

1. POJK No. 55/POJK.03/2016 on Implementation of Governance for Commercial Banks.
2. POJK No. 6/POJK.03/2015 on Transparency and Publication of Bank Reports.
3. POJK No. 32/POJK.03/2016 on Amendments to POJK No. 6/POJK.03/2015 concerning Transparency and Publication of Bank Reports.

RELATIONSHIP AMONG BANKS, PUBLIC ACCOUNTANTS, AND REGULATORS

In conducting the audit, other than fulfilling the applicable legal provisions, Bank Mandiri always strives to improve communication with KAP with the support of the relevant work units at Bank Mandiri. The Audit Committee and Internal Audit always supervise the audit conducted by KAP. The selected KAP communicates the plan for conducting an audit of Bank Mandiri financial statements to the Audit Committee and submits the audit plan along with the audit methodology and audit samples that will be used to Internal Audit. During the audit, periodic discussions of the audit progress and audit findings and other matters considered important by the parties were conducted periodically, including findings related to internal control.

Periodically, the Audit Committee will monitor the performance of KAP through Audit Committee meetings followed by Internal Audit and related Directors. The meeting also discussed the follow-up of audit findings by KAP. Through this coordination, comprehensive and optimal audit results are expected to be achieved.

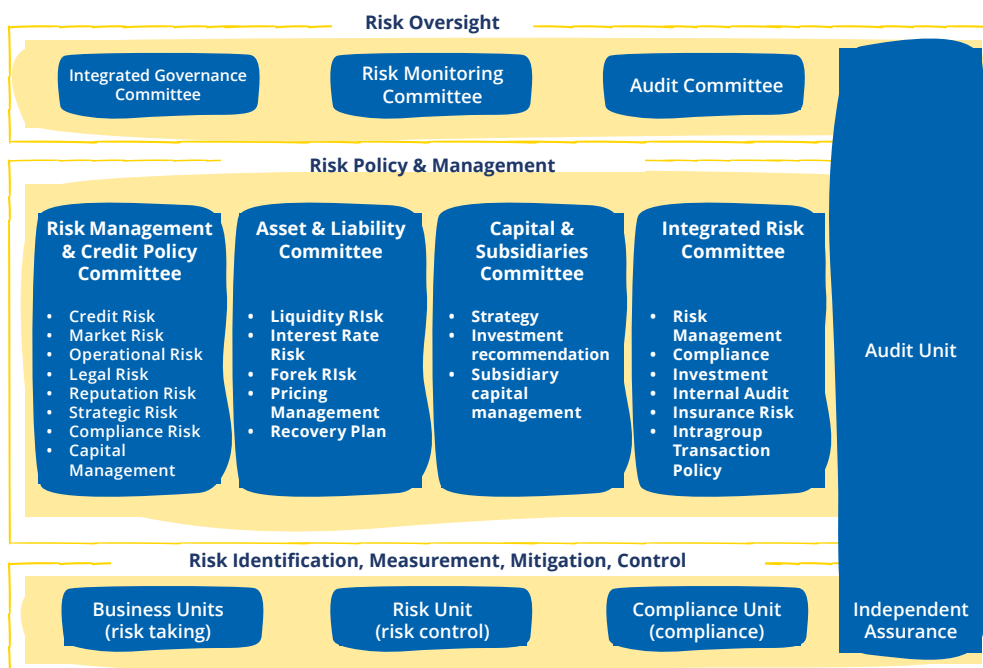
RISK MANAGEMENT

The risk management principle of Bank Mandiri is conducted proactively to achieve a healthy and sustainable financial and operational growth as well as to take care of the optimal risk-adjusted return level in accordance with the desired risk appetite. As a manifestation of Bank Mandiri's commitment in conducting a good company management practice, particularly in risk management, Bank Mandiri has established policy, process, competency, accountability, reporting and supporting technology in order to make the risk management in Bank Mandiri to be effective and efficient.

RISK MANAGEMENT FRAMEWORK

The company risk management framework is written in the risk governance structure of Bank Mandiri encompassing three main parts, which are Risk Oversight, Risk policy and Risk management, as well as Risk identification, Measurement Mitigation, and control. These three main parts are supported by the Audit Working Unit and Independent Assurer to guarantee the effectiveness of its performance.

Sketchily, the work and risk governance framework of Bank Mandiri as mentioned above is described as follows:





The Risk Governance Structure of Bank Mandiri is developed based on four risk management pillars as follow:

ACTIVE SUPERVISION BY THE BOARD OF COMMISSIONER AND DIRECTOR

The work and risk governance framework in Bank Mandiri consist of the Board of Commissioner performing risk oversight through Audit Committee, Risk Monitor Committee and Integrated Risk Governance, and Board of Director performing risk policy through Executive Committee related to risk management which are Risk management & Loan Policy Committee, Asset and Liabilities Committee, Capital and Subsidiaries Committee, and Integrated Risk Committee. In the operational level, the work unit of Risk Management along with Business Unit and Compliance Work Unit conduct risk identification function, risk measurement, risk mitigation and risk control.

The duties, responsibilities, and authorities of Board of Commissioner are related to active monitoring in risk management activities including:

1. Understanding the risk attached to company functional activity, particularly the one that can influence Company's financial condition.
2. Evaluating and approving the Risk Management policy conducted at least once in a year or more in a higher frequency in the event that there are significant changes in factors affecting company's business.
3. Performing evaluation toward the board of Director regarding Risk Management implementation in order to fit with the established policy, strategy and procedure of the company.
4. Providing consultation to the board of Director regarding transaction or business activity with large amount of fund.
5. Approving the provision of fund to the concerned parties on loan proposed by the loan committee in accordance with their authority.
6. Performing active monitoring toward the company capital adequacy in accordance with company's risk profile thoroughly, including reviewing risk appetite of the company established by the board of director.

7. Improving anti-fraud awareness and culture to all levels of the Company's organization.
8. Monitoring the implementation of Integrated Risk Management in accordance with the characteristics and complexity of the Company's effort.

In order to implement the Integrated Risk Management, the Board of Commissioner is responsible for:

1. Directing, approving, and evaluating policy which regulate the integrated management risk periodically.
2. Evaluating the implementation of integrated risk management policy by the Main Entity Board of Directors.
3. Performing evaluation on the implementation of Recovery Plan.

The duty, responsibility, and authority of Board of Directors related to risk management activity include:

1. Preparing written and comprehensive Risk Management's policy, strategy and procedure including the establishment and approval of the Company's risk limit, re-evaluating once in a year or more in the event of significant changes in factors affecting company's business activities.
2. Taking the responsibility of the risk management and risk exposure policies implementation conducted by the company, including evaluating and providing direction of Risk Management Strategies based on reports submitted by the Risk Management Unit and periodic submission of accountability report to the Board of Commissioners.
3. Evaluating and determining the transactions that exceed the authority of the Company's officials one level under the Board of Directors or transaction that requires the approval of the Board of Director in accordance with the applicable internal policies and procedures.
4. Developing Risk Management awareness and culture, including anti-fraud culture to all organization, among others through adequate communication concerning the importance of effective internal control;
5. Improving Human Capital competence related to Risk Management implementation, among

others through continuous education and training programs, particularly related to Risk Management system and process.

6. Implementing an independent Risk Management function, reflected through function separation between the Risk Management Unit that performs identification, measurement, monitor and risk control with the work unit that performs and completes transaction.
7. Conducting periodic review with frequency adjusted with the company's need.
8. Establishing the capital adequacy in accordance with the Company's risk profile and strategy to maintain the capital level, including establishing the Risk Appetite.
9. Monitoring the development of macroeconomic conditions, regulations, technology and other external factors, as well as assess potential impacts on the Bank's position and performance (through stress testing and sensitivity analysis) and prepare contingency plans including the preparation of a Recovery Plan (as a systemic bank).

In order to implement the Integrated Risk Management, the Board of Directors is responsible for:

1. Preparing and carrying out the policy which regulates Integrated Risk Management;
2. Developing risk culture as a part of Integrated Risk Management Implementation;
3. Ensuring the effectiveness of Human Capital management to perform the Integrated Risk Management function;
4. Ensuring that the Integrated Risk Management has been conducted independently;
5. Evaluating the review result of the Integrated Risk Management Work Unit periodically concerning the Integrated Risk Management process.

Bank Mandiri has also stipulated risk management committees which discuss and recommend to the Board of Director, among others concerning:

1. Policy and Procedure as well as monitor the risk faced by the company.
2. Management of Company's asset and liabilities including interest rate and liquidity
3. Management of subsidiary (equity capital,

divestment, remuneration, stipulation of the subsidiary management).

4. Implementation of Integrated Risk Management
5. Business development.

In addition, Bank Mandiri also has a Work Unit related to risk management consisting of at least:

1. Director in charge of the Risk Management function;
2. Risk Management Work Unit (SKMR);
3. Operational Work Unit (risk-taking unit);
4. Internal Audit Work Unit (SKAI);
5. Compliance Work Unit.

The Risk Management Work Unit (SKMR), the Internal Audit Work Unit (SKAI) and the Compliance Work Unit concurrently as the Integrated Work Unit.

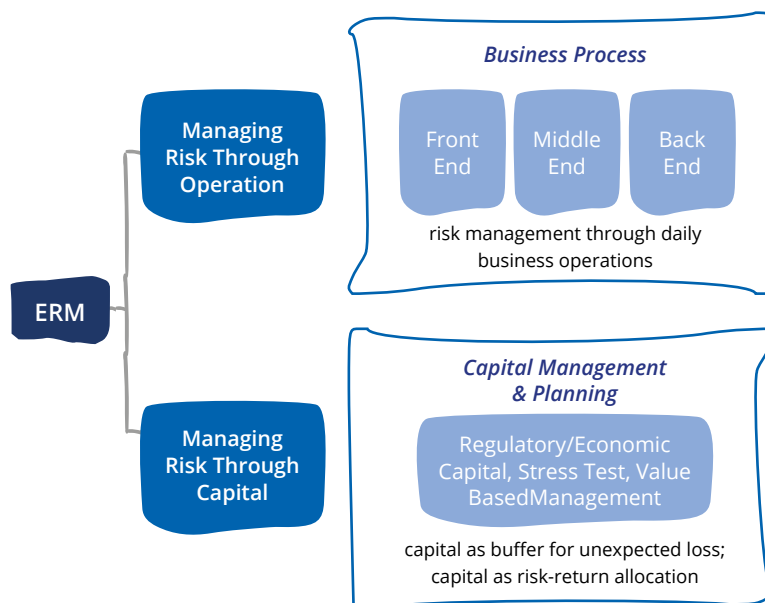
ADEQUACY OF POLICIES, PROCEDURES, AND DETERMINATION OF LIMITS

Bank Mandiri has a Risk Management policy used as the main guidance in carrying out risk management. For more specific business area, Bank Mandiri owns more special policies and procedures, for example in credit, treasury, and operational. Among other things regulated in the policies and procedures is the limit establishment for each activity, both in portfolio and transactional levels.

All policies and procedures in Bank Mandiri are the form of risk management attached in each Company's operational activity that is evaluated and updated at least once a year.

THE ADEQUACY OF IDENTIFICATION, MEASUREMENT, RISK MONITORING AND CONTROL PROCESSES, AND RISK MANAGEMENT INFORMATION SYSTEM (ERM)

Bank Mandiri conducts Processes of Identification, Measurement, Risk Monitoring and Control, as well as Risk Management Information System through Enterprise Risk Management (ERM) frameworks. The ERM implementation in Bank Mandiri uses two-prong approach, to ensure that the risk is not only mitigated properly through daily business, but also in unexpected situation (downturn) through capital reserve.



The four main components functioning as the supporting pillar in the implementation of two-prong approach are:

1. Organization and Human Capital

The Risk Management Work Unit of Bank Mandiri is responsible for managing all risk encountered by Bank Mandiri, including the development of supporting tools required in business process and risk management. In addition, there is a work unit in each unit business acting as the risk counterpart in the four-eye process of loan allocation. As the risk management is the responsibility of all work unit in Bank Mandiri, the success of risk management is determined by the existence of risk awareness in all working unit with adequate technical capability. Therefore, Bank Mandiri always improves the employee's capability and knowledge, most importantly in risk management, by conducting internal training on a regular basis through Risk Management Academy. Furthermore, Bank Mandiri also conducts socialization, discussion forum, apprentice, or program on risk management which is in line with company's culture internalization regularly at least once in a year. The Risk Management Unit of Bank Mandiri consists of Risk Management Directorate in charge of the Risk Management Independent unit and two Loan Approval Risk units known as Retail Risk directed by SEVP Retail Risk and Wholesale Risk directed by SEVP Wholesale Risk.

2. Policies and Procedures

The Risk Management Policies (KMR) employed as the main guidance in performing operational risk management and capital management in Bank Mandiri consist of:

- The prudential principle, such as Capital Adequacy Preparation, Early Warning System, Limit Establishment and Risk Diversification.
- Risk Management, such as Risk Profile, Risk Appetite, Stress Testing and Integrated Risk Management.
- Risk Management for each risk type, including identification process, measurement, risk monitoring and control.
- Risk Monitoring, including monitoring of activity implementation/risk management methodology in Bank Mandiri, and Internal Control System.

These Risk Management Policies become the basis for the preparation of procedures and technical guidelines related to risk management in Bank Mandiri.

3. System and Data

The risk management system is developed to support more efficient business processes so that decision making can be faster but still refers to the principle of prudence. In order to maintain data integrity and quality, Bank Mandiri has implemented a system including:

System	Tujuan
<ul style="list-style-type: none"> - Integrated Processing System - Loan Origination System 	To improve the efficiency of the loan process and maintain data quality in all business segments.
Loan Monitoring System	To monitor the quality of the credit (watchlist) individually or portfolio in the framework of an early warning mechanism.

System	Tujuan
Integrated Central Liabilities System (ICLS)	To enhance the integration and quality of limit data and the exposure of all customer facilities, in the context of implementing limit management.
Impairment & Provisioning	To measure CKPN according to the application of PSAK 71 and related dashboards and analytics.
Summit System	To manage market risk for treasury activities and monitoring credit risk arising from treasury activities.
ALM System	To manage and measure the size of the banking book risk for treasury and asset & liability management activities.
Risk Assessment Consolidation Generator System (RACER System)	To monitor or manage consolidated / integrated risk management effectively and efficiently by displaying data and information related to the risk profile of Bank Mandiri and its Subsidiaries.
Regulatory Capital system	To perform RWA measurements and capital charge calculations according to the Basel II / III (Standardized Approach and Advanced Approach) approach.
Fraud Detection Systems (FDS)	To monitor transactions of Loan Cards, Debit Cards, Merchants, Internet Banking and Micro loan by using predetermined parameters (rule based) determined based on historical data, mode and fraud trend. With the existence of this system, precautionary measures can be taken earlier and can minimize fraudulent transactions.
Fraud Risk Management System (FRMS)	To provide an integrated fraud control system that is capable of carrying out early detection of transactions that occur on various channels. Currently FRMS has been implemented on the Mandiri Online channel and will be followed by further implementation of other channels including loan cards, debit cards, prepaid cards (e-money), Mobile Banking (USSD, STK / DSTK, Text Type), Acquiring (ATM and Merchant), as well as branches and employees.
Anti Fraud Application System (AFAS)	To detect the risk of application fraud by utilizing rules. This system has been implemented, among others, on Loan Cards, Micro loan, and Unsecured Loans.

4. Methodology/Model and Analytics

Bank Mandiri has continuously implemented a risk measurement that refers to international best practices by using both quantitative and qualitative methods through the development of risk models such as rating, score, Value at Risk (VaR), portfolio management, stress testing and other models as supports in judgmental decision making. Periodically, these risk models are calibrated and validated by an independent Model Risk Validator unit to maintain the reliability and validity of the models and meet regulatory requirements.

In order to harmonize the implementation of Basel II and ERM with Basel II / III regulations and the application of best practices, Bank Mandiri adopted and implemented the Basel II / III and ERM frameworks. Basel II / III and ERM implementation at Bank Mandiri covers areas in Credit Risk, Market Risk, Liquidity Risk, Operational Risk, Capital Management and Internal Capital Adequacy Assessment Process (ICAAP).

Implementing Basel II/III and ERM

IMPLEMENTATION ASPECT	SCOPE OF IMPLEMENTATION
Loan Risk	Development and Improvement of Basel II Risk Parameters for the implementation of Internal Rating Based Approach (PD, LGD, and EAD).
Market Risk	Measurement of structured product risk, treasury trading limits, treasury system infrastructure, repricing gap method and IRRBB application.
Liquidity and Interest Rate Risk	Improvement of liquidity limit, core deposit analysis, Risk Appetite Statement (RAS), stress testing liquidities, repricing gap method, and implementation of Assets and Liabilities Management System.
Operational Risk	Development of Framework and Governance Operational Risk Management (ORM).
Modal Management	Improvement of Economic Capital model, development of framework Portfolio Optimization and Capital Optimization.
Internal Capital Adequacy Assessment Process (ICAAP)	Implementation of Risk Appetite Statement, Stress Testing, Capital Planning, and synchronization with related regulation of Risk Based Bank Rating (RBBR).



INTERNAL CONTROL SYSTEM (INTERNAL AUDIT)

Bank Mandiri practices effective risk managements in all work units by implementing the three line of defence models with the following conditions:

1. Work unit as the risk owner is the first line of defence responsible for risk management in its unit.
2. Risk Management Unit is as the second line of defence performing oversight function.
3. Internal Audit Unit is as the third line of defence performing independent assurance function

RISK MANAGEMENT SYSTEM

BASIS FOR THE IMPLEMENTATION OF RISK MANAGEMENT

In implementing risk management, Bank Mandiri always adheres and obeys the applicable laws and regulations in Indonesia by referring to:

1. Circular of Bank Indonesia no. 9/31/DPNP dated December 12, 2007 on Guidelines for the Use of Internal Capital in the Calculation of Minimum Capital Requirement for Commercial Banks by Calculating Market Risk.
2. Financial Services Authority Regulation No. 17/POJK.03/2014 dated November 18, 2014 on Application of Integrated Risk Management for Financial Conglomeration.
3. Financial Services Authority Regulation No. 18/POJK.03/2014 dated November 18, 2014 on the Implementation of Integrated Governance for Financial Conglomeration.
4. Financial Services Authority Regulation No. 4/POJK.03/2016 dated January 26, 2016 on the Assessment of Health Levels of Commercial Banks.
5. Financial Services Authority Regulation No. 11/POJK.03/2016 dated February 2, 2016 on the Minimum Capital Requirement for Commercial Banks, which was amended by the Financial Services Authority Regulation No. 34/POJK.03/2016 on Amendments to POJK No. 11/POJK.03/2016 on the Minimum Capital Requirements for Commercial Banks.
6. Financial Services Authority Regulation No. 18/POJK.03/2016 dated March 16, 2016 on the Application of Risk Management for Commercial Banks.
7. Financial Services Authority Regulation No. 55/POJK.03/2016 dated December 9, 2016 on the Implementation of Governance for Commercial Banks.
8. Financial Services Authority Regulation No. 38/POJK.03/2017 dated July 12, 2017 on the Implementation of Consolidated Risk Management for Banks Conducting Control of Subsidiary Companies.
9. Circular of Financial Service Authority No. 14/SEOJK.03/2015 dated May 25, 2015 on the Application of Integrated Risk Management for Financial Conglomeration.
10. Financial Services Authority Regulation No. 26/POJK.03/2015 dated December 11, 2015 on the Integrated Minimum Capital Provision Obligations for Financial Conglomeration.
11. Circular of Financial Service Authority No. 34/SEOJK.03/2016 dated September 1, 2016 on the Application of Risk Management for Commercial Banks.
12. Circular of Financial Service Authority No. 38/SEOJK.03/2016 dated September 8, 2016 on the Guidelines for Using Standard Methods in Calculating the Minimum Capital Requirement for Commercial Banks by Taking into account Market Risk.
13. Circular of Financial Service Authority No. 13/SEOJK.03/2017 dated March 17, 2017 on the Implementation of Governance for Commercial Banks.
14. Circular of Financial Service Authority No. 43/SEOJK.03/2017 dated July 19, 2017 on the Prudential Principle and report in the framework of Consolidating Risk Management Implementation for Banks that Control the Subsidiary Companies.
15. Circular of Financial Service Authority No. 15/SEOJK.03/2015 dated May 25, 2015 on the Implementation of Integrated Governance for Financial Conglomeration.
16. Circular of Financial Service Authority No. 14/SEOJK.03/2017 dated March 17, 2017 on the Health Rating of Commercial Banks.
17. Circular of Financial Service Authority No. 12/SEOJK.03/2018 dated August 21, 2018 on the Implementation of Risk Management and Risk Measurement in the Standard Approach for Interest Rate Risk in Banking Book for Commercial Banks.
18. Financial Services Authority Regulation No. 42/POJK.03/2015 dated December 23, 2015 on the Adequacy Obligations to Fulfil the Liquidity Coverage Ratio for Commercial Banks.
19. Financial Services Authority Regulation No. 50/POJK.03/2017 dated July 17, 2017 on the Obligation to Fulfil the Net Stable Funding Ratio for Commercial Banks.
20. Bank Indonesia Regulation No. 20/4/PBI/2018 dated July 16, 2018 concerning the Intermediation Ratio Macroprudential and Liquidity Support Macroprudential for Conventional Commercial Banks, Sharia Commercial Banks, and Sharia Business Units.
21. Bank Indonesia Regulation No 21/12/PBI/2019 tanggal 25 November 2019 concerning change of Bank Indonesia Regulation No. 20/4/PBI/2018 concerning the Intermediation Ratio Macroprudential and Liquidity Support Macroprudential for Conventional Commercial Banks, Sharia Commercial Banks, and Sharia Business Units.
22. Financial Services Authority Regulation No. 11 / POJK.03 / 2019 concerning Prudential Principles in Asset Securitization Activities for Commercial Banks.
23. FSA Circular No. 42/SEOJK.03/2016 concerning Guidelines for Calculation of Risk Weighted Assets

- for Credit Risk using the Standard Approach.
24. FSA Circular No. 48/SEOJK.03/2017 concerning Guidelines for Calculation of Net Bills for Derivative Transactions Calculation of Risk Weighted Assets for Credit Risk using the Standard Approach.
 25. FSA Circular No. 11/SEOJK.03/2018 concerning Amendments to FSA Circular No. 42/SEOJK.03/2016 concerning Guidelines for Calculation of Risk Weighted Assets for Credit Risk using the Standard Approach.

PRINCIPLES OF RISK MANAGEMENT

The Risk Management Principles of Bank Mandiri are as follows:

1. **Capital**
Bank Mandiri provides capital in accordance with the risks borne and maintains the capital level in accordance with applicable regulations.
2. **Transparency**
Bank Mandiri openly communicates relevant information in the risk-taking process and the risk-taking process itself.
3. **Independency**
Bank Mandiri's management acts professionally and is free from the pressure and influence of other parties.
4. **Integrated**
Bank Mandiri implements Integrated Risk Management in Financial Services Institutions that are members of the Bank Mandiri financial conglomerate in accordance with regulatory provisions.
5. **Sustainable**
Risk control is constantly being developed to better suit business conditions and existing best practices.
6. **Accountability**
Bank Mandiri applies policies and procedures to ensure management accountability to stakeholders.
7. **Responsibility**
Bank Mandiri acts on the principle of prudence and compliance with applicable laws and regulations.
8. **Fairness**
Bank Mandiri considers the interests of stakeholders based on the principle of equality and fairness (equal treatment).

PRINCIPLES OF PRUDENCE

Bank Mandiri applies the prudence principle through the provision of sufficient capital, compliance with applicable regulations and laws, and an early warning system. The Company manages capital adequacy that describes the managed risks and defines its capital components by taking into account the capital's ability to incorporate losses.

The Company prepares policies, standard procedures and product manuals as directions in operational activities and is implemented by all levels of the Company's organization to minimize the risks faced

in the Company's operational activities. In carrying out business activities, the Company understands the characteristics of the business being carried out, including the risks and legal regulations related to the business. Every action which is an exceptional condition, insofar as it does not conflict with the applicable laws and regulations, is carried out according to the rules and stipulated authority, based on reasons that can be accounted for, and documented.

The Company prepares procedures to be able to find out the possibility of increasing the Bank's risk exposure earlier so that the Bank can determine the steps that need to be taken so that potential losses do not occur or can be minimized.

PROCESS OF RISK MANAGEMENT

The Company's Risk Management process regulated in the Risk Management Policy is as follows:

1. Risk Management is carried out at all levels of the organization both transactional and portfolio.
2. Risk Management is carried out in an integrated manner with Subsidiaries while taking into account the regulations and business characteristics of Subsidiaries.
3. The Risk Management process is a dynamic process; hence, review is required periodically to keep it in line with current conditions and applicable regulations.
4. Implementation of Risk Management is carried out in a series consisting of
 - a. **Risk identification**
Risk identification aims to determine the types of risks inherent in each functional activity that have the potential to harm the Company.
 - b. **Risk measurement**
Risk measurement aims to determine the amount of risk inherent in the Company's activities to be compared with the Company's risk appetite so that the Company can take risk mitigation actions and determine capital to cover residual risks.
 - c. **Risk monitoring**
Risk monitoring aims to compare the risk limits that have been set with the amount of risk being managed.
 - d. **Risk control**
Risk control is carried out on the potential for the occurrence of liability on the limits of risk that have been determined and can be tolerated by the Company.

APPLICATION OF BASEL II AND III

In order to provide added value to stakeholders and as a form of Bank Mandiri compliance in fulfilling the capital In order to provide added value



to stakeholders and as a form of Bank Mandiri compliance in fulfilling the capital adequacy requirements set by regulators, Bank Mandiri always guarantees and ensures that the capital structure is strong enough to support the current business development strategy and maintain business sustainability in future.

Risk management in the capital aspect at Bank Mandiri includes policies on diversifying capital sources in accordance with long-term strategic plans and capital allocation policies efficiently in business segments that have an optimal risk-return profile (including placements with Subsidiaries). This aims to meet the expectations of stakeholders including investors and regulators.

Bank Mandiri ensures that it has sufficient capital to cover loan risk, market risk and operational risk, both based on regulatory requirements (regulatory capital) and internal capital requirements (economic capital). Bank Mandiri refers to Bank Indonesia and Financial Service Authority regulations (Basel II and Basel III), especially Pillar 1, in calculating capital adequacy for loan risk, market risk and operational risk.

In addition to the above calculation, Bank Mandiri is also developing a capital adequacy calculation with reference to Basel II Pillar 2 or better known as the Internal Capital Adequacy Assessment Process (ICAAP) approach. ICAAP includes the determination of risk appetite, overall risk assessment, capital planning, and bank-wide stress testing.

For the calculation of capital adequacy, Bank Mandiri uses the Basel II Standardized Approach for credit risk and has included the External Rating component. The Internal Ratings-Based Approach is used internally for risk management and credit provision. For market risk, Bank Mandiri uses the Basel II Standardized Measurement Method, and internally uses Value at Risk. For operational risk, Bank Mandiri refers to the Basel II Basic Indicator Approach.

Bank Mandiri has implemented the implementation of Basel III referring to the Basel documentation as well as regulations and initiatives issued by the Financial Service Authority. As part of implementing Basel III in Indonesia, Bank Mandiri has reported the fulfilment of monthly Liquidity Coverage Ratio (LCR) and the fulfilment of quarterly Net Stable Funding Ratio (NSFR), as well as conducting quarterly Leverage Ratio (LR) calculations in accordance with Financial Service Authority regulations.

As the implementation of the latest Basel III framework (Basel III reform), specifically related to Counterparty Loan Risk, Bank Mandiri has implemented a Loan Valuation Adjustment (CVA) calculation and simulated changes to the Standardized Approach for Measuring Counterparty Loan Risk Exposures (SA -CCR) which is a refinement of the existing CCR framework.

BASEL III REFORMS

In implementing the latest Basel III framework (Basel III reform), the Company will revise operational risk standards for some elements of the previous framework to improve reliability and sensitivity. Following up on this, a Qualitative Impact Study (QIS) based on the OJK Consultative Paper (CP) was carried out in calculating the minimum capital for Operational risk using a standardized approach.

On the other hand, in order to improve risk management due to interest rate movements that affect income and capital (Interest Rate Risk in Banking Book / IRRBB), Bank Mandiri has implemented Basel IV in accordance with OJK regulations in SEOJK No. 12 / SEOJK.03 / 2018 concerning Application of Risk Management and Risk Measurement Standard Approach for Interest Rate Risk in the Banking Book (Interest Rate Risk in The Banking Book) for Commercial Banks. The process of implementing the IRRBB provisions includes improvements to the system owned, adjusting internal policies, reviewing methodologies and their limits, reviewing assumptions and models, and making consolidation tools for Subsidiaries. IRRBB measurement results in accordance with the provisions have been reported quarterly to OJK starting June 2019.

APPLICATION OF INTEGRATED RISK MANAGEMENT

Konsolidasi/Integrasi manajemen risiko Bank Mandiri
The consolidation / integration of Bank Mandiri's risk management has begun gradually since 2008, in line with the issuance of Bank Indonesia Regulation No.8 / 6 / PBI / 2006 concerning the Implementation of Consolidated Risk Management for Banks Conducting Control on Subsidiary Companies, which in the development of these regulations replaced by Financial Services Authority Regulation Number 38 / POJK.03 / 2017 Regarding the Implementation of Consolidated Risk Management for Banks Conducting Control on Subsidiary Companies. In addition, Bank Mandiri has also implemented integrated risk management in accordance with Financial Services Authority Regulation No.17 / POJK.03 / 2014 concerning the Implementation of Integrated Risk Management for Financial Conglomerates.

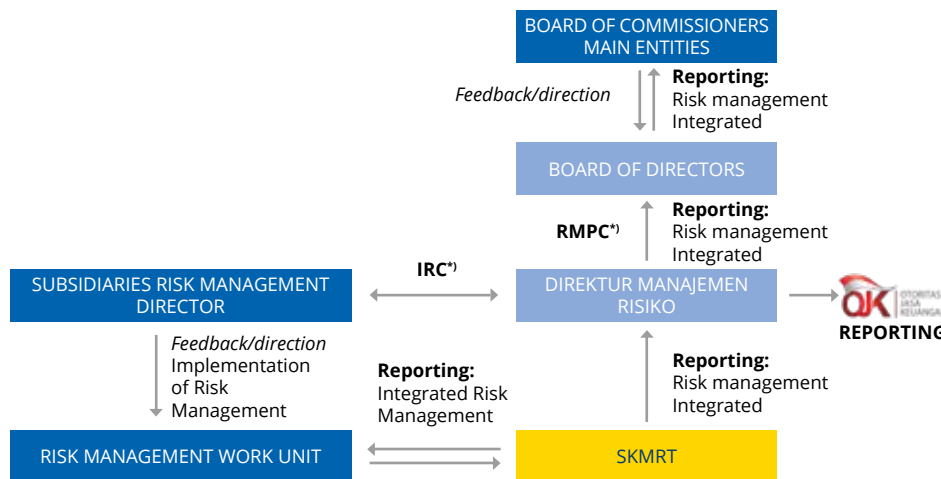
Integrated risk management is important to implement because Bank Mandiri as the Main Entity realizes that business continuity is also affected by risk exposures arising, both directly and indirectly, from the Subsidiary's business activities. In this regard, Bank Mandiri has implemented a system of consolidating / integrating risk management with its Subsidiaries, including Subsidiaries that operate outside the territory of Indonesia, while still fulfilling the principles of risk management, considering the business characteristics of each Subsidiary Company and adjusting to the jurisdiction of the authorities. / local supervisor. The Bank Mandiri subsidiaries are Bank Syariah Mandiri, Bank Mandiri

Europe Ltd., Bank Mandiri Taspen, Mandiri Securities, Mandiri Investment Management, AXA Mandiri Financial Services, Mandiri AXA General Insurance, Mandiri InHealth, Mandiri Tunas Finance, Mandiri Utama Finance, Mandiri International Remittance, and Mandiri Capital Indonesia.

The concept of consolidation / integration of risk management implemented by Bank Mandiri was prepared by taking into account compliance with Financial Services Authority Regulation No.38 / POJK.03 / 2017 concerning Application of Consolidated Risk Management for Banks Conducting Control on Subsidiary Companies, Financial Services Authority Regulation Number 17 / POJK.03 / 2014 concerning the Implementation of Integrated Risk Management for Financial Conglomerates, and Regulation of the Financial Services Authority Number 04 / POJK.03 / 2016 concerning Assessment of Soundness Levels of Commercial Banks which are subsequently implemented through a tool integration, risk awareness framework, corporate governance (governance), and risk management information systems (systems). In addition, in implementing

Bank Mandiri has internal guidelines, namely the Mandiri Group Principles Guidelines (MGPG), the Mandiri Subsidiary Management Principles Guidelines (MSMPG) and the Integrated Governance Guidelines which contain guidelines on the implementation of Mandiri risk management group. This is one form of Bank Mandiri's compliance with regulations in force in Indonesia

In order to implement comprehensive integrated risk management, Bank Mandiri established an Integrated Risk Management Committee, which is an Integrated Risk Committee consisting of Directors / Executive Officers who oversee the Risk Management function of Bank Mandiri as the Main Entity in the Financial Conglomerate and Subsidiary Companies, which plays a role in providing recommendations for the preparation, improvement and refinement of the Integrated Risk Management policy. In addition, Bank Mandiri has also formed an Integrated Risk Management Work Unit (SKMRT) that reports directly to the Director of Risk Management with a reporting mechanism and duties and responsibilities as illustrated in the diagram



- Develop integrated risk management tools in the Bank Mandiri Financial Conglomerate.
- Implement the risk awareness, governance and culture of the Entity Between children through periodic risk management forums, risk awareness survey and other forums.
- Improving risk management policies, establishing a risk management team, establishing an Integrated Risk Management Committee.
- Develop a risk management information system to support the implementation of risk management integrated.

^{*)} IRC = Integrated Risk Committee
RMPC = Risk Management & Credit Policy Committee

In order to improve understanding of the implementation of risk management at Bank Mandiri and Subsidiaries, several activities have been carried out in 2019:

1. The Integrated Risk Management Forum (IRMF) is conducted quarterly to discuss the latest issues related to risk management.
2. Assistance and socialization regarding risk management tools.
3. Loan Risk Workshop for investment activities.
4. Attachment of employees to Subsidiaries.
5. Review of risk management application to certain Subsidiaries.



RISK PROFILE AND THE MANAGEMENT

There are 10 (ten) types of risk that must be managed at least by Bank Mandiri on a consolidated basis, namely:

No.	Risk Type	Explanation
1.	Loan Risk	Loan Risk is a risk due to the failure of the debtor and / or other parties to fulfil obligations to the Bank. concentration of credit risk is included in the Credit risk.
2.	Market Risk	Market Risk is a risk in balance sheet and administrative account positions including derivative transactions, due to over-all changes in market conditions, including the risk of changes in option prices.
3.	Liquidity Risk	Liquidity Risk is a risk due to the inability of the Bank to meet maturing obligations from cash flow funding sources and/or from high-quality liquid assets that can be pledged, without disrupting the Bank's activities and financial condition.
4.	Operational Risk	Operational Risk is the risk due to insufficiency and / or non-functioning of internal processes, human errors, system failures, and / or external events that affect the Bank's operations.
5.	Legal Risk	Legal Risk is the risk due to legal demands and / or weaknesses in the juridical aspect.
6.	Reputation Risk	Reputation Risk is the risk due to a decrease in the level of stakeholder confidence that comes from negative perceptions of the Bank.
7.	Strategic Risk	Strategic Risk is risk due to inaccuracy in making and/or implementing a strategic decision and failure to anticipate changes in the business environment.
8.	Compliance Risk	Compliance Risk is a risk due to the Bank not complying with and/or not implementing the applicable laws and regulations.
9.	Intra-Group Transaction Risk	Intra-Group Transaction Risk is the risk due to the dependence of an entity both directly and indirectly on other entities in a Financial Conglomeration in order to fulfil written and unwritten agreement obligations followed by transfer of funds and/or not followed by transfer of funds.
10.	Insurance Risk	Insurance risk is a risk due to failure of insurance companies to fulfil obligations to policyholders as a result of insufficient risk selection (underwriting) processes, pricing, reinsurance use, and/or claim handling.

MANAGEMENT OF RISK

CREDIT RISK

The process of managing Bank Mandiri's loan for the Wholesale segment begins with determining the target market through the Portfolio Guideline that sets Industry Classification (attractive, neutral, selective) and the appropriate industry limits, and selects and filters target customers through Industry Acceptance Criteria and Name Clearance, to produce pipelines quality debtor. The next process is to conduct a credit risk assessment using a series of credit risk tools (credit risk rating, spreadsheets, CPA, NAK, etc.) which are then decided by the Authority to Decide Credit (through Credit Committee Meetings) with a four-eyes principle that involves Business Units and Credit Risk Management Unit independently.

After the credit disbursement process, credit risk and potential debtor failures must always be monitored and detected early (Early Warning Signals) using watchlist tools and if the debtor becomes problematic then an account strategy needs to be implemented which includes collection, recovery and restructuring activities.

For the Retail segment, because it is a mass market, the credit process is carried out more automatically using a credit risk scorecard, referring to the Risk Acceptance Criteria of each product, and processed through an automated work flow (loan factory). The monitoring process is carried out in a portfolio manner through the Portfolio Quality Review, which can be continued with the collection and recovery process for the problematic portion of the portfolio.

To anticipate the deterioration of macroeconomic conditions, what-if analysis of the wholesale and retail portfolios is carried out through the process of stress testing and sensitivity analysis using certain macroeconomic scenarios.

In channeling its credit, Bank Mandiri always prioritizes the principle of prudence by placing a credit analysis function carried out by an independent business unit and credit risk unit. Bank Mandiri is always guided by the Credit Policy (KPKD) in managing credit risk end-to-end. Operationally, this policy is outlined in the form of Credit Procedure Standard (SPK) and Product Manual.

In implementing credit concentration risk management at the debtor level, Bank Mandiri consistently monitors the Legal Lending Limit (LLL) and the application of Management Limit and Value Chain Limit for large business groups. In general, the credit process and credit risk management at Bank Mandiri have been carried out end-to-end and integrated by the Business Unit, Credit Operation Unit and Credit Risk Management Unit.

The Bank periodically reviews and refines credit policies in general, credit procedures per business segment and risk management tools. The work guidelines referred to provide a complete guide to credit risk management, to identify risks, measure and mitigate risks in the end-to-end lending process starting from determining the target market, credit analysis, approval, documentation, credit withdrawal, monitoring / supervision, until the completion process problem loans / restructuring.

To enhance the social role and concern of the Bank for environmental risks and as a form of the implementation of the principle of responsibility in good corporate governance, Bank Mandiri has prepared Technical Guidelines for Environmental and Social Analysis in Providing Loans which is used as a reference in conduct environmental analysis in the analysis of credit granting. This is in line with the efforts made by Bank Indonesia, where in the Bank Indonesia Regulation concerning the Assessment of Asset Quality for Commercial Banks it is stipulated that the assessment of the debtor's business prospects is also related to the debtor's efforts to preserve the environment. In addition, Bank Mandiri has begun implementing sustainable banking through the implementation of the Sustainable Financial Action Plan (RAKB) in order to develop business processes and portfolios by considering ESG factors (environment, social, governance).

In principle, credit risk management is applied at the transactional and portfolio levels. At the transactional

level, a four-eyes principle is applied, namely each termination of credit involves the Business Unit and the Credit Risk Management Unit independently to obtain objective decisions. The four-eyes principle mechanism is carried out by the Credit Committee in accordance with the authority limit where the credit termination process is carried out through the Credit Committee Meeting mechanism.

Credit risks from debtors and products have been covered and reserved through CKPN, which is currently calculated based on PSAK 55 (as of January 1, 2020 will refer to PSAK 71), and monitored through the cost of credit indicator.

MARKET RISK

Market risk management is carried out by an independent working unit by implementing the segregation of duties principle, namely the separation of functions and responsibilities consisting of front office, middle office, and back office. Organization of Market Risk Management consists of two parts, i.e. Market Risk Management - Trading Book and Market Risk Management - Banking Book.

The framework and governance of market risk management in Bank Mandiri adheres to the three layers of defence, which consists of:

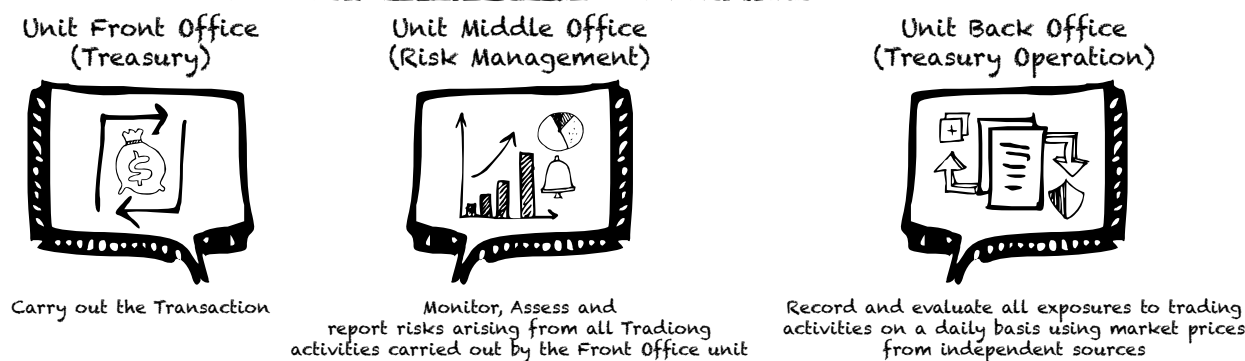
- a. The Board of Commissioners has the function of overseeing market risk (risk oversight) through the Risk Monitoring Committee, Integrated Governance Committee and Audit Committee.
- b. Directors who carry out the risk policy function through the Executive Committee related to market risk management and recovery plan, namely the Assets & Liabilities Committee and Risk Management Committee.
- c. Working Unit of Risk Management together with business unit and compliance unit carry out the functions of risk identification, risk calculation, risk monitoring and risk control.

Risk Management Framework of Bank Mandiri is developed based on internal and external factors including but are not limited to bank business, regulatory provisions, development of methodologies and best practices, as well as risk data. Authority and responsibility related to the implementation of risk management are regulated in the Risk Management Policy (KMNR). Whereas for guidance in implementing market risk management both the trading book portfolio and the banking book are regulated in the Treasury Procedure Standard (SPT) and the Asset Procedure & Liability Management Standard.

MANAGEMENT AND MECHANISM OF MARKET RISK MEASUREMENT – TRADING BOOK

Trading book market risk is a risk arising from potential losses due to banking book activities, including changes in interest rates and exchange rates (including derivative instruments). Bank Mandiri's market risk management is carried out by applying principles of segregation of duties, which is to separate the functions and responsibilities independently of the treasury work unit trade transactions, which consist of:

Prinsip Segregation of Duties



MANAGEMENT AND MECHANISM OF MARKET RISK MEASUREMENT – BANKING BOOK

The banking book market risk is a risk that arises because of changes in interest rates and exchange rates for banking book activities that can affect the Bank's profitability (earnings perspective) and economic value of Bank capital (economic value perspective). Management of the Bank Mandiri banking book market risk is carried out by optimizing the balance sheet structure to obtain maximum returns in accordance with the level of acceptable risk. In addition, also by setting limits that refers to internal provisions and applicable laws and regulations provisions which is monitored weekly and monthly by the relevant work unit.

LIQUIDITY RISK

In order to manage liquidity risk in a measured and comprehensive manner, Bank Mandiri implements the following strategies:

1. Establish limits that refer to internal provisions and applicable laws and regulations provisions.
2. Perform periodic liquidity risk stress testing to determine the impact of changes in market factors and internal factors on extreme conditions (crises) on liquidity conditions.
3. Arrange and conduct periodic reviews of the Liquidity Contingency Plan (LCP) and Recovery Plan that regulate the Company's procedures to encounter deteriorating liquidity conditions including alternative funding strategies, including through alternative funding strategies among others through sale/purchase transactions of FX Money Market instruments and Interbank Securities Repo, Government Bond sales, use of Bank Indonesia Standing Facility and repo of Bank Indonesia

securities. Determination of liquidity conditions and funding strategies in the LCP and Recovery Plan has considered internal and external conditions.

4. Monitor external indicators including the Jakarta Interbank Offered Rate (JIBOR), USD Interbank, Rupiah interest rate, spread between Return on Investment (ROI) compared to UST, Outstanding IDR banking Liquidity, USD/IDR exchange rate, spread loan default swaps (CDS), Composite Stock Price Index (CSPI), as well as current market information. This monitoring aims to increase awareness of economic conditions that are less stable, both due to the conditions of the global crisis and due to various domestic issues.

OPERATING RISK

Operating Risk may trigger other risks such as Reputation Risk, Strategic Risk, Legal Risk, Market Risk, Credit Risk, Compliance Risk, and Liquidity Risk. If a Bank can manage Operating Risk effectively and consistently, the possibility of other risks can be minimized. Operating Risk is inherent in any operating product/activity/process of the Company in the management of the organization. The ultimate responsibility of the Risk Owner Work Unit as the risk and control owner is to ensure good risk management process, thus reducing risk potential.

In order to implement effective Operational Risk Management, Bank Mandiri developed a methodology of identification, measurement, control/mitigation and monitoring of operational risk exposures utilized in each Working Unit. In addition, Bank Mandiri has also developed a management information system that is tailored to the characteristics, activities and complexity of the Company's business activities.

Operational Risk Management is carried out through 4 (four) stages as follows:



1. Risk Identification, i.e. the process of identifying potential risk inherent in a product/activity/ process by considering internal and external factors, including identifying control to be used for mitigation.
2. Risk Assessment, i.e. the process of assessing that considers potential impact and likelihood of a risk. This assessment aims to determine which risk is more material/significant compared to others in order that more focused control measures can be developed. Moreover, an assessment is also undertaken towards control through control testing to determine if the control design determined in the Bank's applicable provision has been implemented effectively (operating effectiveness) and/or still can be used effectively (design effectiveness)
3. Risk Monitoring, i.e. the process of monitoring risks that have been identified and assessed in terms of likelihood. Monitoring is undertaken all the time in each work unit by their respective members several times and collectively up to the work unit head through a work process that has been designed in the applicable provision. This includes monitoring of existing indicators or early warning system or instrument/reporting.
4. Risk Control and Mitigation, i.e. the process of controlling and mitigating risks prior to their occurrence by implementing the applicable provisions and/or follows-up (action plan) to control shortcomings (thus potentially resulting in risks) in the process of control and follows-up on an incident. This process aims to ensure that residual risks for the Bank are maintained at a minimal level. Control has to be maintained implemented consistently in accordance with the existing control design, and

reviewed continuously to ensure that the existing control design remains effective for mitigation of dynamic risks (emerging risk).

In implementing operational risk management, Bank Mandiri uses operational risk management tools/devices including:

1. *Risk and Control Self Assessment (RCSA)*
A register of key risks and controls, which will be used as a basis for risk-based control testing in order to identify potential weaknesses of control as early as possible and maintain the minimum level of residual risk by taking the necessary actions to mitigate before the risk occurs .
2. *Loss Event Database (LED)*
Database of operational risk incidents which are recorded on a risk-based basis with the aim of being lessons learned, monitoring remediation follow-up and improvement in the future, as well as input on the calculation of operational risk capital (regulatory capital charge).
3. *Key Risk Indicator (KRI)*
Indicators which are arranged as part of an effort to monitor the risks that exist on a risk based basis so that follow-up can be taken immediately before a risk actually occurs
4. *Issue and Action Management (IAM)*
A tool to monitor the follow-up that has been prepared on the issues found through various activities, for example Control Testing, Incidents, Key Risk Indicators, self identified issues, etc.
5. *Capital Modelling*
A model of operational risk capital (regulatory capital charge) which is in accordance with the provisions of applicable regulations, as a part of mitigating operational risk.

In order to facilitate the operational risk management process, Bank Mandiri has an integrated Operational Risk Management system that covers all of the aforementioned tools and is implemented in working units both head office and region. As an output of the operational risk management process, the Operational Risk Profile Report that describes operational risk exposures is delivered periodically to the Board of Commissioners and Directors. This is administered in order to support the active role of the Board of Commissioners and Directors in implementing the Company's operational risk management. The results of operational risk management reporting are then submitted to the regulator as part of the Risk-Based Bank Rating (RBBR) report in accordance with applicable regulations.

The implementation of operational risk management involves all elements in the Company, including the Board of Directors with active supervision by the Board of Commissioners. The Board of Commissioners and Directors understand the encountered risks and play an important role in supporting and overseeing the success of their implementation in all operational work units. Operational risk management in the Company is supervised by the Director of Risk Management supported by involvement.

- **Risk Management & Credit Policy Committee**
The Executive Committee carries out the functions of supervision, control and risk management, among others, through the establishment of risk management strategies and procedures, monitoring risk profiles and establishing risk appetite.
- **Operational Risk Management Coach Working Unit**
The Operational Risk Management Working Unit is responsible for formulating policies, strategies, frameworks and tools for operational risk management and conducting its socialization.
- **Unit Kerja Manajemen Risiko Operasional**
Satuan Kerja Manajemen Risiko Operasional yang bertanggung jawab mengimplementasikan kebijakan, strategi, kerangka dan perangkat manajemen risiko operasional bekerja sama dengan Unit Kerja Pemilik Risiko.
- **Operational Risk Management Working Unit**
The Operational Risk Management Working Unit is responsible for implementing policies, strategies, frameworks and operational risk management tools in collaboration with the Risk Owner Working Unit.
- **Compliance Working Unit**
Work units that carry out the compliance function on internal and external rules.
- **Internal Audit**
Work units that carry out evaluation of the effectiveness of internal control, risk management and governance processes.

LEGAL RISK

Legal risk is a type of risk encountered by Bank Mandiri as a result of lawsuits, both those carried out by internal and external parties and/or the discovery of juridical weaknesses such as the absence of legal documents and regulations or weaknesses in documents. Legal risk management organizations are carried out by the Legal Unit at the Head Office by carrying out functions, duties and responsibilities related to regulatory, advisory, litigation, advocacy and legal assistance, education and transformation in the field of law and management of Bank legal risk. In implementing these functions, duties and responsibilities, the Legal Unit at the Head Office coordinates with the Legal Unit in the Work Unit and Legal Unit in the Region. The Head Office Legal Unit is the system coach and supervises Legal Unit in Working Unit and Legal Unit in the Region. In optimizing the function of the working unit related to litigation, Bank Mandiri initiated the establishment of a Wholesale Loan Litigation Group which focused on handling litigation issues in the wholesale segment.

MECHANISM OF LEGAL RISK MANAGEMENT

The risk management mechanism which includes the identification process of measurement, control and monitoring refers to the applicable provisions concerning risk management. Each unit of product owner and / or executor or activity organizer is required to identify and manage risks to the maximum including but not limited to legal risks that are inherently inherent in every product or activity created or carried out by the Company, so that they do not have a broad impact and trigger risk Other risks include but are not limited to reputation risk.

Legal risk management carried out by Bank Mandiri, both preventive and repressive, is sufficient to protect the legal interests of Bank Mandiri and minimize the significant financial impact for Bank Mandiri, this is reflected in the Legal Risk Profile Report for 2019 which is in the predicate Low.

REPUTATION RISK

Reputation risk is managed through mechanisms, including monitoring, supervision, handling, and resolution under coordination from the Corporate Secretary with support from relevant work units, including Customer Care work unit, Legal work unit, retail risk work unit, IT work unit, and Strategy Marketing Communication work unit based on applicable internal regulations, and laws and regulations.

On the other hand, reputation risk is also managed by creating positive perceptions through positive articles and posts on conventional media and social media.

Mechanisms for Reputation Risk Management

Reputation risk is managed through a mechanism of supervision, handling and settlement which is coordinated by the Corporate Secretary Group with reference to the Standard provisions of the Corporate Secretary Guidelines.

Positive perceptions are created through positive articles and posts in the press, online media, and electronic media related to the company's business and social activities by referring to the provisions of the Corporate Secretary Standard Guidelines.

Implementation of Policy on Reputation Risk Management

As a form of implementing the reputation risk management policy, the Company ensures that all work units have performed their respective functions properly and in accordance with applicable regulations. As for events that occur that have the potential to impact on reputation risk related to the main tasks and functions of certain work units, the work unit is required to provide detailed information to the Corporate Secretary at the first opportunity in order to immediately manage the event to minimize the impact.

Bank Mandiri currently has official channels for receiving complaints and questions from customers, such as 14000 call centers, websites, branch offices, including print, online, electronic and social media. All complaints are forwarded to Customer Care for handling and resolution. In carrying out these tasks, the Customer Care work unit coordinates with the Corporate Secretary, especially in handling customer complaints related to conventional and social media.

Bank Mandiri also monitors and evaluates news coverage in print, online, electronic and social media periodically to measure the effectiveness of company publications and communications. Furthermore, the results of monitoring and evaluation are used as a basis for publication and communication activities for the next period in order to strengthen the company's reputation on an ongoing basis.

In order to establish good communication with the local media and relevant stakeholders throughout Indonesia, the Corporate Secretary also collaborated with local media to hold a Focus Group Discussion (FGD) in Palu, Central Sulawesi on the theme of post-natural economic recovery. In addition, the Corporate Secretary through regional offices outside Jakarta also conducts iftar activities with major local media to increase engagement and strengthen good relations.

By organizing communication activities in this area it is hoped that positive news can be created about Bank Mandiri in various national media, both print, online, electronic and social media, thus encouraging positive opinions for Bank Mandiri in the midst of society.

Whereas in the event of a crisis on the reputation of the Company and is massive so as to have a significant impact on the confidence of the Stakeholders, the Company will immediately implement an immediate action plan to minimize the impact of the crisis, including preparing problem management strategies, determining internal resource persons and execution schedules for activities crisis management, and overall evaluation.

STRATEGIC RISK

Strategic-risk Management Organization

The bank has established a risk management committee and a risk management unit aims to support a comprehensive, integrated, measurable, and controlled risk management. Each of these committees issues included in the scope of the intended committee.

Strategic-risk Management Mechanism

Bank risk management is regulated in a bank risk management policy with reference to Bank Indonesia regulation (PBI), the Financial Services Authority regulation (POJK), Basel provisions, and international best practices. This policy is regularly reviewed to anticipate changes in a business situation, regulation, and Bank internal condition.

In conducting strategic risk management, Bank Mandiri always conducts performance analysis and evaluates business target preparation and takes corrective steps in developing business plans and targets by considering internal and external conditions, if necessary.



The Implementation of Strategic Risk Management

Throughout 2019, by looking at internal and external conditions of Bank Mandiri and the corporate plan “restart” policy 2016-2020, Bank Mandiri is currently carrying out the stage III transformation to be the best financial institution in Indonesia in 2020. Considering the current economic situation, Bank Mandiri has performed some business strategies focusing on:

- **Strengthening business which becomes initial core competency** by increasing the wholesale loan above the market growth with the focus on anchor customers and industrial sectors, as well as increasing fee-based income and CASA wholesale through the improvement of banking transaction and cash management, and forex services and capital market.
- **Building and strengthening the new core competency**, by encouraging CASA retail growth through e-channel and Bank at Work initiatives by leveraging the network and derivatives of the wholesale customers. The growth of the consumer lending business, particularly in mortgages, auto loan, and personal loan through streamlining and cross-selling. Increasing the penetration of the micro-credit, especially KSM, and maintaining the market share segments in the Small and Medium Enterprises (SME) segments.
- **Strengthening the fundamentals**, by reducing the cost efficiency ratio through digitalization. Increasing network productivity through the improvement of business process and analytic utilization. Reducing the level of NPL by strengthening the early warning system, managing non-performing loans, and loan business processes.

Steps and Plans in Anticipating Strategic Risk

In anticipating the risk factors encountered by Bank Mandiri, it is necessary to implement independent and prudent risk management but not limit the company's business expansion process. The followings are some strategic risk management procedures applied in 2019:

- The economic growth which impacts business growth is still wary of several industrial sectors that indicate a potential risk of slowing or saturation. This leads Bank Mandiri to expand credits on the existing core and new core more prudently, and select prospective and resilient industrial sectors and segments toward economic turmoil. In addition, monitoring watch list and high-risk debtors are carried out end to end for better loan management.

- Controlling the formation of reserves (CKPN) by conducting review and follow-up action of the potentially problematic debtors so that CKPN costs can be reduced.
- Focusing on retail deposit in small business, micro, and consumer (individual) segments by running a program that can maintain its sustainability.
- Portfolios should be managed more agile to cope with cycles and volatility, prospective industrial sectors/segments should be encouraged to grow.
- Controlling costs through efficiency/saving overhead cost program and a more in-depth study of initiatives which have an impact on increasing productivity and eliminating non-value added cost.

COMPLIANCE RISK

All levels of the company are fully responsible to carry out compliance in their activities. The organizations, their duties, and responsibilities of implementing the compliance function are as follows:

1. Board of Commissioners
In relation to the implementation of the compliance function and integrated governance, the board of commissioners must carry out active supervision toward the implementation of the compliance function.
2. Integrated governance committee
The committee is formed to assist the commissioner board in carrying out the supervisory function of the implementation of the integrated governance and integrated compliance function at Bank Mandiri and subsidiaries.
3. Director/SEVP
The board of directors has duty and responsibility to foster and implement compliance culture and ensure the implementation of compliance culture at all organizational levels and business activities.
4. Director in charge of the compliance function
The director in charge of the compliance function is responsible for formulating a compliance culture strategy, minimizing compliance risk, establishing compliance systems and procedures and ensuring all policies, provisions, systems, and procedures are in accordance with prevailing laws and regulations.
5. Compliance work unit (Compliance & AML-CFT Group)
Compliance work unit assists and/or represents the director in charge of the compliance function in carrying out their duties and responsibilities.
6. Compliance unit within the work unit
Compliance unit within a work unit ensures the implementation of the compliance function

performed by the head of the supervised work unit.

7. The head of the work unit

The head of a work unit is responsible for realizing the compliance culture in their units, managing compliance risk, and implementing process and procedure improvement related to compliance issues in the units.

COMPLIANCE RISK MANAGEMENT MECHANISM

a. Identification

Compliance risk identification is stated in Compliance Risk Statement (CRS) which includes related regulation, causes of risk, risk control, and action plan needed to prevent compliance risk.

b. Assessment

The identified risk is assessed by each risk owner to create compliance risk profile in his work unit. The risk assessment is carried out based on the possibility of the risk occurrences and its impact. In addition, the risk owner also evaluates the effectiveness of the control.

c. Monitoring

Compliance risk monitoring is done by deciding and monitoring the risk appetite statement (RAS) of compliance risk.

d. Mitigation

The mitigation of the compliance risk is carried out by:

1. Reviewing that the compliance risk identifying process has been done properly and correctly.
2. Reviewing that the implementation of control and mitigation has been done properly and correctly.
3. Reviewing that the compliance risk assessment process has been carried out properly and correctly and considers historical sanctions data.

as part of the Bank's Risk Profile Report. Based on the compliance risk self-assessment conducted in Quarter IV 2019, the level of compliance risk of the Company is 2 (low to moderate). Some things that become a concern for improvement are compliance risk awareness of employees, data quality and monitoring of report submission to the regulator.

3. Efforts to Mitigate Compliance Risk

In an effort to mitigate compliance risks, the Bank has implemented a number of compliance programs as follows:

a. Monitoring Regarding the Fulfillment of Bank Obligations for New Regulations

The Compliance Work Unit carries out prudential meetings, monitors the action plans that need to be carried out, and reminds the regulatory obligations to the relevant Work Units.

b. Control Testing of High-Risk Activities

Control testing is carried out by the Work Unit Compliance Unit for high-risk activities. If a discrepancy is found with the applicable regulations, it is necessary to immediately make improvements to prevent bank losses.

c. Compliance Testing Program

This program is a program in order to increase owner risk awareness of compliance risks and applicable regulations (according to their duties and responsibilities).

d. Compliance Work Unit Competency Improvement Program

In an effort to increase understanding related to compliance risk management, the Company collaborates with independent parties to organize training and compliance certification for all Compliance Work Unit personnel.

The Implementation of Compliance Risk Management

In 2019, the implementation of compliance risk management is carried out through:

1. Determination of Risk Appetite Statement (RAS)

In 2019, Bank Mandiri has established a Risk Appetite Statement (RAS) for compliance risk, which is the same value as 2018, which is 10 (ten) violations each month. During 2019, the amount of sanctions received by banks is 3 times each month and does not exceed the risk limit in accordance with the stipulated RAS.

2. Compliance Risk Assessment

Compliance risk assessment is conducted routinely every quarter and semester submitted to the OJK

Steps and Plans in Anticipation Compliance Risk

The steps to be taken in relation to improving compliance risk management are as follows:

1. The management of compliance risk

a. Establishing Risk Appetite Statement (RAS) on the monitor the imposition of sanctions/fines to ensure the determined appetite is still under the company's control and improving compliance risk assessment parameter.

b. Improving procedures related to the implementation of the compliance function report.

2. Increasing compliance risk awareness

a. Conducting compliance assessment to increase employee understanding of the prevailing rules



- and regulations.
- b. providing compliance advice on related issues.
 3. Strengthening the monitoring of the compliance of regulatory obligation
 - a. Informing/socializing the prevailing laws and regulation or the results of analysis of the provisions to the companies.
 - b. Monitoring the compliance of action plan of work unit on the new regulations.
 4. Increasing the competency of the compliance work unit

In order to improve the quality of human resources of the compliance unit, the bank cooperates with an independent party to conduct training and compliance certification.
 5. Compliance Loan Review Forum (CCRF)

This discussion forum is held with the business units to increase the awareness of the compliance risk in the loan sector.
 4. Peningkatan Kompetensi Satuan Kerja Kepatuhan

Dalam rangka meningkatkan kualitas Sumber Daya Manusia Satuan Kerja Kepatuhan, Bank bekerjasama dengan pihak independen untuk menyelenggarakan *training* dan sertifikasi kepatuhan.
 5. *Compliance Credit Review Forum* (CCRF)

Forum diskusi ini dilaksanakan bersama Unit Bisnis dan Perusahaan Anak guna meningkatkan *awareness* risiko kepatuhan dibidang perkreditan.

RISK OF INTRA-GROUP TRANSACTIONS

Intra-Group Transaction Risk Management is carried out with Subsidiaries in the Bank Mandiri business group in accordance with Bank Mandiri's business strategy.

Bank Mandiri identifies and analyzes activities that can increase Intra-Group Transaction Risk exposure and affect company performance. The risk identification is carried out in the business activities of Bank Mandiri and Subsidiaries by considering the complexity of the transaction. Bank Mandiri can combine qualitative and quantitative approaches in the process of measuring Intra-Group Transaction Risks and will then conduct periodic risk monitoring in accordance with established procedures.

INSURANCE RISK

Insurance Risk Management is carried out at Subsidiaries in the Bank Mandiri business group which is engaged in the insurance business.

Bank Mandiri identifies and analyzes activities that can increase Insurance Risk exposure and affect company performance. The risk identification is carried out in the business activities of Subsidiaries engaged in insurance by considering its characteristics. Bank Mandiri can combine qualitative and quantitative approaches in the process of measuring Insurance Risk and will then be subject to periodic risk monitoring in accordance with established procedures.

THE EFFORTS TO INCREASE THE CULTURE OF RISK AWARENESS

In order to accomplish the vision of Bank Mandiri to become Indonesia's Best, ASEAN's Prominent, Bank Mandiri continuously applies a culture so-called risk awareness covering all operational and business activities to mitigate risks that have the potential to disrupt the Company's sustainability. The risk awareness culture starts out with the establishment of a Risk Appetite Statement (RAS) which indicates the type and level of risk which a company manages to accept; which are within the risk capacity the company has, and which are prepared in order to achieve business objectives. RAS will be used in the decision making process of a business and the discipline in respect of the implementation will be intensively monitored.

At the level of policies and procedures, the efforts to increase a culture of risk awareness are made by incorporating risk assessment and risk mitigation at each preparation standard of the business activity procedures and the Company product manuals.

Subsequently, an increase in the culture of risk awareness is also exposed by adhering risk awareness to an internalization culture of Bank Mandiri (corporate culture). One of the cultural themes known as "Mandiri

"Tumbuh Sehat" emphasizes "thinking and acting in a balanced manner" whereby every individual in Bank Mandiri is expected to manage to pursue business growth alongside the proper consideration of risks. This point is necessary to be done in order that the performance achievement can be sustainable in the long run.

The success of a variety of programs carried out to increase the risk awareness culture absolutely needs to be supported by a good communication strategy. Bank Mandiri makes use of a couple of communication media to ensure that messages are delivered in an extensive coverage. Accordingly, other than holding a risk sharing forum, Bank Mandiri also exerts a digital channel for instance email blast so that the risk awareness culture can be embodied in an open, efficient, and effective framework of risk management.

RISK AWARENESS PROGRAM



For the sake of making a good operational risk management successful, it definitely needs to be fostered by good risk awareness from all levels of employees as well Bank Mandiri has an advanced program in an operational risk awareness culture which is better known as "OPERA (OPERational Risk Awareness)". With the tagline known as DARE that stands for "Deteksi, Amankan, dan Respon", or in English it refers to (Detection, Secure, and Response). This program is designed to enhance the understanding and effectiveness of each Bank Mandiri employee composed of the following details:

OPERA Edu



OPERA Edu

Is an awareness-related program that aims at provisioning education pertinent to risk and control encompassing the following points:

a. OPERA Clip is a short video with a maximum duration of 1 minute which raises the issues as regards the latest operational risks that must be implemented. The video has been made consisting of

1) OPERAClip Episode 1, it is displayed in the form of an awareness video which is functional to shape a targeted attitude in managing operational risks as the following categories:

- The first series with the theme of control is oriented towards the responsibility of each employee,
- The second series nuances the theme of understanding control, not only from simply "as he said", and
- The third series raises the theme about "fatal" if the control is merely regarded as a ritual.

OPERAClip Micro Edition: it is displayed in the form of awareness-driven video for risks and controls in the micro unit.

This video is shown continuously through internal broadcast media as a means of socialization, such as screens in office lifts, and other similar media. This video is obligatorily demanded to be watched by all employees in each work unit together routinely.

OPERA Clip



OPERA Toon



OPERAToon: is comic/cartoon articles which are presented in a lightweight, attractive and up-to-date package with the latest themes related to risks and controls that need to be adhered by every employee. The OPERAToon series is published regularly once a month and is sent via email blast to all employees..

OPERA Letter

OPERA Letter is short articles with a maximum of 2 (two) pages addressing certain themes with respect to the management of operational risks. Opera Letter is sent to all employees via emailblast every 3 (three) months.

OPERA Learning

Is a risk awareness program through learning / training around managing operational risk that must be followed by all employees. OPERA Learning takes the form of e-courses that can be accessed anywhere and anytime through the i-Learn menu at mandirieasy.com. each module is equipped with a post test to measure the level of awareness of each employee. When several modules are available, including: Introduction to operational risk management, SPO Operational Risk Management, Reporting Operational Risk Incidents, Introduction to Information Security



OPERA Forum



OPERA Forum

OPERA Forum is held as a forum of discussion with regard to the management of operational risks. OPERA forum falls into these following categories:

MRO Forum: a forum that is held every quarter specifically organized by the Operational Risk Management Unit and attended by the Head of Work Unit alongside the staffs. This forum aims at addressing issues corresponding to the Profile of Operational Risks in the Work Unit of Risk Owner, with the agenda of verifying control testing results, discussing key signification issues, and action plans which need to be immediately implemented.

OPERA Workshop: a workshop related to operational risk awareness organized by the Operational Risk Management Unit.

After the 2018 OPERA Workshop was held to all Region Offices, then in 2019 continued with the OPERA workshop to 79 Groups in Bank Mandiri. In addition, the OPERA workshops were also held to subsidiary companies with the aim of encouraging awareness on a wider scope.

RISK AWARENESS SURVEY

The Operational Risk Group, internally, has developed a survey methodology that aims to measure the level of operational risk awareness at each level of employees, identify gaps and opportunities for improvement, and set a comprehensive plan for follow-up improvement. The survey results can also be the basis for evaluating and improving the Risk Awareness Program so that it is always synchronous with the overall needs of the organization.

The survey methodology uses a series of questionnaire questions to measure the level of awareness of targeted attitudes of employees in managing operational risks. The interpretation of the survey results is the setting of 5 strengths and 5 weaknesses of targeted attitude. Strength is the most frequently asked question while the weakness is the most widely answered question by respondents.

As for taking the number of survey samples, in order to represent the entire employee, a finite population is used where:

$$n^* = \frac{1537}{1 + (1537 - 1)/36981} = 1475 \text{ sampel}$$

$$n^* = \frac{n}{1 + (n - 1)/N}$$

With a minimum number of survey respondents of 1475 employee samples, the obtained Margin of Error value is 1%. If the number of respondents approaches the population, the smaller the Margin of Error value and the results of the survey will reflect the actual conditions..

The Risk Awareness Survey was conducted on August 5 - August 30 2019 with a total respondents of 9259 Bank Mandiri employees, both at the Head Office and the Regional Offices. The result shows the average score of 84.06 (scale 100), which means that employees have a considerable awareness

of the management of operational risk with some improvement needs to further increase employee risk awareness. Implementation of employee targeted attitude improvement is done continuously through aforementioned Risk Awareness Program mechanism and its effectiveness is monitored by related parties. Furthermore, Risk Awareness Survey will be a routine tool and agenda to be run by Bank Mandiri to measure the level of risk awareness of employees.

To find out whether the survey results reflect the conditions in the Bank Mandiri, the Operational Risk Group has also carried out the Focus Group Discussion for the level of executive, Officer and Department of Head as representatives of the Central Office and Region. The elaboration related to the forum group discussion results are some important things to highlight, among others:

- The difficulties of employees in understanding the rules were due to the SPO and PTO which are considered too long and wordy (less user friendly).
- Related to employee sanctions in the form of verbal notice where the notice is written so that it will always appear on the employee data so as to cause hindrance to the employees promotion. This causes employees to less openly disclose when an error/ incident occurs and tends to blame the situation/ other parties.
- Risk awareness requires a role model from management (tone from the top).

Furthermore, the Operational Risk Group along with Human Capital Engagement will map the action plan that needs to be done as a follow-up of the Operational Risk Awareness Survey results, including the risk awareness program that is currently running.

RISK ASSESSMENT

The result of self-assessment of the Individual Bank Mandiri Risk Profile for the 31th of December 2019 was ranked 1 (low) with the Inherent Risk Rank that was low to moderate and the rank of Risk Management Implementation Quality (RMIQ) Rating which was strong.

The self-assessment of Bank Mandiri risk profile (individual) for the 31th of December 2019 is as follows:

Types of Risks	The Level of Inherent Risk	The Level of Risk Management Implementation Quality	The Rank of Risk Level
Credit Risk	Moderate	Satisfactory	Low to moderate
Market Risk	Low	Strong	Low
Liquidity Risk	Low	Strong	Low
Operational Risk	Moderate	Fair	Moderate
Legal Risk	Low	Strong	Low
Strategic Risk	Low	Strong	Low
Compliance Risk	Low to moderate	Satisfactory	Low to moderate
Reputation Risk	Low	Satisfactory	Low
Composite Rating	Low to moderate	Satisfactory	Low to moderate

THE EVALUATION OF RISK MANAGEMENT SYSTEMS

Bank Mandiri constantly evaluates the effectiveness of the risk management systems. The evaluation entails adjusting the strategy and the framework of risks as the constituent of risk management policies, considering the adequacy of risk management information systems and the adequacy of risk identification, measurement, monitoring and control processes.

An example of evaluation on the risk management policy is the annual evaluation on the Risk Management Policy and Standard Procedure. The Board of Commissioners plays an active role in the evaluation of the risk management system by reviewing findings of the evaluation undertaken by the Board of Directors as the organ in charge of effective implementation of the risk management system. The annual evaluation results show that during 2019 Bank Mandiri has implemented fairly good risk management.

INTERNAL CONTROL SYSTEM

The Internal Control System (ICS) refers to a monitoring mechanism which is established by the company's management on an on-going basis. An effective ICS is an important component in the company management and becomes the foundation of the company operational activities which are proper and secured. An effective ICS can help the Board of Commissioners and Directors in safeguarding the assets of the company, ensuring the availability of credible financial and managerial reporting, increasing the company's compliance with laws and regulations, and decreasing the risk of loss, deviation, and violations of prudential aspects. The application of ICS in the company refers to the Internal Control Policy (ICP).

As a process executed by all levels of the company's organization, ICS is applied in the strategy setting in all work units, and it is designed to capably identify the plausible occurrence of an event that can impact the company, to manage risk in order to still remain within the risk appetite, and to provide adequate confidence in order to achieve the company goals.

THE OBJECTIVES OF CONTROLS

The objectives of implementing an effective ICS are classified into 4 (four) main objectives as follows:

1. The Compliance Objective

It is to ensure that all of the company's business activities have been undertaken resting upon the applicable laws and regulations, both the provisions issued by the Government, the Banking Supervision Authority, the Capital Market Authority and the company's internal policies, provisions, as well as procedures.

2. The Information Objective

It is to provide accurate, complete, on-time, and relevant information required in an effort to make appropriate and accountable decisions, including financial and non-financial reports needed by both internal and external parties of the company.

3. The Operational Objective

It is to enhance the effectiveness and efficiency in using assets and other resources as well as to protect the Bank from the risk of losses including those on account of fraud event.

4. The Objective of Risk Awareness Culture

It is to identify weaknesses and to assess deviations early and re-assess the fairness of the internally prevailing policies alongside the procedures at the Bank on an ongoing basis.

CONTROL ENVIRONMENT

The control environment indicates the entire commitment, behavior, care, and steps of the Board of Directors and Commissioners of Bank Mandiri in executing the operational activities. The Board of Commissioners is responsible for ensuring whether the Directors have monitored the effectiveness of the ICS implementation. The Board of Commissioners plays an active role in ascertaining that there are improvements to the company's problems that can potentially reduce the effectiveness of ICS.

The directors are responsible for setting the policies and strategies as well as internal control procedures. They are also responsible for monitoring the sufficiency and effectiveness of ICS. In addition, the Board of Commissioners and Directors are responsible for enhancing the work ethics and high integrity as well as for creating an organizational culture subjected to all employees appertaining to the importance of internal controls prevailing in Bank Mandiri .