

# 2006 lakkyara

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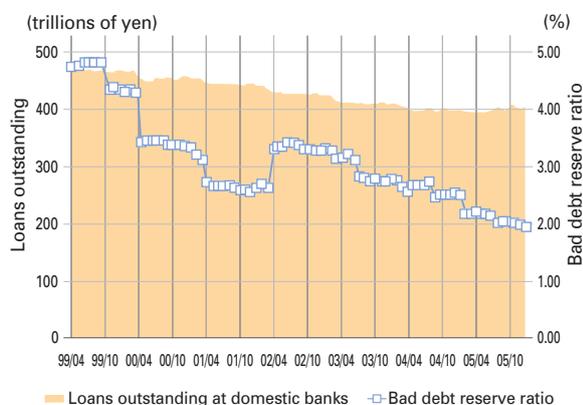
**Regional banks and  
credit concentration risk**

A final resolution of the nonperforming loans problem, until recently the most important issue facing Japanese financial institutions, is now in sight. Quantitative credit risk management techniques have also been widely adopted. The next task for banks in terms of credit risk management is the analysis and management of credit concentration risk. This issue presents serious difficulties for Japan's regional banks and concerns their very reasons for existence.

## Interest rate trends and nonperforming loan ratios

In April the Bank of Japan announced its on-site examination policy for financial institutions. The document noted that a final resolution of the nonperforming loans (NPL) problem, for several years the single most pressing issue for Japanese banks, was in sight. As the Exhibit below shows, bad debt reserves as a percentage of total loans have been steadily falling.

Exhibit. Loans outstanding and bad debt reserve ratios



Dealing with NPLs is like putting out a fire already in progress. Once the fire is extinguished, the next step is to ensure that if disaster strikes again, it will not strike a lethal blow to banks' loan portfolios. In other words, lenders need to enhance their risk management systems.

With loan portfolios two main types of risk must be considered: interest rate risk and credit risk. The draft of partial revisions to the Comprehensive Supervisory

Guidelines for Financial Institutions<sup>1)</sup> released by the Financial Services Agency (FSA) in February and March indicated two new items that should be managed as part of an early warning system:

- Interest rate risk on the balance sheet
- Credit concentration risk

When the FSA solicited public comments on this draft, most of the questions received concerned credit concentration risk. The remainder of this report looks at the subject in greater detail.

## Increasing sophistication of credit risk management

The significance of credit concentration risk within the framework of credit risk management is described below. In general, credit risk is measured and managed using the following kind of procedure:

- (1) A multi-stage assessment method is used to measure individual credit risk (e.g., the internal rating models and credit scoring models stipulated in Basel II)
- (2) Quantitative methods (e.g., ratings transition models,<sup>2)</sup> Monte Carlo simulations) are used to assess credit portfolio risk
- (3) Aspects not fully reflected in the quantitative methods described above are considered (e.g., credit concentration risk, the growing concentration of low-quality credits in the main banks)

Most of Japan's megabanks and regional banks are now conversant with (1) and (2), at least for internal use,

regardless of their ability to apply the resulting information to the measurement of statutory risk capital.

As for (3), the portfolio models in (2) already take credit concentration risk into account to a certain extent.<sup>3)</sup> But the credit portfolio risk calculations generally used today are able to incorporate only one aspect of concentration risk. The second “pillar” of Basel II also notes that the portfolio models in (2) are inadequate for dealing with credit concentration risk.

### Measuring and controlling credit concentration risk

The process of managing credit concentration risk can be divided into three main steps:

- (1) Measuring and recognizing the risk
- (2) Assessing the risk
- (3) Removing the risk

To measure and recognize credit concentration risk (1), it is first necessary to choose the perspective from which to observe the risk. The simplest case would involve looking at the concentration of credit in a single borrower, but in other instances a lender might focus on a single industry, region, or corporate group.

The following approaches exist for the assessment of concentration risk (2):

- <1> Establishing criteria (limits) for each aspect of risk and assessing concentration based on compliance with the standards
- <2> Allocating additional economic capital to factors with high concentrations
- <3> Calculating risk by applying stress scenarios to the credit portfolio risk calculations noted above

Regardless of which method is used, no market consensus currently exists on the best method of estimating parameters.

Finally, there is the question of what to do once concentration risk has been recognized and assessed (3). One answer, of course, is to optimize the figures derived using the assessment methods of (2). However, conservative calculations and poor accuracy of parameter estimates can lead to problems with accuracy, which in turn undermines the effectiveness of numerical optimization techniques.

### Credit concentration risk and relationship banking

For regional banks, the issue of credit concentration risk and relationship banking provides an even thornier problem.

Traditionally, lending by regional banks was concentrated in leading local companies or industries. In recent years regional banks have been advised to enhance loan portfolio performance by tapping their extensive expertise and knowledge of local firms and industries.

Relationship banking requires a deeper understanding of clients and therefore limits the number of potential borrowers. In contrast, the elimination of credit concentration risk forces a bank to expand the range of customers. While the two are not mutually exclusive, they do pull lenders in different directions.

The ideal scenario would be one in which regional banks could engage in relationship banking, deepening their relationships with borrowers to which they had extended significant credit while exchanging (trading) some of their concentrated credits with other regional banks. However, it appears that there is still strong resistance to the explicit sale of loans through the transfer of nominative claims. Credit default swaps (CDS) and loan participations enable the sale of credits without notification, but these methods have their own shortcomings. CDS, for example, are not available for a wide range of issues, and with loan participations buyers often have difficulty obtaining information about the borrower.

## Eliminating credit concentration risk

The CDS market is expanding rapidly. While these instruments are likely to serve as a tool for managing credit concentration risk, a dramatic increase in the number of names is unlikely. One way to overcome this shortcoming would be for a quasi-government body to originate or provide support for the origination of CDS covering—singly or in plural—issues for which protection is not currently offered. Under this scenario, the government body would perform an initial credit check and attach a partial default guarantee to compensate for the weakness of the name.<sup>4)</sup>

While this approach may seem unusual, it or something like it will probably be necessary to achieve a fundamental solution to the problem of credit concentration risk at regional banks. At present only slow progress is being made on achieving greater securitization of loans, partly because of psychological resistance.

### Note

1) On February 28 the FSA released a draft of partial revisions to the Comprehensive Supervisory Guidelines for Financial Institutions with a March 22 deadline for public comment. A revised version incorporating comments received was officially announced on March 31.

2) These models use transition matrices to express the probability that a bond's credit rating will be unchanged, upgraded, or downgraded within a given period of time. Default is one of the possibilities considered. When there are eight possible ratings (excluding the default rating), for example, the model would be expressed as a 9x8 matrix.

3) In traditional credit risk portfolio management, factor beta and inter-factor correlations are introduced using such factors as macro indices and industry sectors. However, only one type of factor is handled.

4) In many countries quasi-government organizations provide partial default guarantees (including credit default swaps) with the objective of fostering lending to smaller businesses. In the United States, for example, government agencies Fannie Mae, Freddie Mac, and Farmer Mac enhance market liquidity by offering guarantees on securitized products.

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