5th ABI CONVENTION

The Development and Management of Loan Portfolios

New approaches to the international regulation of credit risk

Address by the Director General of the Bank of Italy

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Introduction

My thanks, first of all, to the Italian Banking Association for the invitation to give the opening address at this conference on new methods for developing and managing loan portfolios.

The subject is highly topical. Today, as interest rates converge on the lowest levels since the Second World War, banks' competitiveness depends more than ever on their ability to select customers and offer the most appropriate forms of credit, so as to curb credit risk and generate yields above the cost of funds.

Analysis of the crises that have shaken many credit systems in recent years confirms that the main source of bank instability lies in their lending business; cyclical swings in the economy, sharp changes in asset values, high credit concentration, and inadequate procedures for evaluating and managing loans have been the main factors in most bank failures.

Inquiry into the causes of instability has been followed by action to reinforce safeguards against crises, strengthen banks' credit risk management systems, make market discipline more effective, and improve supervisory authorities' prudential rules and analytical methods.

The Italian banking system's bad debts rose rapidly in the nineties, although in the last two years loan quality has improved thanks to companies' better profit performance and financial restructuring.

Innovative market techniques for credit risk management have recently been introduced and some banks have begun to use advanced statistical methods of risk measurement.

1. Bank credit and the market

In 1999 the ratio of new bad debts to total lending has fallen to its lowest level in the decade. The improvement, which had already been perceptible for some time in industrial lending, has spread to construction and services.

In August the stock of bad loans held by banks was 5 per cent lower than a year earlier. The reduction was achieved by means of substantial writeoffs and the disposal of uncollectible claims through securitization.

Selling credit assets to the market allows banks to turn their portfolios over faster and broaden their borrower base, thereby using capital more efficiently and diversifying their sources of income to include fees for the services related to the complex procedures of securitization.

In the United States the volume of credit securitization business has grown enormously. In 1998 net issues of such securities amounted to more than $300 billion, or 35 per cent of total issues of debt instruments. Their share of outstanding debt is now more than 20 per cent.

In the US market, securitization has centred on loan assets of better-than-average quality, which has led to the issue of highly rated securities. In Italy, it has been used mainly to reduce the incidence of doubtful credits and thus improve the average quality of banks' assets. Since 1994 some 8 trillion lire of bank loans have been securitized, of which only 400 billion consisted of performing loans.

The passage in April of a law on securitization opens up business possibilities previously foreclosed by uncertainty about the legal framework. The prospects for growth depend strictly on banks' ability and willingness to offer the market good quality claims and to develop the entire gamut of services and specializations required. Bank managements will have to acquire the specific know-how needed for the evaluation of the complex risk-return combinations involved.

There is also growing recourse by some leading Italian banks to credit derivatives, which allow credit risk to be transferred while maintaining title to the underlying credit relationship.

The possibility of isolating one or more aspects of the risk associated with credit business and transferring them to other parties via derivative contracts enables banks to keep only the components of risk that they consider they are best equipped to handle. This trend towards specialization explains the high degree of concentration in credit derivatives business. In June 1999 the top five US banks accounted for 80 per cent of the American market with positions totaling $258 billion.

Italian banks' credit derivatives business is mostly channeled through their foreign branches; not only does it respond to the need to diversify risk but it also allows them to penetrate new markets by acquiring positions with customers that it would otherwise have been difficult to establish business relations with. At the end of the second quarter of 1999 the notional value of Italian banks' contracts in the United States amounted to $15.3 billion, or 6 per cent of the total market.

The development of credit derivatives in the Italian market is likely to make it easier to implement policies aimed at correcting situations of excessively concentrated sectoral and geographical lending.

2. *The experience with solvency ratios*

The capital adequacy rules introduced by the Basel Capital Accord of 1988 constitute the main point of reference for supervisory authorities everywhere. The basic elements of the Accord are still fully valid today: capital resources as the safeguard of banks' stability, risk-weighted capital ratios, capital requirements for off-balance-sheet assets. Since the publication of the Core Principles of the Basel Committee on Banking Supervision, to which supervisory authorities everywhere were asked to adhere, at least 140 countries have adopted the Committee's approach in their regulation of banking.

The Capital Accord was intended to raise banks' level of capitalization, following decades of decline in the main banking systems. It also aimed to enhance the entrepreneurial initiative of bankers within a framework of close correlation between risks and capital resources and, through common prudential rules, to promote conditions of competitive equality among internationally active banks.

Drawing a balance sheet today, the results have been very largely positive.

The degree of capitalization has risen almost everywhere, making banking systems more resilient. The average solvency ratio of international banks located in the G-10 countries rose from 9.3 per cent in 1989 to 11.6 per cent in 1998.

Over the same decade the average solvency ratio for individual banks in Italy rose from 11.7 to 13.4 per cent.

The improvement in capital adequacy has been fostered by the forceful action of the supervisory authorities, which has led banks expand their capital resources in parallel with the rapid growth in higher-risk assets.

Uniform capital requirements have also attenuated competitive handicaps stemming from disparities in the strictness of national banking regulations. They do not appear to have resulted in significant changes in the competitive position of banks compared with other, less strictly regulated financial intermediaries. In some countries, including Italy, many non-bank intermediaries have been transformed into banks.

Studies on the impact of capital ratios, conducted mainly in the United States, have found temporary slowdowns in some markets but not contractions in the supply of credit affecting the aggregate level of economic activity.

Ten years of rapid financial innovation and progress in developing statistical methods for measuring banking risk have highlighted some of the limitations inherent in the specification of the capital requirements. The rigidity of the standards has not encouraged the adoption of techniques to reduce credit risk; it has induced practices for circumventing the rules.

The current definition of the capital requirements cannot capture the variation in credit risk stemming from cyclical developments; nor does it take account of the correlation between the risks associated with various assets and hence of the benefits implicit in well diversified portfolios.

The benefit accorded to financial techniques of risk-shifting, in terms of reduced capital ratios, is insufficient, while banks are increasingly taking measures to lessen capital requirements that do not actually diminish risk.

The limited diversification of the risk weights applicable to assets makes it possible for banks to select higher risk-return combinations.

3. The evolution of prudential rules on credit risk

The Basel Committee has focused on the need to strengthen the set of legal rules safeguarding bank stability by defining capital adequacy requirements in greater detail, improving the structures and methods for the management of credit risk, reinforcing the discipline exerted on banking enterprises by the financial markets.

In June the Committee released a set of proposed revisions of the capital adequacy rules, asking for the comments of the banking industry with a view to their definitive formulation in the second half of next year. During the summer it distributed documents setting out best practices in credit risk management, disclosure requirements and supervisory activity.

For the time the idea of determining the capital needed to face credit risk by means of internal models devised by banks themselves has been shelved, pending resolution of the problems with existing methods and in view of the costs associated with producing such models. For the future, such models represent an opportunity to be pursued, in view of the possibility they offer of measuring credit risk more exactly and more analytically and of factoring in the correlation between different risks. They generate estimates that gauge the capital needed to cover the largest loss that could occur in any given period of time and with any given probability.

For lending to firms, the Committee’s proposed changes provide for two distinct methods of determining risk weights: the ratings of specialized agencies, which are only available for a limited number of borrowers, and internal ratings, which the banks can assign to all their customers.

Compared with the present definition of solvency ratios, the approach based on internal ratings appears able to define expected losses on individual loans much more accurately and to reflect changes connected with the business cycle. But it cannot capture the reduction in overall risk stemming from diversification of the loan portfolio in terms of economic sectors and geographical areas.

In addition to the advantage of being applicable to a larger number of borrowers than are covered by rating agencies, internal ratings make use of the mass of information in banks' possession, such as the performance of individual customers' deposit and loan accounts. Such systems represent a step towards the development of true internal capital adequacy models, of which they are one of the key components.

For the standard method, the Committee has established the requirements that agencies must meet for their ratings to be used in determining capital ratios for banks. The requirements refer to agencies' credibility and independence as well as to the objectivity and transparency of their judgments.

The criteria for supervisory authorities' validation of internal rating systems have not yet been fixed. They will certainly include the completeness of the data, the methodological rigour of the procedures and provision for verification of the results.

There remains the complicated problem of defining a common yardstick to which to relate the results of the various banks' internal rating systems, in order to make sure that capital requirements are uniform. Another problem to be faced concerns the comparability of the criteria for weighting the risk on loans to companies with agency ratings and those with internal ratings.

4. Credit risk management and banks' internal organization

The adoption of internal ratings as the basis for calculating risk coefficients creates a direct link between the regulation of capital requirements and banks' internal structures for formulating lending policies and for assessing, pricing and monitoring the risks involved in individual operations.

The Basel Committee has established the guidelines banks are to follow when making arrangements for credit risk management.

Banks' directors play a fundamental role in ensuring both that lending policies are consistent with banks' ability to handle credit risks and that periodic checks are carried out on the results achieved. Clear information on policy choices must be given to all bank structures involved in lending.

To ensure that objectives are attained, banks' top managers must ensure that precise instructions are circulated setting out the various levels of responsibility, establish operational limits and extend credit risk management systems to the whole range of bank assets.

When granting loans, banks should evaluate all the information available in order to acquire a complete profile of borrowers, including their exposure to cyclical or sectoral events, group relationships, if any, the use to which loans are to be put and the sources of the funds that will permit repayment.

The monitoring of loans should be assigned to qualified personnel working independently of the units responsible for granting credit.

Internal rating systems call for close liaison with the crucial aspects of risk management, such as pricing, provisioning and deciding to review loans or ask for their repayment.

Exhaustive and continually updated information on borrowers' financial positions and on the value of collateral is fundamental.

The flow of information provided to financial markets is essential to ensure that the discipline they can impose on banks' managements is effective. The guidelines established by the Basel Committee for periodic reports to the market cover all aspects of credit risk management: accounting practices, provisioning policies, organization, customer assessment procedures, breakdown of the loan portfolio by class of borrower, doubtful debts, collateral, volumes of derivatives and securitized loans, commitments, expected and actual rates of return on loans.

The measures to address credit risk are completed by the activities of supervisory authorities directed at ensuring the adequacy of each bank's capital resources in relation to its risk profile and corporate strategies. It is up to supervisory authorities to evaluate whether banks' internal procedures can perform the tasks of identifying, measuring and managing credit risk, to set higher capital ratios for banks with particularly high risk profiles, to ensure compliance with capital requirements and to take prompt action to prevent banks' capital from falling below acceptable levels.

The attention of the Bank of Italy has been directed towards banks' organizational arrangements for some time; in 1988 banks were asked to complete a questionnaire on their internal structures, which provided additional information on their organizations and served as a useful reminder to the banking system of these issues.

The importance of banks' organizational arrangements is reflected in the regulatory framework. Exactly one year ago the Bank of Italy's instructions to banks and banking groups introduced a comprehensive set of provisions aimed at encouraging effective and efficient internal control systems in proportion to each entity's size and operational complexity. Banks were also asked to report on the systems they had adopted, their level of compliance with the new provisions, any critical factors brought to light and the remedial measures required.

While respecting banks' entrepreneurial independence, general principles have been established that are consistent with international guidelines; these include the separation between operational and control functions, a clear definition of the responsibilities of banks' various units and special regulations to ensure prompt corrective measures.

Particular attention has been dedicated to internal auditing, with a view to ensuring continuous checks on the effectiveness of controls and the preparation of proposals to improve risk management policies, instruments and procedures.

5. The thrust of current action

Briefly, an internal rating system embraces all the elements needed to measure the probability that a borrower will become insolvent and the share of the loan that, in such case, will no longer be recoverable; together, these two factors give the expected loss for each borrower.

While the probability of failure can be assessed in terms of the borrower's specific features such as economic sector, financial structure and income prospects, the recovery rate for any credit line depends on factors such as the technical form of the loan, the collateral and the lender's position in relation to the borrower's other creditors.

Statistical methods of calculating these two components of expected losses require sufficiently long time series on the frequencies of failures corresponding to each risk bucket and on the losses sustained for the various categories of loans and collateral. The issue is made even more complicated by the fact that both the probabilities of failure and recovery rates are affected by economic trends.

A survey carried out by the Basel Committee of about thirty leading international banks showed that the problem is being addressed in ways that differ in many respects.

Internal assessment procedures evaluate the quality of either borrowers or credit lines, and in some cases the two profiles are combined.

Evaluations may be based entirely on statistical models, or be supplemented with the opinions of sectoral analysts and lending experts; in some cases limits are set on the scope for altering the results of statistical calculations by adding qualitative considerations.

The various systems differ in terms of the variables used to approximate the probability of failure for individual borrowers, the time horizons considered and the use of sectoral analyses. For many banks the reliability of the procedures adopted is closely linked to their ability to capture promptly any changes in a borrower's solvency position. Others, adopting a similar approach to that of rating agencies, prefer so-called "across-the-cycle" evaluations, which consider the borrower's position in a hypothetical unfavourable phase of the economic cycle.

A specific probability of failure can be assigned to each internal rating class either on the basis of the bank's own experience or by using information published by rating agencies on the frequency of failures.

Evaluations based on internal rating systems can be used by banks' directors and top management in formulating lending strategies and setting limits to the autonomous granting of loans; they can also be used in loan pricing procedures and to ensure the prompt reporting of any deterioration in borrowers' positions.

The survey carried out in the G-10 countries included a number of Italian banks, mostly major ones, and revealed some characteristic features of the approaches adopted in constructing a borrower classification system.

The business sector is broken down by size; for small and medium-sized firms the first level of screening for creditworthiness consists mainly of a statistical classification of borrowers based on data culled from balance sheets and the Central Credit Register. The results of these automatic procedures are generally modified, within set limits, by information concerning corporate management and organization. In assessing larger firms the statistically-based elements carry less weight.

The recent start made on the systematic observation of the insolvency rates within each risk bucket and the losses sustained in connection with secondary lending conditions means that the accuracy of these procedures cannot be guaranteed; it is still too early to assess the ability of systems to capture changes in the quality of credit linked to trends in economic activity.

Assessments of individual borrowers usually refer to a time horizon of one year, a practice that most foreign banks also follow. The models in use are not able to take systematic account of the different maturities of operations, while economic theory and experience both indicate that the maturity of loans can have a marked impact on the related credit risks.

In their risk management procedures, Italian banks are increasingly resorting to models that measure expected losses; they use the results in deciding whether to grant loans and in reviewing credit lines. The distinction between the units that calculate ratings, those that are involved in marketing and those that perform control functions appears to be well drawn. Nonetheless, the integration of the customer-classification systems of the different components of banking groups is not entirely satisfactory.

Medium-sized banks, of which one of the strengths has always been their specialized territorial knowledge and entrenchment in the local economic tissue, are also making important changes in their credit risk management procedures. By opening new branches and acquiring local banks, they have rapidly extended their activities to be present on an inter-regional or national basis.

These banks have responded to the need for more effective and efficient loan selection procedures mainly by reviewing their organizational arrangements, improving their information systems and tightening their internal controls.

Specialized operational units have been created according to types of customer, with the granting of large loans often being referred to “committees” composed of particularly experienced head office personnel; procedures for assessing creditworthiness have been improved through the use of information technology to coordinate and accelerate the use of available information.

The enlargement of distribution networks has proved a strong incentive to decentralizing decision-making for smaller loans.

To meet the requirements of control, special organizational units have been created to provide centralized monitoring of loan positions; these maintain continuous contact with the central and branch units engaged in granting loans, mostly through the use of computerized procedures that identify possible anomalies in positions.

The most dynamic banks have supplemented these procedures with profitability indicators for individual borrowers in order to improve their overall risk-return profiles.

Some of the more progressive medium-sized banks use internal rating procedures to support their loan portfolio diversification policies and to establish consistent writedown and provisioning criteria. Personnel training and specialization programmes need to be intensified in order to foster the spread and acceptance of new methods.

6. Specialization profiles of Italian banks

With the spread of innovative techniques of credit risk mitigation, loan portfolios will tend to be managed in more dynamic ways than traditionally, when the focus was on selecting borrowers and maintaining positions until their natural maturity.

The forms of lending specialization that emerge clearly today in the Italian banking system are related primarily to the type of borrower, defined in terms of size and product sector. There are important changes under way in the composition of loan portfolios: one aspect common to the entire system is the rapid growth in loans to households, while the pattern of lending to the corporate sector is diversified.

In the nineties loans to households have grown at an average annual rate of around 11 per cent, or about twice as fast as total lending, and they have risen from 13.8 to 18 per cent of total loans. With interest rates declining and productive activity growing only modestly, banks have grasped the opportunities offered by households’ increased demand for credit; at the end of 1998 more than 95 per cent of loans to households were held by the banking system, either directly or through subsidiary financial companies.

Indicators such as shifts in the market shares of individual banks and the correlation with their interest rates show that competition is intense and growing, partly owing to the entrance into the Italian market of foreign intermediaries specialized in mortgage lending.

The expansion in the volume of business with households has been helped by the spread of technical forms of lending whereby intermediaries rely to a great extent on credit scoring techniques to select borrowers.

In the consumer credit field, which is characterized by a large number of small transactions, the need to make decisions rapidly and minimize costs encourage the use of automated procedures. In the case of loans for the purchase of consumer durable goods, the results of credit scoring models are frequently decisive in deciding whether to lend; in that of personal loans, which are usually for larger sums, branch personnel are allowed greater discretion; and, lastly, special agreements covering specific groups of borrowers or particular categories of goods are often important.

In the case of mortgage loans, the assessment of the desirability of granting a loan hinges both on the current and future ability of the borrower to pay and on the effective value of the collateral.

Improvements to the procedures for selecting and monitoring loans to households are possible and necessary. The proportion of bad debts is high; the impact on banks' financial situations must be evaluated in the light of the growing share of such lending in their portfolios. Last June — despite frequent writeoffs of small positions, out-of-court settlements and disposals without recourse to non-bank companies — 9.4 per cent of household loans were classified as bad debts, as against 8 per cent for other loans.

As regards loans to enterprises, there has been a shift in their composition: in the eighties the share of lending to small and medium-sized enterprises grew continuously throughout the banking system. Since the early nineties the share of the economic sectors in which small companies predominate, i.e. those for which the average loan was less than 500 million lire at the end of 1997, has fallen at banks involved in mergers and acquisitions but has continued to increase for the rest of the system.

A similar pattern has already been analyzed in the US banking system, which has seen far-reaching consolidation in recent years; it merits special attention in view of the importance of small firms in Italy's industrial fabric. The recent consolidation of the Italian banking system does not allow a definitive judgment to be passed on the process: the shift in the composition of loan portfolios could be the result both of differences in lending policies and of the need to reorganize lending at banks that are still being integrated; it undoubtedly reflects the need to reduce the riskiness of the loan portfolios of banks with poor records that have been taken over.

The share of long-term credit to enterprises has not changed significantly. Repeated calls have been made for enterprises to make more use of medium and long-term financing, which requires banks to develop more detailed knowledge of borrowers, to make accurate assessments of their earnings prospects, and consider the shocks that they could be exposed to as a result of adverse developments in the economy or the financial market.

In practice lending has continued to be primarily in the form of short-term loans,. Last June such transactions accounted for 35 per cent of the total credit granted to non-financial companies, basically unchanged compared with the preceding years. With reference to the companies surveyed by the Company Accounts Data Service, lengthening of maturities is restricted mainly to companies in critical conditions that require their debt to be restructured.

The tendency of credit to be short term has often been seen as related to the practice of borrowing from several banks, which undermines the discipline the banking system can impose on borrowers compared with what is possible with relationship banking.

The consolidation of the Italian banking system is leading to less fragmented credit relationships; it requires banks to adjust their policies and organizational arrangements with a view to establishing relationships with customers in which more attention is paid to their long-term needs and the development of suitable forms of corporate finance.

Conclusions

International experience clearly shows that the stability of banking systems depends above all on the solidity of the real economy and its ability to follow a path of sustained and balanced growth.

International financial integration offers major opportunities to improve the allocation of savings on a world scale, accompanied, however, by the risk of unprecedentedly large and sudden systemic crises.

Without detracting from the importance of economic and monetary policies or of the action of the bodies entrusted with safeguarding macro-financial stability, the fundamental aspect consists in the steps banks take to strengthen their risk-management policies and procedures and to counter the pressure on their margins arising from the growth in competition in national and international markets.

In Europe the presence of many large global firms of high standing, the dismantling of the barriers inherent in the denomination of securities in different currencies and the possibility of referring to a single yield curve will foster the development of the market for private sector securities.

For large companies, whose operations cover several national markets and whose financial management involves several different currencies, the new single currency regime will reduce the need to do business with a plurality of banks. A reduction in the demand for credit from prime companies appears possible; the spread of private sector securities may cause problems for fund-raising. Though marked by national traits in legal and fiscal matters, the configuration of the financial system of the European Union will become more similar to that of the Anglo-Saxon systems.

The profitability of traditional lending to enterprises is likely to come under pressure; the need to develop business with different categories of customers and to look for profit opportunities in foreign markets will involve both old and new credit risks.

The changes under way make it necessary to grasp the growth opportunities offered by corporate finance services; this will give further impetus to the spread of financial techniques for the management of risk and to the growth of the securitization market.

The ability to manage risks, above all credit risk, efficiently, will be a competitive strength of crucial importance; it requires intermediaries to adopt the innovations made possible by today's statistical models and financial techniques, to integrate them into their internal organizations, and to develop the necessary professional skills.

Active management of the loan portfolio, frequently indicated as the new frontier in lending, cannot be independent of the effectiveness of the traditional procedures, from the assessment of creditworthiness to the constant monitoring of loan performance.

In a market such as Italy's, in which very little recourse has been made to rating by specialized agencies, banks lacking an internal rating system sound enough to be approved by the supervisory authorities would find themselves at a competitive disadvantage. Businesses of high standing would stand to obtain better conditions from other banks able to apply capital charges more consistent with the riskiness of the financing.

The revision of the capital adequacy framework is a major challenge for Italian banks. The decisions regarding the formulation of the systems for classifying credit risk will have to be taken according to the internationally agreed timetable, in the knowledge that the trend is towards greater use of internal models.

The Italian banking system has a good knowledge of the world of small and medium-sized enterprises deriving from its close contact with local economies. In constructing systems for the management of credit risk, it can count on statistical sources that are not always available in other countries, such as the Company Accounts Data Service and the Central Credit Register.

Banks are becoming increasingly aware of the challenge; they have the necessary capital, know-how and organizational ability.

On the other side the limited availability of external ratings and the small size of the private capital market could prove a serious obstacle to Italian enterprises' efforts to diversify their sources of financing and reduce their average cost of borrowing. One is struck, once again, by the competitive disadvantage at which the Italian economy stands owing to the smallness of the share and bond markets.

The Bank of Italy is stimulating and supporting the efforts of the banking system to modernize its techniques for managing credit risk. It has taken steps to ensure the proposed new regulations are widely disseminated and has launched consultations with bankers aimed at jointly assessing the characteristics that internal ratings will need to have for prudential purposes.

Discussions will also be held with banks as part of normal supervisory activity and the Bank will participate in the ad hoc working group set up by ABI, the Italian Bankers' Association. In addition, the Bank of Italy will be making information available from its archives, above all those of the Central

Credit Register, that will be of help in constructing systems for measuring expected losses on loan portfolios.

The Supervision Department is doing research into techniques for measuring capital at risk on the basis of indicators for the companies surveyed by the Company Accounts Data Service or by using measures of sectoral and locational riskiness to approximate that of borrowers. The estimates of riskiness obtained in this way have been used in determining the share of bad debts deemed not to be recoverable.

These studies are the natural follow-on of the work begun in the early nineties to establish statistical methods for measuring the fragility of non-financial companies on the basis of balance sheet data; further improvements have been made recently by combining the estimates with indicators of difficulties in serving loans taken from the Central Credit Register and extending the analysis to a sample of more than 400,000 companies.

The research under way is expected to produce results that will be of help in the analyses and tests that will have to be carried out for the validation of the internal rating systems banks adopt.

Increasing the competitiveness of the Italian banking system, and of the economy as a whole, requires continuous improvements in the methods used for granting and managing credit, and the development of the corporate finance services needed to foster small and medium-sized enterprises' access to the capital market.

It is necessary to capitalize on Italian banks' greatest strength: the wealth of information and relationships accumulated over the years in doing business with their customers and turn it to account in creating effective internal rating systems.

I am sure that Italian banks, faced with this new challenge in the most typical of all banking activities, the management of credit, will succeed in developing the instruments and mind-set needed by companies operating in markets that have been opened up to competition by the efforts over the last ten years of Parliament, the regulatory authorities and intermediaries themselves.