

Risk management structure

Management of top risks

We have identified “top risks” (i.e., risks that are recognized to have a major potential impact on the Mizuho group) as follows, while taking into consideration factors such as changes in the internal and external business environment.

In fiscal 2022, we have identified two new risk events: the soaring energy and food prices due to the Russia-Ukraine situation and the shifts in global supply chains. Further, we have replaced two of the top risks designated during fiscal 2021 (“Intensified US-China friction” and “US inflation concerns and interest rate hikes”) with “Growing US-China friction and accelerating global division” and “Continuation of high global inflation”, and revised our risk scenarios.

In addition, with human capital taking on increased importance in achieving continuous growth for Mizuho and our employees, we

added “Stagnation of growth due to factors such as labor shortages” as a new top risk, based on our recognition of the potential risk of labor shortages leading to deterioration in our capacity for providing services.

We also revised our risk scenarios for other top risks upon considering factors such as changes in the business environment.

For designated top risks, we have decided on additional risk control measures, including measures for preventing the designated top risks and follow-up responses, and we are monitoring the status of risk control throughout the fiscal year and reporting to the Risk Committee and Board of Directors.

(Please see pp. 97 – 98 for more on our management of top risks.)

Top risks		Primary risk control measures
Risk event	Risk scenario	
Prolonged impact of COVID-19	<ul style="list-style-type: none"> ● Rise in COVID-19 cases both in and outside Japan due to outbreaks of new variants, consequent increased credit costs ● Worsening economic impact of prolonged global supply constraints 	<ul style="list-style-type: none"> ● Credit risk: Taking into consideration the impact of COVID-19, soaring product prices due to the Russia-Ukraine situation, and the weakening of the Japanese yen, specify and review the areas of our portfolio requiring enhanced management and allocate additional reserves ● Market risk: Taking into consideration the deterioration of the market environment, with rising interest rates and falling stock prices, continue enhancing our profit/loss monitoring framework and conducting careful portfolio management ● Foreign currency liquidity risk: In preparation for a more challenging fund raising environment, enhance monitoring frameworks related to short-term and medium- to long-term investment and funding, and reinforce stable funding ● Predictive management based on monitoring changes in the external environment and other information.
Continuation of high global inflation	<ul style="list-style-type: none"> ● Increased demand accompanying post-COVID economic recovery and supply constraints due to a stagnating labor market recovery, in combination with soaring energy and food prices from the Russia-Ukraine situation, leading to continued global inflation ● Economic deterioration due to sudden interest rate hikes causing an increase in credit costs 	
Growing US-China friction and accelerating global division	<ul style="list-style-type: none"> ● Geopolitical risks presented by the Russia-Ukraine situation, added to the growing and intensified pattern of confrontation between the US and China, leading to further formation of bloc economies and accelerated global division ● Rise in credit costs due to deteriorated business performance and downgrade in corporate credit ratings resulting from factors such as global revisions to supply chains 	<ul style="list-style-type: none"> ● Promotion and appropriate disclosure of business strategy responses to climate change ● Formulation of risk control policy for sectors expected to face high risk, engagement with clients ● Clarification of risk management framework for climate-related financial risks
Increasing severity of climate change impacts	<ul style="list-style-type: none"> ● Increased credit costs due to companies that delay climate change responses facing issues in raising funds and consequently suffering deterioration in business performance ● Tightened regulations and supervision in relation to climate-related financial risks among financial institutions ● Damage to our corporate value due to criticism of initiatives aimed at the decarbonization of the Mizuho group 	
IT system failures	<ul style="list-style-type: none"> ● System failures resulting from factors such as human negligence, hardware failures, or disasters causing wide-spread inconvenience or disadvantage to customers and damaging trust, leading to the loss of business opportunities 	<ul style="list-style-type: none"> ● Steady and ongoing implementation of assessments and other measures for preventing system failures, and improvements to the effectiveness of contingency plans enhancing our ability to respond to system failures ● System risk monitoring from multifaceted perspectives
Cyberattacks	<ul style="list-style-type: none"> ● Attacks from criminal or terrorist organizations that result in suspension of services, exposure of information, and/or unauthorized fund transfers, causing wide-spread inconvenience or disadvantage to customers and damaging trust, leading to the loss of business opportunities 	<ul style="list-style-type: none"> ● Establishment of a monitoring system and enhancements to our resilience framework through analysis of computer viruses and development of multilayered defense systems ● Cyberattack drills in preparation for incidents, plus employee training
Money laundering / Financing of terrorism	<ul style="list-style-type: none"> ● Financial services being misused for criminal acts, resulting in criticism from the international community, damaging trust with customers and with other financial institutions, and leading to the loss of global business opportunities 	<ul style="list-style-type: none"> ● Enhancement of frameworks for anti-money laundering measures and other efforts in line with laws/regulations and guidelines from the Financial Services Agency of Japan ● Implementation of steady risk control through enhancing our legal and compliance personnel and raising group-wide knowledge and risk awareness
Inappropriate behavior or nonfeasance by executive officers / employees	<ul style="list-style-type: none"> ● Damage to trust and loss of business opportunities stemming from the occurrence in or outside Japan of legal/regulatory infractions or inappropriate behavior or nonfeasance deemed to be out of line with social norms 	<ul style="list-style-type: none"> ● Analyze the cause of the incident and formulate improvement measures ● Enhance predictive management in order to reduce instances of misconduct
Stagnation of growth due to factors such as labor shortages	<ul style="list-style-type: none"> ● Stagnation in strategy implementation and deterioration in capacity for providing services due to difficulties concerning employee turnover and employee development, which are linked to diversification of career aspirations and increased labor market flow 	<ul style="list-style-type: none"> ● Improving employees' sense of fulfillment through career development support and reducing the amount of overwork ● Ensuring accurate understanding of personnel demands and enhancing mid-career hiring for better talent retention
Rapid development of digital society	<ul style="list-style-type: none"> ● Rapid expansion of revolutionary financial services, the rise of new economic landscapes, and the resulting intensification of competition as companies from other industries enter the field of finance 	<ul style="list-style-type: none"> ● Clarifying our digital transformation strategy and developing and enhancing the skills of specialists

Note: The risks described here are only some of the possible risks we are aware of. For more comprehensive information on the Mizuho group's risks, please refer to the annual securities report, Form 20-F, and other related documents.

Comprehensive risk management

Comprehensive risk management systems

At Mizuho, we have put in place a system whereby each group company conducts risk management appropriate for the company's business operations and scope and status of risk, and Mizuho Financial Group, as the holding company, oversees risk management across the whole group.

The Risk Management Committee chaired by the Group CRO provides integrated monitoring and management of the overall risk for the Mizuho group. The Group CRO reports the risk management situation to the Board of Directors, the Risk Committee, and the Executive Management Committee regularly and as necessary. In addition, Mizuho Financial Group receives reports and applications for approval concerning the risk management situation from our core group companies and gives them appropriate instructions concerning risk management as necessary.

At Mizuho, we classify and manage the risks that arise in our businesses according to the various kinds of risk, including credit risk, market risk, liquidity risk, and operational risk. Moreover, our group companies manage risk appropriately according to the nature of their risk, such as settlement risk, trust banking operations risk, and similar.

In addition to managing each type of risk individually, we have established a risk management structure at Mizuho to identify and evaluate overall risk and to keep risk within limits that are acceptable.

In line with the basic policies relating to overall risk management established by Mizuho Financial Group, we are working to take even more proactive and sophisticated approaches to risk management.

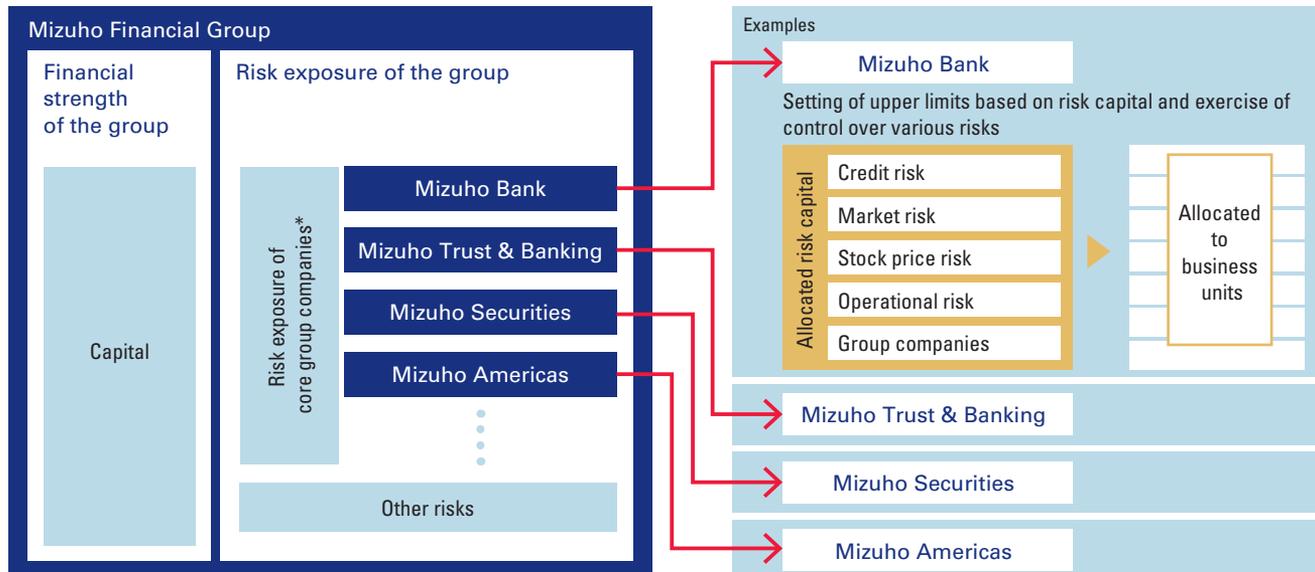
Risk capital allocation

At Mizuho, under the risk capital allocation framework, we endeavor to obtain a clear grasp of the group's overall risk exposure and implement measures to make sure this exposure is within limits that are acceptable.

More specifically, we allocate risk capital to our core group companies (including their subsidiaries) to control risk within the limits set for each company. We also control risk within acceptable limits by working to ensure that the overall risk on a consolidated basis does not exceed our financial capacity. To ensure the ongoing

financial soundness of Mizuho Financial Group and our core group companies we regularly monitor the manner in which risk capital is being used in order to obtain an accurate grasp of the risk profile within this framework. Reports are also submitted to the Board of Directors and other committees of each company. Risk capital is allocated to Mizuho Bank, Mizuho Trust & Banking, Mizuho Securities, and Mizuho Americas by risk category, and is further allocated within their respective business units.

Framework for allocating risk capital



*Includes the risk exposure of group companies that are managed by core group companies

Credit risk management

»» Basic approach

We define credit risk as the Mizuho group's exposure to the risk of losses that may be incurred due to a decline in, or total loss of, the value of assets (including off-balance-sheet instruments), as a result of deterioration in obligors' financial position.

»» Credit risk management structure

Our Board of Directors determines the Mizuho group's basic matters pertaining to credit risk management. In addition, the Risk Management Committee broadly discusses and coordinates matters relating to basic policies and operations in connection with credit risk management and matters relating to credit risk monitoring for the Mizuho group. Under the control of the Group Chief Risk Officer of Mizuho Financial Group, the Credit Risk Management Department and the Risk Management Department jointly monitor, analyze, and submit suggestions concerning credit risk and formulate and execute plans in connection with basic matters pertaining to credit risk management.

Our principal banking subsidiaries and other core group companies manage their credit risk according to the scale and nature of their exposures in line with basic policies set forth by Mizuho Financial Group. The Board of Directors of each company determines key matters pertaining to credit risk management.

»» Method of credit risk management

We have adopted two different but mutually complementary approaches to credit risk management. The first approach is "individual credit management," in which we manage the process for each individual transaction and individual obligor from execution until collection, based on our assessment of the credit quality of the

Mizuho Financial Group manages credit risk for the group as a whole. Specifically, Mizuho Financial Group establishes the group's fundamental credit risk policy to manage major group companies, and monitors and manages the credit risks of the group as a whole.

The Balance Sheet & Risk Management Committee and the Credit Committee, each of which is a business policy committee of our principal banking subsidiaries, are responsible for discussing and coordinating overall management of their individual credit portfolios and transaction policies towards obligors. The respective Chief Risk Officers of our principal banking subsidiaries are responsible for matters relating to planning and implementing credit risk management. The credit risk management departments of our principal banking subsidiaries are in charge of planning and administering credit risk management and conducting credit risk measuring and monitoring. Such departments regularly present reports regarding their risk management situation to Mizuho Financial Group. The credit departments of our principal banking subsidiaries determine policies and approve/disapprove individual transactions in terms of credit review, credit management and collection from obligors in accordance with the lines of authority set forth respectively by our principal banking subsidiaries. In addition, our principal banking subsidiaries have established internal audit groups that are independent of the business departments in order to ensure appropriate credit risk management.

obligor. Through this process, we curb losses in the case of a credit event. The second is "credit portfolio management," in which we utilize statistical methods to assess the potential for losses related to credit risk. Through this process, we identify credit risks and respond appropriately.

Individual credit management

1. Credit Codes

The basic code of conduct for all of our executive officers and employees engaged in the credit business is set forth in our credit code. Seeking to fulfill the bank's mission and social responsibilities, our basic policy for credit business is determined in light of fundamental principles focusing on public welfare, safety, growth, and profitability.

2. Internal rating system

One of the most important elements of the risk management infrastructure of our principal banking subsidiaries is the use of an internal rating system that consists of credit ratings and pool allocations. Credit ratings consist of obligor ratings which represent the level of credit risk of the obligor, and transaction ratings which represent the possibility of ultimately incurring losses related to each individual claim by taking into consideration the nature of any collateral or guarantee and the seniority of the claim.

In principle, obligor ratings apply to all obligors and are subject to regular reviews at least once a year to reflect promptly the fiscal period end financial results of the obligors, as well as special reviews as required whenever an obligor's credit standing changes. This enables our principal banking subsidiaries to monitor both individual obligors and the status of the overall portfolio in a timely fashion. Because we consider obligor ratings to be an initial phase of the self-assessment process regarding the quality of our loans

and off-balance-sheet instruments, such obligor ratings are closely linked to the obligor classifications and are an integral part of the process for determining the provision for credit losses on loans and charge-offs in our self-assessment of loans and off-balance-sheet instruments. (Please refer to the chart on the next page regarding the connection between obligor ratings, definition of obligor classifications of self-assessments, non performing loans based on the Banking Act and the Financial Reconstruction Act).

To assign obligor ratings, we have a quantitative evaluation system (rating model) in place to enable proper assessment of an obligor's credit standing. The system gives a quantitative rating to an obligor based on obligor-specific characteristics such as type of business (corporation or individual) and geography (in Japan or outside Japan). We categorize our rating models for companies in Japan into those for large companies and those for small and medium-sized companies. The former consist of 13 models according to industry-specific factors, while the latter consist of three models. For companies outside Japan, we utilize nine models.

These were developed by the Credit Risk Management Department based on a statistical methodology and approved by the Chief Risk Officer.

Pool allocations are applied to small claims that are less than a specified amount by pooling obligors and claims with similar risk

Connection between obligor ratings, definition of obligor classifications of self-assessments, non performing loans based on the Banking Act ("BA") and the Financial Reconstruction Act ("FRA")

Definition of obligor classifications of self-assessment	Obligor ratings (major category)	Definition of ratings	Category I (non-categorized)	Category II	Category III	Category IV (non-collateralized)	Non performing loans based on the BA and the FRA	
Normal obligors	A1—A3	Obligors whose certainty of debt fulfillment is very high, hence their level of credit risk is excellent.	All credit given to normal obligors.				Normal claims	
	B1—B2	Obligors whose certainty of debt fulfillment poses no problems for the foreseeable future, hence their level of credit risk is sufficient.						
	C1—C3	Obligors whose certainty of debt fulfillment and their level of credit risk pose no problems for the foreseeable future.						
	D1—D3	Obligors whose current certainty of debt fulfillment poses no problems, however, their resistance to future environmental changes is low.						
Watch obligors	E1	Obligors who require close watching going forward because there are problems with their borrowings, such as reduced or suspended interest payments, problems with fulfillment such as de facto postponements of principal or interest payments, or problems with their financial positions as a result of their poor or unstable business conditions.		Credit given to watch obligors other than those included in category I.			Claims for special attention	Restructured loans
	E2							Loans past due for 3 months or more
Intensive control obligors	F1	Obligors who are not yet bankrupt but are in financial difficulties and are deemed to be very likely to go bankrupt in the future because they are finding it difficult to make progress in implementing their management improvement plans (including obligors who are receiving ongoing support from financial institutions).	Credit to obligors which has pledged collateral or is covered by guarantees, considered of high quality, such as deposit collateral.		Credit given to intensive control obligors other than those included in category I and category II.		Claims with collection risk	
Substantially bankrupt obligors	G1	Obligors who have not yet gone legally or formally bankrupt but who are substantially bankrupt because they are in serious financial difficulties and are not deemed to be capable of restructuring.		Credit to obligors which is covered by general collateral, such as real estate and guarantees.	The difference between the assessed value and market value of collateral on credit to bankrupt and substantially bankrupt obligors (i.e., the portion of loans for which final collection problems or losses are anticipated).	Credit to bankrupt and substantially bankrupt obligors, other than those in category I, category II and category III (credit that is judged to be unrecoverable or without value).	Claims against bankrupt and substantially bankrupt obligors	
Bankrupt obligors	H1	Obligors who have already gone bankrupt, from both a legal and/or formal perspective.						

characteristics and assessing and managing the risk for each such pool. Our principal banking subsidiaries efficiently manage credit risk and credit screening by dispersing a sufficient number of small claims within each pool.

Our principal banking subsidiaries generally review the appropriateness and effectiveness of our approach to obligor ratings and pool allocations once a year in accordance with predetermined procedures, which is audited by the Internal Audit Group.

Mizuho Financial Group defines a Restructured Loan as a loan extended to a Watch Obligor when the following conditions are met: an obligor is experiencing financial difficulties and lending conditions were amended favorably to the obligor such as allowing interest rate reduction, postponement of principal repayment/ interest payment, debt forgiveness, etc.

An overdue loan is defined as a loan for a Watch Obligor of which the loan principal or interest is overdue for three months or more following the contractual payment date.

Methods for provision for credit losses on loans and off-balance-sheet instruments and charge-offs

Normal obligors	Calculate the value of estimated loss based on the probability of failure over the coming year for loans by obligor rating and appropriate it for the general provision for credit losses on loans and off-balance-sheet instruments.
Watch obligors	Calculate the estimated loss on loans based on the probability of failure over the next three years and appropriate it for the general provision for credit losses on loans and off-balance-sheet instruments. Further, in regard to special attention obligors, for obligors with large claims more than a certain amount, if the cash flow from the return of principal and interest payments can reasonably be estimated, set up a provision for credit losses on loans and off-balance-sheet instruments under the DCF method.
Intensive control obligors	Provide an amount for specific provision for credit losses on loans and off-balance-sheet instruments as calculated by one of the following methods after deducting amounts anticipated to be recoverable from the sale of collateral held against the claims and from guarantors of the claims: a) an amount calculated based on the overall ability of the obligor to pay, or b) the estimated loss calculated on the basis of the balance and the probability of failure over the next three years. Further, for obligors with large claims more than a certain amount, if the cash flow from the return of principal and interest payments can reasonably be estimated, set up a provision for credit losses on loans and off-balance-sheet instruments under the DCF method.
Substantially bankrupt obligors	Provide the entire balance after deducting amounts anticipated to be recoverable from the sale of collateral held against the claims and from guarantors of the claims for specific provision for credit losses on loans and off-balance-sheet instruments, or charge-off the entire balance.
Bankrupt obligors	

3. Self-assessment, Provision for Credit Losses on Loans and Off-Balance-Sheet Instruments and Charge-Offs

We conduct self-assessment of assets to ascertain the status of assets both as an integral part of credit risk management and in preparation for appropriate accounting treatment, including provision for credit losses on loans and off-balance-sheet instruments and charge-offs. During the process of self-assessment, obligors are categorized into certain groups taking into consideration their financial condition and their ability to make payments, and credit ratings are assigned to all obligors, in principle, to reflect the extent of their credit risks. The related assets are then categorized into certain classes based on the risk of impairment. This process allows us to identify and control the actual quality of assets and determine the appropriate accounting treatment, including provision for credit losses on loans and off-balance-sheet instruments and charge-offs. Specifically, the credit risk management department of each of our principal subsidiaries is responsible for the overall control of the self-assessment of assets of the respective banking subsidiaries, cooperating with the administrative departments specified for each type of asset, including loan portfolios and securities, in executing and managing self-assessments. In our assessment of the probability of obligor bankruptcy, we deem an obligor that is rated as being insolvent or lower as being bankrupt.

4. Credit review

Prevention of new impaired loans through routine credit management is important in maintaining the quality of our overall loan assets.

Credit review involves analysis and screening of each potential transaction within the relevant business department. In case the screening exceeds the authority of the department, the credit department in charge at headquarters carries out the review. We have specialist departments for different industries, business sizes, and regions, carries out timely and specialized examinations based on the characteristics of the client and its market, and provides appropriate advice to the business department.

In addition, in the case of obligors with low credit ratings and high downside risks, the business department and credit department jointly clarify their credit policy and in appropriate cases assist the obligors at an early stage in working towards credit soundness.

Credit portfolio management

1. Risk measurement

We use statistical methodologies that involve a risk measurement system (enterprise value corporate valuation model, holding period of one year) to manage the possibility of losses by measuring the expected average loss for a one-year risk horizon ("Expected Loss") and the maximum loss within a certain confidence interval ("Credit VAR"). The difference between Expected Loss and Credit VAR is measured as the credit risk amount ("Unexpected Loss").

The risk measurement system covers the following account items

reported by each Mizuho Financial Group company: credit transactions including loans and discounts; securities; obligors' liabilities for acceptances and guarantees; deposits and foreign exchange; derivatives including swaps and options; off-balance-sheet items including commitments; and other assets involving credit risk.

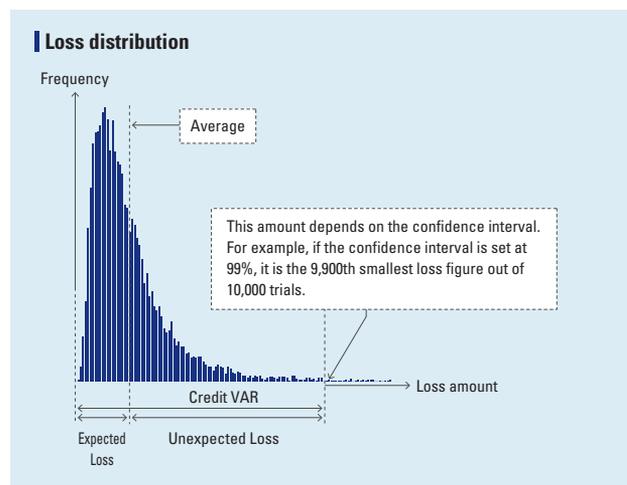
In establishing transaction spread guidelines for credit transactions, we aim to ensure an appropriate return from the transaction in light of the level of risk by utilizing credit cost data as a reference.

Also, we monitor our credit portfolio from various perspectives and set guidelines noted below so that losses incurred through a hypothetical realization of the full Credit VAR would be within the amount of risk capital and loan loss reserves.

2. Risk control methods

Our principal banking subsidiaries have established guidelines to manage "credit concentration risk," which stems from granting excessive credit to certain corporate groups. Our principal banking subsidiaries also set the credit limit based on a verification of the status of capital adequacy. In cases where the limit is exceeded, our principal banking subsidiaries will formulate a handling policy and/or action plan.

In addition to the above, our principal banking subsidiaries monitor total credit exposure, credit exposure per rating, credit concentration per corporate group, geographic area, and business sector to make a periodical report to the Balance Sheet & Risk Management Committee and the Credit Committee.



Market risk management

»» Basic approach

We define market risk as the risk of losses incurred by the group due to fluctuations in interest rates, stock prices, and foreign exchange rates. Our definition includes the risk of losses incurred when it becomes impossible to execute transactions in the market because of market confusion or losses arising from transactions at prices that are significantly less favorable than usual.

Mizuho Financial Group manages market risk for the Mizuho group as a whole. Specifically, Mizuho Financial Group establishes the fundamental risk management policy for the entire group, manages the market risk of our principal banking subsidiaries and other core group companies, and monitors how the group's market risk is being managed as a whole.

»» Market risk management structure

Our Board of Directors determines basic matters pertaining to market risk management policies. The Risk Management Committee of Mizuho Financial Group broadly discusses and coordinates matters relating to basic policies in connection with market risk management, market risk operations, and market risk monitoring. The Group CRO of Mizuho Financial Group is responsible for matters relating to market risk management planning and operations.

As for the situation of market risk, the Risk Management Department submits reports to the President and Group CEO on a daily basis and to the Board of Directors on a regular basis. For the purpose of managing the market risk of our principal banking subsidiaries and other core group companies, the Department regularly receives reports from each of them to properly identify and manage their market risk. These subsidiaries and core group companies, which account for most of the Mizuho group's exposure to market risk, establish their basic policies based on ours, and their Boards of Directors determine important matters relating to market risk management.

The Risk Management Department of Mizuho Financial Group is responsible for monitoring market risk, reporting and analyzing, making proposals, setting limits and guidelines, and formulating and implementing plans relating to market risk management.

»» Market risk management method

To manage market risk, we set limits that correspond to risk capital allocations according to the risk profile of each of our principal banking subsidiaries and other core group companies and thereby prevent the overall market risk we hold from exceeding our financial

strength represented by capital and other indicators. The amount of risk capital allocated to market risk corresponds to value-at-risk (the "VAR") and additional costs that may arise in order to close relevant positions.

Setting limits

When the above mentioned limits are set, various factors are taken into account, including business strategies, historical limit usage ratios, risk-bearing capacity (profits, equity capital, and risk management framework), profit targets and the market liquidity of the products involved. The limits are discussed and coordinated by the Risk Management Committee, discussed further by the Executive Management Committee and then determined by the President & Group CEO. For trading and banking activities, we set limits for VAR and for losses. For banking activities, we set position limits based on interest rate sensitivity (10 BPV) as needed. An excess over any of these limits is immediately reported and addressed according to a pre-determined procedure.

Monitoring

To provide a system of mutual checks and balances in market operations, we have established middle offices specializing in risk management that are independent of front offices which engage in market transactions and of back offices which are responsible for book entries and settlements. When VAR is not adequate to control risk, the middle offices manage risk using additional risk indices, carry out stress testing, and set stop loss limits as needed. We monitor market liquidity risk for individual financial products in the market while taking turnover and other factors into consideration.

Status of Mizuho Financial Group's market risk

Value-at-risk

We use the VAR method, supplemented with stress testing, as our principal tool to measure market risk. The VAR method measures the maximum possible loss that could be incurred due to market movements within a certain time period (or holding period) and degree of probability (or confidence interval).

Trading activities

VAR related to our trading activities is based on the following:

- historical simulation method;
- confidence interval: one-tailed 99.0%;
- holding period of one day; and
- historical observation period of three years.

The following tables show the VAR related to our trading activities by risk category for the fiscal years ended March 31, 2020, 2021 and 2022 and as of March 31, 2020, 2021 and 2022:

VAR by risk category (trading activities)

(¥ billion)

	Fiscal 2019			
	Daily average	Maximum	Minimum	At March 31
Interest rate	2.7	7.2	1.3	6.7
Foreign exchange	0.4	1.1	0.1	0.8
Equities	0.6	4.5	0.2	1.7
Commodities	0.0	0.0	0.0	0.0
Total	3.8	11.8	2.3	8.3

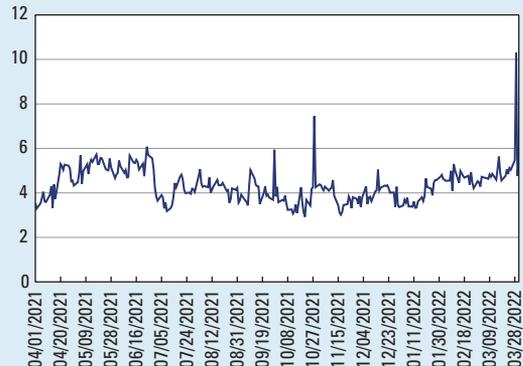
	Fiscal 2020			
	Daily average	Maximum	Minimum	At March 31
Interest rate	4.3	8.6	1.7	2.6
Foreign exchange	0.7	1.3	0.3	0.4
Equities	1.1	6.6	0.1	0.7
Commodities	0.0	0.0	0.0	0.0
Total	5.4	9.1	2.4	2.7

	Fiscal 2021			
	Daily average	Maximum	Minimum	At March 31
Interest rate	3.8	5.7	2.8	4.0
Foreign exchange	0.5	1.5	0.3	1.0
Equities	0.8	4.9	0.2	1.1
Commodities	0.0	0.1	0.0	0.0
Total	4.3	10.2	2.9	5.3

The following graph shows VAR figures of our trading activities for the fiscal year ended March 31, 2022:

Fiscal 2021 VAR (trading activities)

(VAR: ¥ billion)



The following table shows VAR figures of our trading activities for the fiscal years indicated:

VAR (trading activities)

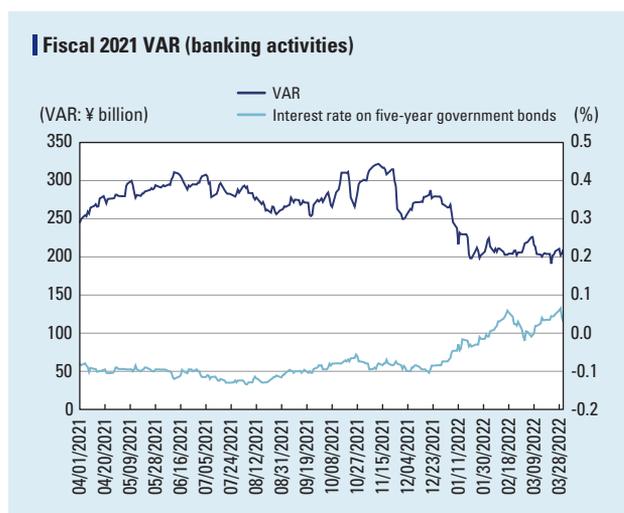
(¥ billion)

	Fiscal 2019	Fiscal 2020	Fiscal 2021	Change
As of fiscal year end	8.3	2.7	5.3	2.5
Maximum	11.8	9.1	10.2	1.1
Minimum	2.3	2.4	2.9	0.4
Average	3.8	5.4	4.3	(1.0)

Non-trading activities

The VAR related to our banking activities is based on the same conditions as those of trading activities, but the holding period is one month. In addition, as for risk management of banking activities, it is important to properly measure interest rate risk so that we calculate interest risk using appropriate methods such as recognizing demand deposits as “core deposits.”

The following graph shows the VAR related to our banking activities excluding our cross-shareholdings portfolio for the year ended March 31, 2022:



The following table shows the VAR figures relating to our banking activities for the fiscal years indicated:

VAR (banking activities)				(¥ billion)
	Fiscal 2019	Fiscal 2020	Fiscal 2021	Change
As of fiscal year end	361.4	249.4	209.7	(39.7)
Maximum	361.4	501.7	321.9	(179.8)
Minimum	167.9	224.0	191.0	(33.0)
Average	215.7	346.5	266.0	(80.4)

Characteristics of VAR model

VAR is a commonly used market risk management technique.

However, VAR models have the following shortcomings:

- By its nature as a statistical approach, VAR estimates possible losses over a certain period at a particular confidence level using past market movement data. Past market movement, however, is not necessarily a good indicator of future events, particularly potential future events that are extreme in nature.
- VAR may underestimate the probability of extreme market movements.
- The use of a 99.0% confidence level does not take account of, nor makes any statement about, any losses that might occur beyond this confidence level.

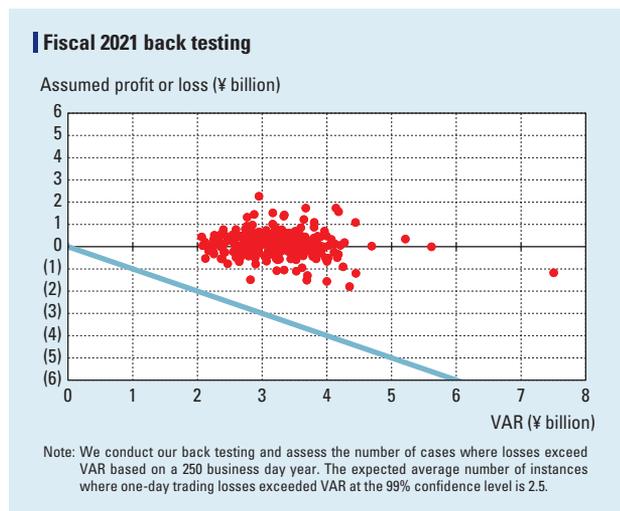
- VAR does not capture all complex effects of various risk factors on the value of positions and portfolios and could underestimate potential losses.

Cross-shareholdings portfolio management activities

We take the market risk management approach with use of VAR and risk indices for cross-shareholdings portfolio management activities to properly manage stock price risk. Specifically, we monitor VAR measurements and the state of risk capital on a daily basis. Moreover, in order to control stock price risk, we are working on the reduction in cross-shareholdings through careful negotiations with counterparties.

Back testing

In order to evaluate the effectiveness of market risk measurements calculated using the VAR method, we carry out regular back tests to compare VAR with assumptive profits and losses. Assumptive profits and losses accounts for general market risk. The graph below shows daily VAR of trading activities for the fiscal year ended March 31, 2022 and the corresponding paired distribution of profits and losses. We had zero cases where losses exceeded VAR during the period. In addition, we conduct evaluations of the assumptions related to the VAR models. Based on the number of times losses exceeded VAR through back testing and the results of the evaluation of the model assumptions, we will make adjustments to the models as appropriate. Changes to fundamental portions of the VAR models are subject to the approval of our Group Chief Risk Officer.



»» Stress testing

Because the VAR method is based on statistical assumptions, we conduct stress testing to simulate the levels of losses that could be incurred in cases where the market moves suddenly to levels that exceed these assumptions. The stress testing methods we use include the calculation of losses under scenarios in which stresses are applied to interest rate risk and stock price risk based on current and projected economic conditions, historical market events, etc.

Liquidity risk management

»» Basic approach

We define liquidity risk as the risk of losses arising from funding difficulties due to deterioration of our financial position that make it difficult for us to raise necessary funds or force us to raise funds at significantly higher interest rates than usual.

Mizuho Financial Group manages liquidity risks for the Mizuho group as a

whole. Specifically, Mizuho Financial Group establishes a fundamental liquidity risk management policy for the entire group, manages the liquidity risk of our principal banking subsidiaries and other core group companies, and monitors how the group's liquidity risk is being managed as a whole.

»» Liquidity risk management structure

Our Board of Directors determines the basic matters pertaining to liquidity risk management policies. The Risk Management Committee of Mizuho Financial Group broadly discusses and coordinates matters relating to the basic policies in connection with the liquidity risk management, operations, and monitoring, as well as proposes responses to emergencies such as sudden market changes. The Group Chief Risk Officer of Mizuho Financial Group is responsible for matters relating to liquidity risk management planning and operations. The Risk Management Department of Mizuho Financial Group is responsible for monitoring, reporting and analyzing liquidity risk, making proposals in connection with liquidity risk, and formulating and implementing plans relating to liquidity risk management. In addition, the Group Chief Financial Officer of Mizuho Financial Group is responsible for matters

relating to the planning and operation of funds management, and the Financial Planning Department is responsible for its monitoring and also for planning and implementing measures relating to funds management to maintain appropriate funding liquidity. Reports on the liquidity risk management are submitted to the Risk Management Committee, the Balance Sheet Management Committee (each of which is a Business Policy Committee), the Executive Management Committee, and the President & Group CEO on a regular basis.

Our principal banking subsidiaries and other core group companies also establish their own basic policies on liquidity risk management to properly identify and manage liquidity risk.

»» Liquidity risk management method

We manage liquidity risk through the frameworks of "liquidity risk management indicators" and "liquidity categorization." The former is determined for the purpose of managing limits on funds raised in the market considering our fund raising capabilities, and the latter is determined based on our funding conditions. We also carry out liquidity

stress testing to verify the sufficiency of liquidity reserve assets and the effectiveness of countermeasures against a possible outflow of funds during a stress event. The results of stress testing are used for funds management operations.

Liquidity risk management indicators

Limits on funds raised in the market are set based on a number of time horizons taking into account the characteristics and strategies of each of our principal banking subsidiaries and other core group companies. Such limits are discussed and coordinated by the Risk Management Committee, discussed further by the Executive Management Committee, and determined by the President & Group CEO. An excess over any of these limits is immediately reported and addressed in accordance with pre-determined procedures.

Liquidity stress testing

We carry out stress testing regularly based on market-wide factors, idiosyncratic factors of the group, and a combination of both types of factors to verify the sufficiency of liquidity reserve assets and the effectiveness of our liquidity contingency funding plans. Furthermore, we utilize stress testing to evaluate the appropriateness of our annual funding plan.

Liquidity categorization

We have established a group-wide framework of assessing the levels of the liquidity risks by categorizing them into "normal," "anxious," and "crisis," to reflect the funding conditions. In addition, we set early warning indicators ("EWIs") and monitor on a daily basis to manage the funding conditions. The EWIs include stock prices, credit ratings, amount of liquidity reserve assets such as Japanese government bonds, our funding situations, etc.

Operational risk management

»» Basic approach

We define operational risk as the risk of losses that may be incurred resulting from inadequate or failed internal processes or systems, human error, or external events. We control operational risk management for the Mizuho group as a whole. Considering that operational risk includes information technology risk, operations risk, legal risk, human capital risk, tangible asset risk, regulatory risk, and

reputational risk, we have separately determined the fundamental risk management policies for these different types of risk. We manage the operational risk associated with our principal banking subsidiaries and other core group companies while monitoring the state of group-wide operational risk.

	Definition	Principal risk management methods
Information technology risk	Risk that customers may incur losses or our group companies may incur losses due to problems (e.g. malfunctions, disruptions, etc.) with the computer systems or improper use of the computers in these systems, which cause disruptions of the services provided to customers, or have significant impact on settlement systems, etc.	<ul style="list-style-type: none"> Identify and evaluate the risk by setting specific standards that need to be complied with and implementing measures tailored based on evaluation results to reduce the risk. Ensure ongoing project management in systems development and quality control. Strengthen security to prevent information leaks. Strengthen capabilities for rapidly and effectively dealing with cyberattacks. Improve effectiveness of emergency responses by improving backup systems and holding drills.
Operations risk	Risk that customers may incur losses or the group may incur losses due to the disruption of services to customers or major incidents affecting settlement systems, etc., as a result of inadequate operations caused by fraudulent acts, errors or negligence, etc., of senior executives or employees, or inadequacies in the operational structure itself.	<ul style="list-style-type: none"> Establish clearly defined procedures for handling operations. Periodically check the status of operational processes. Conduct training and development programs led by Head Office. Introduce information technology, office automation, and centralization for operations. Improve the effectiveness of emergency responses by holding drills.
Legal risk	Risk that the group may incur losses due to violation of laws and regulations, breach of contract, entering into improper contracts or, other legal factors.	<ul style="list-style-type: none"> Review and confirm legal issues, including the legality of material decisions, agreements and documents for external consumption, etc. Collect and distribute legal information and conduct internal training programs. Analyze and manage issues related to lawsuits.
Human capital risk	Risk that the group may incur losses due to turnover or loss of personnel, deterioration of morale, inadequate development of personnel, inappropriate working schedules, inappropriate working and safety environment, inequality or inequity in human resource management, or discriminatory conduct.	<ul style="list-style-type: none"> Conduct employee satisfaction surveys. Understand the status of working hours. Understand the status of vacation days taken by personnel. Understand the status of voluntary resignations. Understand the status of the stress check system.
Tangible asset risk	Risk that the group may incur losses from damage to tangible assets or a decline in the quality of the working environment as a result of disasters, criminal actions, or defects in asset maintenance.	<ul style="list-style-type: none"> Manage the planning and implementation of construction projects related to the repair and replacement of facilities. Identify and evaluate the status of damage to tangible assets caused by natural disasters or other causes, and respond appropriately to such damage.
Regulatory risk	Risk that the group may incur losses due to changes in various regulations or systems, such as those related to law, taxation, and accounting.	<ul style="list-style-type: none"> Understand important changes in regulations or systems that have significant influence on our business operations or financial condition in a timely and accurate manner. Analyze degree of influence of regulatory changes and establish countermeasures. Continuously monitor our regulatory risk management mentioned above.
Reputational risk	Risk that the group may incur losses due to adverse effects to our reputation or Mizuho's brand value when all services provided by and all activities conducted by the group, officers, and employees are recognized as having deviated from expectations and requirements from the relevant stakeholders including clients, employees, the economy, and society.	<ul style="list-style-type: none"> Establish framework to identify and manage, on an integrated basis, information that may have a serious impact on group management and respond to such risk in a manner appropriate to its scale and nature. Swiftly identify rumors and devise appropriate responses depending on the urgency and possible impact of the situation to minimize possible losses.

We also recognize and manage information security risk and compliance risk, which constitute a combination of more than one of the above components, as operational risk.

»» Operational risk management structure

Our Board of Directors determines basic matters pertaining to operational risk management policies. The Risk Management Committee of Mizuho Financial Group broadly discusses and coordinates matters relating to basic policies in connection with operational risk management, operational risk operations, and operational risk monitoring. The Group Chief Risk Officer of Mizuho Financial Group is responsible for matters relating to operational risk management planning and operations. The Risk Management Department of Mizuho Financial Group is responsible

for monitoring market risk, reporting and analyzing, making proposals, setting limits and guidelines, and formulating and implementing plans relating to operational risk management.

Our principal banking subsidiaries and core group companies establish their basic policies on operational risk management, and their Boards of Directors determine important matters relating to operational risk management.

»» Operational risk management method

To manage operational risk, we set common rules for data gathering to develop various databases shared by the group and measure operational risk as operational VAR on a regular basis, taking into account possible future loss events and changes in the business environment and internal management.

We have established and are strengthening management methods and systems to appropriately identify, assess, measure, monitor, and control the operational risks that arise from the growing sophistication and

diversification of financial operations and developments relating to information technology by utilizing control self-assessments and improving measurement methods.

• Control self-assessments

An autonomous method of risk management in which risk inherent in operations is identified and, after evaluating and monitoring risks that remain despite implementing risk control, the necessary measures are implemented to reduce risk.

»» Definition of risks and risk management methods

As shown in the table on the previous page, we have defined each component of operational risk, and we apply appropriate risk

management methods in accordance with the scale and nature of each risk.

»» Measurement of operational risk equivalent

1. Implementation of the Advanced Measurement Approach (AMA)

We have adopted the AMA for the calculation of operational risk equivalent in association with capital adequacy ratios based on the Basel Accords. However, we use the Basic Indicator Approach for entities that are deemed to be less important in the measurement of operational risk equivalent.

The measurement results under the AMA are used not only as the operational risk equivalent in the calculation of capital adequacy ratios but also as Operational VAR for internal risk management purposes for implementing action plans to reduce operational risk, and other countermeasures.

2. Outline of the AMA

Outline of the measurement system

We have established our model by taking account of four elements: internal loss data; external loss data; scenario analysis and business environment; and internal control factors (BEICFs). We calculate the operational risk amount by estimating the maximum loss, using a 99.9th percentile one-tailed confidence interval and a one-year holding period as operational risk equivalent, employing both internal loss data (i.e., actually experienced operational loss events), and scenario data to reflect unexperienced potential future loss events in the measurement.

In the measurement of operational risk equivalent as of March 31, 2022, we did not exclude expected losses and also did not recognize the risk mitigating impact of insurance. In addition, we did not take into account the events related to credit risk in measuring operational risk equivalent.

Outline of measurement model

Operational risk equivalent is calculated as a simple sum of those risk amounts related to the seven loss event types defined in the Capital Adequacy Notice from Japan’s Financial Services Agency, large-scale natural disasters, and litigation. In the measurement of operational risk equivalent as of March 31, 2022, we did not reflect the correlation effects among operational risk related to each of the seven loss event types.

Operational risk by loss event type

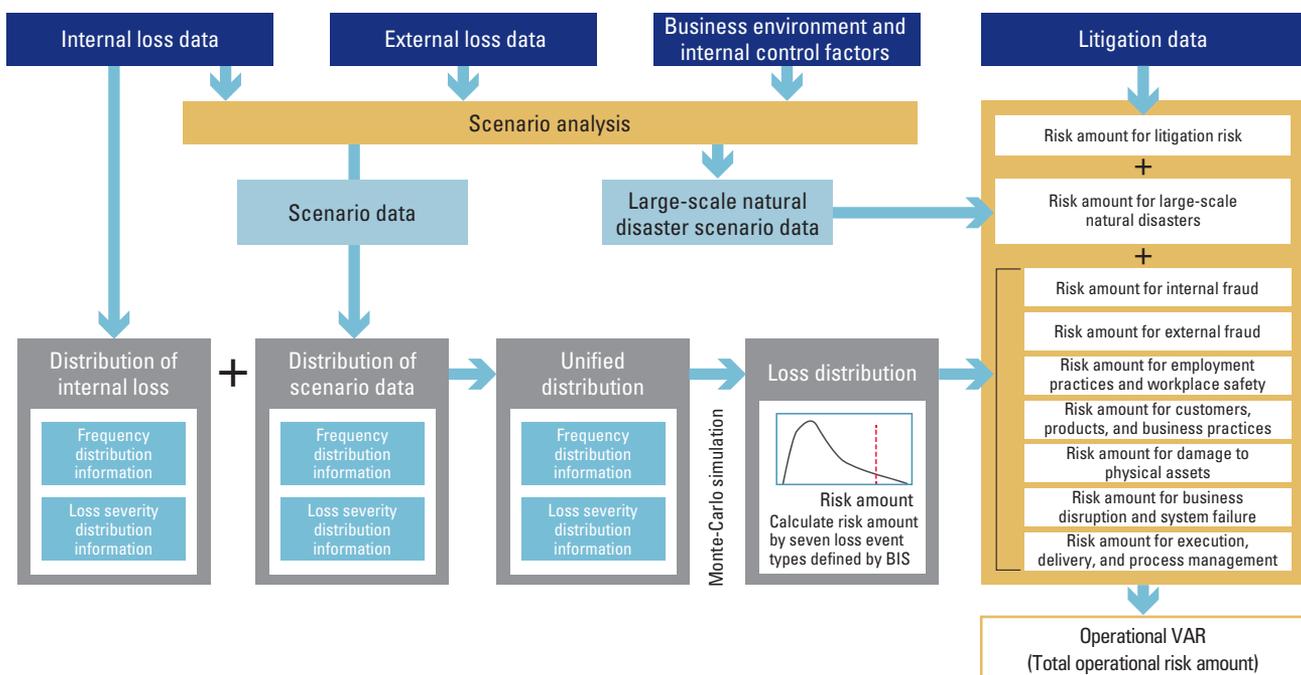
Loss Distribution (Compound Poisson Distribution) Approach (LDA) is adopted for the calculation of operational risk. LDA is based on the assumption that Poisson Distribution applies to the occurrence frequency of operational risk events, and loss severity is expressed through a separate distribution. Operational risk is calculated for each of the seven loss event types employing both internal loss data, based on our actual experience as operational loss events, and scenario data. Scenario data, expressed as numerical values of occurrence frequency and loss severity, reflects external loss data and BEICFs, in order to estimate unexperienced potential future loss events (of low frequency and high severity).

Frequency Distribution and Severity Distribution are estimated employing the above mentioned internal loss data and scenario data, and Monte-Carlo simulations are then applied to these distributions to measure operational risk. The detailed steps of creation of scenario data are explained later in the Scenario Analysis.

Estimation of Frequency Distribution and Loss Severity Distribution

Frequency Distribution is estimated by applying information on occurrence frequency of both internal loss data and scenario data to Poisson Distribution. Loss Severity Distribution is generated as the result of combining, through a statistical approach (Extreme Value Theory), of the actual distribution for the low severity distribution portion created by internal loss data and another loss distribution (Log-normal Distribution or Generalized Pareto Distribution) for the high severity distribution portion created by scenario data.

Outline of measurement model



Operational risk of large-scale natural disasters

Monte-Carlo simulation is applied to the datasets expressed as a combination of the probability of occurrence of large-scale natural disasters and the probable loss amount in case of such occurrence, as opposed to estimating Frequency Distribution and Loss Severity Distribution.

Operational risk of litigation

Each litigation is converted into data according to the profile of the individual litigation to which Monte-Carlo simulation is applied, as opposed to estimating Frequency Distribution and Loss Severity Distribution.

Verification

We confirm the appropriateness of the measurement model by verifying it, in principle, semi-annually.

3. Scenario analysis

Outline of scenario analysis

In the process of scenario analysis, scenario data is created as numerical values of occurrence frequency and loss severity reflecting external loss data and BEICFs, in order to estimate unexperienced potential future operational risk events (of low frequency and high severity).

As for external loss data, we refer to data publicly reported by domestic and overseas media, and such data are reflected in the estimation of occurrence frequency and Loss Severity Distribution in the process of scenario analysis. In addition, BEICFs are utilized as indices to adjust occurrence frequency and Loss Severity Distribution in the process of scenario analysis.

We categorize scenario analysis into four approaches in accordance with the characteristics of each loss event type and risk management structures.

Approach	Loss event type(s) to be applied
A	Internal fraud / external fraud / clients, products, and business practices / execution, delivery, and process management
B	Employment practices and workplace safety
C	Damage to physical assets
D	Business disruption and system failure

At Mizuho Financial Group, loss event types to which Approach A is applied account for a considerable amount of operational risk. The detailed process of Approach A is explained here as a typical example of scenario analysis.

Setting units for scenario analysis

In order to ensure completeness and sufficiency, we set units that are commonly applied across group entities that adopt AMA (the "Group Entities") by referencing and categorizing risk scenarios recognized through control self-assessment, internal loss data of the Group Entities, external loss data, etc. Then each of the Group Entities selects the unit on which scenario analysis is conducted from the units established on a group-wide basis in accordance with its business activities and operational risk profile.

Estimation of occurrence frequency

Basic occurrence frequency (once a year) is calculated for each scenario analysis unit. If a certain scenario analysis unit has relevant internal loss data of a pre-determined threshold amount or above, its basic occurrence frequency is calculated based on such data, and if not, the basic occurrence frequency (the occurrence frequency per year of losses at or above a pre-determined threshold) is calculated with reference to the situation of occurrence of internal loss data of less than the threshold amount and/or external loss data. The basic occurrence frequency is then adjusted within a pre-determined range for the purpose of reflecting the most recent BEICFs to determine the final occurrence frequency.

Estimation of Loss Severity Distribution

In order to estimate Loss Severity Distribution, we use a pre-determined series of severity ranges. Basic Loss Severity Distribution is calculated for each scenario analysis unit as an occurrence ratio (in percentile figures) of loss at each severity range when losses at or above a pre-determined threshold occurred, with reference to transaction amount data, external loss data, etc. Then the basic severity distribution is adjusted, if necessary, from the viewpoint of statistical data processing to determine the final Loss Severity Distribution.

Creation of scenario data

For each scenario analysis unit, scenario data is generated as a series of combinations of occurrence frequency per year at each severity range, based on the final occurrence frequency and the final Loss Severity Distribution.

Example of scenario data

	Severity range (¥ billion)					Total
	0.1	0.5	1	5	10	
Final loss severity distribution	40	30	15	10	5	100
Occurrence ratio (%)	40	30	15	10	5	100
Occurrence frequency (times)	0.4	0.3	0.15	0.1	0.05	1
Final occurrence frequency						