi	-1.6	-7.3	-0.6	-31.3	-4.2	-8.1	-6.8	-42.0/-29.0	-1.7	-8.8
Dai-ichi Kangyo Bank	-2.5	-8.1	-23.5	-9.8	-2.5	-11.7	-18.6	0.0	1.4	7.3
Sakura Bank	-4.6	-11.7	2.2	-28.8	-6.6	-11.4	-3.4	-28.6	1.6	9.2
Sumitomo Bank	-0.4	-5.3	0.4	-26.9	-1.4	-5.5	4.4	-20.0	2.0	-5.2
Fuji Bank	0.2	-7.0	6.4	-19.1	-3.5	-5.8	2.5	-7.3	0.7	6.8
Sanwa Bank	1.2	-7.4	3.2	-10.2	-1.7	-9.6	0.0	-30.2/-9.3	2.4	1.1
Tokai Bank	-0.7	-8.5	9.1	-47.8	-1.3	-7.4	-2.7	-61.1	-3.4	-1.7
Asahi Bank	0.2	-9.0	-3.0	-32.6	-2.5	-5.9	0.0	-21.7	0.8	-2.4
Daiwa Bank	-3.9	-10.7	10.3	-28.4	-7.4	-10.1	0.0	-18.2	-1.7	-8.5
<b>Long-term credit banks</b>										
Industrial Bank of Japan Long-Term Credit Bank of Japan	2.3	-3.5	6.7	-27.1	-3.1	-4.3	0.0	-20.0	5.1	-2.4
Nippon Credit Bank	-1.8	-30.7	-2.4	-67.0	-5.3	-19.9	-8.6	-53.1	-1.0	-17.9
	-22.7	-1.5	-46.5	-35.9	-17.7	-11.0	-24.0	-47.7	6.6	-0.5
<b>Trust banks</b>										
Mitsubishi Trust	7.6	-4.4	0.0	-18.0/-10.2	-3.4	-2.6	0.0	-18.9/-10.8	8.0	-1.2
Sumitomo Trust	3.1	-19.7	-1.3	-14.0	-4.9	-10.7	-9.1	-3.3	11.7	-15.8
Mitsui Trust	0.2	-8.2	-2.6	-29.3	-2.9	-9.6	0.0	-33.3	2.8	-8.0
Yasuda Trust	2.4	-27.1	-2.3	-27.2	-5.3	-31.4	-6.1	-19.4	-1.3	-21.7
Toyo Trust	4.8	-6.2	7.7	-9.8	-2.1	-5.3	3.3	-9.7/-6.5	10.6	-6.1
Chuo Trust	-0.7	32.5	0.0	11.1	-1.7	34.4	3.7	10.7	3.6	41.3
<b>Regional banks</b>										
Yokohama Bank	-3.5	-10.5	-16.1	-20.7	-3.2	-16.1	-10.3	-26.9/-19.2	-1.4	-9.6
Hokuriku Bank	-0.1	-11.7	-3.1	-28.2	-1.6	-10.7	0.0	-9.1	-5.5	-5.8
Ashikaga Bank	-0.7	-10.4	-9.5	-15.6	-3.2	-6.7	-8.7	-4.8	-0.5	8.9

Source: Deposit Insurance Corporation (Japan).

<sup>1</sup>Fiscal year ending March 31 of the year shown.

basis, and purchases are to be approved by a high-level committee, based on the submission of a program for improving banks' operations and management and criteria supporting the requirement in the law that the applying financial institutions are solvent. The facility entailed the establishment of a new account at the DIC to be used for the purchase of preferred stocks and subordinated loans or bonds issued by financial institutions until March 2001. The law required these purchases to be made under conditions that would not make future sales of these instruments difficult, but did not establish an obligation of or a time for proceeding with such sales. The facility is funded with ¥3 trillion in government bonds to be transferred to the DIC, and the DIC is authorized to issue up to ¥10 trillion in government-guaranteed bonds.

All major banks (except for Nippon Trust, which had been taken over by Bank of Tokyo-Mitsubishi) and three regional banks qualified for a first round of recapitalization in March 1998 on the grounds of averting the systemic risks, and after submitting plans to improve their operations. These plans were built

around a reduction in personnel expenses, the closure of branches, and a decrease in the number of directors (Table 5.6). The contribution of these measures to the actual restructuring of banks was expected to be limited, because major Japanese banks are not generally overstaffed, and their low profitability has most often been associated with the narrowness of interest margins received (even abstracting from any operational costs, margins are deemed too narrow to permit banks to adequately remunerate their equity, or their total capital basis when the cost of subordinate debt is appropriately accounted for). Although most banks received about ¥100 billion irrespective of their needs, the terms at which the funds were provided varied among banks (Table 5.7), reflecting the committee's judgment about the soundness of individual banks. According to the DIC, the distribution of these terms was based on the examination of banks' self-assessments and other documents provided by banks to the committee and the Ministry of Finance. It broadly paralleled the tiering in the stock price of individual banks during the second half of 1997.

**Table 5.7. Conditions for the Subscription of Capital Using Public Funds, March 1998**  
(In billions of Japanese yen unless otherwise stated)

	Preferred Shares		Perpetual Subordinated Loans			Perpetual Subordinated Bonds			Dated Subordinated Bonds			Effect on Capital Adequacy <sup>2</sup> (In percent)
	Amount	Dividend ratio	Amount	0-5 years	+6 years	Amount	0-5 years	+6 years	Amount	0-5 years	+6 years	
<b>City banks</b>	<b>Total</b>											
Bank of Tokyo-Mitsubishi	100.0					100.0	90	240				0.0
Dai-Ichi Kangyo Bank	99.0	75				100.0	120	270				0.2
Sakura Bank	100.0					100.0	90	240				0.0
Sumitomo Bank	100.0					100.0	110	260				0.1
Fuji Bank	100.0								100.0	55	125	0.2
Sanwa Bank	100.0											0.1
Tokai Bank	100.0		100.0	90	240							0.4
Asahi Bank	100.0		100.0	100	250							0.5
Daiwa Bank	100.0		100.0	270	270							0.9
<b>Long-term credit banks</b>												
Industrial Bank of Japan	100.0								100.0	55	125	0.2
Long-Term Credit Bank of Japan	176.6	100	46.6	245	395							1.3
Nippon Credit Bank	60.0	300										1.2
<b>Trust banks</b>												
Mitsubishi Trust	50.0					50.0	110	260				0.4
Sumitomo Trust	100.0					100.0	110	260				0.5
Mitsui Trust	100.0					100.0	145	295				1.0
Yasuda Trust	150.0					150.0	245	395				1.8
Toyo Trust	50.0					50.0	110	260				0.6
Chuo Trust	60.0	250	28.0	245								2.0
Nippon Trust	0.0											...
<b>Regional banks</b>												
Yokohama Bank	20.0		20.0	110	260	30.0	295	445				0.2
Ashikaga Bank	30.0											n.a.
Hokuriku Bank	20.0		20.0	245	395							0.4
<b>Total</b>	<b>1,815.6</b>		<b>321.0</b>		<b>414.6</b>							

Source: Deposit Insurance Corporation (Japan).

<sup>1</sup>Spreads measured in basis points vis-à-vis yen rates in the London market.

<sup>2</sup>Basle Committee capital adequacy ratio.

In July 1998 these mechanisms were supplemented with a “bridge bank” scheme. Under the new scheme, the objective of a bridge bank is to ensure the continuation of relationships between borrowers and banks that are declared to be insolvent, while the failed institution is being resolved. While the bridging concept could be useful, it might reduce the pressure to introduce valuation mechanisms to determine the appropriate discount to be granted to banks receiving impaired loans from failed institutions. The bridge bank mechanism will work in two stages. First, the Financial Supervisory Agency (FSA) will appoint a financial administrator to manage the assets of the failed bank. The administrator will be responsible for approving loan renewals to sound borrowers, while paying due consideration to maintaining asset quality. Administrators will attempt to transfer assets to private receiver banks as soon as possible. In cases where these attempts fail, the second stage would introduce a public bridge bank, which would receive the loans of “sound borrowers in good faith,” including substandard loans. A centralized DIC committee will classify (in accordance with standards still to be defined) assets of each failed bank that will be transferred either to a public bridge bank or the RCB. Resources for refinancing these loans or disposing of them will be financed from the remaining ¥11 trillion (of the originally allocated ¥13 trillion) from the financial management account. The ¥17 trillion made available to the DIC will guarantee the losses of the RCB.<sup>29</sup> Public bridge banks will be established as subsidiaries of a bank holding company owned by the DIC. They will have an initial life of up to two years, renewable for three additional one-year periods (similar time limits were adopted in the United States when bridge banks were used to receive assets from failed savings and loans institutions). Their operations will be subordinated to the board in charge of the financial crisis management facility. Bridge banks will continue to use staff and facilities from the failed banks, although key personnel will be recruited elsewhere by the DIC.

**Reform of the Supervisory Framework.** The reform is based on three components: (1) making bank managers bear the main responsibility for assessing asset quality and provisioning accordingly; (2) introducing a framework for Prompt Corrective Action (PCA); and (3) establishing a Financial Supervisory Agency separate from the Ministry of Finance. The first component calls for banks to periodically carry out a self-assessment of their portfolios (see Box 5.5). These exercises are to be verified by external auditors, and a summary of their results submitted to the supervisors, who will focus chiefly on verifying the soundness of banks’ internal control mechanisms underpinning those results.

<sup>29</sup>The resources mentioned in footnote 24, including from public institutions, will also be available.

The second component establishes a set of structured early intervention and resolution rules to be applied in response to the results of banks’ self-assessments, as well as of on-site inspections (see International Monetary Fund, 1997). The third element is the consolidation in one agency of the supervisory responsibilities previously scattered around several bureaus in the Ministry of Finance. The self-assessments and prompt corrective actions were implemented in April 1998. The FSA started its operations in June 1998.

The FSA is subordinated to the Prime Minister, who formally delegates the supervisory functions to the agency, although remaining responsible for granting and revoking banks’ licenses. This delegation will permit the agency to establish its autonomy regarding the supervision and sanctioning of financial institutions, and retain sole discretion regarding the closure of these institutions. In case the agency believes a closure will raise systemic issues, it may consult with the Ministry of Finance on measures or legislation required to maintain the stability of the financial system, but whether or not the agency should issue the sanction is not a subject of consultation. The Ministry of Finance, on its part, will be responsible for “planning” and “formulating” policies for the financial system in general, while continuing to coordinate international financial affairs, most notably those related to the exchange rate. The FSA is supposed to participate in the preparation of ministerial ordinances and other regulations affecting financial institutions, but the exact sharing of responsibilities between the Ministry of Finance and the FSA is still unclear, and the authorities expect it to evolve over time. Both institutions will be responsible for running the DIC, with the FSA focusing on approving funds to individual institutions, and the Ministry of Finance on setting the overall policies and funding. They will also coordinate with the Bank of Japan at the time of intervening in financial institutions, to guarantee the provision of liquidity until the resolution of the failed bank is completed. The repayment of funds lent by the Bank of Japan in this capacity (except liquidity support) would be covered by the DIC funds.<sup>30</sup>

<sup>30</sup>The Bank of Japan will retain its right to examine banks—a privilege based on a different set of considerations from those empowering the FSA. The new Bank of Japan Law (effective April 1998) establishes among the objectives of the Bank of Japan those of ensuring the smooth settlements of accounts and the maintenance of an orderly financial system, listing several instruments to guarantee them. Among these are the granting of temporary loans and other support actions in favor of institutions facing liquidity problems (Articles 33 and 37–39). Upon a request from the Minister of Finance these actions can be extended to any institution, when they are deemed necessary to guarantee the order of the financial system (Article 38). For the purpose of being able to use these instruments appropriately, the Bank of Japan requires financial institutions to enter into a contract regarding onsite examinations (conducted after prior consent from the institution to be visited). The Bank of Japan can issue recommendations to banks and, if needed, close the account of any offending institutions, but it cannot sanction them (a privilege of the FSA).

Under current plans, the FSA will have a staff of 403, with a substantial number of employees on secondment from the Ministry of Finance (about 80 percent of the initial staff will be transferred from the ministry). Being an administrative agency, its resources will be decided by the Budget Bureau at the Ministry of Finance. The Supervision Department at the agency will be limited to 68 persons, who will be responsible for the supervision of the 175 domestic banks, 93 foreign banks, 76 insurance companies, and 226 securities companies.<sup>31</sup> Currently, on-site inspection cycles for banks have stretched over four–five years. Consideration has been given to reduce certain cycles by concentrating inspections on institutions that are deemed weaker than the average.

**Big Bang.** Big Bang reforms aim at creating a free, fair, and global market. They can be broadly divided into four groups (Table 5.8): liberalization of products and transactions, new organizational forms for financial institutions and a reduction in entry barriers, changes in the microstructure of markets, and improvements in consumer protection and fair trade.

Several measures have already been implemented, including the liberalization of foreign exchange transactions, of trading of some equity derivatives, and of sales of investment trust funds at banks' branches. By early June, the Diet had approved a 2,000-page legislative package amending several laws (ancillary regulation is scheduled to be introduced before the end of calendar year 1998, but its details are still largely unknown). Among the key provisions in that package were the introduction of new capital requirements for securities houses and insurance companies, together with the creation of investors' insurance schemes for these sectors. Most of the changes contemplated in that legislation, including the lowering of barriers to entry into the asset management business, will become effective in December 1998. The implementation of provisions regarding the reciprocal entry of banks into the insurance sector will span the period 1999–2001 (banks and insurers are already allowed to have subsidiaries engaged in asset-management services and the distribution of investment trusts, and will soon be completely free to use their own network to distribute this class of product). Although taxes still do not favor it, the new organizational forms may facilitate the consolidation of major banks (most city banks are linked to a trust bank). In particular, the holding structure could minimize the inconveniences

of a merger, while opening ways to a less expensive use of prudential capital (depending on the treatment of consolidated risks), especially following changes in the profile of the liabilities of financial institutions that are afforded by the financial instruments allowed by the new legislation.

The sequencing of these reforms has been such that the creation of industry-financed insurance schemes preceded the implementation of PCA in the case of the securities and life insurance sectors. Similarly, new products were introduced or marketed in new venues before the new supervisory and consumer protection framework had been put in place. Some market participants have also expressed discomfort that the announced arrangements have not yet effectively addressed the need to redress consumer's general lack of confidence in the Japanese financial markets, as illustrated by the very high proportion of household assets held in cash, and the persistent lack of interest for mutual funds.

**Recent Initiatives to Help the Workout of Real Estate Bad Loans.** Three sets of measures are in preparation that can help the workout of real estate loans: the regulation of asset-backed securities and special-purpose corporations (SPCs) to issue them, the use of public money to buy and consolidate odd plots of land and foster changes in the zoning of certain areas (¥2.3 trillion were set aside for this purpose in May 1998), and the creation of arbitration panels to mediate the resolution of bad loans.

In March 1997, the government announced its interest in stimulating the securitization of assets, in particular bad loans. A law for this purpose has recently passed by the Diet. The law will regulate trust certificates representing an interest in a pool of corporate loans collateralized by real estate. It will also facilitate the creation of SPCs with the ability to secure claims on specific assets backed by a system for registering interest in specified financial assets. In this connection, favorable tax treatment will be granted to these entities and the related transactions, reducing the cost of setting them on shore. Under the new regulations, the original borrowers will no longer need to be informed about the sale of their loans, while a register would provide information on the current ownership or secured interest in the securitized assets, "perfecting" rights.<sup>32</sup> Although the basic framework for the establishment of the SPCs is well advanced, measures are still being formulated to address the key issue of ensuring full disclosure of the quality of the assets to be securitized (which was previously side-stepped by allowing issuers to wrap the securities with enhancements from insurers). Also,

<sup>31</sup>The number of supervisors in the United States is around 8,000, with the Federal Deposit Insurance Corporation (FDIC) accounting for 1,800 inspectors. It is expected that the new U.K. supervisory authority will have about 2,700 employees. The FSA will delegate some tasks to the 1,000-odd Ministry of Finance staff in local offices, but the responsibilities of these offices will be limited to the supervision of the almost 4,000 local cooperatives and regional and secondary regional banks, whose surveillance is shared with the respective ministries.

<sup>32</sup>Such a system is similar to that provided in the U.S. Uniform Commercial Code. Since 1993 the Ministry of Finance has dispensed with the need to inform debtors prior to securitizing car loan and lease receipts.

**Table 5.8. Japan: Schedule for Reforming the Securities Market and for Big Bang Financial Reform**

Measures	Fiscal Years				
	1997	1998	1999	2000	2001
<b>Liberalization of Products and Transactions</b>					
Recognition of the following instruments as “securities” protected by the Securities and Exchanges Law:					
1. Depository receipts		●			
2. Covered warrants written against indexes		●			
3. Asset-backed securities issued by special-purpose corporations		●			
4. Shares in mutual funds		●			
Regulation of the issuance of:					
1. Perpetual corporate bonds	■				
2. Equity-index-linked bonds		●			
3. Asset-backed securities, including the introduction of mechanisms to “perfect” investors’ rights		●			
Introduction of:					
1. Options on individual stocks	■				
2. Over-the-counter (OTC) securities derivatives		●			
Recognition of OTC derivatives trade as a business outside the scope of antigambling laws		●			
Permission to:					
1. Securities houses to trade in unlisted and unregistered shares	■				
2. Banks to engage in equity-linked derivative transactions (when not requiring actual delivery of equities)	■				
Regulation of Investment Trusts, with the introduction of:					
1. Cash Management Accounts (CMA) <sup>1</sup>	■	●			
2. Company-type investment trusts (U.S.-style mutual funds, in contrast to contracted trusts funds) <sup>2</sup>		●			
3. Privately placed investment trusts		●			
<b>Deregulation of Financial Intermediaries</b>					
Permission for establishing financial holding companies	■				
Liberalization of activities permitted to banks’ securities-dealing and trust-banking subsidiaries:					
1. Permission for these subsidiaries to engage in all trading with securities, except equity trading	■				
2. Full liberalization		●	▲		
3. Review of banks’ capital adequacy ratios on a consolidated basis				▲	
Elimination of entry barriers against:					
1. Banks into the sale of investment trusts <sup>3</sup>	■	●			
2. Securities companies into asset-management business (including “wrap accounts”) <sup>4,5</sup>		●			
3. Securities companies into the custody business and other ancillary activities <sup>6</sup>		●			
4. Insurance companies into banking and securities business <sup>7</sup>		◆		▲	
5. Securities companies into insurance business		◆			▲
6. Banks into insurance business		◆			▲
Relaxation of licensing requirements for nonbank institutions, by moving:					
1. Securities houses from a licensing system to a registering system <sup>8</sup>		●			
2. Trust companies from a licensing system to an authorization system		●			
3. Investment advisory companies into securities investment trust or brokerage by registration <sup>9</sup>		●			
4. Discretionary investment management companies into trust management by approval		●			
5. Discretionary investment management companies into brokerage by permission		●			
Permission to subcontracting of financial advisors to manage assets (outside consignments)		●			



Table 5.8 (continued)

Measures	Fiscal Years				
	1997	1998	1999	2000	2001
Diversification of funding by financial institutions, by allowing: <sup>10</sup>					
1. Nonbank financial institutions to issue bonds and commercial paper		●			
2. Banks to issue bonds			▲		
Permission to investment trusts to invest in unlisted and unregistered equities	■				
Liberalization of brokerage commissions:					
1. Trades above ¥50 million		■			
2. All trades		◆	▲		
Deregulation of the nonlife insurance sector:					
1. Formal liberalization of nonlife insurance rates		■			
2. Selective opening of subsectors to competition in connection with international agreements		◆			
3. Marking-to-market of trading portfolio		●			
<b>Changes in the Microstructure of Markets</b>					
Liberalization of foreign exchange markets and foreign investment:					
1. Transactions freed from requirement of prior approval from or prior notification to the Ministry of Finance		■			
2. Ten percent ceiling on foreign ownership of listed companies eliminated		■			
3. Prohibition of ownership by foreigners of shares of Japanese unlisted companies eliminated		■			
4. Restrictions on medium- and long-term foreign loans to Japanese companies eliminated		■			
5. Purchase of Japanese debentures through private placements permitted to foreigners		■			
Review of rules governing securities exchanges and off-exchange trading on securities:					
1. Elimination of requirement of consolidation of order-flow for trade on listed securities			●		
2. Regulation of off-exchange trading of listed equities (reporting requirements and price limits)			●		
3. Introduction of trade on options on individual shares at the Tokyo and Osaka stocks exchanges	■				
4. Introduction of trading on deposit-receipts of listed foreign equities	■				
5. Elimination of the 30 percent margin on margin trading				●	
6. Review of laws regulating the creation and consolidation of exchanges				●	
7. Regulation of proprietary trading systems (including approval by supervisors)				●	
Improvement of custody and settlement systems:					
1. Expansion of record-transmission duties of custodians to ensure payments to investors <sup>11</sup>			●		
2. Regulation of close-out netting contracts			●		
3. Introduction of same-day cash delivery	■				
4. Introduction of real-time gross settlements system by the Bank of Japan					▲
Easing of listing and initial public offering requirements:					
1. Introduction of book-building method	■				
2. Switch to ex-post notification of equity listings			●		
3. Simplification of disclosure rules for small public offerings			●		
4. Elimination of the subordinated status of OTC markets, enhancing it as a venue for public offerings			●		
<b>Introduction of Additional Consumer Protection and Fair Trade Measures</b>					
Review of disclosure rules:					
1. Review of accounting standards for nonlisted securities and derivatives <sup>12</sup>			◆		
2. New disclosure requirements for securities and insurance industries (e.g., solvency margins) <sup>13</sup>			●		

**Table 5.8 (continued)**

Measures	Fiscal Years				
	1997	1998	1999	2000	2001
3. Review of disclosure rules of trust funds <sup>14</sup>		●			
4. Switch of corporate financial statements to a consolidated basis		◆	▲		
Review of supervisory, resolution, and sectoral investors' insurance schemes regulations:		●			
1. Review of capital requirements for securities houses		◆	▲		
2. Introduction of Prompt Corrective Action (PCA) for the securities and insurance sectors		◆	▲		
3. Enforcement of separation of client assets from institutions' assets as protection in case of failure <sup>15</sup>		●			
4. Establishment of industry-funded protection funds for the securities and insurance sectors <sup>16</sup>		●			
5. Review of procedures to speed up the liquidation and reorganization of securities companies <sup>17</sup>		●			
Review of regulations against conflict of interest on the part of asset managers:					
1. Upgrade of the Conduct Regulations of Securities Companies (Article 50 and following)		●			
2. Refinement of provisions covering sales representatives of securities companies		●			
3. Upgrade of the Securities Investment Trust Law (Article 17)		●			
4. Upgrade of the Securities Investment Advisory Business Law		●			
5. Comprehensive firewalls between securities, insurance, and banking activities of a company <sup>18</sup>				▲	
Strengthening of regulations against unfair trade:					
1. Confiscation of gains made through spreading of rumors, insider trading, and price manipulation		■			
2. Extension of restrictions on short-sales to cover transactions involving borrowed securities <sup>19</sup>		■			

Source: Japan, Ministry of Finance.

Note: Codes for the timing of implementation of measures:

■ = Already implemented.

● = Legislated and to be implemented in FY1998.

◆ = Legislated and to be implemented after FY1998.

▲ = Data of implementation of legislated or announced changes taking effect after FY1998.

<sup>1</sup>CMAs, which complement money management funds allowed in 1992, can hold a wide variety of assets, such as certificates of deposits, call loans, and close-to-maturity public and corporate bonds, but no derivatives; CMAs were enhanced by the permission of automatic deposit of wages and pensions on these accounts, and of withdrawals for payment of bills etc., which converted them into a broad support for cash management services.

<sup>2</sup>Traditional Japanese investment trusts operate through a contract between the investor (who purchases beneficiary interests) and the trust (which is not incorporated). Upon their transfer to a custodian (trust bank), funds are invested and administered by one of the 48 investment trust management companies (ITMCs) with little oversight by investors or custodians. The new type of corporate trust fund might, inter alia, permit beneficiaries to be represented at the board of directors of such (incorporated) funds.

<sup>3</sup>Since late-1997 banks have rented space for investment trust companies to sell funds at banks' branches. These companies can sell products from bank-affiliated ITMCs or other (usually foreign) managers. By end-1998, banks will be allowed to engage in direct sales from all their branches.

<sup>4</sup>Currently, most ITMCs are affiliated to securities houses. Securities houses can act as broker and distribute trust funds, but they do not engage directly in asset management.

<sup>5</sup>Wrap accounts are investment consulting relationships in which clients' funds are placed with one or more money managers, and all administrative and management fees, along with commissions, are wrapped into one comprehensive fee.

<sup>6</sup>The ability to offer ancillary services would help financial institutions to offer wrap accounts and other comprehensive services.

<sup>7</sup>Several insurance companies have formed their own ITMC, building on their experience in managing assets (banks and insurers were first allowed to establish ITMCs in 1992). Since the beginning of FY1998 insurers were allowed to distribute investment trusts (insurance companies thus began to distribute products from affiliated ITCMs, and in many cases from foreign institutions). The law will extend the scope of businesses of insurers by allowing them to hold banks as subsidiaries by FY2000.

<sup>8</sup>The right to engage in transactions deemed "risky," including OTC trade of derivatives and securities underwriting will still require the approval of supervisors.

<sup>9</sup>Discretionary Investment Advisory Companies (DIACs) were granted the right to apply for ITMC status; foreign firms, once restricted to DIAC status have thus also entered the ITMC business.

**Table 5.8 (concluded)**

<sup>10</sup>Diversification of banks' liabilities is a prerequisite to permit banks to reduce their reliance on (insured) deposits, *inter alia*, by opening the way for ITMCs to purchase these new liabilities, subject to asset-concentration limits.

<sup>11</sup>These responsibilities include mainly the updating of records and ensuing notification of issuers (including the new mutual funds) of changes regarding shareholders' and beneficiaries' personal data.

<sup>12</sup>Currently, banks engage in few "off-balance-sheet" activities, and these (e.g., loan guarantees) appear on their balance sheets. The widening of types of instruments permitted to banks to trade and hold (including several OTC derivatives) will require new accounting rules. Also, insurers will be required to mark-to-market their trading portfolio.

<sup>13</sup>Insurers will also be required to consolidate the balance sheet of any brokerage subsidiary. As with banks, the law will require insurance and securities companies to keep financial statements at all business offices for public perusal.

<sup>14</sup>Most funds do not disclose a list of their holdings, and there is no uniform marking to market of assets (e.g., unlisted bonds can be carried at cost). The disclosed riskiness of funds' investment policies is not policed by third parties and custodian banks are not responsible for informing investors about any deviations from stated policies.

<sup>15</sup>This separation was first implemented with respect to OTC trading on futures, which was allowed in FY1997.

<sup>16</sup>The securities sector scheme succeeds the custodian insurance fund. The envisaged industry-wide insurance schemes will, however, have a broader scope than simple coverage of counterparty risks, covering any shortfall not cushioned by the capital of insurers and investment trusts issuers.

<sup>17</sup>The new legislation will, *inter alia*, permit the insurance funds to represent investors' interests during the liquidation of failed institutions.

<sup>18</sup>Some provisions toward establishing "insider trading restrictions on a consolidated basis" were included in the legislation passed in FY1998.

<sup>19</sup>Brokers routinely borrow securities when a customer makes a short sale and the securities must be delivered to the buying customer's broker. In the United States, the Securities and Exchange Commission mandates that brokers seek permission from customers to borrow securities (such permission is usually included in the agreement signed by customers when opening their accounts), and to provide collateral when engaging in these operations.

although some proposals have been aired of allowing the creation of collecting agencies, the right regulatory framework balancing debtors' rights and efficiency has not emerged yet; restrictions on the number of times a loan can actually be sold still remain in the books.

In May 1998, a plan to establish an arbitration panel and adjust tax laws to favor debt resolution was announced; it is expected to be submitted to the Diet after the elections in July. The panel will consolidate liens on real estate collateral and mediate the terms of agreements between debtors and creditors (these were to involve mainly debt forgiveness, because laws still limit the scope for debt for equity swaps). In this regard, taxes have recently been adjusted to permit the deduction from banks' taxable income the losses they may incur as a consequence of these agreements, and to allow debtors to offset the corresponding windfall gains against past and future losses. Observers expect that the combination of mediated debt workouts and asset securitization will open a way for banks to reduce their balance sheets by possibly 10 percent. Not only will banks be able to write off sums that are for all effects uncollectible, but to move entire loans from their balance sheets into SPCs. A modicum of debt forgiveness—possibly assisted with public funds, under a transparent framework—could also contribute to reduce the debt overhang affecting the corporate sector.

### *Remaining Challenges and Risks*

The comprehensive measures advanced by the authorities represent important steps toward the resolution of Japan's financial sector problems. In the midst of severe circumstances, not all of these measures were implemented in an ideal manner. In particular, the process of banks' self-assessments lacked transparency and rigor (in particular in what regards the asset quality of loans classified as substandard) and was weakened by changes in the accounting rules governing banks' prudential ratios. Moreover, several aspects of the implementation of the first round of recapitalization of the core banking system were reminiscent of the "convoy" style approach seen throughout the early 1990s.

In moving ahead, the greatest challenge at this stage is to strike the proper balance between short-term macroeconomic objectives (of avoiding deflationary pressures and restoring growth) and the more medium-term financial structural objectives (that of promoting and ensuring a market-based restructuring and consolidation of Japan's banking sector and the implementation of Big Bang reforms). The provision of ¥30 trillion in public funds to the DIC can play a key role in restoring the soundness of the banking system and in permitting the resumption of economic growth on a sustained basis. It would be appropriate to use these funds aggressively toward the resolution of

insolvent banks, the restructuring of weak but viable banks, and the recapitalization and deep restructuring of the core group of large banks. If done rapidly and effectively, this latter measure would help to restore Japan's macroeconomic policy transmission mechanisms, including the credit channel.

There are at least three major risks that can arise in the process of implementing the recapitalization and restructuring strategy.

First, existing recapitalization mechanisms for core banks do not provide clear incentives that are compatible with (1) the aggressive voluntary use of public funds by the core banks; (2) the restructuring of banking activities, organizations, and governance mechanisms that focus on shareholder value; and (3) the sharing with the public sector, through the DIC, of the potential economic and financial gains from successful and profitable restructuring. Mechanisms need to be designed and implemented that strongly encourage core banks in need to "go to the window" and to start lending again.

Second, the further implementation of the authorities' recapitalization and restructuring of core banks runs the risk of being translated into an undue allocation of low-cost capital to inefficient sectors of the economy, including the construction sector, rather than effectively contributing to the reduction and resolution of the sizable debt overhang that now exists in the Japanese corporate sector.

Third, it is a risk that resources will be squandered in the restructuring of noncore banks, motivated in part by political or regional pressures. This risk can easily arise in connection with mergers between the myriad of existing regional institutions, if, in such occasions, the DIC purchases impaired loans at excessively high prices. Without clear guidelines for the rapid determination of transfer prices, weak but solvent borrowers may be in limbo because the RCB is not allowed to renew loans to them until a receiver bank is found. The establishment of bridge banks may help address the problem, but the risk of squandering resources could as well be exacerbated. To minimize these risks, the implementation of resolutions, recapitalization, and restructuring plans with public funds should adhere to some guiding principles, such as:

- Public funds should be targeted to create a stronger, more profitable banking system.
- Publicly funded asset acquisitions should be based on transparent, cash-flow-based loan-valuation methods.
- Private market solutions should be strongly encouraged to the extent it is possible in balancing short-term macroeconomic and medium-term financial structural objectives.
- Shareholders and management should bear responsibility for losses and poor performance.
- The terms of recapitalization should provide clear and strong incentives for the eventual replacement

ment of public sector funding with private market source of capital.

- The terms of recapitalization should be compatible with loss-sharing rules of proposed arbitration panels in charge of mediating real estate loan workouts.

The use of public money only heightens the vital need for further improvements in the accounting and disclosure standards and in internal mechanisms of risk control and corporate governance, including the development of a "credit" culture. Although the introduction of bank self-assessments constitutes an improvement, future implementation will need to be closely evaluated by a core of well-trained supervisors and clearly reflected in financial statements if this approach is to be effective. External auditors, on their part, will need to assume a much greater role in verifying the methodology and results of banks' self-assessments. Finally, in order to restore market confidence, disclosure standards should also be at the high end of the spectrum of international practice. The system would gain by increasing the frequency of the reporting of asset quality to supervisors and the release of financial statements from the current semiannual basis to a quarterly one, in line with practices in other advanced countries.

The introduction of the PCA framework was also a major step in establishing the financial infrastructure needed for a free and competitive market. The application of this framework by Japan needs to be strengthened if it is to become an effective structured mechanism for early intervention and resolution. In particular, the trigger points for actions should be raised to international (U.S.) standards, including the criteria used to determine whether a bank would be required to formulate a recapitalization and restructuring plan and whether public intervention is required. Accounting rules underlying the valuation of banks' capital should also be reformed consistently with the restructuring of financial markets following the Big Bang. In particular, a timetable should be established for requiring banks to deduct from their own capital any holdings of equity in other banks and to phase out the distinction between banks with and without overseas activities for capital adequacy. The recent loosening of the accounting rules governing the valuation of securities holdings in general should also be reversed. (The authorities' plan to introduce "prompt corrective action" in the insurance sector in 1999 is also welcome, in particular in view of the potential for moral hazard created by the government decision of minimizing any risks of a run in insurance companies in the current juncture, by fully guaranteeing insurance policies until 2001.)

Effective banking supervision is the last line of defense for ensuring accurate recognition of asset quality problems and their prompt correction, thus giving meaning to PCA. The challenges in fulfilling this task

are likely to increase following the introduction of new financial instruments and more complex organizational structures as envisaged by the Big Bang. To accomplish their objectives, supervisors require a clear mandate, supported by operational autonomy, and balanced by public accountability. The transfer of supervisory responsibilities from the Ministry of Finance to the newly created FSA has the potential to achieve these goals. To ensure its effectiveness, and that Japan's new agency meets the highest international standards, consideration should be given to adjusting two aspects of the FSA operation. First, the FSA should have the primary responsibility for drafting prudential regulations and be assured that decisions for granting or revoking bank licenses (currently assigned to the Prime Minister) will be taken only with its full support. Second, the FSA should be largely financially independent of the government budget process, in part to ensure an appropriate autonomy in staffing decisions. Some advanced countries have addressed the first set of issues by establishing high-level committees in which supervisors have a permanent and sometimes predominant representation. The second set of issues has been addressed by advanced countries by having the institutions being supervised contribute to the financing of the supervisory agency (when the latter is in the central bank, this is implicitly achieved through seigniorage). Autonomy in this area is important, *inter alia*, because international experience indicates that supervisory agencies are most effective when they are staffed by a core of professionals that owes its sole allegiance to the agency. Relying primarily on staff on secondments from ministries or other bodies is neither necessary nor sufficient for ensuring this, and in the case of Japan would appear to be counterproductive. The size of the staff remains a key factor. In addition, autonomy in determining the supervisory agency's own salary scales has proved increasingly important to enable agencies to attract and retain skilled and experienced staff, including recruits of the highest professional caliber with experience in the private sector.

The effectiveness of recent initiatives to increase loan disposal will largely hinge on providing a transparent framework for decision making by the arbitration panels, and establishing strict disclosure requirements to permit the valuation of asset-backed securities on the merits of the assets backing them. A transparent secondary market for asset-backed securities will facilitate the work of the arbitration panel by making the price-discovery process easier. By contrast, heavy intervention of public institutions (such as the postal system) in this market may prove counterproductive. An acceleration of current plans to reform Japan's commercial code and bankruptcy laws should also be considered, because it would signal a serious commitment to financial reforms. Measures to bal-

ance the legal principles of attempting to maximize the amount of funds recovered from debtors with the desire to preserve the economic value of collateral could also be considered. Such reforms could draw on measures taken by other advanced countries where banks also saw their role in the governance of firms altered by increasing disintermediation and the deregulation of the economy.

The resolution of the bad-loan problem will enable Japanese banks to accelerate their adjustment to a new role in the free, fair, and global market envisaged by the Big Bang reforms. Steadfast implementation of these reforms—and a willingness on the part of the authorities to accept the resulting changes in the structure of financial intermediation—will be critical in order to facilitate the development of efficient capital markets as an alternative source of finance. As elsewhere, distinctions between banks and other financial institutions will increasingly be blurred and pressure for consolidation will increase. Foreign institutions will also likely play a larger role, either in association or in competition with domestic players. In the process, the considerable benefits that will accompany broader capital markets will outweigh the additional pressures that will be placed on the banking system, through more competition. Forceful and timely measures to address the banks' current problem loans will lower the risks of Big Bang exacerbating banks' difficulties and help facilitate a more efficient and sounder financial system. Once the bad-loan problems are resolved, the major Japanese banks will most likely become more competitive. First, city banks and the largest regional banks hold a considerable share of households' deposits and will be in condition to take up the opportunity of offering and managing new financial instruments (for example, mutual funds and insurance policies). Second, loan securitization and disintermediation will help banks by freeing the capital currently used to support loans extended at very narrow margins. Currently, close to 40 percent of banks' loans earn a margin of less than 1.25 percent (the margin necessary to remunerate the minimum bank capital at a 10 percent rate in the absence of any cost or tax). Banks will also be able to count on the competitive advantage they have developed over securities firms in underwriting bonds, which has been built on banks' access to a large corporate client base and the right to provide related services such as custody and clearing. Third, the possibility of adopting a holding structure offered since April 1998 will favor banks, once tax legislation permitting the tax consolidation of subsidiaries is adopted. A remaining risk is related to the fact that not all deposit-taking institutions are being liberalized at the same time, and that some will maintain the distinct advantages of the existing unlevel playing field. In particular, without other reforms, the postal savings system will continue to maintain its competitive advantages over banks.

Savers' interest in new financial products will depend on the confidence they will have in the performance of asset managers. In this area, Japanese institutions may need to overcome a substantial gap, created by years of lax accounting rules, insufficient segregation of assets, and inadequate protection against conflict of interests on the part of fund managers. The tougher stance taken by the authorities in the recent past with regard to insider trading, the collapse of Yamaichi Securities following the disclosure of hidden losses, and the envisaged upgrade of certain provisions in the securities investment trust law are encouraging indications of progress in the right direction. But continued efforts and clear rules are necessary. Advancements in this area will increase the pressures in favor of the unwinding of cross-shareholdings and will facilitate the restructuring of the corporate sector.

The extent to which the availability of new financial instruments will be translated into major international outflows of capital will depend also on the speed with which banks' problems are addressed. Regulatory constraints on foreign investment have not been binding for institutional investors such as life insurers (in the last three years, foreign securities have accounted for 10 percent of their assets, well below the 30 percent ceiling). However, interest rates in Japan are at a historical low and global institutions are establishing a significant presence in the asset management business. Accelerating the resolution of the bad-loan problems would help counteract these pressures by reducing the debt overhang on the corporate sector and increasing the supply of land and related financial assets. More fundamentally, it would offer new opportunities for the efficient allocation of capital in Japan, and its adequate remuneration.

### Banking System Developments in North America and the United Kingdom

In the *United States*, banks continued to benefit from the high level of liquidity, profits, and asset quality prevailing in recent years, while increasingly taking up the room provided by the gradual elimination of regulatory restrictions. Core profitability continued to improve, led by higher fee revenues and credit growth. For the top tier of the market (which accounts for about 60 percent of total assets), net interest revenue increased by 9 percent, with average margins exceeding 400 basis points. Noninterest income continued to grow, contributing to more than 40 percent of total revenues. Among noninterest income, gains from trade have been prominent. In the case of two of the five money center banks, investment-bank-like activities corresponded to more than half of total revenues. The ratio of noninterest expenses to revenues continued to decline, falling below 60 percent

for most of the institutions. The average nonperforming loan to total loans ratio fell to 0.70 percent, despite the Asian exposures of some banks (Box 5.7). The ratio of nonperforming loans to equity fell to 4.5 percent. Supervisors have noted, however, that competitive pressures and a strong economy have led to a relaxation of credit standards. Market sources also noted that corporate lending has been subject to fierce competition and that consumer loss rates (including from credit cards), although close to stabilizing after several years of growth, remain dependent on the economic cycle. Attention to credit quality is likely to acquire greater importance also because the number of entrants in certain segments protected by public deposit insurance schemes (for example, thrift institutions) continues to increase. The main risk in the U.S. banking system is that financial conditions appear to be the best seen in many years, and are therefore probably unsustainable. Moreover, it is usually at the top of a credit cycle when banks take on increasingly risky concentrations of loans in an effort to maintain high profitability.

Recent deregulation efforts have been sustained by changes in the Bank Holding Company Act (BHCA) and new interpretations of the Glass-Steagall Act (GSA).<sup>33</sup> New opportunities were translated into several acquisitions of securities firms by major banks and mergers of several major regional and national banks. Expectations of elimination of regulatory barriers have also underpinned the merger of a major commercial bank (Citicorp) into an insurance and investment-bank group (Travelers Group).<sup>34</sup> Markets have welcomed banks' purchases of securities firms, as the price paid for them have been deemed low, and the additional risk involved by these activities were typically considered to be greatly outweighed by the underwriting capability and opportunities for cross-selling services secured by banks. On the other hand, markets have viewed with growing skepticism the high prices paid for the acquisition of regional banks (multiples of book value around four and premiums over trading prices of 30 percent had not been unusual). The poor experience of three of the biggest acquisitions that had occurred in previous years has acted as a sobering reminder to investors. Projected efficiency gains from the closure of branches and the centralization of back-office services were in some cases also overshadowed by up-front restructuring

<sup>33</sup>An overhauling of the regulatory framework (for example, a repeal of the GSA) has been delayed by difficulty in building consensus among the several industries affected and government agencies involved.

<sup>34</sup>Travelers Group applied to become a bank holding company. The GSA still forbids commercial banks to enter in the insurance business, but the BHCA permits all existing businesses purchased by a bank holding company to be retained and operated for up to a five-year period. Travelers Group expects that the GSA will be reformed within this time span.

### Box 5.7. Exposures of Mature-Market Banks to Asian Crisis Countries

At the end of 1997, European banks had the largest aggregate balance-sheet exposures to emerging markets in Asia, totaling about \$260 billion for the EU-15 (excluding Greece and Portugal; see Table 5.9).<sup>1</sup> Japanese banks had the second-largest balance-sheet exposures among those in the major countries, totaling about \$190 billion, while the exposures of U.S. banks were considerably smaller, at about \$40 billion.<sup>2</sup> Exposures to the four countries most affected by the crisis (Korea, Indonesia, Malaysia, and Thailand) were ranked similarly, at about \$90 billion for EU banks, about \$85 billion for Japanese banks, and about \$20 billion for U.S. banks. In the second half of 1997, European banks had broadly unchanged balance-sheet exposures to emerging markets in Asia compared with mid-1997, while Japanese and U.S. banks reduced their exposures. However, these figures do not capture off-balance-sheet exposures. Though comprehensive data on off-balance-sheet exposures are not available, some sources suggest that such exposures may be large enough to be a source of concern. Against such concerns is the possibility that off-balance-sheet exposures may have been used to hedge balance-sheet exposures, though the risk of counterparty failure may also have risen as a result of the turbulence in the region (as underscored by the collapse of a major regional derivatives player in Hong Kong SAR, which left counterparties holding unhedged positions).

Among banks in the major European countries, German banks had the highest balance-sheet exposure at

<sup>1</sup>Emerging markets in Asia are defined here to include Hong Kong SAR, but not other offshore banking centers.

<sup>2</sup>Canadian banks are generally less active in the region than banks in the other major countries. At end-1997, Canadian banks had about US\$11 billion in exposure to emerging markets in Asia, slightly less than their exposure at mid-1997.

end-1997 (about \$77 billion). This exposure is believed to be well dispersed among the largest commercial and public sector banks, and was broadly unchanged compared with mid-1997. Somewhat less than half (about \$30 billion) of German banks' Asian exposures are to the four countries most affected by the crisis (Korea, Indonesia, Malaysia, and Thailand). As of June 1997, the aggregate exposure of German banks was estimated to be equivalent to about 70 percent of capital.<sup>3</sup> German banks are expected to take sizable hits from their Asian exposures, though they have also been fairly aggressive in provisioning against these loans.

French banks had somewhat smaller aggregate exposure than German ones (about \$60 billion), of which somewhat less than half is to the most-affected countries. However, the exposure of French banks is believed to be concentrated among a relatively small number of institutions. As a result, while aggregate exposure is estimated to be fairly low in terms of capital (about 45 percent as of June 1997), it is probably much higher for some banks.

The exposure of U.K. banks to emerging Asia falls between that of German and French banks (about \$65 billion). U.K. banks had relatively low exposure to the crisis countries—only about one-fourth of their overall exposure, compared with about one-third for the EU in aggregate and closer to 50 percent for Japanese and U.S. banks. This reflects the fact that U.K. banks are active lenders to Hong Kong SAR. However, as Hong Kong SAR is an offshore financial center, it also makes the ultimate country exposure of U.K. banks uncertain. This uncertainty increased in the second

<sup>3</sup>June 1997 is the most recent data for which uniform private estimates of bank capital are readily available.

costs. These problems, nonetheless, in some ways reinforced the consolidation process. Two of the largest mergers occurred in 1998 (those of NationsBanks and the highly efficient money-center BankAmerica, and Banc One and First Chicago NBD) were motivated by lackluster performances following early acquisitions and involved almost no premiums.

Net income for the six largest banks in *Canada* increased by 20 percent, driven by a 43 percent growth in noninterest net revenues (which correspond to two-fifths of total operational net revenue). Net interest revenues increased by 3.2 percent. Operational expenses increased by 20 percent, owing to heavy investments in technology and higher compensation in the securities business. The ratio of nonperforming loans to total loans declined from 2.19 percent to 1.63 percent. Specific provisioning, which in contrast to additions to general reserves, cannot contribute to boost Tier 2 capital, declined for all major banks. Mar-

kets expect major banks' profit growth to further slow down with the economic cycle and as a consequence of possible concessions to the government on the part of banks seeking a merger. Government approval for two major mergers announced in early 1998 is pending (the two new banks would hold about half of total personal deposits in Canada).

Most commercial banks in the *United Kingdom* continued to enjoy good profits in their domestic business, also supported by a strong economy. The aggregate profitability of the four major banks, however, declined by 7 percent, owing to exceptional charges resulting from the restructuring of Barclays and NatWest, and losses arising from mispricing of options in the latter institution.<sup>35</sup> Stripped out of

<sup>35</sup>Comparisons of financial results have sometimes been difficult by the inclusion of one-off items, prior year restatements, and differing accounting policies.

half of 1997. Exposure of U.K. banks to emerging markets in Asia rose by about \$6 billion in the second half of 1997, and the bulk of this increase (about \$4 billion) was accounted for by a rise in lending to Hong Kong SAR.

Japanese banks have the highest balance-sheet exposure to emerging markets in Asia of banks in any single country, with about \$190 billion at end-1997 (decreased from about \$210 billion at mid-1997). Aggregate exposure is also high relative to capital, with some estimates ranging over 100 percent of capital as of June 1997. The credit risk of this exposure is unclear, as a significant part of lending by Japanese banks to emerging markets in Asia is reported to be channeled to Japanese companies doing business abroad, or to joint ventures between Japanese and local companies (estimates range around one-third). Credit risks associated with such exposures are generally considered to be lower than those associated with lending to local companies. Also, local lending is believed to consist mainly of exposures to the largest and most creditworthy entities. Provisions have been small compared to those in other banking systems, and there are significant disagreements (particularly between private analysts and the official financial sector) over the likely extent of losses on exposures to emerging markets in Asia; indeed, there have been few indications that Japanese banks recognize any loans to emerging markets in Asia as impaired. The credit exposures of Japanese banks to emerging Asia is made particularly unclear by reports that the banks cut exposures by unloading the best-quality credits. The extent of off-balance-sheet exposures is also uncertain. Owing to Japanese banks' focus on traditional lending, such exposures are believed by some to be small, perhaps limited to 10 percent of balance-sheet exposures for troubled countries, and are more likely to

take the form of untapped lines of credit than exotic derivatives.<sup>4</sup>

U.S. banks have considerably smaller balance-sheet exposures to emerging markets in Asia than European or Japanese banks, about \$40 billion at end-1998, and are likewise small in terms of capital (about 30 percent as of mid-1997). However, U.S. banks have a relatively high proportion of their exposure to the four crisis countries, about half of the total (\$19 billion). Also, more comprehensive data (from the U.S. Federal Financial Institutions Examination Council (FFIEC)), which include local lending in local currency and exposure resulting from revaluation of foreign exchange and derivatives positions, indicate a somewhat higher exposure than the BIS data, at about \$55 billion for the countries shown in Table 5.9 and about \$37 billion for the four crisis countries. Slightly more than half of the difference between the BIS and FFIEC figures is accounted for by the revaluation of foreign exchange and derivatives positions, which suggests that off-balance-sheet exposures may be high. Also, private sources suggest that off-balance-sheet exposures may be relatively high (as high as on-balance sheet exposures for some major institutions), though no comprehensive official data are available. Concerns about off-balance-sheet exposures are heightened by the losses of major U.S. banks in the wake of the crisis, and also some well-publicized legal difficulties experienced by a major bank on the settlement of a swap agreement with an Asian emerging-market counterparty. Since exposures on off-balance-sheet items appear on the balance sheet only when payments become delinquent, there are also concerns about longer-dated swaps and credit derivatives, which have been described as "ticking time bombs" by one senior official.

<sup>4</sup>In Japan, guarantees and some credit lines may be counted as on-balance-sheet items.

the effect of those charge-offs, returns on equity hovered around 20 percent, topping at 40 percent in the case of Lloyds. Net interest revenues increased on average by 7 percent, with other operating income remaining flat. The average overhead cost-to-income declined by 5 percentage points to 60 percent. Loan loss provisions increased following acquisitions abroad, but the historical decline in provisions associated with domestic loans (from 2–3 percent to close to 1 percent) was not reversed. Nonperforming loans as a share of total loans fell to below 3 percent, reflecting, inter alia, a small exposure to Asia and strong asset quality in consumer loans, including credit cards.

Profitability in retail banking also continued to be propelled by financial and technological innovation, which has been translated into an increased supply of revenue-generating products and sharp cost reductions, notably through redundancies and branch clo-

tures. Prospects for further growth domestically are likely to be limited by increased competition from nonbank institutions (despite the acquisition of insurance companies and building societies by banks in recent years). This prospect steered some banks to consider share buy backs. Nevertheless, Barclays and NatWest have chosen to follow the path taken by Lloyds Bank in past years and concentrate in the domestic market. For this purpose they divested from international equity business—most parts of which were sold to continental and U.S. banks, entailing the charge-offs mentioned above. The implementation of this strategy may occur in a less benign environment, if economic conditions were to change. Markets view the nonparticipation of the United Kingdom in EMU from its beginning as unlikely to hamper the sector in the short term, with British institutions building on their expertise in consumer and mortgage lending, as well as tight cost control.



**Table 5.9. Claims of Selected Major Banking Systems on Emerging Markets in Asia as of December 1997<sup>1</sup>***(In billions of U.S. dollars)*

Claims Vis-à-Vis:	Total European Union <sup>2</sup>	Of which:				United States
		France	Germany	United Kingdom	Japan	
Asia (non-BIS) <sup>3</sup>	257	58	77	66	191	38
Of which:						
China and Hong Kong SAR	123	24	36	42	96	11
Of which:						
Hong Kong SAR <sup>4</sup>	91	16	28	34	76	9
Indonesia	23	5	6	4	22	5
Korea	34	11	10	7	20	10
Malaysia	14	3	7	2	9	2
Philippines	10	2	3	2	3	3
Taiwan Province of China	16	6	3	3	4	2
Thailand	17	5	6	2	33	3
Total	238	55	71	63	186	35
<i>Memorandum item:</i>						
Indonesia, Korea, Malaysia, and Thailand:	88	24	29	16	84	19
U.S. FFIEC data <sup>5,6</sup>						
China and Hong Kong SAR	...	...	...	...	...	11
Of which:						
Hong Kong SAR <sup>4</sup>	...	...	...	...	...	8
Indonesia	...	...	...	...	...	7
Korea	...	...	...	...	...	21
Malaysia	...	...	...	...	...	3
Philippines	...	...	...	...	...	3
Taiwan Province of China	...	...	...	...	...	4
Thailand	...	...	...	...	...	6
Total	...	...	...	...	...	55
<i>Memorandum item:</i>						
Indonesia, Korea, Malaysia, and Thailand	...	...	...	...	...	37

Sources: Bank for International Settlements (BIS), *The Maturity, Sectoral and Nationality Distribution of International Bank Lending: First Half 1997* (January 1998); and Moody's Investors Service Global Research, "Implications of the Asian Problem for Major Banking Systems" (New York, February 1998).

<sup>1</sup>Asia consists of non-BIS Asian countries (i.e., it excludes Japan). Exposures in these data consist mainly of loans and bonds but may also include equities for some countries. They also exclude the exposures of nonreporting banks and exclude within-country lending, loans to foreign subsidiaries of Asian companies, derivatives, and listed securities from the exposures of reporting banks.

<sup>2</sup>European Union 15 excluding Greece and Portugal (Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Spain, Sweden, and the United Kingdom).

<sup>3</sup>Offshore centers other than Hong Kong SAR excluded.

<sup>4</sup>Offshore banks located in Hong Kong SAR.

<sup>5</sup>FFIEC stands for Federal Financial Institutions Examination Council.

<sup>6</sup>Calculated on a fully consolidated basis (including claims of overseas affiliates of U.S. banks on foreign residents), adjusted for, inter alia, guarantees by third parties residing elsewhere and for revaluation gains on foreign exchange and derivative products, and inclusive of within-country lending in local currency.

### Banking System Developments in Continental Europe

Banking system performances in the large continental European countries were mixed. Profit levels were generally maintained at fairly good levels in the German banking system, despite significant exposures in Asia (which were in some cases heavily provisioned). Profit levels improved in France, boosted by an expansion in credit and a booming stock market.

Capitalization among commercial banks remained low, however, and several of the large French institutions suffered from their exposures to the crisis countries in Asia. By contrast, profitability in Italy's banking system declined (mainly owing to domestic causes), but consolidation accelerated and there was some progress in addressing labor costs.

The profitability of the largest universal banks in Germany was affected by heavy provisions against potential losses in loans to Asia, but still reflected a

strong underlying business, despite growing competition from foreign banks and smaller domestic banks. Operating revenues increased by 19 percent for the five largest banks, supported by a 30 percent increase in net commission revenues. Operating expenses increased by 4–20 percent, depending on the emphasis of different banks on expanding their investment-bank business and investments in technology. At close to DM 7.5 billion, provisions increased by an average of 60 percent, almost tripling in the cases of Deutsche Bank and Dresdner Bank. The heavy provision by these banks influenced the average growth of operating profit growth (–8 percent), which diverged from the strong results (16–24 percent) posted by the remaining banks. The outlook for the sector remains positive, notwithstanding greater risks on asset quality. Although high by international standards, asset quality may suffer as a result of the initial impact on the corporate sector of the structural changes occurring in the German economy. Investment abroad may also continue to raise the volatility of banks' returns.

The banking system in Germany is undergoing major transformations, which have put pressure on the top universal banks. The commercial banking side of these banks has been subject to stiff competition, as more German firms gain access to the capital markets. The largest banks have also lost market shares to foreign banks in the domestic corporate advice and underwriting business. In addition, profits from global investment banking (conducted by institutions originally based in London that were bought in recent years) have been lagging. In response to these pressures, Deutsche Bank announced a restructuring plan including the integration of its main investment banking unit, Deutsche Morgan Grenfell, while Dresdner Bank and Commerzbank chose to focus on a narrower set of business areas, instead of attempting to be global investment banks. The position of the traditional universal banks was also affected by the announced merger of two Bavarian “mixed” banks,<sup>36</sup> which became the second largest German bank (Bayerische Hypo- und Vereinsbank) in assets. Although historically not particularly profitable, these banks have benefited from the growing market for the investment-quality *Pfandbriefe* bonds.

While true consolidation of the smaller German banks continues to be hampered by difficulties in reducing staff numbers, the reorganization of the German banking system has also touched public institutions—which in many guises have a large presence in the financial sector. Two major mergers were announced, involving *Landesbanken* (banks that act as regional “central” banks to the public-owned savings

banks), leading to the creation of the fourth and sixth largest banks in terms of asset holdings. These mergers brought to the fore some of the issues surrounding public savings banks in Germany. Savings banks were created with a mandate to provide a public service to regions, but have ventured into many markets. This has raised concerns among private banks of unfair competition, particularly in view of the low requirements with respect to return on capital imposed on these banks, which can count on transfers from the regions. In light of possible conflicts between the current activities of these banks and their original mission (recently recognized at the European level by a special protocol in the EU Amsterdam Treaty shielding *Landesbanken* from full competition), the European Commission began inquiries and investigations into the matter.

Profitability among the largest banks in France was boosted by a favorable economic environment, rising by some 40 percent and yielding a return on equity of close to 10 percent. Although interest margins continued to be under pressure (with a substantial share of loans extended at rates below the official reference value linked to government bond yields), preprovisioning operating income increased by some 17 percent. This resulted from an expansion in credit, growth in service fees, and significant trade gains in bonds and stocks, supported by a relatively modest growth in operating expenditure. The latter reflected some improvements in domestic costs, which masked the significant growth of outlays related to the building up of international business (which in some cases reached double digits). Similarly, overall provisions increased by 23 percent in response to the Asian crises (10 percent of the exposures were covered), despite a 15–30 percent decline in provisions for domestic loans (most banks have already weathered the worst of the real estate problem). Buoyant conditions in the stock markets also contributed to banks' profits, permitting substantial capital gains on the sale of equity holdings. Capitalization remained uneven across the major banks, although it benefited from higher retained earnings. Some institutions resorted to the issuance of preferred stocks to support their expansion abroad.<sup>37</sup>

Privatization has progressed, but some imbalances continue to afflict the structure of the French banking system. Since mid-1997, the sale of several institutions has been completed or has reached final stages, attracting a few bids from foreign investors. Agreement on the dismembering and privatization of Crédit Lyonnais before October 1999 has also been reached with the European Commission, although the latest

<sup>36</sup>These banks are mixed because while being private commercial banks with only minority participation of the regional government, they are allowed to issue *Pfandbriefe* mortgage-backed securities in their own right, rather than through mortgage banking subsidiaries.

<sup>37</sup>In the last few years, French banks have strengthened their share in the capital of several European banks. Recently, Société Générale has made acquisitions in the United States, the United Kingdom, and Japan, raising capital, inter alia, by issuing nonvoting preferred stocks.

official estimates of the total cost to the taxpayer of rescuing the bank (F 96.5 billion) may still prove to be too low. Also, the repeal of the collective convention governing employment in commercial banks by the French Banking Association (AFB) opened the way for significant changes in labor regulations in the next two years. However, commercial (AFB) banks, which have riskier business than most other French banks, still lack a comfortable equity cushion, while well-capitalized mutual and cooperative banks continue to thrive in protected markets and can afford high operating costs and low returns on capital. The acquisition of commercial banks by these banks (including through privatization) would appear to have a limited scope in helping to restructure the system, as it has most often tended to relax the pressures on controlling labor costs, without necessarily contributing to the improvement of managerial skills in the acquired banks. There are few indications also that the planned reorganization of the savings banks under the aegis of the public-owned Caisse des Dépôts et Consignations will help leveling the playing field.

Overall bank profitability in *Italy* declined, reflecting heavy provisioning by a few banks and a general narrowing of interest margins and trade gains that was not accompanied by a similar reduction in labor costs. Interest income declined by 5.5 percent and trade gains contracted by 18 percent. Although fee revenues increased by 46 percent, they still contributed only 13 percent of total intermediation income and were not enough to offset the decline in the other sources of revenue. Although labor costs decreased 0.6 percent, operational income declined by 6.4 percent. Total profits were, at Lit 1 trillion, nearly four times lower than in 1996. The decline in total profits was heavily influenced by the Lit 6 trillion loss made by two banks (Banca di Roma and BNL—the Banca Nazionale del Lavoro), mainly due to provisions and charge-offs in anticipation of their privatization: net income for the other six largest banks increased by more than 15 percent. The share of non-performing loans in total loans for the system as a whole declined to 9.2 percent, reflecting write-offs by those banks and the effects of the restructuring of the main banks in the South, as well as a decline in the inflow of problem loans on the heels of the economic recovery. Consolidation proceeded apace. The operational profits of the smaller banks shrank by 13 percent, although they are still high due in part to local market power. The largest banks attempted to prepare themselves to compete in the European single-currency market, mainly by the strengthening of links with foreign partners and joining forces with peers. The merger of several banks in the North, including with support from foreign partners, and that of the largest Italian bank with the best capitalized, after balance-sheet-restructuring and cost-cutting measures in both banks, are seen as indicative of the

progress in the privatization and restructuring of the Italian financial sector since 1995.

Challenges remain, however. Banks' reliance on income fees has augmented the need for expanding the supply of a wider set of instruments, including corporate bonds. Despite the good performance of banks' equity prices in an overall bullish stock market, some market participants still harbor doubts about the asset quality and strategic focus of some of the former banks of "national interest" and the soon-to-be-privatized BNL, as well as with respect to prospects for the highly fragmented cooperative sector. Pressures will also increase on unprofitable saving banks, once a bill that requires them to remunerate their capital at levels compatible with the profitability of the sector in general is approved by parliament. A national agreement capping labor costs and regulating the funding of redundancies was signed in early 1998, which is expected to reduce the ratio of those costs to intermediation margins by 4 percentage points by 2001.

In all three countries, the distribution through banks of a variety of financial instruments—notably insurance policies—has shown a steady growth. With respect to insurance products, this trend is expected to find its full expression after monetary union. The single currency will effectively relax the requirement of matching the currency of assets and liabilities in individual countries. That possibility has created a new scope for the "bancassurance" concept and reinforced the role of insurers in the European banking sector, where they control important shareholdings in most countries. Recently, the approach of EMU contributed to a realignment among the major European insurance companies, in connection with privatizations in France and the reorganization of the banking sector in Italy.

### Developments in Financial Supervision and Regulation

The Asian crises have added a level of urgency to supervisory and regulatory reforms in both industrial and developing countries. Within the last year, a number of international supervisory groups have promulgated best principles or guidelines for regulatory structures governing banking, securities markets, and insurance markets, all with the intent of providing domestic supervisors and regulators with direction for the improvement of market infrastructure. Implementation of these guidelines has now taken on added importance and a number of projects are under way to hasten their adoption. In addition, industrial country supervisors and regulators are moving ahead in a number of areas. Several countries are attempting to move the focus of supervision toward consolidated, risk-based supervision and better use of market discipline. As part of this overall theme, supervisors are re-

visiting the role of required credit risk capital and considering ways to enhance capital regulation generally, making it more consistent with industry practices. Methods to measure the capital of conglomerates and enhancements to information flows and coordination among regulators and supervisors dealing with cross-border entities are also part of the new focus. To aid the workings of market discipline, improvements in accounting and disclosure are receiving renewed attention. Work on the underpinnings of financial markets, particularly payments systems, is ongoing as well.<sup>38</sup>

### Supervisory Reforms Relating to Risk Management

Many supervisors realize that it is increasingly difficult to try to keep up with the nuances of risk management techniques, in light of the number of new products and their sometimes complex risk/reward characteristics. The emphasis is gradually changing to a “risk-focused” rather than a “rules-based” method of supervision, focusing on the underlying processes for governing risk within financial firms, that is, the systems and procedures used to measure and manage risk.

Leading the way within this new paradigm have been supervisory changes to market risk capital requirements. The adoption of the Basle Committee’s guidelines on market risk capital requirements for banks on January 1, 1998 represents a watershed in the regulatory treatment of capital. The new requirements permit national supervisors to let banks use their own internal value-at-risk (VAR) model for the determination of market risk capital. While only a few countries have banks with VAR models that pass muster, their sanctioned use has set the stage for discussions about the role of regulatory capital more generally.<sup>39</sup> For instance, the EU is in the process of rewriting the Capital Adequacy Directive (CAD), changing it from a rules-based method of assigning capital to a method incorporating the internal-models approach advocated by the Basle Committee. The EU has agreed to accommodate the use of internal models

<sup>38</sup>Improvements in payment systems include wider implementation of RTGS systems, lower public sector provision of intraday credit, more efficient netting systems, and better settlement risk management.

<sup>39</sup>An extension of the internal-models approach to capital requirements was carried out in a pilot study in 1997 of the precommitment approach, which advocates letting banks choose their own level of capital and then fining them when they breach this amount. Ten commercial banks participated in the study, precommitting an amount of capital on a quarterly basis to cover their market risk. In no cases did the banks violate their precommitted capital, although no penalties were in place. However, owing to the experimental nature of the approach, banks were thought to have been extremely careful in setting self-assessed capital. Despite its apparent success, many supervisors and banks remain skeptical about the practical application of the precommitment approach.

in the new law and CAD II is expected to become law during the summer of 1998 and to be implemented some time later.<sup>40</sup>

With the advent of credit derivatives and improvements in loan portfolio management, including the issuance of collateralized loan obligations, private sector complaints about the distortionary effects of the current credit risk capital regime have become commonplace, and a complete overhaul of the 1988 Basle Capital Accord has been urged. The Institute of International Finance has noted that “the gap between the credit risk portion of the Accord and modern, portfolio-based approaches for managing economic capital has emerged and is growing.”<sup>41</sup> In particular, the Institute warns that “the current capital framework is flawed. It neither rewards nor encourages banks to diversify credit risk portfolios by using new risk management tools and techniques.” The International Swaps and Derivatives Association (ISDA) has put forth its own view on the topic, and has outlined a blueprint for an “evolutionary models-based approach.”<sup>42</sup>

The distortionary effects of the capital accord arise from the arbitrary manner in which the risk weights are assigned. For instance, under the 1988 Basle Accord, short-term claims on banks from any country carry a relatively low (20 percent) risk weight, leading to a lower cost of borrowing in the interbank market and a heavier reliance on interbank funding (see Box 5.8 for the accord’s current risk-weighting scheme for on-balance-sheet assets). The accord assigns a zero risk weight to instruments issued or guaranteed by OECD governments. It has been suggested by some Basle Committee members that the OECD designation has served as a “stamp of approval,” and has encouraged banks to steer funds to OECD emerging markets rather than to non-OECD countries with equivalent sovereign risks.

The arbitrary and unchanging 8 percent minimum capital assigned to risk-weighted assets is also seen as imperfect because the 8 percent minimum is constant through the business cycle. It might be preferable for banks to acquire more capital relative to risk-weighted assets during the cycle’s upswing, so that some cushion above the 8 percent minimum would be in place when the business cycle turns down. At the peak of the cycle, the riskiness of banks’ assets may be well above the average for the cycle, and while capital may be above the required minimum, the additional buffer may not be sufficient in light of the increased risk. A

<sup>40</sup>CAD II was stalled for a time by U.K. commodities traders who wanted CAD II to depart from the Basle recommendation and assign differing capital charges across exposures to energy, soft commodities, and base and precious metals. Other countries then negotiated other changes as part of a compromise.

<sup>41</sup>See Institute of International Finance (1998), p. 1.

<sup>42</sup>See International Swaps and Derivatives Association, Inc. (1998).

**Box 5.8. Basle Capital Accord: Risk Weights by Category of On-Balance-Sheet Asset**

0 percent:

- (1) Cash.<sup>1</sup>
- (2) Claims on central governments and central banks denominated in national currency and funded in that currency.
- (3) Other claims on OECD<sup>2</sup> central governments<sup>3</sup> and central banks
- (4) Claims collateralized by cash of OECD central-government securities<sup>3</sup> or guaranteed by OECD central governments.<sup>4</sup>

0, 10, 20 or 50 percent (at national discretion):

- (1) Claims on domestic public sector entities, excluding central governments, and loans guaranteed by or collateralized by securities issued by such entities.<sup>4</sup>

20 percent:

- (1) Claims on multilateral development banks (African Development Bank, Asian Development Bank, European Investment Bank, Inter-American Development Bank, and World Bank)<sup>1</sup> and claims guaranteed by, or collateralized by, securities issued by such banks.<sup>2</sup>
- (2) Claims on banks incorporated in the OECD and claims guaranteed<sup>3</sup> by OECD incorporated banks.
- (3) Claims on securities firms incorporated in the OECD subject to comparable supervisory and regulatory arrangements, including in particular risk-based capital requirements,<sup>5</sup> and claims guaranteed by these securities firms.
- (4) Claims on banks incorporated in countries outside the OECD with a residual maturity of up to one year and claims with a residual maturity of up to one year guaranteed by banks incorporated in countries outside the OECD.
- (5) Claims on nondomestic OECD public sector entities, excluding central government, and claims guaranteed by or collateralized by securities issued by such entities.<sup>2</sup>
- (6) Cash items in process of collection.

50 percent:

- (1) Loans fully secured by mortgage on residential property that is or will be occupied by the borrower or that is rented.

100 percent:

- (1) Claims on the private sector.
- (2) Claims on banks incorporated outside the OECD with a residual maturity of over one year.
- (3) Claims on central governments outside the OECD (unless denominated in national currency and funded in that currency; see above).
- (4) Claims on commercial companies owned by the public sector.
- (5) Premises, plant and equipment, and other fixed assets.
- (6) Real estate and other investments (including non-consolidated investment participation in other companies).
- (7) Capital instruments issued by other banks (unless deducted from capital).
- (8) All other assets.

<sup>1</sup>Includes (at national discretion) gold bullion held in own vaults or on an allocated basis to the extent backed by bullion liabilities.

<sup>2</sup>For the purpose of this exercise, the OECD group comprises countries that are full members of the OECD (or that have concluded special lending arrangements with the IMF associated with the IMF's General Arrangements to Borrow), but excludes any country within this group that has rescheduled its external sovereign debt in the previous five years.

<sup>3</sup>Some member countries intend to apply weights to securities issued by OECD central governments to take account of investment risk. These weights would, for example, be 10 percent for all securities or 10 percent for those maturing in up to one year and 20 percent for those maturing in over one year.

<sup>4</sup>Commercial loans partially guaranteed by these bodies will attract equivalent low weights on that part of the loan which is fully covered. Similarly, loans partially collateralized by cash, or by securities issued by OECD central governments, OECD noncentral government public sector entities, or multilateral development banks will attract low weights on that part of the loan which is fully covered.

<sup>5</sup>That is, capital requirements that are comparable to those applied to banks in this Accord and its Amendment to incorporate market risks. Implicit in the meaning of the word "comparable" is that the securities firm (but not necessarily its parent) is subject to consolidated regulation and supervision with respect to any downstream affiliates.

minimum capital requirement that varied with risk over the business cycle would help to accommodate this risk.

An associated deficiency is the accord's promulgation of the 8 percent rule regardless of a banking system's larger operating environment. The 8 percent minimum was set with the industrial countries' banking systems in mind. The accord's adoption by many developing countries, where economic business cycles have larger swings and the operating environment for banks is much riskier, means that these banking systems are less protected than those in industrial

countries. Both these problems argue for a more flexible approach toward credit risk capital requirements in which a broader view about risk is incorporated.

Members of the Basle Committee recognize these deficiencies and are discussing the potential merits of a possible revision to the credit risk regulatory capital framework. Members' suggested revisions vary, however, ranging from leaving the accord as is and promoting better implementation to adopting a new approach that incorporates portfolio-based risk models along the lines of the market risk capital requirements. In between are a variety of suggestions as to how to

alter the accord's risk weights to better reflect the actual risk of banks' assets.

Federal Reserve Chairman Greenspan has advocated an increase in the risk weight on short-term interbank claims, which would raise the cost of borrowing and discourage excessive use of interbank funding. The higher risk weight might also encourage securitization of these short-term claims, lowering the exposures on banks' balance sheets and diversifying the risk beyond the banking system. Other suggestions have included additional requirements that would need to be met before a zero risk weight could be applied to sovereign debt of an OECD country, such as a minimum degree of transparency and disclosure about a country's financial sector and implementation of the Basle Committee's Core Principles. ISDA has promoted a mixed approach to credit risk capital requirements, in which some banks would continue to use the existing standards, others could take advantage of a "simplified model" that would address some of the weaknesses of the existing accord, and still other banks would be permitted (on a case-by-case basis) to use portfolio modeling techniques to establish capital requirements. Despite the pressures to move on the topic, the Basle Committee is likely to maintain its consensus-oriented deliberateness.

A reevaluation of the role of capital is also under way within the International Organization of Securities Commissions (IOSCO) and many of the securities commissions it represents. In the former regime, capital protected securities firms against unexpected liquidity shortages, allowing them to meet daily settlement flows and initiate an orderly windup if necessary. As banks and securities firms become increasingly involved in similar products and business activities, it has become less clear whether the different motives for capital requirements for the two types of firms still make sense. Level playing fields and regulatory arbitrage means that capital requirements for banks and securities firms are unlikely to be far different for long.

Since market risk is the dominant risk faced by securities firms, market risk capital requirements are likely to be a significant part of any unified approach. For example, the U.S. Securities and Exchange Commission (SEC) is already trying to determine how to best gain experience with the use of VAR models in the determination of capital requirements. One proposal, dubbed "broker-dealer lite," would establish a new class of registered dealers called OTC derivatives dealers.<sup>43</sup> These dealers would be subject to lower

capital and margin requirements than other dealers, but could deal only with certain counterparties and not hold client funds. The SEC is considering whether to allow the use of internal models to calculate net capital requirements. The Securities and Futures Authority (SFA), soon to be merged into the Financial Services Authority, has released a consultative paper outlining the impact of the introduction of the European single currency on its regulatory capital regime. The SFA is using this opportunity to revisit a number of issues.

While credit risk capital requirements are being debated, guidelines to deal with operational risk have been introduced by both the Basle Committee and IOSCO. Recognizing that operational failures are the most common cause of financial institution failures, the two organizations are promoting operational controls and guidelines. Previous guidance issued by the Basle Committee has covered internal controls associated with specific areas of banks' activities, while the recent document, "Framework of the Evaluation of Internal Control Systems,"<sup>44</sup> provides a framework for a complete evaluation of internal controls for all on- and off-balance-sheet activities. The IOSCO initiative, "Risk Management and Control Guidance for Securities Firms and their Supervisors," combines risk management and operational controls as part of a larger goal of managing all types of risk—market, credit, legal, operational, and liquidity—noting that risks can come from both internal sources (for example, insufficient internal controls) as well as external ones (for example, sharp price changes). The principles of good risk management and control systems are intended as benchmarks against which firms and supervisors in each jurisdiction can judge the adequacy of their control systems.

### Consolidated Supervision—Regulation by Entity Versus Function

It is now generally agreed that the ability to unbundle, repackage, and trade risks separately by both regulated and unregulated entities has made it difficult, if not nearly impossible, to know the distribution of private financial risk across institutions, markets, and countries. Supervisors and regulators are thus attempting various reforms to enhance their ability to conduct consolidated supervision, both domestically and internationally. A leading example is in the United Kingdom, which is reorganizing its supervisory and regulatory structure by merging nine regulatory bodies into a single Financial Services Authority (Box 5.9). Regulation will encompass all financial entities, with the hope to level the playing field among entities that perform similar functions. The Authority will supervise entities that conduct both traditional commercial banking and securities activi-

<sup>43</sup>Consideration of the new class of OTC derivatives dealers by the SEC has sparked further discussion about jurisdiction over OTC derivatives markets between the Commodity Futures Trading Commission (CFTC) and the SEC. Another evaluation of the OTC versus exchange-traded derivatives markets is being undertaken through a "concept release" by the CFTC, whereby comments from interested parties are being solicited.

<sup>44</sup>Basle Committee on Banking Supervision (1998a).

### Box 5.9. The Financial Services Authority of the United Kingdom

Mirroring the changes in the financial services industry, the United Kingdom has set out to create a single, integrated regulatory body. The new financial regulatory organization, the Financial Services Authority, will consist of the nine existing financial regulatory bodies.<sup>1</sup> The new regulator will have jurisdiction over banks and investment firms, as well as insurance companies and building societies. In the areas of financial conglomerates, the Authority will develop a “lead regulator,” integrating the supervisors and other regulators covering a single complex financial group into one unit. The idea behind the Authority and, in particular, the lead regulator concept, is to provide consistent treatment across complex financial groups. In addition, the Authority will seek to strengthen mechanisms for consumer involvement and remove inefficient or duplicative regulation.

The Authority will have three main responsibilities: financial supervision; authorization, enforcement, and customer relations; and central policy formation and review. The financial supervision department will be divided into units overseeing various types of businesses such as banks, fund managers or insurance companies, and, where appropriate, complex groups. The department will also cover recognized investment exchanges (such as the London Stock Exchange and the London International Financial Futures Exchange), recognized clearinghouses (such as the European Clearing House Organization), and the wholesale money market (formerly supervised by the Bank of England). The department covering authorization, enforcement, and customer relations will develop common policies for intervention, investigation, and disciplinary powers and will maintain a unit covering consumer issues. A central policy directorate will be in place to support and advise senior management.

The launch of the new organization has two stages. As of June 1, 1998, the Authority assumed formal control of banking and security firm supervision from the Bank of England and the Securities Investment Board, respectively. The second stage is envisaged to be effective by the fall of 1999, when all other regulatory bodies will be integrated into the Authority and become fully operational. The transition stage poses challenges for the new organization regarding, for example, the development of policies and authorization of new entities. However, the Authority will attempt to influence new policies to make them conformable across regulatory bodies and minimize the burden for firms that need to acquire authorization from multiple bodies.

The Financial Services Authority will be funded by the industries it regulates or registers through the use of fees. The intention is to have the fee structure reflect the size, nature, and extent of the business conducted by the financial entity. The Authority intends to involve consumers and market practitioners in an advisory role. A consumer panel is envisaged as providing the Authority with feedback on the impact of its policies and suggesting new issues of relevance. Practitioner involvement has long been a part of the regulatory structure through the self-regulatory organizations and it is believed such involvement should continue through several advisory groups, as it encourages cost-effective regulation and helps to avoid regulatory impediments to innovation.

The Authority's relation to the Bank of England and the Treasury is set out in a memorandum of understanding (MOU), which establishes a framework for cooperation among the bodies. The MOU delineates the responsibilities to be assumed by each institution, making each one accountable for its actions. Besides its supervisory role, the Authority is to maintain close and regular contact with the Bank of England, gathering and sharing information and data from the firms it regulates, to promote the common goal of financial stability. In particular, after attributing the responsibility for banking supervision to the new Authority, the MOU introduces clear, transparent, and open information sharing provisions. The MOU (paragraph 9) stipulates, for example, that “the [Authority] and the Bank will establish information sharing arrangements, to ensure that all information which is or may be relevant to the discharge of their respective responsibilities will be shared fully and freely. Each will seek to provide the other with relevant information as requested.” The Bank of England also has “free and open access” to supervisory records (MOU, paragraph 21).

<sup>1</sup>The Financial Services Authority will merge the Building Society Commission (building societies), the Friendly Societies Commission and Registry of Friendly Societies (friendly societies, credit unions), the Insurance Directorate of the Department of Trade and Industry (insurance companies), the Investment Management Regulatory Organization (investment funds), the Personal Investment Authority (retail investment business), the Securities and Futures Authority (securities and derivatives dealers, brokers, and advisors), the Securities and Investment Board (investment business), and the Supervision and Surveillance Division of the Bank of England (banks and wholesale money market).

ties on a consolidated basis; for example, a special unit to look after “complex” groups is to be established. As part of the merging of supervisory oversight into one body, the responsibility for banking supervision has been moved out of the Bank of England and into the Authority. Australia, too, has moved banking supervision out of the central bank, but has

not yet embraced consolidated supervision across banks and securities firms (see the previous section for a discussion of this issue for Japan). In Australia's case, most securities trading in financial conglomerates occurs in the entity supervised by the Australian Prudential Regulatory Authority, which covers banks and insurance companies, or in a subsidiary of the

regulated entity, in which case it is supervised on a consolidated basis.

An important issue is whether responsibility for banking supervision should be contained within the central bank. In some countries, it is thought that housing banking supervision in the central bank may provide supervisors with greater autonomy and authority, compared with housing it within another part of government (particularly the finance ministry). It is also argued that since the central bank usually has the responsibility for lender-of-last-resort activities, housing banking supervision in the central bank allows it to quickly determine the condition of a bank requiring liquidity assistance. However, if supervisors have political and financial autonomy, the location of banking supervision is not nearly as important as supervisors' ability to transmit information about banking-system-wide issues on an ongoing basis and about specific bank circumstances in times of crisis. For example, Australia has established a Council of Financial Regulators, which consists of the central bank, the banking and insurance regulator, and the securities regulator, to coordinate the sharing of information in respect of individual institutions and to respond to crises. Nonetheless, the movement of banking supervision outside central banks in systemically important countries deserves careful attention and assessment to ensure that systemic stability is maintained.

One of the problems in merging regulatory structures to accommodate financial conglomeration is that banking supervisors and securities market regulators have quite different approaches to regulation. In particular, securities regulators have tended to focus on consumer protection and market integrity rather than systemic risk. Banking supervisors tend to focus on risks to individual institutions and systemic risks. While the United Kingdom will have to confront this cultural dichotomy directly if the FSA is to be successful, other countries will increasingly have to deal with it as well. As securities firms grow in importance and increasingly take on activities that pose domestic and, sometimes, global systemic risks, securities regulators will need to weight systemic risk more heavily in their regulatory decisions. Banking supervisors, too, will have to alter their methods, taking into account banks' move toward securities-based activities.

### Developments in International Coordination

While reforms to improve cross-sector supervision are under way in a number of countries, international efforts to harmonize national rules and establish information-sharing arrangements are widely perceived to have moved too slowly, and examination of global risk taking (across jurisdictional boundaries) is still lagging. The Basle Committee made initial progress in

the area of home/host supervision of banking entities in several earlier documents, starting in 1975 and most recently in 1996. While the Basle Committee's approach and guidance on the subject is widely accepted by banking supervisors, implementation of cross-border banking supervision has been slow.

On February 19, 1998, the Joint Forum, a group of international banking, insurance, and securities supervisors, released a set of consultative documents on the supervision of financial conglomerates that cover a number of topics, including two that have experienced difficulty gaining international consensus—determination of a capital measure for the whole of a financial conglomerate and the assignment of a “lead” regulator. Although the proposed methods for measuring capital at the level of a financial conglomerate appear sound, progress has been slow on the concept of a “lead” regulator. Instead of providing guidance about who would be responsible for oversight of a global entity, the paper suggests that one of the supervisors be designated as a “coordinator” to facilitate information-sharing efforts in a timely and efficient manner. Although information sharing is an important component of general oversight, the designation of a “coordinator” does not squarely assign responsibility for consolidated supervision of a conglomerate to a single supervisory or regulatory entity.

In order to promote better supervisory and regulatory practices, several groups within the international financial community have issued papers proposing guidelines or principles. A list of the documents and their affiliation is presented in Table 5.10. These documents are primarily meant to provide a description of an ideal financial system as a benchmark for comparison. Implementation is voluntary, although members of these various organizations are expected to pursue strategies that are consistent with the principles. Partly to encourage the adoption of the Core Principles, the Basle Committee has established the Institute for Financial Stability under the auspices of the BIS. The purpose of the institute will be to promote the Core Principles to upper-level officials from banking supervisory bodies, those who are likely to be instrumental in implementing the Principles, and to provide a forum to discuss specific implementation issues.

In addition to supervisory and regulatory groupings, several other forums are now attempting to enhance surveillance of global financial markets. Multilateral efforts are under way to collect information about global capital flows and the functioning of international markets. The IMF, with its surveillance mandate, is considering revisions to the Special Data Dissemination Standards that would include more information about foreign reserves, particularly on the use of derivatives and contingent and other liabilities, and their residual maturity. In addition, the Inter-



**Table 5.10. International Organizations' Documents Proposing Principles of Supervision and Regulation**

Date Issued	Organization	Title
September 1997 <sup>1</sup>	Basle Committee on Banking Supervision	Core Principles for Effective Banking Supervision
September 1997	International Association of Insurance Supervisors	Principles, Standards and Guidance Papers
January 1998 <sup>2</sup>	International Monetary Fund	Toward a Framework for Financial Stability
May 1998	International Organization of Securities Commissions	Objectives and Principles of Securities Regulation
April 1997	Working Party on Financial Stability in Emerging Market Economies	Financial Stability in Emerging Market Economies

<sup>1</sup>Approved by Basle Committee in April 1997.

<sup>2</sup>Advance copy available in October 1997.

agency Task Force on Financial Statistics,<sup>45</sup> which is chaired by the IMF, will assess the comprehensiveness of currency reporting systems on external debt and explore possible improvements. The Group of Ten countries, meeting under the auspices of the BIS as the Euro Currency Standing Committee, plan to enhance their monitoring of cross-border activities, examining current market developments in more detail and collecting additional data on cross-border flows. One project, already in train at the BIS, is to collect information semiannually about derivatives from the top global derivatives dealers. This data is meant to fill in some of the gaps in off-balance-sheet information for financial institutions, providing a global picture of OTC derivatives activities. The absence of timely information of this sort made it difficult to know the total exposures of financial institutions involved in the Asian crises.

### Reforms to Enhance Market Incentives

The idea of greater reliance on market discipline and financial entities' own risk management, and less reliance on restrictive regulations, is gaining ground among supervisory bodies. The principle is to induce good financial decision making by putting in place "an enhanced regime of market incentives, involving greater sensitivity to market signals and more information to make those signals more robust . . ." In addition, "government regulation and supervision should seek to produce an environment in which counterparties can most effectively oversee the credit risks of potential transactions."<sup>46</sup>

For obvious reasons, most promoters of the idea that market incentives should be used to reduce systemic risks have been in the private sector. The Group of Thirty report, "Global Institutions, National Supervision, and Systemic Risk," gives the private sector most of the burden of preventing systemic events. The

report advocates the establishment of a set of global principles of risk management for core financial institutions<sup>47</sup> and a periodic review of core firms' worldwide operations by an independent external global auditor. The report also stresses the need for the private sector to agree upon a "more consistent and meaningful disclosure of financial and risk information on a global, consolidated basis." Supervisors' roles in the proposed framework are to agree on a "lead coordinator" for global firms and apply a global framework for comprehensive and effective management controls and consistent reporting requirements for global firms. Supervisors would also be expected to strengthen the underpinnings of the international financial system by ensuring that exchanges, clearinghouse, and payments systems function efficiently. Within the Group of Thirty framework, legislatures would be responsible for a reliable legal framework for international transactions by strengthening national laws governing netting, contract enforceability, and insolvency of financial institutions.

The IMF's *Toward a Framework for Financial Stability* describes in some detail internationally accepted standards for establishing and maintaining a sound banking system and effective financial intermediation, encompassing the Basle Committee's Core Principles.<sup>48</sup> The framework goes beyond the core principles and provides standards or generally accepted practices on other aspects of financial systems and infrastructures, including the design of deposit insurance schemes, lender of last resort, and the broader financial safety net. The overall objective of the framework is to promulgate better banking sector supervisory structures, complementing the general international effort to improve the soundness of financial systems.

<sup>45</sup>Members include the IMF, BIS, ECB, OECD, Eurostat, the United Nations, and the World Bank.

<sup>46</sup>See Greenspan (1998).

<sup>47</sup>Core institutions are defined in the Group of Thirty report as "large, internationally active commercial banks, the major participants in large-value payment systems, along with the largest investment banks, which are key participants in the clearing and settlement systems for globally-traded securities."

<sup>48</sup>See Folkerts-Landau and Lindgren (1998).

Public disclosure of the risks taken on by institutions and their vulnerabilities to shocks is needed for market discipline to work. Public disclosure is gradually improving. The Basle Committee, in conjunction with IOSCO, recently issued its second report on progress in derivatives and risk reporting in the annual reports of 70 large banks and securities firms.<sup>49</sup> The report concludes that, while progress is being made, there is a growing disparity within and across countries in the type and usefulness of the information firms disclose. In particular, smaller institutions lack depth in their disclosures. Particularly in need of attention are the comparison of value-at-risk data with historical profit and loss experiences and the extent of information about trading income by risk exposure or by business line.

The IASC is continuing its work on establishing a full set of core standards that are expected to serve as the benchmark for foreign exchange listing requirements and fulfill the role of “internationally accepted accounting standards.” The work plan to establish the accounting principles was to come to fruition in the spring of 1998, but the standards are not yet ready. Even when complete, the IOSCO will need to decide if they are adequate minimums for worldwide listing requirements. Since SEC is a member of IOSCO it is important that the U.S. SEC be favorably disposed toward this issue, but traditionally the United States has viewed IASC standards as too weak to qualify foreign firms for U.S. listing privileges. Meanwhile, the U.S. accounting body, the Financial Accounting Standards Board (FASB), is having difficulty in promulgating its new hedge accounting standards. Many potential users of the new standards believe the standards will unnecessarily increase the volatility of earnings without increasing the transparency of derivatives usage. Some constituencies have complained so strongly about FASB’s presumed lack of responsiveness to U.S. corporations and banks with regard to its proposed treatment of derivatives that the U.S. Congress has proposed legislation to allow SEC-recognized accounting principles to be reviewed by a federal appeals court.<sup>50</sup>

The slow progress toward better accounting for financial risks and their disclosure has frustrated many who believe that lack of transparency about off-balance-sheet items, and the on-balance-sheet items they potentially hedge, contributed to the difficulties surrounding the resolution of financial sector problems in the Asian crisis. The U.K. Accounting Standards

Board (ASB) chairman, Sir David Tweedie, noted that, despite the lack of appeal, financial instruments should be measured at current value and added that it is important that a credible U.K. accounting standard dealing with measurement and hedge accounting is developed as soon as possible. The ASB may decide to proceed unilaterally toward such a standard if international projects fail to progress soon. And despite the Basle Committee’s establishment of a subcommittee to examine issues of accounting and disclosure, the Board of Governors of the Federal Reserve System has proceeded to issue 10 international accounting standards to be used for internal purposes only at this stage. While preliminary, the standards could provide a basis for international standards for financial reporting of banks.

It has become evident that even if banks could determine the risk characteristics of their bank counterparties and the corporates with whom they do business, this would be insufficient for an analysis of the risk to the larger international financial system. Thus, in addition to the work in train to encourage better disclosure and reporting standards at the firm level, efforts are under way to increase the transparency of systemwide financial health. Some of the improvements that are being discussed include better reporting of central bank reserves, including effective maturity structures and contingent liabilities; improved measures of banking sector health (nonperforming loans, funding sources, measures of capital, and so on); and better aggregate statistics on corporate sector debt along with its effective maturity structure.

## References

- Bank of England, 1998, *Practical Issues Arising from the Introduction of the Euro*, Issue No. 7 (London, March).
- Bank for International Settlements, 1990, *Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries* (Basle: November)
- Basle Committee on Banking Supervision, 1997, “Core Principles for Effective Banking Supervision” (Basle, September).
- , 1998a, “Framework for the Evaluation of Internal Control Systems” (Basle, January).
- , 1998b, “Supervision of Financial Conglomerates” (Basle, February).
- , and the Technical Committee of the International Organization of Securities Commissions, 1997, “Survey of Disclosures About Trading and Derivatives Activities of Banks and Securities Firms, 1996” (Basle: Basle Committee on Banking Supervision, November).
- European Monetary Institute, 1997, *The Single Monetary Policy in Stage Three: General Documentation on ESCB Monetary Policy Instruments and Procedures* (Frankfurt, September).
- Folkerts-Landau, David, and Peter Garber, 1994, “What Role for the ECB in Europe’s Financial Markets?” in

<sup>49</sup>See Basle Committee on Banking Supervision and the Technical Committee of the International Organization of Securities Commissions (1997).

<sup>50</sup>Chairman Greenspan also lodged his concerns in the formal FASB comment period. It is the first time a Federal Reserve chairman has formally commented on an accounting rule.

- 30 Years of European Monetary Integration from the Werner Plan to EMU*, ed. by Alfred Steinherr (London: Longman).
- Folkerts-Landau, David, and Carl-Johan Lindgren, 1998, *Toward a Framework for Financial Stability*, World Economic and Financial Surveys (Washington: International Monetary Fund).
- Goodfriend, Marvin, and Robert G. King, 1988, "Financial Deregulation, Monetary Policy, and Central Banking," *Economic Review*, Federal Reserve Bank of Richmond, Vol. 74 (May/June), pp. 3–22.
- Greenspan, Alan, 1998, remarks before the 34th Annual Conference on Bank Structure and Competition of the Federal Reserve Bank of Chicago, May 7. Available via the Internet: <http://www.bog.frb.fed.us/boarddocs/speeches/19980507.htm>
- Group of Thirty, 1997, *Global Institutions, National Supervision and Systemic Risk: A Study Group Report* (Washington).
- Institute of International Finance, 1998, *Report of the Working Group on Capital Adequacy: Recommendations for Revising the Regulatory Capital Rules for Credit Risk* (Washington, March).
- International Association of Insurance Supervisors, 1997, "Principles, Standards and Guidance Papers" (Washington, September).
- International Monetary Fund, 1997, *International Capital Markets: Developments, Prospects, and Key Policy Issues*, World Economic and Financial Surveys (Washington).
- International Swaps and Derivatives Association, Inc., 1998, "Credit Risk and Regulatory Capital" (New York, March).
- International Organization of Securities Commissions, 1998, "Objectives and Principles of Securities Regulation" (Montreal, May).
- Prati, Alessandro, and Garry Schinasi, 1998, "Financial Stability in EMU," paper presented at a conference on the "Monetary Policy of the ESCB: Strategic and Implementation Issues," Università Bocconi, Milan, July.
- Schoenmaker, Dirk, 1995, "Banking Supervision in Stage Three of EMU," Special Paper No. 72, LSE Financial Markets Group.
- Working Party on Financial Stability in Emerging Market Economies, 1997, "Financial Stability in Emerging Market Economies" (April).