## **Risk Management**

## Basic Principles

As financial liberalization, globalization and the rapid development of IT generate new business opportunities, financial institutions are being exposed to more diverse and complex risks than in the past. Identifying, measuring and controlling risks has never been more important in the management of a bank.

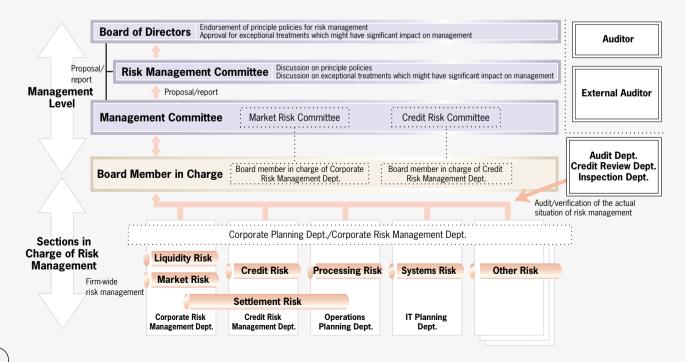
At SMBC, we have established risk management rules encompassing all the fundamentals required of a risk management framework. In addition to specifying the types and areas of risks that should be managed according to our strategic objectives, the rules define the basic principles for appropriately controlling each type of risk. The broad principles include "risk management on a consolidated basis," "risk management based on quantification," "consistency with business strategies," "consistency checks and balances," and "verification of actual situations."

## The Risk Management System

Within the Bank, we classify risk into the following categories for control purposes: (1) credit risk, (2) market risk, (3) liquidity risk, (4) processing risk, (5) systems risk and (6) other risk

(settlement risk, legal risk, reputational risk and others). Each department is charged with control of risks at an appropriate level within its own business line. To control the risks included in the items (1–5) above as well as settlement risk, we have designated certain departments as risk management departments to oversee specific risk control measures within each risk category. In addition, we established the Corporate Risk Management Department completely independent of the business units to manage these risks on a bank-wide basis. This department works with the Corporate Planning Department to comprehensively and systematically manage risk.

The control system we established at the Bank has the Board of Directors at its highest level, reflecting the importance we attribute to risk management. The system works as follows: the risk management department supervising each risk category drafts "basic principles for risk management" for that category, which are then presented for approval at the Management Committee and considered by the Board's Risk Management Committee before being finalized by the Board. According to the basic principles for risk management, the Management Committee, board members and risk management department heads perform risk management and this process is coordinated by the risk management departments concerned.



To control market, liquidity and credit risk in particular, we have strengthened the decision-making system at the operating level through the Market Risk Committee and the Credit Risk Committee which are subcommittees formed under the Management Committee comprising the executive members of the Management Committee and the heads of the departments related to risk management.

## Risk Management Methodologies

The risk management departments revise the basic risk management principles for each risk category on a regular basis, and whenever necessary, to ensure timely and appropriate risk management. Futhermore, in order to maintain a balance between risk and return as well as ensure soundness of the Bank from an overall perspective, we have introduced the "risk capital-based management" method which allocates capital to each department according to its role in our business strategies to keep the total exposure to credit, market, processing and systems risk within the scope of our management resources, i.e., capital. In the credit and market risk categories in particular, the maximum risk capital that can be allocated during a period is predetermined and risk capital guidelines are set within this limit to manage these risks. Liquidity risk is managed within a framework that includes plans for money gap and treasury funding. The other risk categories

## Correlation between Risk Management Framework and Risk Category



are managed with procedures closely attuned to the nature of the risk as described below.

#### **Credit Risk**

Credit risk is the chance of a loss arising from a credit event, such as deterioration in the financial condition of a borrower, that causes an asset (including off-balance sheet transactions) to lose value or become worthless. Overseas credits also include an element of country risk, which is closely related to credit risk. This is the risk that changes in currency values or political or economic situations result in a loss. Credit risk is the most significant risk to which banks are exposed. Without adequate credit risk management, the impact of the corresponding losses on a bank's operations can be overwhelming.

The purpose of credit risk management should be to avoid these credit events, to keep credit risk exposure within the bank's capital, maintain the soundness of the bank's assets and ensure returns commensurate with risk. This allows a bank to build a loan portfolio that achieves efficient returns on capital and assets which enables a bank to fulfill its public mission and create value for its stakeholders.

## Credit Policy

SMBC's credit policy simultaneously came into effect with the establishment of the new Bank in April 2001. This policy clarifies the universal and basic operating concepts, code of conduct and standards for credit operations. By giving our employees extensive credit training, we aim to achieve the global standards of credit risk management contemplated by the Bank for International Settlements (BIS) in its January 2001 consultative papers and by the Japanese Financial Services Agency in its inspection manuals, and create a better credit management culture within the Bank.

### Credit Risk Assessment and Quantification

To manage the risk of individual loans as well as the credit portfolio as a whole, we acknowledge that every credit poses risks. We assess the credit risk posed by each borrower and loan with our internal rating system and quantify that risk for control purposes.

#### **The Internal Rating System**

The Bank's internal rating system consists of two indicators: the obligor's grading which indicates the creditworthiness of a borrower, and the facility grading which shows the probability of collecting for each facility. Facility gradings are assigned based on the borrower's obligor's grading in consideration of transaction terms such as guarantee, tenor and collateral. Overseas credits are further subjected to analysis with the country ranking, an indicator derived from analysis of the political and economic situations, international balance of payments and the external debt burden of each country.

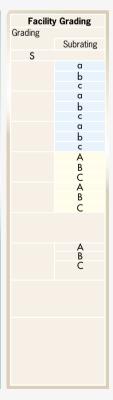
In order to maintain the consistency of the grading system as a whole, self-assessment is the prerequisite step to the obligor's grading process.

#### **Quantification of Credit Risk**

Quantifying credit risk is more than just calculating the probability of default for a particular obligor. It must also reflect the concentrating of risk toward a specific customer or industry and fluctuations in the values of real estate, securities and other types of collateral. This range of data must be analyzed to quantify the risk of an entire portfolio or an individual loan.

To calculate credit risk, historical data for the obligor and facility is entered into a database, the parameters are set—such as the probability of a ratings change and the recovery rate—and then the probability distribution of losses for the entire portfolio (amount of loss for what probability) is computed to determine the maximum potential loss in the future. We obtain an understanding of the risk diversification effect and concentration risk by running a simulation of approximately 10,000 iterations. The quantified credit risk results are then used to formulate business plans and provide a standard against which individual credit applications are assessed.

Obligor's Grading			
Grading Subrating		Definition	Debtor Classification in Self Assessment System
	oubruting		
1	a b c	Extremely high certainty of redemption	
2	a b c	High certainty of redemption	Normal Borrowers
3	a b c	Reasonable certainty of redemption	
4	A B C	Redemption is reliable, but the debtor may be affected by large shifts in business conditions or the industry	
5	A B C	No problem at present with redemption, but the future prospects are not solid and the debtor may be affected by trends in business conditions or the industry	
6		No problem at present with redemption, but there are reasons for concern about the debtor's financial condition and the possibility of future problems with recovery	
7	A B C	Requires management because there are problems meeting loan conditions or with collection, the business is weak or unstable, or the financial condition is poor (Customers requiring caution among this rating)	Borrowers Requiring Caution A Borrowers Requiring Caution B Borrowers Requiring Caution C Substandard Borrowers
8		Although the debtor is not bankrupt, the business is in difficulty, restructuring progress is poor and it is recognized that the business may fall into bankruptcy	Potentially Bankrupt Borrowers
9		Although the debtor is not legally or formally in a state of bankruptcy, it is virtually bankrupt because the business is in deep trouble and there are no prospects for restructuring	Effectively Bankrupt Borrowers
10		The debtor is legally and formally bankrupt	Bankrupt Borrowers



Financial Reconstruction Law Based Disclosure Category (Domestic)
Normal Assets
Substandard Loans
Doubtful Assets
Bankrupt and Quasi-Bankrupt Assets

# The Framework for Managing Individual Loans

**Credit Assessments** 

Credit assessments involve a variety of financial analyses, including cash flow analysis, to predict an enterprise's ability to repay the loan and its growth prospects. These quantitative measures are then combined with qualitative analyses of industry trends, research and development capabilities, the competitiveness of the company and its products or services, and its management capabilities. The loan application is also analyzed in terms of the intended uses of the funds, the repayment schedule and the state of its collateral. We adhere to accurate, fair and strict credit decisions based on whether the credit risk falls within our Credit Policy guidelines, there is sufficient ability to repay the debt from cash flow and a return commensurate with the risk can be obtained.

As part of our measures to enhance efficiency and speed up approvals, we have digitized and standardized the loan evaluation and approval processes to run on the Bank's IT network as the Credit Application System.

#### **Obligor Monitoring**

In addition to analyzing loans at the application stage, the Credit Monitoring System is implemented in order to reassess the obligor's grading and review self-assessment so that problems can be detected at an early stage and quick and adequate action can be taken. The system includes Periodic Monitoring with receipt of the annual report, as

well as Continuous Monitoring performed when the credit conditions change.

#### The Framework for Credit Portfolio Management

In addition to managing individual loans, we apply the following basic policies to the management of the entire portfolio to maintain and improve its soundness and profitability over the medium- to long-term.

#### 1. Risk-Taking within the Scope of Capital

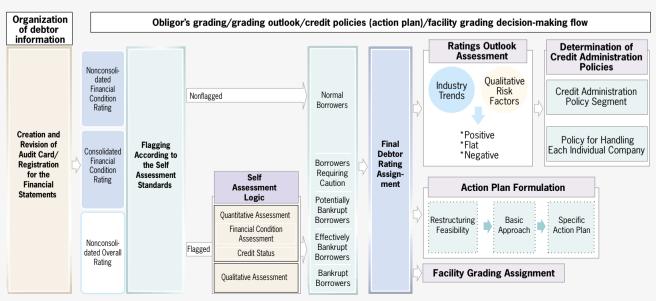
To control credit risk within the scope of our capital, we calculate the required credit risk capital through regular quantification of credit risk, and then set credit risk capital limits and manage risk-taking activities within these limits.

#### 2. Controlling Concentration Risk

Since the concentration of credit in an industry or corporate group has the potential to severely impact a bank's capital, credit control on industries with concentration risk and loan reviews of large borrowers and their groups are implemented. We also set up credit limits for each country based on its creditworthiness to manage country risk.

#### 3. Balancing Risk and Return

We operate on the basic principle of seeking returns commensurate with the credit risk. Loan pricing, therefore, uses our credit risk quantification calculations and the Sumitomo Mitsui Value Added (SMVA) indicator to ensure that adequate profit is generated after deducting credit cost, cost of capital and expenses.



#### 4. Reduction of Problem Loans

In order to counter concerns of increasing losses from the deterioration of existing problem loans or the appearance of new problem loans, we are striving to quickly reduce problem loans, by conducting loan reviews to set new responses and clarify action plans, and by strengthening our recovery and asset value maintenance strategies.

#### 5. Toward Active Portfolio Management

In addition to controlling the individual loan approval process, we also actively manage our loan portfolio on an aggregate basis. The newly established Portfolio Management Department spearheads our use of credit derivatives and loan securitization in the markets to proactively manage our portfolio.

#### The Credit Risk Management System

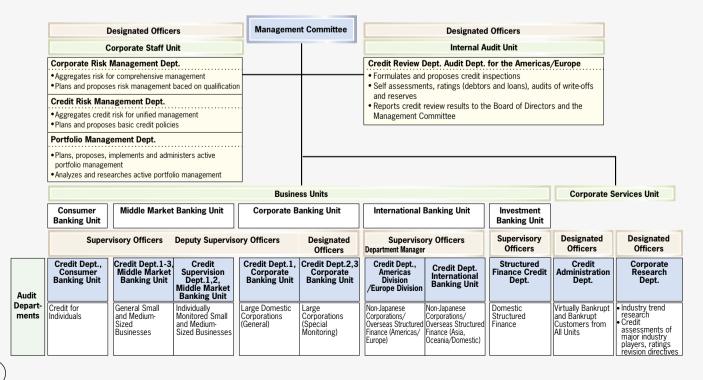
The Credit Risk Management Department within the Corporate Staff Unit is responsible for the comprehensive management of credit risk. This department determines the credit policies, establishes the internal rating system, develops credit risk quantification methods, sets credit limits and approval limits, and manages problem loans and other aspects of the loan portfolio administration.

The Corporate Research Department within the Corporate Staff Unit performs the basic research on industries and subsectors, and investigates individual companies to monitor early signs of problems or growth potential.

Each business unit's credit departments conduct the credit judgment for the loans handled by their business units and manage the business units' portfolios. The credit limits they use are based on the baseline amounts established for each rating category and they pay particular attention to evaluating and managing customers or loans perceived to have particularly high credit risk.

Bankrupt or virtually bankrupt companies are generally handled by the Credit Administration Department, which is working to recover non-performing loans as quickly as possible.

The Credit Review Department, the Audit Department for the Americas, and the Audit Department for Europe operate independently of the business units, the Corporate Staff Unit and the Corporate Services Unit. These departments audit the soundness of assets, accuracy of gradings, self-assessments, state of credit operation etc., and report audit results directly to the Board of Directors and the Management Committee.



#### Market/Liquidity Risk

## The Market/Liquidity Risk Management System

The Corporate Risk Management Department, which is independent of the business units that handle market transactions, is constructing an integrated system that manages market and liquidity risk together. It sends risk reports on a daily basis to senior management via e-mail.

To prevent operational errors or manipulation of transaction data, it is important to establish a system of checks and balances in the business departments (front office). At SMBC, both the processing departments (back office) and the administrative departments (middle office) conduct backup checks. In addition, the independent Internal Audit Unit also performs comprehensive periodic internal audits. In support of these procedures and to offer the highest standards of service, we are making use of leading-edge financial theory and techniques and hiring and training staff with specialist knowledge of derivatives and portfolio management.

#### Market Risk

Market risk is the chance that fluctuations in interest rates, foreign exchange rates or stock prices will change the value of financial products, leading to a loss.

#### VaR Model for the Integrated Market Risk Management

The value at risk (VaR) method has proven effective in controlling market risk. This method predicts the maximum potential loss for a given probability. The SMBC VaR model calculates the maximum loss through a Monte Carlo simulation of changes in profits and losses, i.e., 10,000 scenarios of market fluctuations based on the historical data for one year. This method is extremely effective in measuring the risk of products that have option risk and in tracking the VaR during active trading.

Market risk can be divided into its various factors: foreign exchange rate, interest rate, equity price and option risk. At SMBC, we use both the VaR method and other indicators actually used in daily operations, such as the basis point value (BPV) indicator (to measure the change in earnings for every 0.01% change in interest rates), for finely tuned risk management in each risk category.

Our policy is to set the total VaR guidelines to conservative levels relative to capital in line with our business strategies.

Whenever the VaR is likely to exceed the guidelines, owing to sharp changes in the markets, we put contingency plans into effect and the ALM Committee convenes extraordinary meetings.

The market risk of our strategic equity holdings held by the units not in charge of market-related activities and the market risk taken by our major subsidiaries are also included in the integrated risk measurement performed by the Corporate Risk Management Department. The VaR is regularly calculated and reported to the Board of Directors and Management Committee.

The VaR of the trading accounts of both founding banks on a consolidated basis for fiscal 2000 was as follows:

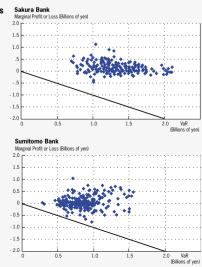
# VaR Results (Billions of yen) Trading Account Maximum Minimum Average Last Day of Term Sakura Bank ¥2.1 ¥0.7 ¥1.3 ¥0.7 Sumitomo Bank 1.6 0.3 0.9 0.7

(Assumed a one-day holding period and a confidence interval of 99.0%)



The market occasionally undergoes extreme fluctuations that exceed expectations. To manage market risk, therefore, it is important to run simulations (stress tests) of situations that may occur only once in many years. At SMBC, we run periodic stress tests to prepare for unforeseeable swings.





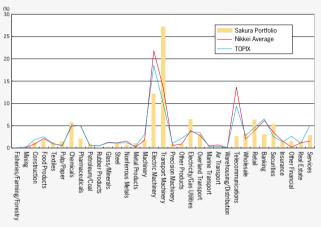
The internal model used by the Bank (SMBC VaR) has been evaluated by an independent auditing firm and certified to be appropriate. To further verify the reliability of the model, we perform back testing on the relationship between the VaR calculated with the model and the actual profit and loss data. The back testing results for fiscal 2000 for the trading accounts of the two founding banks are shown on the previous page. Any data point below the diagonal line indicates a loss that exceeded the predicted VaR for that day. Since all the losses here were within the predicted VaR range, the VaR model (with a confidence interval of 99%) has been demonstrated to be sufficiently reliable.

To manage the risk in our yen-denominated banking account, we use gap analysis employing maturity ladders and the earnings at risk (EaR) model in addition to the VaR model. If an external factor, such as interest rates, moves in an unfavorable direction, the EaR model can indicate the largest estimated change in earnings (interest rate spread) for a set period at a given probability. Since strategy and budgetary planning is based on the earnings for a period, we use the EaR model to supplement the VaR model. Using Monte Carlo simulations to generate 1,000 scenarios, we test the magnitude of the effect that new deposits and loans will have on the period's earnings.

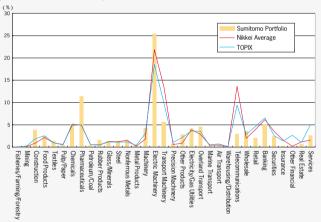
In the interests of bolstering asset soundness, we recognize maintaining strategic equity holdings at the levels appropriate to our fiscal strength and managing the price risk of these stocks is an important issue for the Bank's management. Therefore, we are actively managing these risks. Namely, we treat the entire holding of strategic equity as a portfolio and keep the maximum potential loss amount derived from the VaR model and the earnings for the period within the risk capital allocations, and maintain them at an appropriate level vis-à-vis capital.

# Composition by Industry of Listed Securities Portfolio (Market Value at March 31, 2001)

(Former Sakura Bank)



(Former Sumitomo Bank)



## Liquidity Risk

Liquidity risk is the chance of encountering an obstacle to raising the funds required for settlement due either to a mismatch between the use and procurement of funds or to an unexpected outflow of funds, or being forced to borrow at higher interest rates than usual. At SMBC, we consider liquidity risk to be one of the major risks. We manage liquidity risk so that we are not overly dependent on market-based founding to cover short-term cash outflows. Our liquidity risk management is based on a framework consisting of setting limits and guidelines for the funding gap, maintaining a system of highly liquid supplementary funding sources and establishing contingency plans.

In daily risk management operations, we avoid a gradual increase in liquidity risk by adjusting the funding gap limits

and guidelines. For an emergency situation, we have contingency plans in place to reduce the funding gap limits and guidelines and take other measures. To prevent the chance of market crises interfering with funding, we carry highly liquid assets, such as U.S. treasury bonds, and have emergency borrowing facilities in place, which also facilitates foreign currency-denominated liquidity management.

#### **Processing Risk**

Processing risk is the chance of losses arising from negligent administration by employees, from accidents or from unauthorized activities. In our administrative regulations, the basic administrative policies are summarized as "comprehending the risks and costs of administration and transaction processing, and managing them accordingly," and "seeking to raise the quality of administration to deliver high-quality service to customers." We have organized the Bank's systems to achieve these goals.

In our operating regulations, we have also defined specific rules for processing risk management. The rules divide processing risk management tasks among six types of departments: the Operations Planning Department, compliance departments, operations departments, transaction execution departments (primarily the front office departments and branches), the Internal Audit Department and the Customer Relations Department. The Board of Directors also reviews administrative conditions annually and sets new management policies as required. In addition, we have set up a specialized group within the Operations Planning Department to strengthen administrative procedures throughout the SMBC Group.

At the Bank, we include processing risk in our calculation of risk capital requirements and have allocated a certain percentage of risk capital to cover it, based on the quantification of the risk for fiscal 2001.

#### Settlement Risk

Settlement risk is the chance of a loss arising from a transaction that cannot be settled as planned. Since this risk comprises elements of several types of risk—such as credit risk, liquidity risk, processing risk and systems risk—it requires interdisciplinary management. The Operations Planning Department is charged with coordinating the management of this

risk with the Credit Risk Management Department, which oversees credit risk, and the Corporate Risk Management Department, which oversees liquidity risk. We are continuing to upgrade settlement risk management through such measures as participation in the Continuous Linked Settlement system, which will reduce the risk inherent in settlement of foreign exchange transactions.

#### **Systems Risk**

Systems risk is the chance of a loss arising from the failure, malfunction or unauthorized use of a computer system. We have instituted a number of basic policies to manage systems risk, including a security policy, usage regulations and specific management procedures. We are furthering strengthening safety measures based on a needs assessment drawing on such references as the Financial Inspection Manual, approved by the Financial Services Agency, and the Security Guidelines published by the Financial Information Systems Center.

Since computer-related trouble at financial institutions now has greater potential to impact the public, and systems risk has increased with the IT revolution and the concomitant use of networks and personal computers, we have taken the necessary steps to ensure the smooth, secure operation of our information systems. We have duplicated each system and infrastructure and fully proofed our Tokyo and Kansai computer centers against earthquakes and other disasters. To maintain the privacy of customer information and prevent information leaks, we are encrypting sensitive information, blocking unauthorized external access and implementing all known countermeasures to secure our data. We have also established contingency plans and conduct training as required to ensure we are fully prepared in the event of an emergency. We will continue to revise our countermeasures as new technologies and usage patterns emerge to maintain our security.

We include systems risk in our calculation of risk capital requirements and have allocated a certain percentage of risk capital to cover it, based on the risk quantification results for fiscal 2001.