

GLOBAL INVESTMENT PARTNER

2020

MIRAE ASSET DAEWOO INTEGRATED REPORT

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About This Report

The 2020 Mirae Asset Daewoo Integrated Report was created with an aim of reviewing our sustainability management activities and our achievements, and thus providing stakeholders with information in a transparent manner.

Reporting Status

This report is the ninth sustainability report since we published a sustainability report for the first time in the industry in 2006 and is the fourth after the merger with Mirae Asset Securities in December 2016. In addition, this report has been developed as an Integrated Report which consolidates an annual report and a sustainability report since 2018.

Reporting Method and Period

This report is compiled in accordance with the Core option of the Global Reporting Initiative (GRI) Standards, a global standard for sustainability reports, and the framework of the International Integrated Reporting Council (IIRC). It is also aligned to the 10 principles of the UN Global Compact, which the company has been upholding since 2006.

The reporting period of this report is from January 1st 2019 to December 31st 2019, and some topics disclose three-year data from 2017 for trend comparison. Both financial information and non-financial information are reported according to the company's fiscal years following our disclosure policy, and information that does not fit such criteria has footnotes added. This report also includes information on major activities executed in the first half of 2020.

Reporting Scope

The scope of information in this report encompasses the company headquarters, client center, domestic branch network, overseas subsidiaries and representative offices, and other areas where Mirae Asset Daewoo performs business activities. The reporting scope of the data provided in this report satisfies at least 75% of the company's sales on a consolidated basis. However, as for overseas business sites, such as overseas subsidiaries and representative offices, the scope of reporting includes business performance only for data collection is difficult due to physical limitations in terms of material management and assessment.

Independent Assurance

This report has been assured by an independent assurance service provider, to enhance its internal and external credibility. Also, the integrity of the reporting processes as well as the accuracy and credibility of its contents have been ensured by developing this report in accordance with international standards including International Standard on Assurance Engagements (ISAE) 3000. The Independent Assurance Statement is attached in the Appendix I section (P. 106-107).

Information

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CONTENTS

Introduction

- 04 Mirae Asset Daewoo at a Glance
 - 06 CEO Message
 - 08 Company Profile
 - 12 G.I.D.P Innovation
 - 14 Business Overview
-

Sustainability Issue

- 20 Leading Future Finance
 - 28 Putting Clients First
 - 34 Culture of Respect in the Workplace
-

Management Discussion & Analysis

- 42 Business Performance
 - 54 Social Contributions
 - 59 Environmental Management
-

Governance

- 62 Corporate Governance
 - 66 Ethical Management
 - 70 Risk Management
 - 73 Information Protection
-

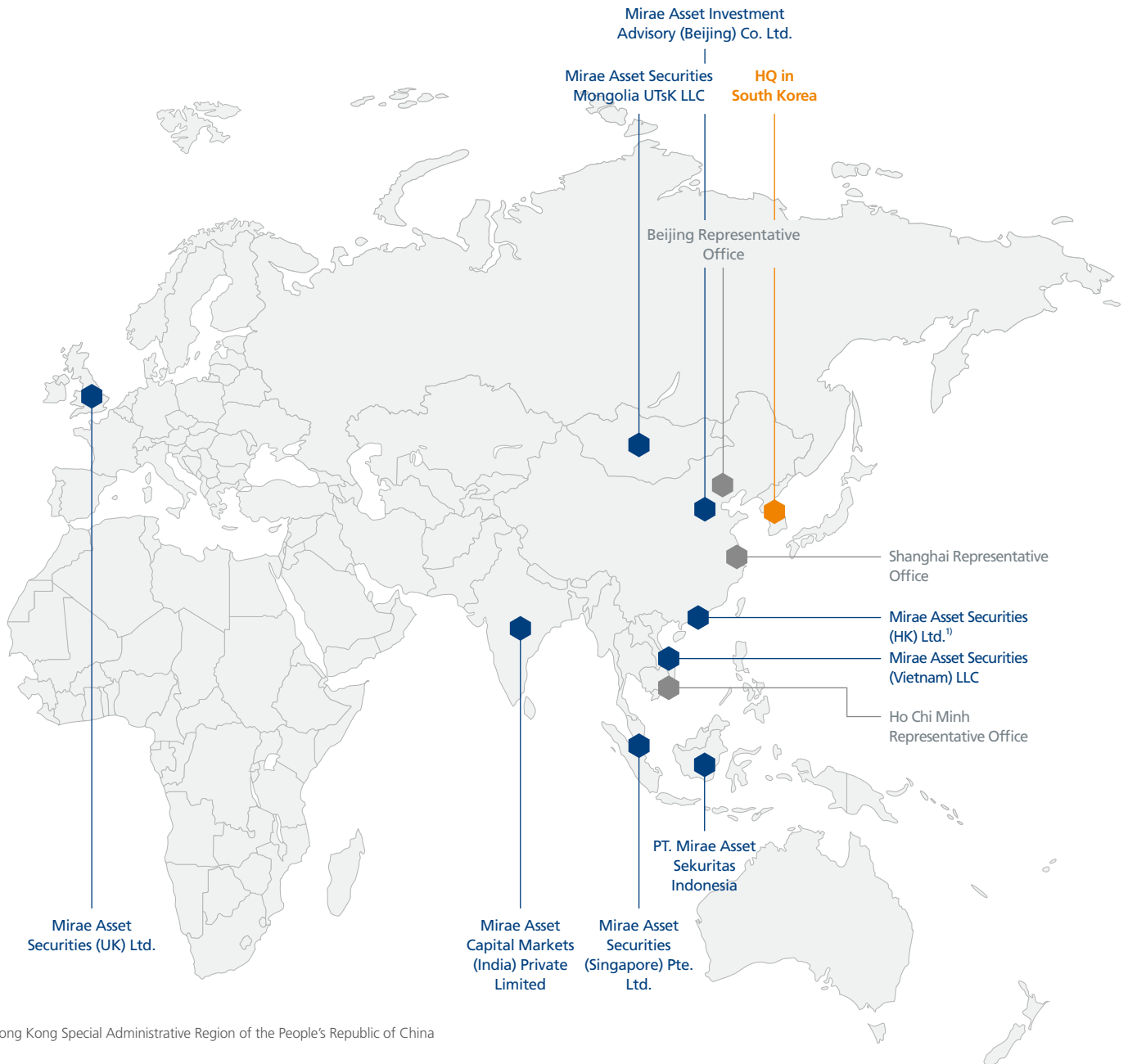
Appendix I

- 76 Mirae Asset Financial Group
 - 78 Financial Performance
 - 98 Social Performance
 - 100 Environmental Performance
 - 101 Tax Policy
 - 102 Materiality Test
 - 104 Stakeholder Engagement
 - 105 Verification of GHG Emissions Data Reports
 - 106 Independent Assurance Statement
 - 108 GRI Index
 - 111 UNGC & UN SDGs
 - 112 Organization Chart
 - 113 Membership & Awards
-

Appendix II

- 115 Notes to the Consolidated Financial Statements
-

Mirae Asset Daewoo at a Glance



1) Hong Kong Special Administrative Region of the People's Republic of China

Shareholder Composition

Shareholder's name	Number of shares	Ownership (%)
Mirae Asset Capital Co., Ltd.	133,492,000	20.28
National Pension Service	63,208,694	9.60
NAVER Corporation	47,393,364	7.20
Employee Stock Ownership Plan	1,439,584	0.22
Treasury Shares	108,723,602	16.52
Others	304,059,164	46.19
Total	658,316,408	100.00

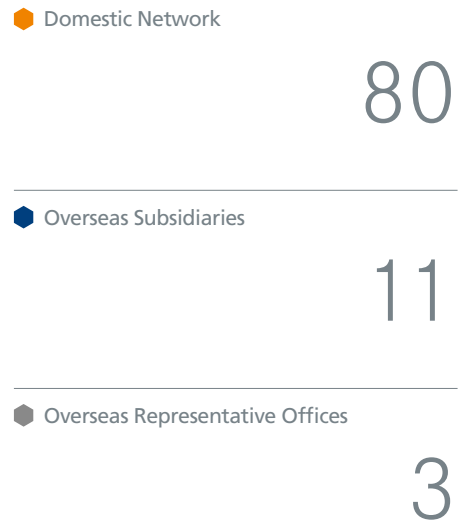
* As of December 31st, 2019, issued total common shares basis



Global Investment Partner, Mirae Asset Daewoo

As a Korea's leading financial institution, Mirae Asset Daewoo is making relentless endeavor to make a leap forward into becoming a global top-tier investment bank by continuously expanding our global business.

Global Location



* As of March 31st, 2020

Total Assets (Unit: KRW trillion)

133.1



Equity Capital (Unit: KRW trillion)

9.2



Total Client Assets (Unit: KRW trillion)

239.1



Market Share in Brokerage Commissions of Equity Securities

10.1%



Credit Ratings

Bonds **AA** Commercial paper **A1**

Korea Ratings, Korea Investors Service, NICE Investors Service

Foreign bonds

Baa2 **BBB**

Moody's

S&P

* As of December 31st, 2019, consolidated basis

CEO Message

Dear clients, shareholders and all other stakeholders of Mirae Asset Daewoo,

I would like to extend my utmost gratitude for your unwavering support and encouragement for our continued success.

It is my great pleasure to have the opportunity to share our financial achievements in 2019, our economic, social, and governance (ESG) outcomes that we have pursued to fulfill our social responsibilities that meet global standards, as well as our vision for the future through this 2020 Integrated Report.

2019 was a year when Mirae Asset Daewoo gained confidence that we can grow into a top-tier global investment bank (IB) beyond Asia. We achieved record-high performance, and our equity capital was raised to KRW 9.2 trillion, thereby solidifying our leading position in Korea as a mega-sized IB. By fully exploiting our investment capabilities, we managed to increase our investment assets in Korea and overseas to KRW 7.5 trillion, and achieved profitable growth in areas of IB, principal investments (PI), and trading. Furthermore, we became the first securities company in Korea that exceeded KRW 100 billion in net profit before tax generated from overseas subsidiaries by recording KRW 170 billion.

Recently, investors have been expanding the portion of the socially responsible investment (SRI) that takes a corporate's sustainable growth into consideration. In response, Mirae Asset Daewoo officially announced its will to pursue sustainable management while faithfully fulfilling the role as a Korea's leading investment company. As a result, in 2019 we succeeded in being listed on the renowned Dow Jones Sustainability Index (DJSI) World for eight consecutive years, an indicator that takes comprehensive evaluation of a company's sustainability, and issued a USD-denominated SRI bond for the first time among securities companies in the world. A number of CSR activities are continuously rolled out in three areas of "nurturing talent", "social welfare", and "culture of sharing" with Mirae Asset Park Hyeon Joo Foundation at the center, in a bid to practice warm-hearted, caring capitalism. We also launched the "HopeChain Volunteer Corp" to conduct CSR activities driven by our employees, based on which we are making continuous efforts to reach the socially marginalized and thus build a healthy society.

Dear client, shareholders and all other stakeholders,

2020 is a meaningful year as it opens a new decade. Mirae Asset Daewoo will take this year as a new turning point to enjoy the outcome of the seeds we have planted and take another leap forward into a company that Korean securities industry has not witnessed. Leveraging our outstanding equity capital, we will strive to solidify a virtuous cycle where the equity capital is used to expand investment into high quality assets, which in turn increases profits generated from the investment assets.

To that end, we have set three resolutions as follows.

First, we will further strengthen our global business.

Globalization does not mean a mere expansion of global network and requires to strike the right balance between networks. The vision we have set is to enable stable asset management for our clients by providing them with diversified investment opportunities; achieve joint growth of the company with the global economy by pioneering into the global market; and create national wealth for the country through financial exports.

Second, we will further strengthen investment into the future.

Since 2017, we have been supplying venture capital exceeding KRW 1 trillion to small and medium-sized enterprises (SMEs) and innovative companies in a bid to contribute to enhancing the dynamic nature of the Korean economy. Furthermore, our investment into the venture infrastructure and local industries is leading to job creation in the local communities and invigorating Korean society. Without investment, we cannot achieve growth and change the future. Mirae Asset Daewoo will stay committed to leading a new future through investment with our social responsibility in consideration.

Third, we will further accelerate the synergy creation through conversion.

“Digital finance”, a center of the platform business, “IT”, and “pension”, the most comprehensive product suite in WM business, are three areas capable of creating new values and differentiated solutions through converged innovation with other business areas. Mirae Asset Daewoo will be also active in convergence innovation with external platforms. We expect recent investment in NAVER FINANCIAL will enable us to create a wide range of convergence synergy with digital platforms of NAVER Corporation.

Dear client, shareholders and all other stakeholders,

All of our business activities revolve around our core principles of “client alliance” and “enhancing shareholder value”. Based on the client alliance, we will continuously strive to create greater returns for our shareholders to grow together with them.

Market volatility, including the crisis created by the COVID-19 pandemic, has been on the rise. Nevertheless, Mirae Asset Daewoo will stay focused on making preparation for our growth into a global IB by maintaining a stable growth based on sustainable management and sharing the outcome with society. In addition, we will make utmost endeavor to earn right market evaluation that suits our stature as a leader in the financial investment industry.

Mirae Asset Daewoo will fulfill our social responsibilities, strive to create stable profits for our clients, and make strides into becoming a company that grows together with all of our stakeholders. I would like to extend my heartfelt appreciation to all clients, shareholders, and other stakeholders for unwavering support and trust that you have placed in Mirae Asset Daewoo.

Hyun Man Choi

Executive Vice Chairman and Chief Executive Officer,
Mirae Asset Daewoo



Company Profile

Mirae Asset Daewoo has been taking a step forward with sincerity to grow into a global investment bank. To this end, we have been leveraging our global network to identify assets of high quality and seize investment opportunities across the globe, thereby taking the lead in providing products with distinctive values.

Company name	Mirae Asset Daewoo Co., Ltd.
Headquarters	Mirae Asset CENTER 1 Bldg., 26, Eulji-ro 5-gil, Jung-gu, Seoul 04539, Korea
CEOs	Hyun Man Choi, UngKee Cho
Business type	Financial investment
Global network	United States, United Kingdom, Brazil, China, Hong Kong, Singapore, Indonesia, Vietnam, Mongolia, India

* As of December 31st, 2019



We want our company to display a unique and forward-looking philosophy that provides solutions for all of our stakeholders.



Hyeon Joo Park

Founder and GISO of
Mirae Asset Financial Group



Business Philosophy

We value our people and embrace the future with an open mind.

Putting our clients' needs first, we aspire to be a consistent partner. Business philosophy is what guides us and is a never-changing value of Mirae Asset.

Vision

As a global financial group, we pursue excellence in investment management to help our clients achieve their long-term objectives.

Mirae Asset has grown from an emerging market specialist into a global financial group. Over the past 20 years, our strategic direction has always been aligned with our vision to "help our clients achieve their long-term objectives".

Core Values

Our four core values should be the key decision-making criteria for all Mirae Asset employees.



Clients First

Our clients' success is paramount – their success is our success.

We build and nurture long-term relationships with our clients by using our proven investment strategies.



Objectivity

We assess every investment opportunity objectively and with total impartiality.

Our independence sets us apart and helps ensure that our decisions are aligned with the needs of our clients.



Team Work

Mirae Asset's success is built on respect for each individual.

It is our aim to create a true meritocracy in which talent and achievement are rewarded and opportunity is equally available to all.



Citizenship

At Mirae Asset, we are profoundly aware of our responsibilities.

As a good corporate citizen, we aim to give back to the communities in which we live and actively support and participate in a range of initiatives within them.

Major Affiliates and Subsidiaries

Company name	Location	Equity capital (KRW billion)	Main business	Ownership (%)
Mirae Asset Venture Investments Co., Ltd.	Korea	153.7	SME start-up investments	61.6
Mirae Asset Life Insurance Co., Ltd.	Korea	2,336.5	Insurance business	22.0
Mirae Asset Securities (HK) Ltd.	Hong Kong	2,430.6 ¹⁾	Brokerage and investment	100.0
Mirae Asset Securities (UK) Ltd.	UK	361.5	Brokerage	100.0
Mirae Asset Securities Holdings (USA) Inc.	U.S.	660.1 ¹⁾	Other financial services	100.0

* As of December 31st, 2019, consolidated basis

1) Equity capital including investments in its subsidiaries

Investment Principles

As a Korea's leading financial institution, our investment activities are firmly based on solid investment principles and know-how accumulated with our professional experiences. Furthermore, we strive to provide our clients with greater value and contribute to creating a vibrant society through investment.

Mirae Asset identifies the sustainable competitiveness of companies



- Companies with “sustainable competitiveness” refer to those with a competitive advantage in market share, business model, corporate governance and earnings growth. Share prices eventually converge with earnings growth and subsequent cash flow.
- Thus, our effort to identify companies with sustainable competitiveness is a search for high quality factors in a company that will lead to stable earnings growth.

Mirae Asset invests with a long-term perspective



- A long-term perspective is needed when determining whether a company's competitiveness is sustainable. Though share prices may be volatile over the short-term, earnings growth is the main driver behind long-term price movements.
- Investing in an individual company's intrinsic competitiveness and generating stable cash flow is the very essence of long-term investment.

Mirae Asset assesses investment risks with expected return



- Investment risks should always be simultaneously assessed with expected return. Key factors such as valuation, corporate governance and liquidity should be continuously monitored for any potential damage on the long-term competitiveness of a company.
- Exposure to assets that may incur too much risk should be limited while the Risk Management Division should constantly monitor whether actual investment adheres to our investment principles.

Mirae Asset values a team-based approach in decision-making



- Successful investment management at Mirae Asset is not based on an individual's decision-making but rather on a team's decision to firmly adhere to our investment principles and processes.
- Mirae Asset does not rely on star managers. Portfolios in accordance with our investment principles are created through extensive discussions and teamwork among division members.

Mirae Asset firmly adheres to above investment principles.

Value Chain

Mirae Asset Daewoo is committed to controlling the entire business lifecycle in a sustainable way from product development to sales, client care, investment and asset management. This enables us to maximize our business performance, while providing systematic asset management services with long-term perspective to clients.



G.I.D.P Innovation

Global



Investment



Achievements in 2019

First Korean securities company to exceed KRW 100 billion in pre-tax income for overseas subsidiaries

170.9 KRW billion

First Korean securities company to exceed KRW 7 trillion in global equity brokerage balance

7 KRW trillion

First Korean securities company to become an IPO underwriter on NASDAQ for BioNTech

NASDAQ IPO

First securities company around the globe to issue a USD-denominated socially responsible investment (SRI) bond

SRI bond

Plans for 2020

We aim to achieve reliable management of our client assets by diversifying investment portfolio through global asset allocation. By pioneering into the global market, we will present a new vision of generating national wealth through export of financial products while pursuing joint growth with the global economy.

Achievements in 2019

First Korean securities company to achieve KRW 9 trillion in equity capital

9 KRW trillion

Executed an investment of KRW 680 billion into NAVER FINANCIAL, the largest investment for a fintech company ever made in Korea

NAVER FINANCIAL

Identified and invested in global unicorn companies, such as Bukalapak, an online marketplace, and HappyFresh, a food delivery company in Indonesia; and OLA, a car sharing service provider, and BigBasket, an e-commerce grocery in India



Plans for 2020

We will invest in new growth industries around the globe by leveraging our competency to discover opportunities in new paradigm. We will take the lead in securing prime investment assets with stable cash flow, thereby expanding the virtuous cycle of growth via investment.

The Permanent Innovator

Mirae Asset Daewoo has never ceased to making challenges and this was driven by our pursuit for innovation. We are making a leap forward as we strive to become a global top-tier IB based on the four pillars of innovation – Global, Investment, Digital, and Pension.

Digital



Pension



Achievements in 2019

First Korean securities company to register for the payment gateway (PG) business and signed an MOU with Tencent

Tencent

First Korean securities company to exceed KRW 1 trillion in balance under management for online-only funds

1 KRW trillion

First Korean securities company to launch an overseas remittance service using the mobile trading system (MTS)



Implemented a robotic process automation (RPA) to increase business efficiency

RPA

Plans for 2020

We will provide our clients with a completely new financial experience through digital innovation. We aim to create new client value and enhance convenience by offering digital-based products and services. We will also generate synergy by linking our system with external platforms and digitize our business and operations for greater efficiency.

Achievements in 2019

First Korean securities company to exceed KRW 10 trillion in retirement pension reserves

10 KRW trillion

Ranked No. 1 in the industry in terms of rate of return for DC and IRP (one year returns as of 2019 year-end)

No.1

First Korean securities company to provide platform to invest in global ETFs and listed REITs in its retirement pension portfolio



Plans for 2020

Our product portfolio and management competencies optimized for pension products have enabled us to achieve industry-leading annuity returns and assets under management. We will realize our vision of helping our clients enjoy life after retirement by focusing more on increasing returns and improving transaction convenience with a consistent approach and long-term perspective in pension business.

Business Overview

WEALTH MANAGEMENT

Overview

Customized consulting service

Mirae Asset Daewoo provides comprehensive consulting services giving solutions to clients for complicated issues by leveraging our expertise in tax, real estate, legal, investment, and insurance. In addition, we create contents that take financial and non-financial issues of the market into consideration, and deliver them in a timely manner.

VIP service innovation

Mirae Asset Daewoo operates "Global Vacation Club", an exclusive wealth management brand for VIP clients who pursue values beyond wealth and honor. The service provides leisure programs and ideal services such as high-end culture and art programs, and any other luxurious premium lifestyle services in addition to the wealth management.

Core Competencies

Untact consulting service

A dedicated organization to handle investment consulting through untact channels is gaining importance due to the emergence of mega-sized branches and diversification of transaction channels. In response, Mirae Asset Daewoo has selected some 80 staff, specializing in financial product development and sales, from branches and each team at the headquarters, and dispatched them to the Client Solution Department, the largest size among Korean securities firms. They provide in-depth investment consulting and transaction services for not only existing clients but also anyone interested in investing in stocks, funds, and other financial products.

We are leading the wealth management industry based on a client-centric and advanced business model.



PENSION

Overview

The most experienced pension experts

Our pension experts with the most optimized know-how accumulated through long-standing field experiences are leading Korea's pension market. We analyze market trends to decide the most suitable investment policies, and manage returns of clients through professional product management and performance analysis. We also offer pension plan consulting services from pre-adoption to post-adoption for Korean and multinational companies. In addition, Mirae Asset Daewoo has established the "Pension Asset Management Center", the industry's first untact consulting organization dedicated to pension products to offer pension-related consulting services for the individuals, and the very first retirement pension research institution, "Mirae Asset Retirement Institute", conducts research on designing and preparing for life after retirement.

Professional consulting to provide optimal solutions

Our pension professionals offer the most optimized solutions for corporate and individuals. We support all operations required for corporations when adopting retirement pension

plan as a one-stop service center encompassing all issues such as labor, accounting, actuary, and tax. Customized educational programs and seminars are provided to support successful asset management of clients, in addition to consulting services to help them plan their retirement and prepare for life after retirement.

Core Competencies

Advanced infrastructure that enables competitive services

Mirae Asset Daewoo leverages its competitive global network to offer highly competitive pension products. In particular, "Global Retirement Pension Asset Allocation Wrap" is an exclusive wrap account service, offered only by Mirae Asset Daewoo, where investment experts manage the products and returns on behalf of clients. In 2019, we became the first in Korea to launch a system to trade listed REITs in the DC and IRP accounts, and we have the most competitive fund, ETF and ETN product line-ups. We utilize our outstanding IT system that enables us to run our pension and asset management businesses conveniently, and offer diverse IT systems and services by partnering with other institutions such as Korea Scientists & Engineers Mutual-aid Association (SEMA).



We offer high-quality pension products and consulting services by leveraging our distinctive global network. This helps our clients to efficiently manage their pension assets, thereby enabling them to achieve their long-term objectives.

We establish a business model where growth of the company can be shared with our clients.



We are an investment expert, equipped with a globally competitive human network and financial infrastructure. We strive to increase profitability in a stable and consistent manner through product-linked trading and principal investments.

INVESTMENT BANK

Overview

IB Division1

We provide tailored financial solutions that meet the needs of corporate clients by offering various corporate financing solutions such as full range of solutions for initial public offerings (IPO), pre-IPO investments, rights offer and issuance of equity linked notes (ETN), corporate bonds, global bonds, etc. We also provide top-tier private equity fund (PEF) management services where we usually participate as a general partner (GP), and offer such diverse financial services as structured finance and credit offerings.

IB Division2

We provide advisory services for real estate project financing (PF) in Korea and overseas that requires a large-scale of financing. In addition, we utilize our equity capital, finance, and manage in promising alternative investment projects, including publicly-traded REITs, real assets, aircrafts, power & energy and infrastructure projects.

IB Division3

We leverage our domestic and overseas networks to participate in the acquisition finance market and provide M&A advisory services. We also carry out various property projects, such as projects based on public-private partnership, and identify companies experiencing delinquency, in rehabilitation process, and under special situation to offer new solutions.

Core Competencies

Total Financial Solution

In a bid to ensure professional and responsible management, Mirae Asset Daewoo has categorized investment bank business into three divisions, based on which we offer customized services in such wide range of areas as corporate financing, real estate, alternative investment, and acquisition financing. We also offer comprehensive solutions based on our rich experiences and our extensive network both in Korea and overseas.

TRADING

Overview

Trading Division1

Experts with ample experiences are in charge of sales and trading of equity and FICC derivative products. We offer investment opportunities through our in-house developed derivative instruments with such various underlying assets as stocks, indices, foreign currencies, credit, and commodities. These financial products are linked to our hedging investments as well.

Trading Division2

We utilize our distinguished trading process in managing product-linked trading and proprietary trading for bonds denominated in KRW and foreign currencies. We also supply bonds denominated in KRW and foreign currencies to retail clients and offer bond brokerage services for institutional investors in Korea and overseas.

Other Trading Departments

Global Macro Trading Department

Participating in the foreign exchange market along with Korean and foreign banks, the department offers FX spot exchange and swap service to retail and institutional clients and exercises quant proprietary trading.

Multi Strategy Trading Department It makes investments into diverse marketable assets targeting medium-risk and medium-return which is different from conventional proprietary trading.

Passive Solution Department It participates as an ETF liquidity partner (LP) and also offers other various services, such as futures and option brokerage and Delta One desk.

Equity Sales Department It provides ample research contents and services in order to facilitate Korean institutional investors make optimized decisions and execute overseas stocks. In addition, it offers various investment solutions, such as unlisted securities brokerage and overseas pre-IPO services, to institutional investors.

Core Competencies

Differentiated trading process

Mirae Asset Daewoo has a sound credit line equivalent to that of major banks in Korea and boasts distinguished trading strategies and robust risk management as demonstrated in optimal allocation of human resources with abundant experiences in proprietary trading. Such endeavor showed satisfactory trading performance despite sluggish global economic situation.

CORPORATE SOLUTION

Overview

Investment product sales

For Korean institutional investors and corporations, we offer customized investment solutions including trusts, wrap accounts, mutual funds, derivative instruments, such as ELS and DLS, and alternative investment products, such as domestic and overseas real estate and overseas blind funds to meet the needs of our clients.

Investment partner for institutional investors

Mirae Asset Daewoo offers diverse solutions aimed at ensuring secure and efficient asset management for institutional investors and corporate clients. Based on mutual trust, we are committed to serving as an optimal investment partner that delivers latest trend of the global capital market both in a rapid and accurate manner and offers optimal investment assets aligned with market situation.

Core Competencies

Differentiated services

We are developing competitive financial products by joining hands with major asset managers both in Korea and overseas to launch products that cater to varying needs of institutional clients including Korea's major pension funds, public institutions, insurers, and commercial corporations. To proactively respond to growing demand for overseas alternative investment products, we have expanded our portfolio to include hedge funds, PEFs, debt funds, and real estate funds.

We provide institutional investors and corporations in Korea with a wide range of investment products and solutions, including equity, derivative instruments, alternative investment products, and financial products, suited to their fund management.



PRIME BROKERAGE SERVICE

Overview

Hedge fund service

We provide professional and prompt full-scope services and feedbacks for hedge funds that are specific to the Korean market. The scope of our hedge fund service goes beyond traditional areas of seeding, marketing, brokerage, credit offering and custody, and is ever growing so that we can continue to offer proactive and in-depth services such as consulting and sales support.

Securities lending and borrowing service

We offer a securities lending and borrowing service for our clients to achieve their long-short or arbitrage trading scheme more efficiently. In 2020, we plan to launch a service that helps retail clients to lend and borrow domestic and global stocks.

Over-the-counter (OTC) derivatives service

We assist various investment strategies with total return swap (TRS) service on domestic and foreign assets and also supporting risk management and liquidity management. In 2020, we are gearing up to support the report system of the trade repository (TR) to be launched by the Korea Exchange while making efforts to enhance transparency of over-the-counter (OTC) derivatives products and better protect financial consumers' information.

Core Competencies

No. 1 partner in prime brokerage service

In 2019, hedge fund managers named our Prime Brokerage Service Department to be the top in the satisfaction index, and Mirae Asset Daewoo also ranked the top in the prime brokerage service satisfaction survey conducted by "thebell", one of notable public journal, in January 2020. This is an evidence of our excellence and competitiveness across the overall prime brokerage service operations.

We offer services that help our clients execute their hedge fund strategies efficiently while also helping our clients increase their assets by providing services for hedge fund management, such as securities lending and borrowing, leverage, marketing, custody, and swap.

We are growing into a global IB by identifying and investing in prime assets across the globe and establishing specialized business models through localization based on our long-standing overseas business operations and a highly-competitive global network.



We pursue digital innovation aimed at building a strong client base and providing differentiated financial services offered through such competitive channels as MTS and HTS.

GLOBAL

Overview

Most extensive global network in Korea

We have built a global network with 11 overseas subsidiaries and three representative offices in ten countries across the U.S., Europe, South America, and Asia. There are around 960 professionals fully engaged in such business areas as IB, global brokerage, trading, WM, and prime brokerage.

Overseas business model with tailored localization

Instead of one-fits-all overseas business models, we are focused on building sustainable overseas business models tailored to the unique circumstances of each region through thorough localization process.

Core Competencies

Strategy for developed markets

In developed markets, we are continuously identifying and investing in prime assets and taking a step further in productizing such investment assets for global clients, laying the ground for an efficient investment environment.

Strategy for emerging markets

In emerging markets, we are expanding our business to include WM, IB, and trading based on brokerage services for retail and institutional clients. In addition, we have been establishing ourselves as a full-service local securities firm through a customized localization strategy that takes local circumstances into consideration.

DIGITAL

Overview

Comprehensive financial platform service

Mirae Asset Daewoo strives to break down barriers among financial institutions and provide a total asset management service that puts clients at the center through a single app. Our digital innovation, such as the product recommendation service based on big data and AI and integrated management of assets from other financial institutions, serves as a platform that enables more people to enjoy quality asset management services.

Untact online business

We provide untact online and mobile services that enable users to open their account and/or make a transaction 24/7 by establishing an automated ID verification system. We are also expanding services that utilize fintech solutions such as simple authentication and video calls aimed at enhancing client convenience.

Core Competencies

Distinctive investment solutions

We offer a wide range of financial services, such as Global Portfolio Solution (GPS) and m.Club, through diverse channels including the industry's first mobile trading system (MTS), a home trading system (HTS) with proven competitiveness, websites, and blogs. In addition, we are expanding our digital financial services to include investment information service based on big data and AI technologies.

SUSTAINABILITY ISSUE

20

Leading Future Finance

28

Putting Clients First

34

Culture of Respect in the Workplace





未来资产

MIRAE ASSET

花旗集团

震旦

01

Leading Future Finance

Why Does It Matter?

Digital technology is a key to lead the future of finance. In this rapidly-changing digital era, financial companies in Korea and abroad are developing services and digital platforms based on digital technologies, while digital-based fintech and IT companies, equipped with new business models, are emerging in the market as well. Alienation due to the information gap, low birthrates, and the rapidly aging population are emerging as social issues, and accordingly, there has been increasing request for socially responsible investment (SRI). Companies are therefore required to make active efforts to fulfill their social responsibilities through sustainable finance.

Major Issues

- Development of digital technologies and easing of regulations**
 An environment is being established where innovation can be achieved in various aspects including products, channels, and services.
- Strengthened laws and systems** Sustainable finance is gaining importance in line with the development of the stewardship code which focuses on active SRI and major shareholders' participation in exercising their rights.

Our Responses

Mirae Asset Daewoo is actively implementing digital finance with a team dedicated to digital innovation, the first of its kind among securities firms in Korea, playing a central role, while complementing weaknesses and generating synergy through convergence with different types of industries. In addition, we are focusing on sustainable finance that considers social impact as well as profits. As part of these efforts, we became the first securities company in the world to issue an SRI bond and provide various services to enhance financial accessibility of the financially marginalized.

Key Achievements



Number of m.Club users

300,000 persons



Amount of SRI¹⁾

67.6 KRW billion

1) Excluding investment in eco-friendly buildings

Digital Finance

Digital Finance Implementation System

Digital Finance Organizations

In 2017, Mirae Asset Daewoo became the first securities firm in Korea to operate a digital finance unit, and since then has continuously expanded the organization. Digital Finance Division consists of three departments – Digital Innovation Department which pursues digital innovation by identifying new business, adopting new fintech solutions, analyzing big data, and building

platforms; Digital Biz Department which promotes existing online-based businesses, such as domestic and overseas stocks, financial products, and asset management, and provides them to customers; and Client Care Department which is responsible for identifying client needs and communicating with them at client contact points.

Digital Finance Strategy



Digital Finance Activities

Simplified the untact account opening process

In 2019, we adopted a simple authentication service that does not require a login-ID, for all devices as well as untact account opening service for mobile that enables users to open an account without installing an app. We also developed the untact account opening service to enable global stock trading at the time of account opening. In 2020, we will continue to improve our service in an easy-to-use manner by developing facial recognition-based name verification and adopting new simple identity authentication measures.

Expanded digital asset management services

Launched in 2018, the "Robo-Pick" service provides stock recommendation and market information through an AI algorithm and big data analysis. In February 2020, we added global stock investment information as well as a real-time analysis service on supply and demand of foreign and institutional investors, thereby widening choices for clients so that they can choose a stock in accordance with their respective investment propensity. Going forward, we will increase digital financial product transactions and enhance transaction convenience. In addition to expanding the supply of competitive, online-only financial products, we will strengthen digital pension asset management services, including untact pension transfers, and also produce diverse relevant content to offer clients with a large quantity of quality information.

Developed the MAPIS ODS for branch digitalization

The MAPIS ODS is a system that supports account opening, client management, and product information so that sales staff can engage in more efficient sales activities. We use tablet PCs to provide the most appropriate financial services anytime and anywhere, no matter where our clients are. In 2020, we will accelerate the pace of digital transformation of our WM business by fully rebuilding the system.

Operating the m.Club

Mirae Asset Daewoo launched the "m.Club", an online financial service platform, in November 2017 so that clients can invest with greater ease. The m.Club is our flagship investment service that is used by 300 thousand clients as of May 2020. A total 12 contents are offered through the mobile trading system (MTS), including "Choice of Chogosu¹⁾" which share real-time information on stocks that have been traded the most by Mirae Asset Daewoo clients with top 1% rate of return; the "Weekly Top 10 Products" that shows the list of products that have been traded the most by Mirae Asset Daewoo clients during a week; and "Dr. Big's Investment Diagnostics" which diagnoses my investment capabilities and presents investment alternatives. We are expanding AI-based content in 2020, such as "Dr. Big's Power Ranking" which introduces the Top 5 by product type that is chosen by AI, and "Dr. Big's Signal" which captures and informs clients of public notices or changes in supply and demand that they should take interest in through AI. Going forward, we will expand AI-based content of the m.Club to provide our clients with useful information.

Operating social media channels

Mirae Asset Daewoo operates several social media channels, including YouTube, NAVER blog, and Kakao Plus, featuring financial contents which created and offers fun and easy-to-understand financial information in Korea and overseas. As of 2019, the total views of our social media channels recorded 3.74 million, with 210 thousand followers. In 2020, we will continue to produce and provide a wide range of useful contents, such as a video that offers overseas stock investment tips.

1) Korean word meaning a master

BUSINESS CASE



Launched "Platform V", an Electronic Voting System with Free of Charge

Mirae Asset Daewoo adopted an electronic voting system called "Platform V" for the first time among Korean securities companies, and opened a new chapter in electronic vote and voting right delegation service. Platform V is a platform that connects shareholders and listed companies so that shareholders who find it difficult to directly participate in an annual general meeting (AGM) due to geographical and time restrictions can vote online or receive electronic voting right delegation. Shareholders and listed companies can easily register for the system by using their official certificate, and the service can be used via personal computers and smartphones. With the opening of Platform V, shareholders can exercise their voting rights even without participating in an AGM and can also share participation in electronic voting via social media, while listed companies can upload such materials as a company profile and agenda items of the AGM, thereby communicating with shareholders. Shareholders with a Mirae Asset Daewoo account can receive a push notification via KakaoTalk messenger service.

Realizing AI-based Digital Finance

Dr. Big's Investment Diagnostics

Mirae Asset Daewoo began to offer an AI-based investment management service that is optimized for client's investment propensity in the first half of 2019, which was followed by the launching of the "Dr. Big's Investment Diagnostics" service which diagnoses client's investment outcomes. The service diagnoses client's investment patterns and owned stocks for the last six months and offers tailored investment management services, thus contributing to successful wealth management of our clients.

Dr. Big's Power Ranking

AI analyzes products that can be traded via digital media, including funds and pension products, domestic stocks, overseas stocks, and ETF, and then suggests optimal products to clients. In 2020, we will improve user experience (UX) and user interface (UI) of Dr. Big's Power Ranking to increase user convenience. We will also expand client's investment portfolio by adding overseas-listed ETF and focus more on big data analysis and AI, all in our efforts to help clients make successful investments.

Analyzing news to pick stocks

We provide a service that conducts in-depth analysis of the massive amounts of news data that is created every day, and identifies and provides information on key issues and relevant stocks. In 2020, we will diversify investment information sources and upgrade key algorithms, thereby offering total services ranging from collecting client's investment information to suggesting how to pick stocks.

Three-dimensional client analysis indices

Our WM business unit has been receiving information that is gained through three-dimensional client analysis since the second half of 2019, which has enabled us to offer high-quality customer services, resulting in increased customer satisfaction. In 2020, we will further increase the depth of client information analysis to offer diverse services.

Digital Services

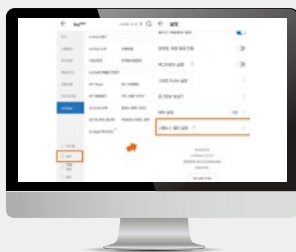
Registration for the payment gateway business

After an amendment to the Financial Investment Industry Regulations that allowed securities firms' entry into the payment gateway (PG) business was passed, Mirae Asset Daewoo became the industry's first to complete registration in June 2019. We also signed an official agreement with Tencent, and enabled Chinese visiting Korea to receive simple payment services by using their WeChat Pay. Based on the resulting commission competitiveness, benefits are shared with small businesses that target Chinese visitors. We are also making preparations for check card and CMA-based payment services for Korean clients.

Launched an MTS overseas remittance service

In August 2019, Mirae Asset Daewoo became the first securities company in Korea that provides overseas remittance service through the mobile trading system (MTS) by establishing an alliance with HANPASS, an overseas remittance company. This has enabled our clients to make direct overseas remittances without having to transfer funds to a bank.

BUSINESS CASE



Spam News Filtering Service

Mirae Asset Daewoo launched the AI-based spam news filtering service in 2019. This in-house developed service automatically filters spam news by using deep learning algorithm, and is automatically reflected in market news of "KAIROS (HTS)" and "m.Stock (MTS)", which are our leading online transaction media. This new service has enabled our clients to receive desired information by filtering repetitive advertising from news. We will improve forecast accuracy, upgrade the service in various aspects, and make other efforts to raise client satisfaction through diverse digital innovation services.

Digital Finance Cooperation Activities

Industry-Academia Cooperation

Since 2017, Mirae Asset Daewoo has been providing personalized financial product recommendation services to clients through mobile media based on the industry-academia cooperation that we have formed with Seoul National University regarding big data. We developed a wide array of product recommendation models through the industry-academia cooperation, including domestic stocks, overseas stocks, funds, pension, and ETF, and recommend customized products by analyzing client's investment propensity. In 2020, we are researching themes that can contribute to client asset management, such as development of performance measurement models, unstructured financial data analysis, and digital advisory services by upgrading AI-based services.

Digital Finance Festival for University Students

Mirae Asset Daewoo held the "2019 Digital Finance Festival for University Students". The festival is a contest that consists of three areas – Stock Festival which is a mock stock investment contest, Big Data Festival which is a big data algorithm contest, and Idea Festival which is intended to discover new business ideas. It was held jointly with Amazon Web Services (AWS), which is a global company, and participated by around 1,800 college students from 149 colleges across the nation who engaged in intense competition. We will make continuous efforts to foster talent in 2020, such as providing opportunities to develop advanced models through mentoring by financial analysis experts as well as internship and document screening exemption benefits.

Participation in Korea Fintech Week 2019

Mirae Asset Daewoo participated in the "Korea Fintech Week 2019" which was held at the Dongdaemun Design Plaza (DDP) in Seoul from May 23rd through 25th, 2019. At the event, organized by the financial authorities to facilitate the Korea's fintech industry, we publicized our advanced digital technologies by providing visitors with chances to experience and play a quiz on big data and AI-based stock recommendation service of m.Club, our asset management service app.



BUSINESS CASE

The Second Fintech Partnership Program

Mirae Asset Daewoo runs the "Fintech Partnership Program" in order to develop innovative services through cooperation with fintech companies and to provide promising fintech companies with a wide variety of growth opportunities, such as cost support, business alliance, technical support, and investment review. We chose three fintech companies – Tickle, UserHabit, Bonanza Factory – as the second group, and developed and opened services with them. Going forward, we will continue to help the chosen fintech companies to grow. In addition, we will recruit fintech companies that we can collaborate with and expedite digital innovation, while performing roles as an accelerator that can engage in close exchange and collaboration.



Bonanza Factory Overseas futures API square service

- It enables a system trading using the investment logic of overseas futures investors
- It provides support for API development and connection free of charge to investors who find it difficult to develop algorithm or build an API connection

- It automatically saves change that is less than KRW 1,000 whenever a user makes a payment using a credit card that is connected to the app
- It can be used without having to pay for fees and issue a credit card, and it also enables more convenient asset management

Tickle Change saving service

UserHabit UX-based mobile analytics

- It provides a solution for analyzing mobile user behavior data
- It enables the app optimization through user behavior analysis

Sustainable Finance

Expanding Socially Responsible Investment

Supplying SRI financial products

Mirae Asset Daewoo selects and offers eco-friendly financial products developed to support social enterprises that pursue a sustainable society and to respond to climate change. We are taking part in the nation's development of the future by investing in small and medium-sized enterprises (SMEs) and venture companies that are in new growth industries, such as the new and renewable energy development business, fintech, and nano and advanced materials. In addition, we are supporting the Housing Project for Young People as part of efforts to fulfill social responsibilities. We have launched the "Dongbu Econation Fund", a private equity fund (PEF) developed through donations from high net worth individuals (HNWIs), to transfer a certain portion of the income as a scholarship fund, and we also offer financial services tailored to SMEs to fulfill social values through finance. We have established the "Mirae Asset New Growth Venture Investment Corp. Trust" to make co-investments with Mirae Asset Venture Investment and Mirae Asset Group under the purpose of providing individual customers opportunities to make investments in SMEs or startups with growth potential while opening up financing opportunities for SMEs.

Investment, advisory, and arrangement for eco-friendly projects

In addition to selecting and selling financial products aimed for SRI, we are making direct investments and providing financial advisory and arrangement services for eco-friendly projects. In particular, we consider not only investment returns but also environmental impacts when making investment decisions, in our efforts to fulfill social responsibilities. In a bid to better respond to the global climate change, we are offering a financing solution for renewable energy projects. In 2019, we provided advisory and arrangement services for eco-friendly projects, including the Adani Rugby Run Solar Farm project in Queensland, Australia, following previous projects such as the 105 MW solar power project in Chile and 25 MW solar power project in Geogeu-do in Korea.

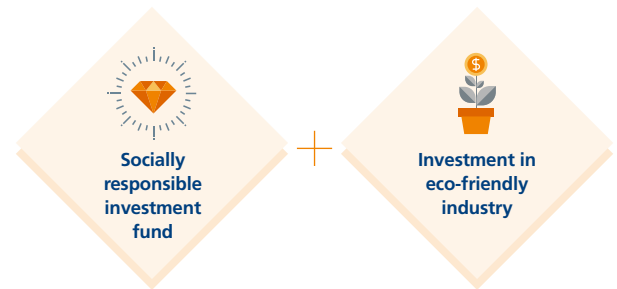
Amount of socially responsible investment¹⁾

67.6 KRW billion

Financial education for financial minorities

16 times
(1,360 persons)

Sustainable Value Investment



We offer SRI funds, such as the Mirae Asset MAPS Infra Pri-Pla Special Asset Fund (monetary claim), Mirae Asset MAPS Clean Water Private Special Asset Trust, and Multi-Asset Eco-friendly Shipbuilding Facility Fund, thereby striving to fulfill our social responsibilities.

We strive to create new values by enhancing society's capability to respond to environmental risks and climate change and by invigorating green businesses.

* As of December 31st, 2019

1) Excluding investment in eco-friendly buildings

BUSINESS CASE



The First USD-denominated SRI Bond in the Global Securities Industry

In April 2019, Mirae Asset Daewoo became the first securities firm in the world to issue a three-year USD-denominated SRI bond. We also successfully attracted around USD 1,750 million for a public offering amount of USD 300 million, reflecting considerable investment demand. The raised fund will be used for eco-friendly building investments, support for SMEs, and housing supply projects for the socially underprivileged. Based on the successful SRI bond issuance, we will continue to expand SRI.

Inclusive Finance

Financial products for the aging society

Preparation for life after retirement has been gaining importance with the emergence of the aging society, and the need for long-term investment products has been also rising as a result of a longer period of old age. In response, Mirae Asset Daewoo is widening the scope of choices for clients by suggesting investment products that are aimed at preparing for post-retirement and that reflect our management know-how. As a leading example, we recommend and provide target date fund (TDF) products which set different asset allocation ratio according to different time period to clients with specific plans, such as retirement fund or tuition fee at a target date.

We are providing TDF products that have various target dates from 2020 to 2045 as well as a clear strategy for asset allocation, thereby fulfilling our duty as a financial investment company so that clients can prepare for life after retirement in the rapidly-aging Korean society. In addition, we developed a monthly payment fund and derivatives-linked securities (ELS, DLS) as a product line-up that helps retirees to secure living expenses. Examples include a high-yield Brazil monthly coupon bond trust that pays the coupon on a monthly basis, and the Mirae Asset Daewoo Golden Age WRAP which invests in various assets while paying monthly returns.

Financial education for the financial minorities

Fraudulent practices have become increasingly sophisticated. We therefore offer education programs to the financial minorities, such as seniors, the disabled, and low-income class, to raise their financial understanding and prevent financial fraud. Furthermore, we are providing guides on how to make use of financial services reasonably to enhance their right to knowledge. In charge of financial education, the Financial Consumer Protection Team delivered information sessions on how to prevent financial fraud by introducing various types of fraud, such as smishing and farming, and providing information on how to prevent and respond to them. It also held a coding class and financial experience class for the underprivileged, including youths at the Mapo Community Child Center, and prepared financial education for athletes who did not experience professional financial education, thereby expanding the scope of those receiving education.

Increasing accessibility to finance

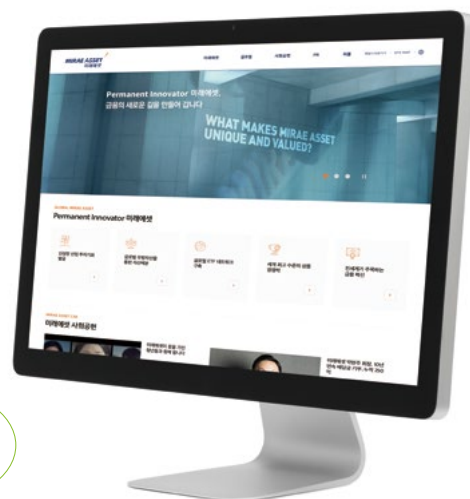
We are exerting our best efforts to ensure financial minorities, including the disabled and seniors, can receive financial services in any circumstance by obtaining web accessibility certification for our website, and by offering a voice recognition service and a chatting service. In addition, guidelines on protecting financial consumers were developed for the visually impaired and distributed to sales branches. We also operate an ARS service for the visually impaired and published braille code instruction materials. We also have located English-speaking employees in the customer center to provide services dedicated to foreign consumers. In 2019, we expanded accessibility to finance using various methods, such as rolling out a "Visual ARS Service".

Increasing accessibility to our website for the visually impaired

To provide financial services that are convenient to use to the underprivileged, including the visually impaired, Mirae Asset Daewoo became the first in the Korean financial investment industry to apply the web standards and web accessibility to all of the company's websites, including its web trading system (WTS), which entitled the company to the "Web Accessibility (WA)" certification. The websites have a screen reader for the visually impaired, and are also designed to help investors with color blindness or weakness easily check the web contents. Since gaining the initial certification, we have managed to renew the certification for the company website and our recruitment website every year.

Offering fee discounts for the visually impaired

Customers who are financially marginalized, such as the visually impaired, are experiencing inconveniences when trading via online channels. To eliminate such difficulties, we are offering a special service to allow online commission fees when they are making Korean stock purchases in offline channels, such as branch offices or customer centers.



Joint Growth

Mirae Asset New Growth Venture Investment Corp. Trust

In collaboration with Mirae Asset Venture Investment within the Group, we have released a series of the "Mirae Asset New Growth Venture Investment Corp. Trust" since 2016. This product's stability was strengthened by forming an investment corp. with Mirae Asset Venture Investment, which has 22 years of business experience, and making joint investments with clients. Mirae Asset Venture Investment also invested in more than 350 innovative companies and SMEs in Korea and abroad.

The Mirae Asset New Growth Venture Investment Corp. Trust is designed to lead the joint growth of our society by providing investors with investment opportunities in venture capital while also supplying venture capital funds to innovative companies and SMEs as a part of innovative finance.

On the strength of the high rate of returns, we released the fourth and fifth Mirae Asset New Growth Venture Investment Corp. Trust in the first half and second half of 2019, respectively. We plan to expand the product along with KOSDAQ venture funds and will actively communicate the investment result of the trust with clients.

Offering Financial services for SMEs and small giants

Mirae Asset Daewoo strives to contribute to Korea's industrial development by offering financial services, that are specialized for SMEs and small giants, aimed at promoting joint growth. In particular, through "Partners Club", a collaborative business model between SMEs/small giants and Mirae Asset Daewoo, we are providing total financial services and are thus helping senior management at SMEs and small giants focus more on strategic and efficient business management. Various seminars and programs of the Partners Club provide those companies with new knowledge that helps their respective business as well as opportunities to broaden their network by industry and region.

BUSINESS CASE



Signed an MOU to Support SMEs and Venture Companies

Mirae Asset Daewoo has signed a memorandum of understanding (MOU) to support growth for SME and venture companies based on the understanding that commercialization of public technologies and growth of venture companies are the driving engines for job creation and national economic growth. Accordingly, we will offer optimized financial solutions through Partners Club, a collaborative business model for medium-sized companies and small giants, and will help partner companies to improve their IB capabilities. Our endeavor will continue to build concrete cooperative networks that will contribute to creating the foundation for joint growth as well as the nation's economic growth.

02

Putting Clients First

Why Does It Matter?

Due to the increasing competition in the financial industry and rapid changes in the population structure, it is becoming important to develop corporate competitiveness through products and services that are suitable for client trends by generation. In addition, financial authorities are implementing financial consumer protection policies to respond to financial incidents that have recently been arising. It is therefore important to preemptively respond to the strengthening policies and maintain relations of trust with clients based on continued communication.

Major Issues

- **Changes in the population structure** Client requirements are becoming diverse as a result of sharp changes in the population structure, such as the aging population and the millennial generation.
- **Stricter financial consumer protection policies** In response to continually occurring incidents, financial authorities have recently been strengthening the responsibilities of financial companies to improve consumer protection. To this end, the "Act on Financial Consumer Protection" is planned to be enforced in April 2021.

Our Responses

Mirae Asset Daewoo is operating a product development process and the Product Strategy Council, with its top-priority goal set as developing products that are adequate for client trends and enhancing client profitability. We are also putting clients first based on continuous communication with them. In addition, we are overhauling regulation, institutional, and system to preemptively respond to strengthening financial consumer protection policies and to practically protect rights and interests of financial consumers. We built an appropriate sales process for financial investment products by developing and operating a complete selling standardization system, and enhanced client convenience by making post-sales confirmation calls online and advancing the complaint handling system.

Key Achievements



Customer satisfaction index score

94.5 points



VOC handling rate

100 %



Client Satisfaction

Client-centric Product Development

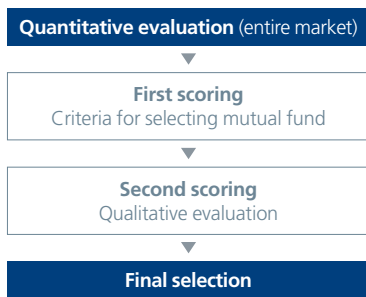
Product selection process

Mirae Asset Daewoo has put an excellent product selection process in place that is suited for long-term client needs and the global investment environment. The product selection process is as follows – we conduct the first scoring process by applying internal selection criteria on funds ranked high according to the result of quantitative evaluation on all available funds in the market; and the second scoring process will then finalize a new and recommended product line-up.

Product Strategy Council

The Product Strategy Council establishes product strategies that are aimed at enhancing client’s investment performance, and is participated in by at least 16 team heads from relevant teams, including product-related, marketing-related, and risk management teams. A council meeting is held every other month in order to analyze and establish the optimal product solutions to enhance client’s performance. The Council also clusters opinions of the sales organization to enhance transparency in product strategies and achieve one of our core value, “Clients First”.

Product Selection Process



Product Development Process



Monitoring Process of Product Management

Step	Department in charge	Details
Product sales	Marketing & sales channel	<ul style="list-style-type: none"> Investment recommender, prior- and post-examination of no. of beneficiaries Monitoring of incomplete sales protocols
(Right after sales) Re-examination of operational risk	Product development	<ul style="list-style-type: none"> Incorporate assets in accordance with a management plan Re-examine overall operations, including asset transactions and standard price
Monitoring on products sold	Product development	<ul style="list-style-type: none"> Frequently (Team) Weekly meeting Regularly Quarterly (Team) product development & examination meeting Regularly Product Strategy Council Search Tool <ol style="list-style-type: none"> Product manager web, information terminal, major research materials, etc. Frequent interviews of market officials WM market & product inquiries
(When a new issue is created) In-depth analysis of the issue	Product development, Product sourcing organization, Asset management company	<ul style="list-style-type: none"> Cross examination of the issue If needed Inform the WM Unit of the status If the issue is not resolved Establish a contingency plan
Roll-over examination of products sold	Product development, Product sourcing organization, WM	<ul style="list-style-type: none"> Analyze the respective asset status – analyze gap with prior plan WM demand survey

Enhancing Client Satisfaction

Upgrading the CS system

“Clients First” is one of our core values, based on which we run our business with the stance that “client success equals our success”. To realize this spirit of client alliance, we established our own customer satisfaction (CS) system and are solidifying it. We identified the satisfaction level of clients who visited our WM branches and received feedback, and also conducted a customer satisfaction index (CSI) survey to improve customer satisfaction levels. The CSI score was 94.5 points in 2019.

In addition, we operate various training programs and training to further strengthen our unique CS system, such as providing business manner and service manual training at the CS leadership workshop that was held to enhance the service-centric mindset.

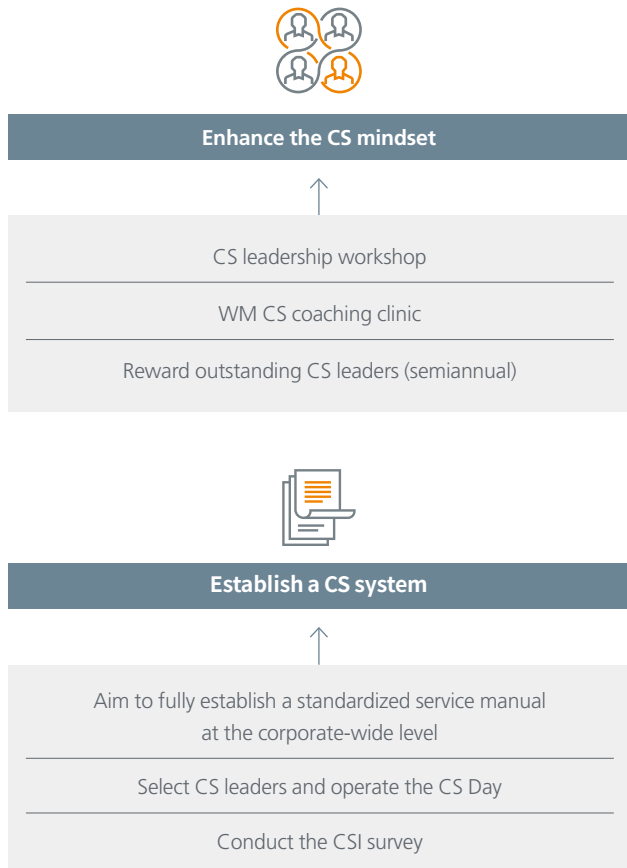
CSI Score
(Unit: Point)



Client-centric services

“m.ALL”, an integrated asset management service in mobile app m.All, a Mirae Asset mobile app, is rapidly evolving into a comprehensive asset management service app that provides individual financial consumers with services which go beyond the boundaries of a financial investment company. With authentication information alone, a user can check hidden assets without having to install an app for each financial company, and can use this integrated asset management service for all consumption, expenditure, and payment management. Major services include integrated asset inquiry for all financial companies, easy search of financial companies that the user conducts transactions with, consumption & expenditure management, market price inquiry of owned real estate, and product recommendation using big data. It also provides a function that allows a client to bring together all of his/her financial assets and real estate all at once as it enables user inquiry of National Tax Service cash receipt registration details and actual real estate transaction prices posted by the Ministry of Land, Infrastructure and Transport, in addition to asset and transaction information of 20 banks, 12 securities firms, 35 insurance companies, and 16 credit card companies.

CS System Operation Process



Consumer Protection

Consumer Protection System

Financial consumers protection governance

Mirae Asset Daewoo has adopted the core value of "Clients First" as our philosophy, and we have set protection of financial consumer rights and interests as our top-priority principle in our financial consumer protection policy as well. We appointed a Chief Customer Officer (CCO) and created the Financial Consumer Protection Department at the end of 2019 which is establishing policies related to financial consumer protection. We operate dedicated teams, such as for system planning, training, assessing, monitoring, and arbitrating of financial disputes, through which we are making utmost efforts to ensure smooth operation of the financial consumer protection system.

In January 2020, Mirae Asset Daewoo held a proclamation ceremony for its Financial Consumer Protection Charter. Attended by around 160 employees, including Executive Vice Chairman Hyun Man Choi, the ceremony is where we declared our determination towards protecting financial consumer rights and interests and made efforts to enhance employees' mindset on protecting financial consumers. Chaired by the CCO, the Financial Consumer Protection Council, which is a company-wide council for financial consumer protection, regularly holds a meeting at least once every quarter, and reports the meeting results to the CEO and BOD so that financial consumer protection policies are effectively incorporated. The Council reviews issues related to consumer protection for the entire financial product lifecycle and discusses measures aimed at proactive consumer protection such as how to better safeguard senior investors and how to reduce consumer complaints.

Industry's largest client panel

Mirae Asset Daewoo has put a group of offline client panel, called "Mi-Supporters", in place based on our core value of "Clients First" and with the goal of enhancing financial consumer rights and interests. In 2019, the number of members of the Mi-Supporters was 42, the industry's highest. They performed such roles as evaluating our financial products and suggesting improvements to existing products, services, and systems. More than 80% of their opinions were reflected or considered of great importance in our decision-making process. As such, our client panel is performing the important role of client participation in the communication channel between Mirae Asset Daewoo and clients. In 2020, 46 members are participating in the Mi-Supporters, a result of increasing members from all regional areas. Aiming to practice the value of "Clients First", we will further expand the roles of our client panel.

Independent expert panel

Mirae Asset Daewoo pays close attention to the voices of the field and what is socially demanded in relation to consumer protection. In 2019, we formed an independent expert panel consisting of three outside experts, for the first time in the industry, in an attempt to timely reflect rapidly-changing consumer protection policies. For greater segmentation, we formed an independent expert panel consisting of three professors and three researchers in 2020. The six members of the expert panel will provide various counseling services to protect the rights of financial consumers and, in particular, are expected to discuss improvement measures for practices that are unfair to financial consumers and present various ideas on improving consumer rights.

Facilitating Customer Communication

Enhancing customer complaints management

In order to protect the rights of financial consumers and handle complaints in a professional manner, we have set in place a dedicated team in charge of handling customer complaints and managing voice of customer (VOC) under the Chief Customer Officer (CCO). The team created the "guidelines on complaint prevention", which details actual complaints and dispute case studies and tips to prevent complaints, and distributed it to all employees, and also provides mandatory complaint prevention training at least once a year to the entire workforce including executives, as part of diverse initiatives to prevent complaints. It also shares information on major complaints that occurred every month, examines issues per complaint case, and analyzes complaints. In particular, the "complaints early alert" system calls for enterprise-wide attention for issues that undermine consumer rights, raises employees' awareness of complaints, and prevents occurrence of similar complaints.

Customer Service Improvement Council

Mirae Asset Daewoo's customer-centric value begins with practicing "Clients First", which involves listening attentively to customer opinions on inconveniences and making improvements. We thus regularly operate the "Customer Service Improvement Council" to enable prompt response to various customers' opinions collected via a range of customer contact points and channels. At the Council meetings, staff from relevant teams analyzes customers' suggestions, and the outcome of the meeting is reflected in our business processes or improvement measures.

Complaint prevention proposal system

We operate a complaint prevention proposal system, where customers' various opinions are collected at sales sites and improvements are made, for protection of financial consumer rights and prevention of disputes. We are preventing complaints by making improvements to factors that undermine the rights of financial consumers and unfair practices at customer contact points, and collect and reflect suggestions for strengthened protection of financial consumers as part of our efforts to deliver more trustworthy financial services.

Financial Consumer Protection Culture

Financial Consumer Protection Day

Every Wednesday in the first week of each quarter is designated as "Financial Consumer Protection Day" to diffuse the culture of financial consumer protection across the company. In 2019, we conducted a survey to all employees on consumer protection and survey findings were reflected in related policy formulation. As such, the Financial Consumer Protection Day serves as an opportunity to build an enterprise-wide consensus and dedication to consumer protection.

Financial consumer protection consulting

Mirae Asset Daewoo received consulting services on financial consumer protection to proactively respond to the changing market environment and establish a leading consumer protection system. Through this consulting service from experts outside the company, we were able to develop plans with an objective, external viewpoint on how to revamp the system to protect financial consumers, how to enhance the complaint handling system, and how to protect consumers in response to increasing untact channels. Afterwards, the consulting deliverables were reported to the CEO and key executives in a bid to continue our practical efforts for consumer protection.

Evaluation by the Financial Supervisory Service

Mirae Asset Daewoo pays attention to the results of an evaluation conducted by the Financial Supervisory Service on the actual state of financial consumer protection to comprehensively assess consumer protection levels. We are evaluated every year on quantitative evaluation items, such as the number of complaints, complaint-handling efforts, and sales sustainability, as well as non-quantitative items, such as consumer protection organization and system, and consumer protection system of the product development and sales process. We are receiving a good grade in our comprehensive evaluation.

Evaluation of financial consumer protection

To have the financial consumer protection system be practically and fully established, Mirae Asset Daewoo reviews whether financial consumer protection policies and systems are adequately reflected in teams at its headquarters and all branches, and incorporates the results in team evaluations.



Pursuing Complete Selling

Training to prevent mis-selling

Mirae Asset Daewoo provides training on financial consumer protection to employees using various methods, including on-site training, in-class training, and online training. To promote complete selling, in-class training, sales office training, and online training take place around the year, complemented by internal mystery shopping and role-playing activities for sales offices to ensure all the training provided to reinforce standard sales processes is firmly adhered to. We also strive to increase our employees' awareness on consumer protection and improve relevant capabilities by rolling out various programs and campaigns, such as consumer protection training tailored for job levels and lectures provided by external experts for an update on the latest trend in consumer protection and major issues. In particular, when such critical issues as customer complaints take place, we provide mandatory training to prevent customer complaints to all employees, and training results are reflected in the evaluation to make sure consumer protection activities are properly carried out.

On-site inspection and self-assessment

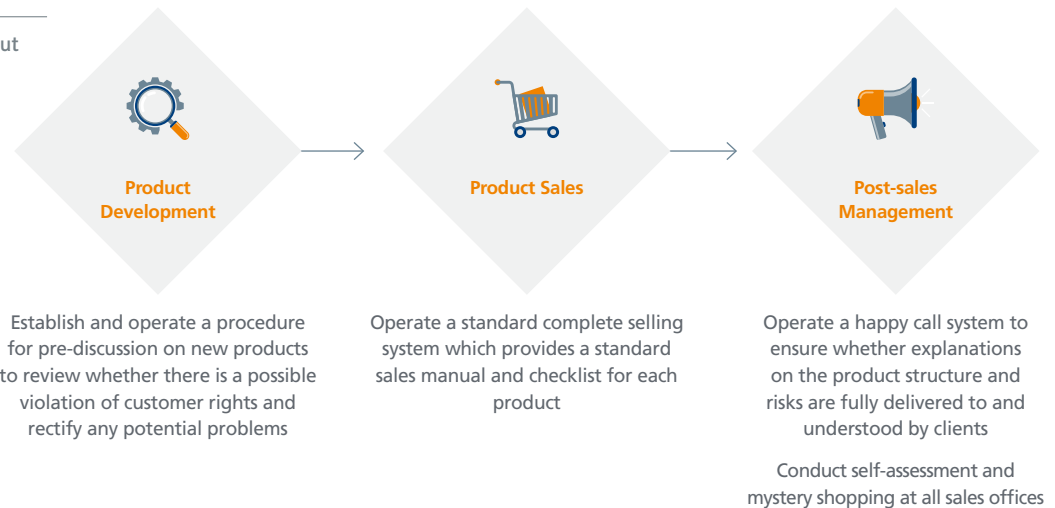
Mirae Asset Daewoo is rolling out various activities aimed at complete selling practices and investor protection. On-site inspection was conducted at all sales offices to evaluate whether complete selling processes and procedures for financial products

are effectively in place, with intensive focus across the product sales lifecycle including examination of compliance with the high-risk product sales process and senior investor protection process. The inspection also looks at whether posters and brochures promoting financial consumer rights are appropriately positioned in the offices and, if a decision is made that they are not appropriately in place, the results are reflected in the KPI evaluation of sales offices and immediate corrective actions and training are taken. Furthermore, random inspections are also conducted based on five indices with high tendency towards mis-selling (high-risk product sales ratio, product sales ratio sold to investors of old age, sales ratio of products that are not adequate to investment appetite, etc.) to ensure early detection of mis-selling signs and enhance employees' awareness on complete selling practices.

Mystery Shopping

Mirae Asset Daewoo runs a mystery shopping program on a regular basis to ensure the complete selling of financial products. Each year over six rounds of mystery shopping visits are conducted thoroughly by all employees at entire sales offices and all financial products without any blind spot. Stricter shopping criteria were adopted in 2019 with greater point deductions and weight on areas in need of improvements.

Complete Selling throughout Product Lifecycle



Activities to Expand a Culture of Financial Consumer Protection

Classification	Unit	2017	2018	2019	
Education on complete selling process and financial consumer protection	Education hour	Hours	13	14	15
Result of mystery shopping	Q1	Points	87	82	96
	Q2		95	95	90
	Q3		95	91	89
	Q4		94	91	95
Receiving and handling of VOCs	VOC handling rate	%	100	100	100

03

Culture of Respect in the Workplace

Why Does It Matter?

Productivity of the financial investment industry is directly motivated by the manpower. As Mirae Asset Daewoo is relentlessly expanding its overseas business, it is pivotal to secure qualified global talent and nurture experts to lay the foundation for global growth. Furthermore, for a company aspiring sustainable business growth, it is required to establish an organization culture that promotes respect for human rights and cherishes flexibility and creativity that is conducive to building an environment on which employees can fully engage in and unlock their potential.

Major Issues

- **Attracting and retaining top talent** Amid intensifying competition in the financial industry, it is of utmost importance for a company to attract and retain top talent to enhance the corporate competitiveness.
- **Strengthened government policies aimed at enhancing respect for human rights and improving work environment** As demonstrated in the enactment of anti-office bullying act and introduction of 52-hour workweek, the government is strengthening its measures to achieve better work environment for employees.

Our Responses

Mirae Asset Daewoo is exerting various efforts to secure and retain qualified human resources. We are the first in the industry to conduct untact video interview to recruit overseas talent by adopting a fully-digital standalone recruiting process. In addition, various well-structured training programs are at offer to boost employees' financial expertise and global competitiveness. Furthermore, we are deploying measures aimed at improving employees' work engagement such as fair performance evaluation instead of seniority-based process and flexible and creative organization culture.

Key Achievements



Total hours of employee training

224,083 hours



Total hours of employee training to nurture financial data analysis experts

1,792 hours

Talent Acquisition

Employee Recruitment

Principles of fair recruitment

We attract talent based on our principles of fair recruitment that do not place a restriction on academic background, gender, age, etc. We have created a blind interview process that evaluates only the job skills and competencies of applicants which form the basis of executing work, through which we measure factors that are adequate for the characteristics of each duty and recruit talent with sufficient job competency.

Strengthening overseas recruitment

Mirae Asset Daewoo places its highest priority on attracting global top talent with investment experiences in the U.S., Europe, Vietnam, India, Singapore, and Hong Kong with the goal of securing diverse overseas investment opportunities. Going forward, we will continuously recruit overseas talent to form networks with global top universities and expand acquiring more talents from abroad.

Performance Evaluation

Performance evaluation principle

Mirae Asset Daewoo is impartially evaluating employees' achievement and competency based on a transparent process and reasonable grounds. Under the mission statement of becoming a "company that evaluates according to performance and compensates according to performance", we revamped the seniority-based evaluation practices of the past into one which measures employees' achievement and performance in a fair manner through a procedure where the evaluator and evaluatee agree on the desired level of achievement. In this way, we are striving to motivate staff and increase work efficiency.

Fostering-type performance evaluation process

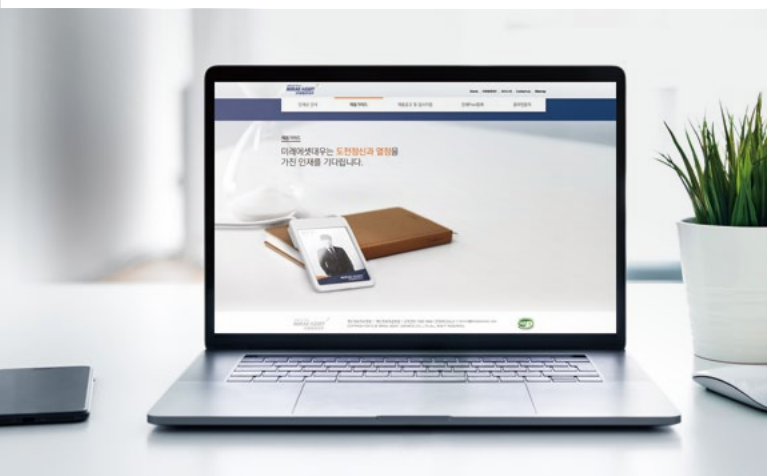
Our evaluation system of the past was focused on grading employee performance once at the year-end aimed at determining the compensation for the next year. Evaluation conducted on an annual basis, however, ended up as a tool for compensation such as promotion and salary increase and carried the risk of hampering the purpose of fair evaluation. Therefore, we have decided that it is necessary and important to run the evaluation in a semi-annual or occasional manner to provide employees with ongoing feedback on areas of excellence and improvement.

In an endeavor to facilitate communication between team leaders and staff members, Mirae Asset Daewoo has adopted fostering-type evaluation. Regular communication for evaluation takes place three times a year – the evaluator and evaluatee meet to set the performance target and agree on KPIs in February; mid-term evaluation and feedback on the first half of the year take place in July; and annual feedback is provided with the final evaluation in December. This enables occasional, year-round coaching that goes beyond formal evaluation communication.

Fair promotion and compensation

Prior to the merger with Daewoo Securities, the company had "graduation-type promotion" in place under which employees automatically become promotion candidates for the next job grade after a certain period of tenure. However, after the merger, "selective promotion" was introduced where employees are qualified for promotion only when they pass the performance criteria for certain period, instead of solely meeting years of tenure. We believe this has established a system where employees' continuous achievement becomes recognized irrespective of age, gender, and background.

In addition, both the company and the labor union discuss and agree upon the salary increase range by performance evaluation grade for the next year. In other words, individual employees will be graded based on their performance, promotion points corresponding to that grade are accrued, and the salary increase rate designated for the grade is applied, all embodying the principle of the "company that evaluates according to performance and compensates according to performance."



Talent Management

Nurturing Talents

Human resources development programs

Mirae Asset Daewoo runs diverse training programs aimed at boosting the company's global IB expertise. These programs are designed based on case studies and thus are immediately applicable to the job execution. Systematic curriculum enables the organization as well as individuals to strengthen their competencies that are required for becoming a global IB powerhouse.

Strengthening global competencies

Global Innovation Challenge We have revamped self-management learning program that was intended to develop innovative and creative talent and share innovative ideas across the company. Under the new program, each team, consisting of three employees respectively, will collect and share the experiences of team members to develop research ideas for the company's new business initiation. The ideas are then to be proposed to executives who will select five teams (15 employees) who will visit the U.S., Europe, Australia, and other overseas countries for two weeks for an overseas training according to their proposed research areas. After the overseas training, participants draft reports and share them across the company. This improved program contributes to heightening employees' challenging spirit and motivation, while fulfilling the desire to self-develop their competencies.

Global expert nurturing program Under the global expert nurturing program, we are dispatching junior staff to overseas subsidiaries for two months to equip them with global investment competencies. In 2019, a total of 17 employees were selected and were given training in Korea on global equity, bond, FX, and real estate market trend for two weeks prior to taking the overseas program.

Talent nurturing program to sharpen global IB competitiveness

Aligned with the increasing demand in global investment, the volume of global deals and investment products are on the rise. To stay up to date with the market environment, we have launched a global IB program with field knowledge and case studies and a total of 161 employees took the course.

Strengthening financial expertise

Advanced global equity analytics course An advanced global equity analyst course has been in place offering advanced training for junior sales staff in order to secure a pool of global brokerage experts. This course serves as an opportunity where participants analyze global financial market and global economic environment, learn techniques for asset allocation, and share their investment experiences through workshops, developing professional competencies required for successful management of client assets. The training was provided on two occasions in 2019 nurturing 33 global brokerage experts.

Tax and real estate expert course This is an in-depth training program designed to satisfy the specific and diverse needs of our clients by learning field knowledge across tax and real estate required for comprehensive asset management consulting services and analysis of client cases to boost consulting competencies. Selected trainees are to take 80-hour courses in 10 days and have to go through various projects, field trainings, and tests. Participants of the course are equipped with the capability to offer more professional financial services, taking the lead in practicing customer alliance and also can obtain significant competitive advantage as a wealth management professional. The program was executed on two occasions in 2019 and nurtured 37 experts, creating a pool of 59 experts since its launch in 2018.

Human Resources Development Programs

Classification	Course	Details	Performance in 2019
Globalization	Global expert nurturing program	Provide education on analytics methodology; and update the current trend in global equity, bond, FX, and real estate market	17 persons 33 hours
	WM academy	Enhance analytics competency in the global economy and financial markets; consulting competency in tax, real estate, and pension; and analysis of overseas equity	2,240 persons 53 courses
Investment	Advanced global equity analytics course	Analyze global economy and financial markets; analyze fundamentals, and give presentation on global investment strategy	33 persons 132 hours
	Tax and real estate expert course	Analyze case study and give presentation on complex taxation scenarios; and give presentation on real estate consulting cases	37 persons 154 hours
IB	Financial statement analytics for corporate valuation	Analyze financial statements to nurture basic IB skills and competencies for junior IB staff and sales staff at the head quarters	32 persons 30 hours
	Real estate PF & alternative investment course	Enhance understanding of product structures investing in real estates both in Korea and abroad; update market trend; and conduct case studies	115 persons 25 hours
Digital	Professional financial data analytics course	Provide education on web crawling via Python, data pre-processing and visualization skills; and give project presentation	32 persons 56 hours

Pension expert course We run a pension expert course to develop pension professionals who can design and plan client’s stable retirement life in an aging society. The program is focused on teaching professional knowledge on pension and strengthening the consulting competencies with a curriculum to teach the skills to propose customized solutions by hosting client seminars. 2019 was a year to offer a follow-up courses for 57 participants who have completed the course.

WM academy Created to foster global investment experts, WM academy is an intensive training program consisting of specialized courses covering global asset allocation strategy, pension consulting, and tax & real estate consulting. In 2019, a total of 2,240 employees completed the course.



Strengthening digital competencies

Professional financial data analytics course Emerging digital technologies, such as fin-tech, big data, and robo-advisor, are vital competitiveness of Mirae Asset Daewoo. We are therefore offering a professional financial data analytics course where employees receive intensive training in order to nurture in-house data experts specializing in data analysis and algorithms. Not only IT staff but also any employees can apply for this course because it is designed to improve the overall digital competencies of the company. In 2019, a total of 32 data analysts were developed by completing this program. We plan to boost enterprise-wide digital competencies through on- and off-line trainings in the days ahead.

Fostering experts in digital convergence finance In order to develop our own experts to lead our digital transformation, we have collaborated with the Korea University Graduate School of Computer & Information Technology to enroll our employees into the master’s course in Digital Convergence Finance at Korea University. In 2018, a total of 24 employees completed the course with the graduation project presentation and are working in the relevant domain. In 2019, 26 employees are undertaking the 1st grade course.

Expert Status

(Unit: Persons)

	2017	2018	2019
AFP ¹⁾	1,805	1,582	1,524
CFP ²⁾	329	300	282
Certified Investment Manager (integrated)	1,499	1,285	1,462

1) AFPK: Associate Financial Planner Korea

2) CFP: Chartered Financial Planner

Organization Culture

Communication Culture in the Workplace

Corporate culture of innovation and investment

Innovation School Innovation School is a course intended to encourage our employees to think outside the box and adopt new perspectives and viewpoints and thoroughly reconsider the need for global asset allocation, in a bid to promote the mindset of transformation and innovation for stronger client alliance. This course applies to the entire Mirae Asset Group and a total of 1,613 employees of Mirae Asset Daewoo undertook the course since 2018.

Open Space, Open Education It is a bottom-up training planning program where employees can design their own training courses and complements the conventional top-down training program. As a result, various types of training, such as digital financial study and book clubs, have been planned and executed through employee's participation.

Book Square It is a point accrual system for book-reading to encourage employees to read books in a voluntary manner so as to enhance the individual's competencies and spread forward-looking corporate culture. In addition, in an effort to establish a corporate culture of reading, book meeting events, which take place every year with the entire workforce, attracted 4,052 participants in 2019.

Building trust between labor and management

Labor-Management Council Representing all staff, the Labor-Management Council is in charge of engaging in discussions with top management on major issues related to staff. In 2019, over 20 negotiations under the Labor-Management Council were conducted, leading to operationalizing the 52-hour workweek and revamping the salary scheme, mandatory allowance, salary peak, and various benefits. We respect employees' decision to join and engage in union activities. As of the end of 2019, there are 2,602 members of the labor union on the basis of check off.

Handling employee grievance Mirae Asset Daewoo has been assigning staffs to support employees' emotional grievance to address employees' complaints or resentment, and is making sincere efforts in drafting various measures to protect customer-facing employees. We have strengthened the company's sexual harassment prevention and disciplinary obligations in order to prevent workplace sexual harassment. In 2019, following revision of the Labor Standards Act, we have conducted employee trainings banning office bullying, developed a prevention, report, and response system, and are offering psychotherapy and counseling programs. Such measures are stipulated in the Rules of Employment and enforced strictly.

Family-friendly Corporate Culture

Work-life balance

Establishment of healthy work conditions We are enhancing work efficiency and helping staff strike the right balance between work and personal life by adopting the concentrated work system, minimizing overtime work, and promoting the use of vacations.

We have fully adopted the 52-hour workweek system in 2019, and flex-time work hours and selective lunch hours are also being implemented. Going forward, we will expand the flexible work system based on job characteristics.

Maternity protection system To encourage childbirth and protect mothers' rights, we have set up maternity protection system and guarantee maternity and childcare leaves that are stipulated in laws. In 2019, a total of 166 employees used their childcare leave and 72% of them returned to work after the leave. In addition, we have been operating child care centers since 2011 to help employees feel less burdened from childbirth and childcare, and help them achieve a balance between work and personal life. We started encouraging shortened working hour system for employees whose children require high level of parental care in 2019.

Improving employee welfare & benefits Mirae Asset Daewoo operates a sound benefit program which encompasses various allowances such as expenses for congratulations and condolences, marriage voucher, and wedding anniversary and other aids such as scholarship, medical expenses, and housing support. To achieve high level of employee welfare, we provide company restaurants and lounges as well as short-term commute buses connecting nearby subway stations and the office. Any improvements on the benefit system are made based on mutual understanding and agreement with the labor union. In 2019, a new collective bargaining agreement was concluded aimed at maintaining and improving employees' work conditions. As such, Mirae Asset Daewoo is dedicated to running the benefit system in a sincere manner so as to employees can enjoy enhanced economic and social status.

Employee Safety and Health

Health management programs for employees

Employees of Mirae Asset Daewoo can take health checkup programs regularly on a yearly basis to make sure their health is properly diagnosed and managed. In 2019, 3,794 employees or 93% of workforce received medical checkups at 61 hospitals across the nation. In particular, we are offering the same program to the spouses of our employees to ensure healthy family and enhance work satisfaction. From 2019, we have expanded the scope of program recipients to include parents of unmarried employees. As a result, a total of 1,911 spouses and parents of Mirae Asset Daewoo employees received medical checkups in 2019 to better diagnose and manage their health.

Emotion care program

We are making endeavors to alleviate employees' difficulties and stress that may arise during their daily lives and job execution. The emotion care program is intended to help employees recognize and adjust their emotional status and alleviate their stress level, thus contributing to enhance employees work satisfaction. This program is focused on psychotherapy and is run year-round. In 2019, 66 employees received counseling service for 201 times in total.

Human Rights Management

Human Rights Management Principle

Mirae Asset Daewoo supports the human rights principles presented by the “UN Universal Declaration of Human Rights” and the “UN Guiding Principles on Business and Human Rights” of the United Nations Commission on Human Rights. After joining the UN Global Compact (UNGC) in June 2006, we have been observing the ten major principles on human rights, labor, the environment, and anti-corruption, thereby fulfilling social responsibilities that are in line with global standards. By establishing and distributing human rights protection principles, we seek to protect the human rights of all stakeholders, including employees.

Human Rights Management Principle of Mirae Asset Daewoo

- I. Mirae Asset Daewoo believes that protecting human rights is its most basic responsibility in running its business, and has adopted, as its basic principles for running its business, respect for comprehensive human rights principles, including prohibition of child labor and forced labor, and prohibition of discrimination.

- II. Mirae Asset Daewoo’s principle on protecting human rights applies equally to staff at our business sites, shareholders, investors, customers, trading organizations, collaborative organizations, and local communities.

- III. Mirae Asset Daewoo does not discriminate against customers based on gender, religion, race, political leaning, etc., and strives to protect customers’ information and to achieve stable revenue generation.

- IV. Mirae Asset Daewoo respects the basic rights of individual employees, and strives to provide a work environment that strikes a balance between work and personal life.

- V. Mirae Asset Daewoo examines compliance with the human rights protection principle, and in the event of a human rights violation and discrimination, the company implements a process that resolves the issue in accordance with a set procedure.

Human Rights Impact Assessment

Human rights impact assessment process

We identify potential human rights issues throughout our business activities, and take corrective measures for identified issues. We identify the issues by comprehensively considering whether human rights issues occurred in the past, their frequency, as well as financial and non-financial seriousness. We continuously manage vulnerabilities for each identified issue, and designate a team to continue managing relevant matters.

Results of human rights impact assessment

We are conducting a self-assessment on our level of human rights by employees and major stakeholders. This assessment evaluates the company’s human rights fulfillment status in terms of salary, non-discrimination principles, labor, as well as the Labor Standards Act. Particular efforts are made in improving the work conditions for the call center agents as their work environment is drawing social attention. We will continuously step up such programs as mental health assessment and stress management for our agents, in a continued move to protect their human rights.

Human Rights Risk Analysis Process



MANAGEMENT DISCUSSION & ANALYSIS

42

Business Performance

54

Social Contributions

59

Environmental Management



Business Performance

Mirae Asset Daewoo is successfully creating differentiated values in well-diversified business areas. Through our relentless innovation and transformation, we will seek new opportunities to generate economic growth that make contributions to advancing Korea's financial market.



Market Review and Outlook

Securities Market

In 2019, the global stock market was strong overall despite the US-China trade conflict, with the US S&P 500 Index rising by 29% and the Shanghai Composite Index going up by 22%. There were expectations of economic recovery in 2020, including globally-synchronized interest rate cuts, led by the Federal Reserve Board (FRB), alleviation of the US-China trade conflict after autumn, and rebound of the global composite leading indicator. The Korean stock market was also bullish, but KOSPI continued to be relatively weak, recording an annual increase of 7.7%. Stock prices were anticipated to be strong in 2020 amid initial expectations of economic recovery, but the stock market outlook has become unclear with the unprecedented COVID-19 pandemic. Although large-scale stimulus packages were announced, the stock market recovery process is not expected to be smooth due to the considerably large economic shock. The pandemic shock is forecast to ease in the second half of the year, but there is a need for continued monitoring of how fast economic activities recover, and government debt levels that sharply rose in the process of overcoming the incident are expected to become a critical task to resolve.

Bond Market

In 2019, the FRB cut interest rates on three occasions in the process of overcoming the negative impact of the US-China trade conflict, and central banks across the globe joined in with interest cuts. The Bank of Korea also cut interest rates on two occasions. In 2020, the bond market is facing sharp changes due to the COVID-19 pandemic. The FRB returned to zero interest rates and declared unlimited quantitative easing. Countries using quantitative easing increased to include the eurozone, Canada, the UK, and Australia, in addition to the U.S., and Korea also announced unlimited repurchase agreement (RP) purchasing. Owing to such increased liquidity supply, interest rates of government bonds issued by developed nations are forecast to remain at low levels. There will likely be an interest rate rebound attempt in the second half of the year depending on the outcome of COVID-19 quarantine and the speed of economic normalization.

Foreign Exchange Market

The foreign exchange market is forecast to show a high level of volatility due to the COVID-19 pandemic shock. However, the FRB's active liquidity supply and currency swap agreements with overseas central banks are expected to contribute to market stability. The Chinese yuan is forecast to move stably, and this is expected to have a positive influence on stabilizing the value of the Korean won. In contrast, there is a high possibility of the euro showing weakness amid concerns of a split between financially sound countries and financially unsound nations.

Changes in Laws and Regulations for the Financial Market

Business Model Change and Increased Overseas Investments

In 2019, the securities industry showed a balanced revenue structure with increased overseas market investments. In regards to revenue structure changes, Securities companies in Korea are expanding and reinforcing their global investment bank business model which generates revenue from dividend income as well as capital gain whilst strengthening the existing business model which generates revenue from commission on brokerage, wealth management and trading activities. The characteristic of the securities industry in 2019 is that capital efficiency is optimized through strict risk management since revenue models are changing, centering on risk factors. In regards to increased overseas investments, client portfolio becomes more diversified which generates more stable return by positioning overseas real-estate and alternative investment instruments, yet not only focusing on domestic investment which has entered into a low-growth phase. In addition, structured products such as ELS also increasingly utilize overseas assets as underlying assets, reflecting further development of financial product structure.

Generating Economic Values

Government Initiatives to Reform Capital Markets

Managing financial soundness of real estate PF At the end of 2019, financial authorities announced “measures to manage the soundness of real estate PF exposure”, and built a risk assessment and monitoring system to strengthen regulations on real estate PF loans offered by domestic securities companies. Mirae Asset Daewoo is further strengthening risk management to establish and implement measures that are appropriate for each agenda.

Business Performance and Plan

In 2019, we achieved balanced growth across all business areas thanks to our business diversification and economy of scale as a global IB, recording KRW 893.7 billion in consolidated net income before tax and KRW 664.3 billion in net income. In addition, we became the first among securities companies in Korea to exceed KRW 9 trillion in total equity capital and increased our investment capabilities as a mega-sized IB. By securing nearly KRW 7.5 trillion in Korean and global investment assets, we equipped ourselves with competitive growth engines in IB, principal investments (PI), and trading businesses. Furthermore, the stable revenue generated from overseas subsidiaries has strengthened the foundation on which Mirae Asset Daewoo can grow into a global IB.

In 2020, the global market shows considerably high volatility due to the COVID-19 pandemic. In response, we are doing our utmost to achieve distinctive performance and establish a stable revenue structure, even amid increased volatility in the global securities market, based on thorough risk management.

Business Overview

As of the end of 2019, Mirae Asset Daewoo operates 80 branches in Korea, 11 overseas subsidiaries (excluding those undergoing liquidation and merger), and three overseas representative offices. Total client assets reached KRW 239 trillion, and balance for financial product sales recorded KRW 120 trillion, maintaining a stable growth pace. The number of high net worth individuals (HNWIs) with investments of KRW 100 million or more exceeded 160,000 at the end of 2019.

Credit Rating

In 2019, we maintained an AA grade from Korea Ratings, the Korea Investors Service, and NICE Information Service for our unsecured corporate bonds. In addition, we maintained Baa2 grade for foreign currency-denominated long-term bond from Moody’s, an overseas credit rating agency, and a BBB rating from S&P.

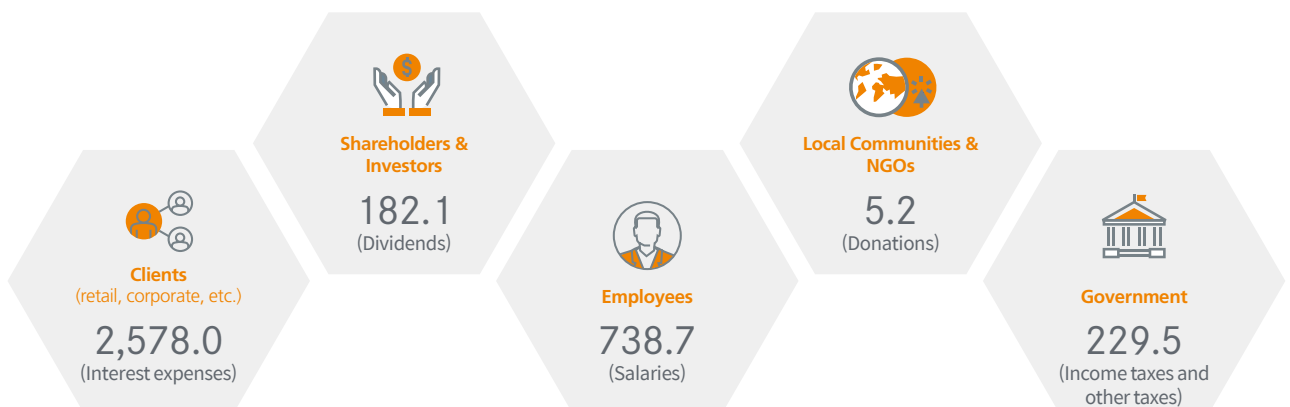
Distributing Economic Values

Distribution of Values

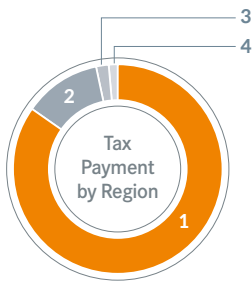
Mirae Asset Daewoo pursues a fair and transparent distribution of values we have generated to enhance client value and promote sound social growth. In 2019, a total of KRW 3,733.5 billion was distributed to our key stakeholders, such as retail and corporate clients, shareholders & investors, employees, and local communities, while supporting their values.

Distribution of Values

(Unit: KRW billion)



* Figures were revised in accordance with the change of measurement criteria



1. Korea	84.8%	3. Americas	2.0%
2. Asia	11.9%	4. Europe	1.3%

Fulfillment of Tax Payment Obligations

Mirae Asset Daewoo complies with our tax payment obligations for domestic business sites as well as our overseas business sites based on criteria set forth by the respective local governments. When tax laws are unclear to us, we receive help from external professional organizations to satisfy legal standards. We disclose income tax-related information through an audit report that is made available on the Data Analysis, Retrieval and Transfer (DART) system. Financial statement and footnote information on the audit report includes the criteria for calculating income tax expenses, deferred tax assets and liabilities. We manage risks that may arise in relation to taxation, and prevent tax-related risks by fulfilling our tax payment obligations in a fair and transparent way. For international transactions with overseas subsidiaries, we observe domestic tax laws as well as the OECD Transfer Pricing Guidelines, and execute tax payment obligations based on local laws. We have overseas subsidiaries in the U.S., Brazil, Hong Kong, and other countries, and we transparently disclose the amount of taxes we pay in each region.

Business Megatrend

Wealth Management

Strengthened untact services and reinforcement of branches in response to fintech development

Information technology, including fintech, is leading change in the financial industry. Rapid changes are taking place, and clients can now use online media, such as smartphones and PCs, to handle many counseling and other types of work that could previously be handled only by making a visit to a branch. In response, Mirae Asset Daewoo is strengthening untact services, while also using our limited resources efficiently to create mega-sized branches with a particular focus on branches located in central business districts of each region. By improving the branch environment and strengthening employee capabilities, we are now providing more professional services in a better environment when clients visit our branches. We have been creating mega-sized branches since the first year of our merger in 2017, and have merged 54 branches in 2019 and operate 80 branches as of the end of March 2020.

Pension

Adoption of an obligatory retirement pension plan and mandatory adoption of an investment policy statement (IPS) under defined benefit (DB) pension plan

Retirement pension plan business is to be highlighted as soon as the government enforces retirement pension promotional packages which include adoption of obligatory retirement pension plan and obligatory investment policy statement (IPS) establishment under defined benefit (DB) plan. If the adoption of the retirement pension plan becomes mandatory, replacing the previous retirement pay system, the adoption of a retirement pension plan will likely become mandatory in a phased manner, starting with companies of a certain size. Also, companies that have adopted a DB plan are required to form a investment management committee, create an IPS, and manage the contributions accordingly. The DB plan is a pension scheme where an employer puts aside a certain percentage of retirement benefit that it will make to its employees to an external organization. Most contributions are managed as principal and interest guarantee products, resulting in low annual average rate of return. However, if the adoption of an IPS becomes mandatory, asset classes that can be included in the pension portfolio will be expanded, leading to expectations of improvements in rates of return. Accordingly, asset management capabilities of retirement pension service providers will gain greater importance.

Investment Bank

Preemptive responses to fluctuating economic environment

IB Division1 Increased uncertainty in the global economic environment due to the intensified trade conflict between the U.S. and China has resulted in a slowdown in corporate performance and rising need for financial structure improvements as well as the full launch of restructuring of weak industries. However, once this economic uncertainty is resolved, we expect diverse new deal contracts and new coverage expansion through strengthened networking with large companies as well as SMEs and small giants, and anticipate to achieve high rates of return from alternative investment deal contracts, such as aviation and ship finances.

IB Division2 Due to stricter government regulations on real estate PF, there is increasing importance of management and supervision of the soundness of real estate PF exposure. Also, an increase is expected in client demand for government policy-based projects (housing for newlyweds and the youth, new town projects, etc.). In response, Mirae Asset Daewoo is planning to continually monitor government policies and detailed plans, and to actively review and execute investments.

IB Division3 As a result of a continued drop in base interest rates, the opportunities of refinancing are expected to rise for the purpose of extending the loan period of existing acquisition financing or reducing the financing expenses. Considering the recent trend of more active overseas M&As of large companies in Korea, out bound deals and M&As of restructuring companies are forecast to increase.

Trading

Automation and development of future growth drivers using AI technology

Automation using AI and other digital technologies is a megatrend in the derivatives sector as well. Trading Division¹ developed an automated high-frequency trading system, thus building a system that automatically handles LP liquidity supply and arbitrage trading. It is difficult for people to trade five times in a second, but a computer that runs on an algorithm can trade every 1/10,000 second. Based on this technology, we are looking for opportunities to advance overseas, including Hong Kong and Singapore. In addition, we expect a rise in sales earnings from continued expansion of global business capabilities and new business creation. We also expect institutional investors, including pension funds, to increase their proportion of domestic and overseas stocks and actively respond to the market against the increased volatility in the financial market and stock market.

Corporate Solution

Increasing domestic and overseas alternative investments as an alternative in the low interest rate environment

Alternative investments at home and abroad are on the rise as an alternative amid persistent low interest rate environment, and the proportion and amount are expected to further increase. Based on our distinctive global network, Mirae Asset Daewoo sources high-quality alternative investment assets and suggests them to institutional investors and corporate clients. In addition, we are taking the lead in sales by sharing accumulated knowledge on markets and products, outcomes of research on client needs, and outstanding sales know-how within the company. We are striving to help our clients manage their assets safely and to strengthen relations of trust by providing investment assets that are adequate for client needs.

Prime Brokerage Service

Sharp growth of the hedge fund market in Korea

Assets under management in the hedge fund market in Korea grew more than KRW 10 trillion in 2019 alone to reach a total KRW 34 trillion. As of the end of 2019, more than 200 asset management companies are managing more than 3,000 hedge funds in Korea and more than 50 new asset management companies have entered the market. Hedge funds in Korea are showing rapid growth as they are steadily gaining popularity as an alternative among domestic investors in the low interest rate era. The rise in assets under management slowed down in the second half of the year owing to several issues that arose at the end of 2019, but we supplied quality hedge funds to our sales channels by securing diverse sales networks as part of our efforts to increase client satisfaction and gain trust.

Global

The Fourth Industrial Revolution and digital transformation

With the advent of the Fourth Industrial Revolution, cutting-edge information and communications technology (ICT) is converging into overall economy and society to result in rapid, innovative changes. The Fourth Industrial Revolution, of which "hyper connection" and "hyper intelligence" are key characteristics, is impacting a wider range at a fast pace, compared to previous industrial revolutions. Mirae Asset Daewoo is responding to the change by making preemptive investments in new growth businesses of the global market. We have been identifying new technologies in various areas, including shared service, bio, drone, mobile payment, and other key elements of the Fourth Industrial Revolution, and investing in companies with these key technologies as well as relevant infrastructure. We will continue to identify promising companies and invest in high-quality assets to offer clients with high-quality investment products. Also, in line with the digital development, the global business landscape has been shifting from offline to online-centered, and the securities industry is experiencing expedited digital transformation as well. In overseas markets, we are moving in step with this change based on local markets. We are focusing more on digital transformation by applying our advanced IT infrastructure to overseas local markets, while also making steady efforts to offer distinctive digital financial services through continued expansion of our online platform.

Digital

Digital innovation and convergence synergy creation

In a rapidly-changing digital era, financial companies at home and abroad are building platforms to provide services that are appropriate for individual customer needs based on digital technologies. They are also striving to facilitate convergence with other financial companies or other industries to complement each other and generate synergy. Recently, an environment is being formed that allows innovation in various aspects, such as products, channels, and services, with the development of digital technologies and easing of regulations. As the largest securities company in Korea, Mirae Asset Daewoo will build platforms that our clients seek and provide professional services while maintaining a leading position at all times.

Wealth Management

2019 Performance

In 2019, the stock market in Korea was a downturn compared to the previous year, while global equity investment was increased, resulting in the establishment of global equity investment as a prime source of revenue. Our wealth management (WM) business recorded KRW 343.2 billion (KRW 460.1 billion in 2018) in brokerage (BK) revenue through stable WM revenue growth. We became the first securities company in Korea to exceed KRW 10 trillion (year-on-year rise of 40%) in global assets (global equity, global bonds, etc.), and our pension assets stood at KRW 14 trillion (year-on-year increase of 18%), the largest among domestic securities companies.

Detailed Key Performance

Our WM business is helping our clients successfully manage their assets by providing distinctive products. We are further facilitating IB and trading-linked products, and actively responding to changes to the accredited investor system, thereby increasing the supply of exclusive products. We are also expanding the supply of overseas products, such as global hedge funds and develop Wrap accounts as our flagship asset management product, thus strengthening client asset allocation functions. As a result, our Wrap accounts balance stood at KRW 1,690 billion as of 2019 year-end, with a net increase of around KRW 200 billion year-on-year.

Total client assets in WM Total retail client assets in our WM business are KRW 148 trillion. There was a decrease of KRW 2 trillion during a year due to the deteriorating stock market. Despite the market downturn and increased volatility, our strategic assets, including assets under management for pension and global brokerage, rose by KRW 5.1 trillion. Our assets for global brokerage, which recorded KRW 0.7 trillion in the beginning of 2017, grew to KRW 2.7 trillion by the end of 2017, to KRW 4.1 trillion in 2018, and to KRW 6.6 trillion in 2019, demonstrating rapid growth of approximately nine times in the past three years.

Assets of WM Business

(Unit: KRW trillion)

Classification	Beginning of the year	End of the year	Change	
WM assets	Funds	10.0	10.0	0
	Others	43.4	47.5	+4.1
	Sub total	53.4	57.5	+4.1
Brokerage assets	Domestic brokerage	93.0	84.1	-8.9
	Overseas brokerage	4.1	6.6	+2.5
	Sub total	97.1	90.7	-6.4
Total client assets		156.5	150.5	-6.0
Strategic assets	Pension assets	11.7	13.9	+2.2
	Global assets	7.2	10.1	+2.9
	Total	18.9	24.0	+5.1

* Based on retail clients

2020 Plan and Strategy

Business Plan

We plan to build a sustainable WM business model of "client first & client satisfaction".



Improve client profitability

- Global asset allocation of client assets
- Qualitative & quantitative growth of the pension business
- Increase consulting-type assets and revenue
- Create sales synergy by working closely with our affiliates



Innovate asset management infrastructure

- Nurture WM talent
- Enlarge size of sales channels and increase efficiency
- Build a process-based asset management model
- Innovate sales and work processes

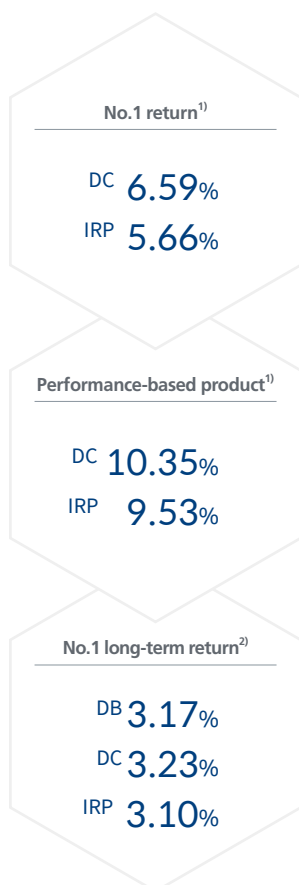


Strengthen VIP business

- Expand the VIP clients base
- Increase WM synergy for pension clients
- Gain an advantage in product competitiveness and timeliness
- Distinctive client services

Pension

2019 Performance



1) 2019 return, sourced by Financial Supervisory Service

2) 7 and 10-year annual return, sourced by Financial Supervisory Service

2020 Plan and Strategy

Detailed Key Performance

Reserve Our retirement pension contribution exceeded KRW 10 trillion, which is the largest size among securities companies, and our pension assets under management, including individual pension, reached around KRW 14 trillion.

Pension Assets

(Unit: KRW billion)

Classification	2017	2018	2019	
Retirement pension	DB	4,192.3	4,588.2	5,360.0
	DC	2,547.8	2,962.4	3,525.4
	IRP	951.1	1,110.4	1,570.8
	Sub total	7,691.1	8,661.1	10,456.1
Individual pension	2,533.1	3,096.0	3,498.5	
Total	10,224.2	11,757.1	13,954.7	

Rate of return The portion of performance-based products is way above the industry average, and we provide distinctive global, top-quality products based on our excellent infrastructure.

“Retirement Pension Wrap” managed by asset management experts The “Retirement Pension Wrap” is a product where experts create a portfolio for busy office workers and investors who do not have sufficient investment experiences, and manage the rate of return through regular rebalancing. We set a model portfolio (MP) on February 6th, 2009, and commenced sales on August 26th, 2010. As of the end of 2019, our leading type “Active 40” recorded a cumulative rate of return of 79.83%. It manages over KRW 900 billion in asset under management and reached over 20,000 subscribers.

Exceeding KRW 1 trillion in TDF balance As of November 21st, 2019, we became the first in the industry to exceed KRW 1 trillion in target date fund (TDF) balance. TDF products automatically rebalance investment allocation ratio between safe assets and risky assets according to the timing of retirement and is thus ideal for pension asset investment. Our distinctive investment strategy will assure clients with stable life after retirement.

The very first to offer the listed REITs trading platform for DC and IRP plan In accordance with the amendment to the “Enforcement Decree of Employee Retirement Benefit Security Act”, listed REITs can be traded in DC and IRP accounts. On December 23rd, 2019, we launched the related platform for the first time among domestic retirement pension service providers, which is expected to enable us to provide our clients with more choices in selecting financial products, and to improve the rate of return of our retirement pension management through REITs investment.

Awards Mirae Asset Daewoo received the Excellence Award in the securities category at the “6th Korea Retirement Pension Award” organized by The Korea Economic Daily, the Grand Prize in the retirement pension category at the “2019 Asia Capital Investment Awards” by Asia Economy, and the Excellence Award in the securities category (Global Retirement Pension Asset Allocation Wrap) at the “8th 100-Year-Old-Era Finance Awards” by MTN.

Business Plan

Focusing on enhancing client profitability The need to prepare for life after retirement is rising due to ultra-low interest rates and the emergence of the aging society. In response, we plan to provide distinctive pension products by using our global network. Also, such employee trainings as the WM Academy and Pension Expert Course will be strengthened to nurture pension experts and to develop all branch staff into pension experts. We will also produce quality content, including YouTube videos and VODs to increase client convenience.

Preemptive preparations for regulatory change In preparation for regulatory change, such as obligatory retirement pension plan, investment policy statement (IPS), default option, and the adoption of fund-type retirement pension plan, we are setting preemptive measures. Mirae Asset Daewoo has experiences in conducting a number of IPS consulting services, and we are also an outsourced chief investment officer (OCIO) of major institutions in Korea. With the preparation for the regulatory change, we will secure distinctive competitiveness and a competitive advantage.

Investment Bank

2019 Performance

In 2019, we achieved an excellent performance in our IB business for three years in a row. In the DCM & ECM sector, we maintained our leading position on the League Table by making profits in issuing corporate bonds and contracting rights offer deals. We also have diversified our revenue portfolio by handling alternative investment asset deals, including aviation and ship finances. In the area of acquisition financing, we arranged 19 deals worth around KRW 3 trillion, earning the highest ranking, and successfully arranged a number of landmark projects in real estate and alternative investments at home and abroad on the strength of our equity capital, the largest among securities company in Korea.

Detailed Key Performance

IPO In 2019, Mirae Asset Daewoo successfully arranged the IPO of 17 companies, including ZUM internet, ezCaretech, LAON PEOPLE, and THiRA-UTECH, on the KOSPI and KOSDAQ markets, thus demonstrating our market dominance. In particular, we built an unrivaled track record through special listing, including Carriessoft's business model and OliPass' growth potential recommendation.

ECM & DCM We participated as a book runner for The Export-Import Bank of Korea (KEXIM) global bond and served as a lead arranger for corporate bond offerings of high-grade issuers such as affiliates of conglomerates in Korea, thereby reinforcing our stature as Korea's leading securities company. We also preemptively suggested a total corporate financing solution to result in many deals, and thus strengthened our market position.

Acquisition financing We have arranged acquisition financing and refinancing for several Korean companies, including Ssangyong Cement, Homeplus, and KCFT, as well as overseas acquisition financing for such companies as BrightSpring and Nestle, maintaining our market leading position for three consecutive years.

Real estate and infrastructure PF We participated in various markets, with a focus on quality deals in Korea, including the State Namsan office building acquisition, Yeongjongdo Dream Island development project, and urban development project of Heonin Village in Seocho-gu. We also invested in overseas real estate and infrastructure projects, including the New York Times Square development project in the U.S., mezzanine investment in a landmark office located in Hong Kong Kowloon East, and senior loan for the EPIC Crude Oil Pipeline project.

2020 Plan and Strategy

Business Strategy

IB Division1 We will expand our coverage for new-growth companies and improve less-developed coverages to enhance market competitiveness. We will also diversify our profit sources by offering financing plans utilizing corporate assets and corporate restructuring schemes. We will expand our IPO efforts into outstanding overseas corporations and the Industry 4.0 companies and promote pre-IPO sales. In addition, we plan to expand our position in core assets both at home and abroad and improve returns based on asset-backed financing services, such as mezzanine, alternative investment, REITs, and structured financing.

IB Division2 Leveraging our network with major construction companies and developers, we will secure safe revenue sources, such as equity investments, bridge loans, and asset-backed financing. In addition, we will participate in various markets, including policy, public, and municipal projects, in our continuous efforts to identify high value deals. Also planned is to contribute to increased global assets through investment and management of a wide range of asset groups of several regions, including such advanced core regions as North America and Europe as well as emerging markets in Asia.

IB Division3 We aim to strengthen our deal pipeline by penetrating overseas acquisition financing markets, while also generating and strengthening synergy through new businesses with key partners. We will establish a special situation fund and pioneer the relevant investment group, and enter various real estate financing markets by participating in projects linked to government policy.

Trading

2019 Performance

Detailed Key Performance

Trading Division1

We have built a new trading infrastructure, around the Busan Internet Data Center (IDC), and began to prepare for setting up our global trading desk. We also established a market using an algorithm trading system and generated profits through arbitraging, while improving the competitiveness of structured products by making efforts to develop hybrid and FX-linked products and increasing the efficiency in managing fixed income, currency, and commodity (FICC).

Trading Division2

We generated a large amount of profits in trading of KRW-denominated bonds and overseas bonds by preemptively responding to the possible changes to currency policy at home and abroad. In bond sales, we achieved a year-on-year growth of at least 30% by actively responding to demands for investments in corporate bonds and foreign currency bonds against the backdrop of low interest rate environment. We generated at least 40% of our earnings from overseas, while our foreign currency RP assets grew nearly 100% compared to the previous year, reflecting significant enhancement in global business capabilities.

Other Trading Departments

Global Macro Trading Department We improved our management process by integrating foreign currency-related functions at the enterprise-level and increased work efficiency in other areas as well. We also offer clients with a greater diversity of services by generating synergy through collaboration with other departments and divisions.

Multi Strategy Trading Department We achieved stable revenue performance through optimal hedge trading strategies for macro variables based on thorough risk management.

Passive Solution Department We maximized profit by expanding our role as a liquidity provider (LP) for mini-futures and through the arbitrage trading with Korea Post. Our market share is on the rise as well.

Equity Sales Department We received top grades from public pension funds, such as the Korea National Pension Service and Korea Post, in their brokerage house ratings. In addition, we solidified our leading position in non-traditional securities brokerage fields such as overseas Pre-IPO deal brokerage as well as block deals for corporations and trading of non-listed stocks. In overseas equity sales, the Korea National Pension Service and Korea Investment Corporation (KIC) chose us as their foreign stock broker, based on which we achieved the industry's No. 1 ranking in terms of contracts.

2020 Plan and Strategy

Business Plan

Trading Division1

After the WHO's declaration of COVID-19 as a pandemic, the issuance and repayment of derivative-linked securities fell sharply and other uncertainties are rising in the global economy. However, we will respond to the market changes by concentrating on existing business capabilities and focusing on risk management. We will discover revenue opportunities resulting from increased volatility in the global securities market, and make continuous efforts to advance into the overseas derivative market.

Trading Division2

We will continually discover new businesses to meet our sales goal, and innovate our trading and sales process. We plan to launch a CMA product by collaborating with NAVER FINANCIAL in the first half of 2020, and build an infrastructure for trading in the growing bond market of mainland China, and commence trading. In addition, we will increase the proportion of online trading by strengthening the bond online trading system for retail clients.

Other Trading Departments

"Global Macro Trading Department" is planning to expand client pool and strengthen the stability of FX business model through trading and product development using quantitative techniques. "Multi Strategy Trading Department" is planning to adopt precise risk management model to discover new deals in high volatile market in the consequences of post COVID-19. "Passive Solution Department" is anticipating to achieve economy of scales based on the rich experiences by raising their key performance indicator. "Equity Sales Department" is planning on providing competitive brokerage and research services institutional investors as well as providing global brokerage services at a stable level, expecting to become a leading global equity brokerage house.

Corporate Solution

2019 Performance

Detailed Key Performance

Multi Solution Department 1 and 2 We provide institutional investors with competitive products through foreign asset managers and deal sourcing. The balance of financial products increased KRW 3.5 trillion year-on-year (from KRW 54.8 trillion as of the end of 2018 to KRW 58.3 trillion in 2019), thereby solidifying our leading position in the industry. In addition, sales of our alternative investment products grew through the collaboration between the Multi Solution Departments with the IB Unit and our overseas subsidiaries.

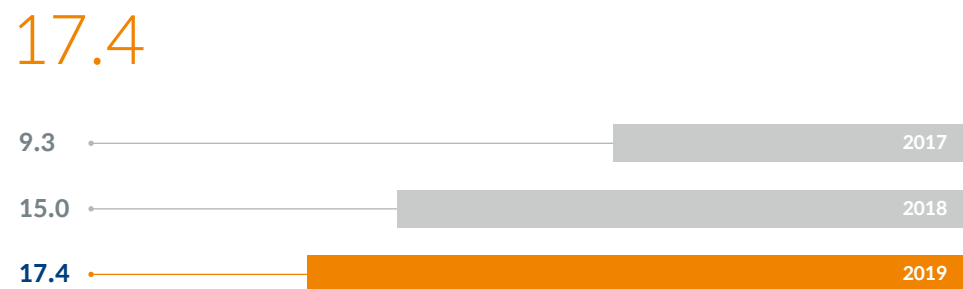
Balance of Financial Products Offered to Institutions

(Unit: KRW trillion)



Alternative Investment Product Revenue

(Unit: KRW billion)



2020 Plan and Strategy

Business Plan

Multi Solution Department 1 and 2 We will develop a wide range of products based on close collaboration with the Multi Solution Departments and the IB Unit, and will diversify our earning structure by attracting new institutional clients. Furthermore, in response to growing demand for foreign alternative investment products, we will focus more on increasing product sales by leveraging our global network including foreign asset managers and global real estates.

Business Strategy

Multi Solution Department 1 and 2 Mirae Asset Daewoo will continue to attract new institutional clients, with the Multi Solution Departments taking a central role, and offer differentiated new products. In addition, we will build optimal product supply capabilities, such as development of customized products that meet customer needs and new types of products, through the collaboration between the Multi Solution Departments and teams in charge of product development. Moreover, we will continuously expand placement agent operations targeting foreign asset managers and supply in-house products to institutional investors. Also planned is to raise more funds to cope with the growth of the outsourced chief investment officer (OCIO) market.

Prime Brokerage Service

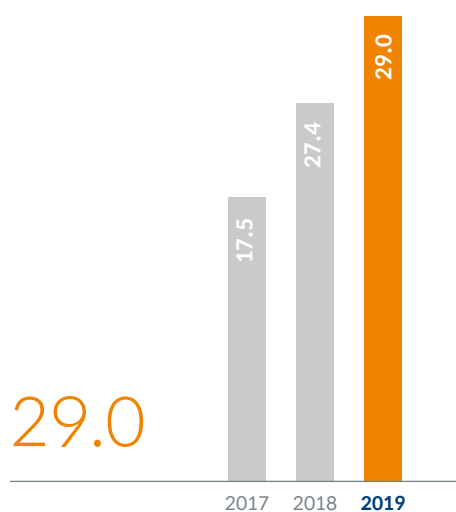
2019 Performance

Detailed Key Performance

Mirae Asset Daewoo's Prime Brokerage Service Department received the highest score in the "2019 PBS Work Satisfaction" survey that was conducted to hedge fund asset managers, thereby reaffirming its status as the most satisfactory service provider. We also received the "PBS of the Year Award" in the "Korea Wealth Management Awards" for the second straight year. In addition, we accounted for the highest share of the market in terms of assets under management, thus proving our prime brokerage service competitiveness.

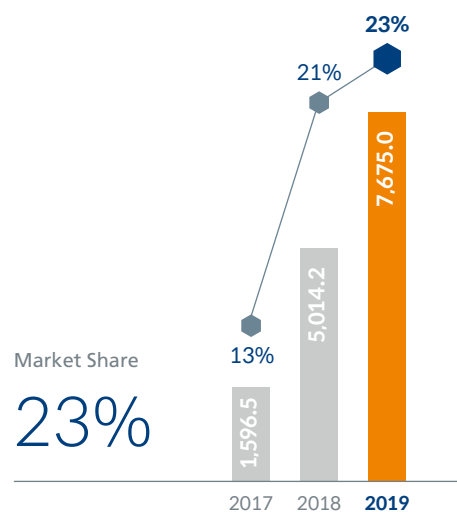
Net Profit

(Unit: KRW billion)



Assets Under Management

(Unit: KRW billion)



Prime Service Team Mirae Asset Daewoo commenced services for 293 new funds and increased assets under management by KRW 2,609.3 billion in 2019. Thanks to this achievement, we won back our highest share of the prime brokerage service market in August 2019. We have been building know-how for many years as a prime service provider, and continue to generate synergy, such as providing services that satisfy client needs based on strong partnerships with clients.

Equity Finance Team Mirae Asset Daewoo carries out securities lending and borrowing transactions with many securities companies and hedge fund clients in Korea and abroad. By doing so, we support strategies to manage hedge funds in Korea and contribute to increased market efficiency and liquidity. We also procure various pledged assets, such as foreign currency and securities, through global standard short sale contracts, thus evolving in a direction where various assets are financed and used, going beyond the traditional business category of securities lending and borrowing.

2020 Plan and Strategy

Business Plan

In 2020, we aim to maintain our leadership position in hedge fund contract and provide a wide variety of products and services to fully establish ourselves as the No. 1 securities company. In the second half of 2020, we plan to launch a service that offers securities lending to retail clients and a contract for difference (CFD) service that enables the use of leverage and short selling.

Business Strategy

Based on the know-how and experiences we have accumulated over many years, we will conduct marketing activities that present a stable, distinctive portfolio to investors. We will also focus on establishing a transparent, sound market based on strengthened risk management in providing securities lending and borrowing as well as total return swap services.

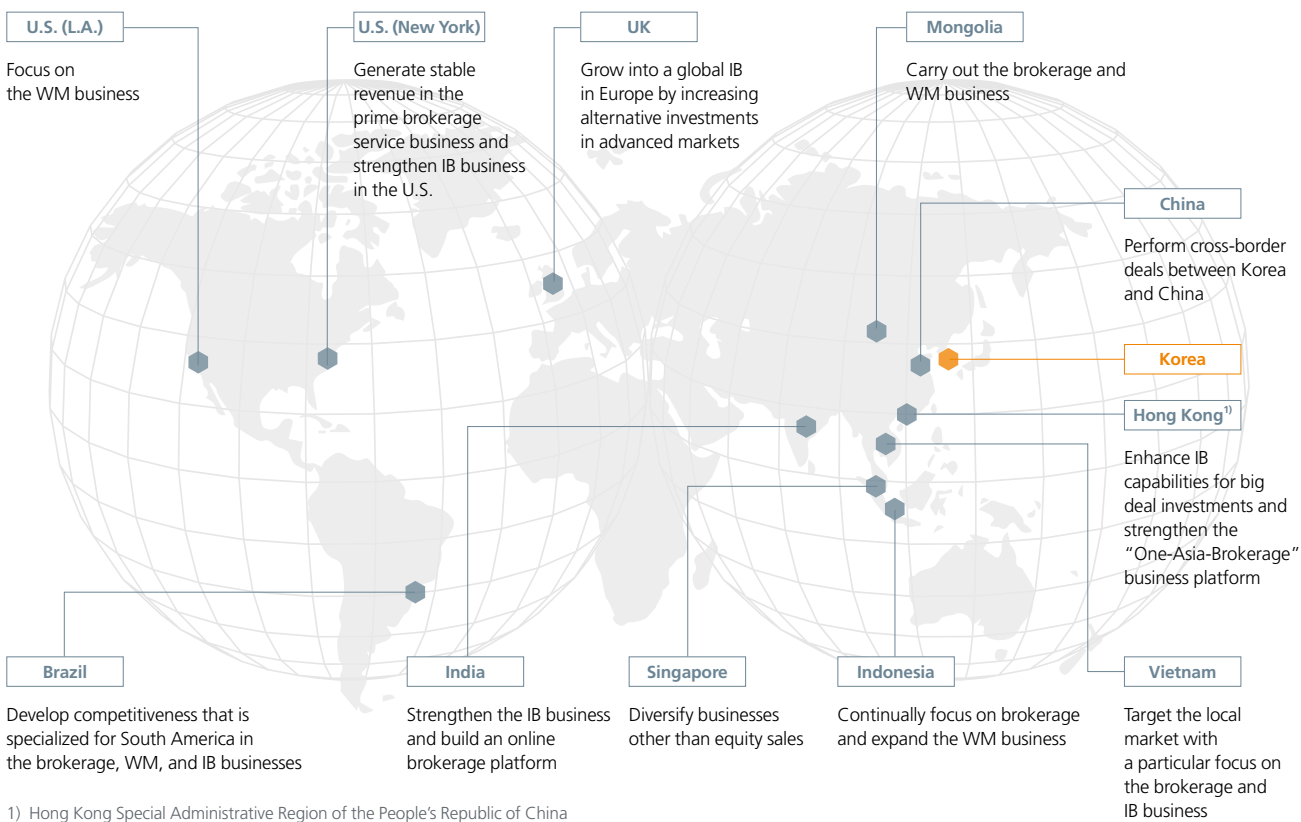
Global

2019 Performance

Detailed Key Performance

Increasing profitability by expanding global IB deals Based on our reputation and network as a global IB that we have established in Korea and abroad, we continually increased investments in prime overseas assets in 2019. As a result, pretax income from our overseas subsidiaries grew more than twice in 2019 from the previous year and recorded KRW 170.1 billion, making Mirae Asset Daewoo the first securities firm in Korea to exceed the KRW 100 billion mark. Our IB business, in particular, posted a year-on-year rise of around 108% in revenue through various deals, performing the most significant role in strengthening the profitability of overseas subsidiaries.

Solidifying market presence in the local brokerage market In 2019, we continued stable growth based on local retail markets in Asia and South America. Our Vietnamese subsidiary recorded more than double growth from the previous year in brokerage revenue, and the Indonesian subsidiary recorded a high share of the local brokerage market and ranks among the highest from among local securities companies. The Brazilian subsidiary is also continuing stable growth through thorough localization.



1) Hong Kong Special Administrative Region of the People's Republic of China

2020 Plan and Strategy

Business Strategy

Expanding global IB business through collaboration between overseas subsidiaries Based on experiences and the network in IB business that we have built over many years across the globe, we plan to carry out a more segmented IB business in consideration of each region's characteristics in 2020. To this end, we will establish a close IB collaboration system between overseas subsidiaries, thus solidifying our position as a global IB.

Establishing a sustainable growth model through business diversification We will diversify our business model to establish an overseas expansion model for sustainable growth. To this end, we will proactively respond to global economic flows as well as local market circumstances and regulations to actively discover businesses that are specialized for each region.

Increasing the efficiency of local sales channel through digital transformation We will further strengthen our local brokerage business by using the know-how we have accumulated through long-term localization work in emerging markets. We will also organically connect online platforms and integrate the untact account opening service that is active in Korea to proactively move forward with expansion of online channels that are optimized for the local business environment.

Digital Finance

2019 Performance

Detailed Key Performance

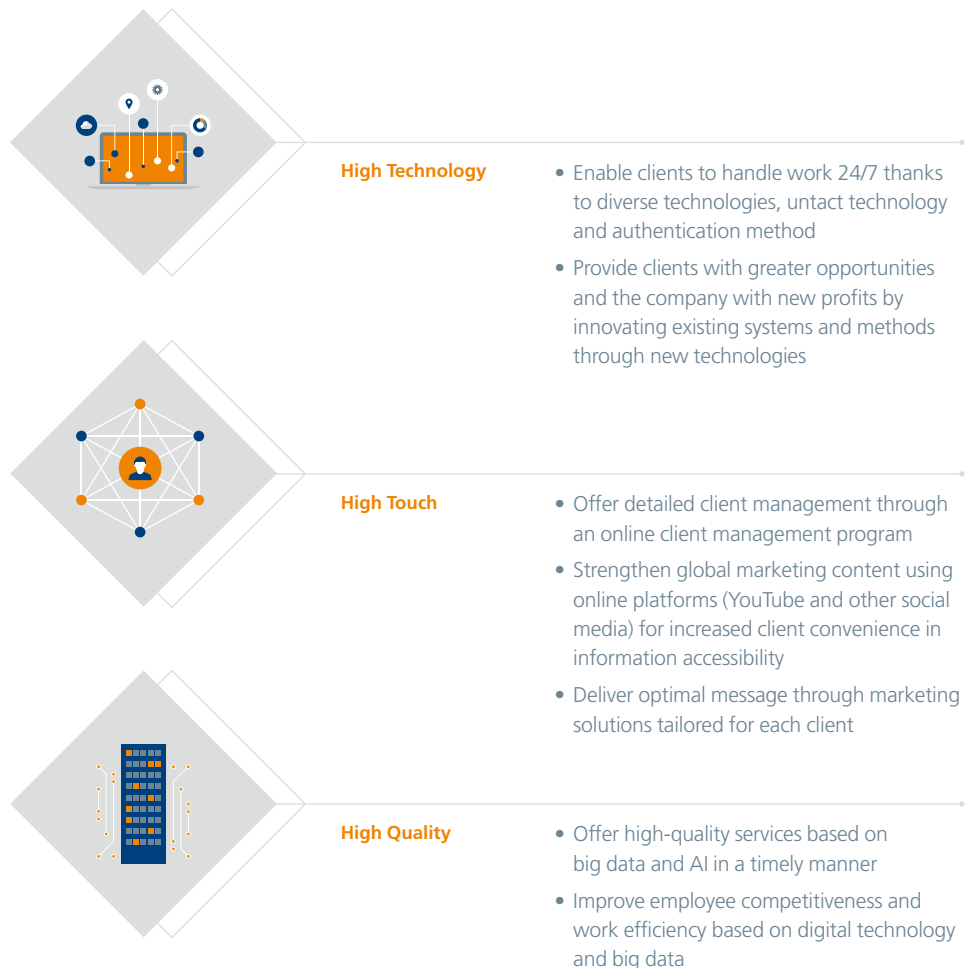
In 2019, a total 426,000 new accounts were created via untact channels through a untact account opening process that is available 24/7.

Following the first program in 2018, we run the second "Fintech Partnership Program" in 2019 and completed three tasks with three fintech companies, including the Change Investment Service Using CMA RP Product, thus providing services with increased client convenience. In addition, Mirae Asset Daewoo became the first securities company in Korea to register for the payment gateway (PG) business in 2019, based on which we began to offer WeChat Pay payment service by forming an alliance with Tencent.

In addition, m.Club, which provides investment information services to clients by using big data and AI, recorded more than 300 thousand subscribers in May 2020 and is becoming Mirae Asset Daewoo's flagship investment service.

2020 Plan and Strategy

Business Strategy



Social Contributions

We believe that nurturing talent is a key driving factor to improve a nation's competitiveness therefore carry out various educational support to youth to fulfill our social responsibilities. We serve the largest scholarship program for college students in Korea and conduct various financial and cultural experiencing programs in order to provide rich experiences for under-privileged youth.



CSR Strategies

Corporate Social Responsibility (CSR) Directions

With the Mirae Asset Park Hyeon Joo Foundation performing central roles, Mirae Asset is practicing its slogan "warm-hearted, caring capitalism" through cohesive cooperation among our affiliates. The two main areas of our CSR activities are "nurturing talent" and "social welfare", under which scholarship and education support programs to nurture talent are systematically carried out. In the area of "culture of sharing", our employees are proactively rolling out volunteering activities to create a society where we can grow with the underprivileged.

Major CSR Areas



CSR Milestones of Mirae Asset Financial Group

2019	Number of people who have participated in Mirae Asset talent development programs exceeded 300,000	2000	The Mirae Asset Park Hyeon Joo Foundation was established, and selected scholarship recipients in Korea
2017	Number of people who have participated in Mirae Asset talent development programs exceeded 200,000	2006	Selected students for the global investment expert scholarship
2014	Number of people who have participated in Mirae Asset talent development programs exceeded 100,000	2007	Selected global exchange students, and conducted global cultural experience program
2013	Launched the Book Project to donate books depending on the recipients' areas of interest and reading levels	2008	Launched the Mirae Asset Volunteer Corp and "I Love You" donation campaign
2012	Launched the Mirae Asset matching grant program	2009	Expanded the scope of scholarship recipients in Korea and for the global exchange scholarship
2011	Launched the "Mirae Asset 1% Hope Sharing" project with participation by executives		

Nurturing Talent

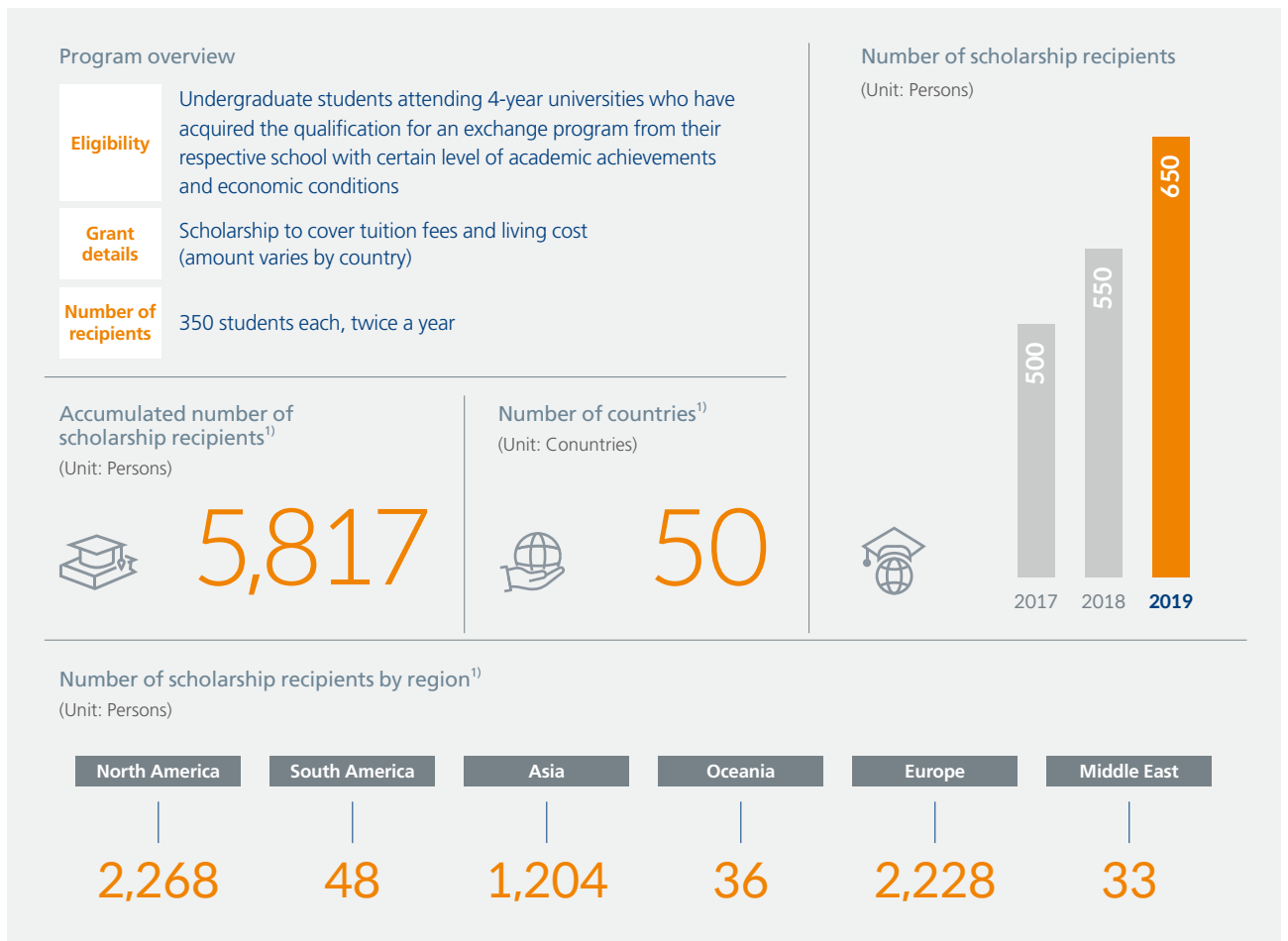
“Mirae Asset will serve as hope for the youth”

Mirae Asset is committed to nurturing the youth who strive to grow into global players and is therefore supporting them to build knowledge, experience the culture, and unlock their full potential in a bigger world. To this end, Mirae Asset global exchange scholarship was launched in 2007, and it has been firmly established as Mirae Asset’s representative global talent nurturing program and Korea’s largest global exchange scholarship.

In order to provide opportunities to more students, we select scholarship recipients from all universities across the nation, regardless of their major, without the interview process. So far, this program has supported 5,817 students to study abroad in 50 countries including the U.S., Europe, and Asia. In addition, we also operate “Mirae Asset Global Correspondents” program to share scholarship recipients’ experiences so that their knowledge, experiences, and culture acquired from the time spent around the world will fuel the challenging spirits for other students preparing for the exchange program. “Sharing Day” is an event where students who have received the grant serve as mentors for new students, and also carry out diverse voluntary activities, creating a virtuous cycle of sharing their experiences and talent with society.



Mirae Asset Global Exchange Scholarship



1) Accumulated number of scholarship recipients and countries as of 2019 year-end

Social Welfare

“Mirae Asset gives a gift of knowledge and experience as a soil for the future of children”

Mirae Asset hopes that children can form right sense of values and grow into talents with sound mindset through a wide range of experiences. To this end, we run such programs as the Global Cultural Experience Camp, Book Project, Youth Vision Project, and financial career education in our efforts to help children broaden their view in society and culture as well as intellectual growth.

GLOBAL CULTURAL EXPERIENCE CAMP

Visit overseas countries for four days to learn about global economy, history, and culture (Shenzhen and Shanghai, China)

Accumulated Figure²⁾

1,968 persons

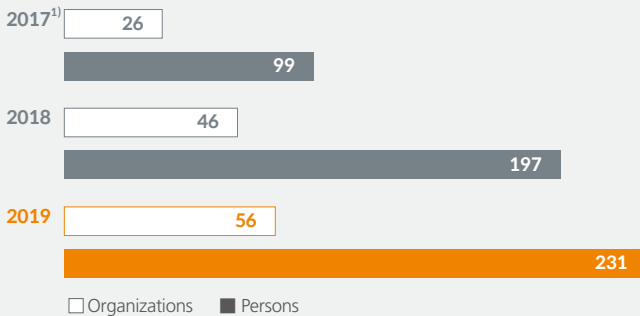
2019 Performance



56 organizations



231 persons



1) Did not take place in the second half of the year
 2) Accumulated figure is based on performance from the beginning of the program until 2019



BOOK PROJECT

Donate books customized for recipients in consideration of their individual environment, reading levels, and desired career path

Accumulated Figure¹⁾

11,056 persons

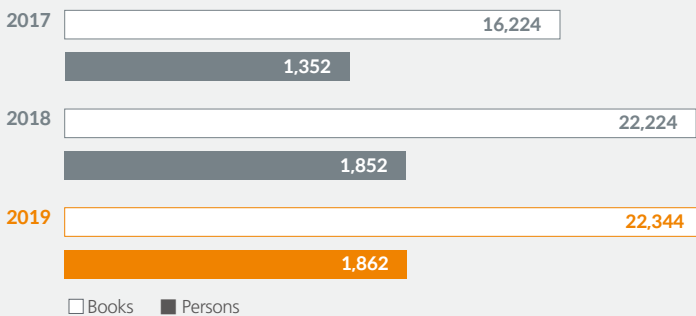
2019 Performance



22,344 books



1,862 persons



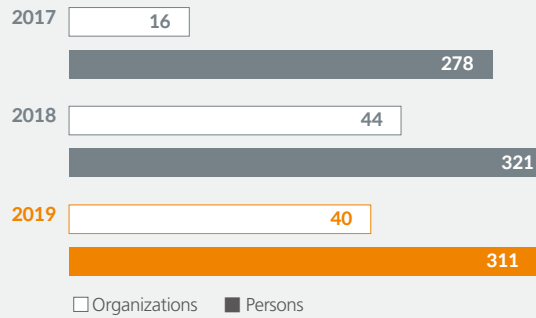
1) Accumulated figure is based on performance from the beginning of the program until 2019





YOUTH VISION PROJECT

Hold a two-day camp where the youth experience activities to make their own project aimed at enhancing creativity and problem-solving skills



Accumulated Figure¹⁾

1,421 persons

2019 Performance

40 organizations

311 persons

1) Accumulated figure is based on performance from the beginning of the program until 2019



CULTURAL EXPERIENCE SUPPORT FOR THE YOUTH

Provide the youth with expense support for cultural activities and experiences for a special day

Accumulated Figure¹⁾

210 organizations

2019 Performance

60 organizations

1) Accumulated figure is based on performance from the beginning of the program until 2019

Culture of Sharing

One Company, One School Financial Education

Mirae Asset Daewoo appreciates the adolescent as financial consumers of the future, and thus carries out various financial education programs to help them understand finance and choose their career path. In particular, we have expanded the “One Company, One School” financial education program by the Financial Supervisory Service (FSS) since 2015 through 2019, formed sisterhood ties with 390 schools around the nation, the largest scale in the financial industry, and provided financial educations to 81,545 students. In recognition of our efforts to invigorate the financial education for the youth, we won the Outstanding Institution Award in One Company, One School Financial Education from the FSS Governor in 2016 and 2017, and also received the Outstanding Staff Award in One Company, One School Financial Education from the FSS Governor in 2019 for four consecutive years. In addition, we are carrying out many hands-on programs for elementary, middle, and high school students by inviting them to Mirae Asset Daewoo headquarters for financial education, and joining with Korea Exchange and Korea Financial Investment Association for hands-on experience of the financial industry, in our efforts to assist the young students in growing into financial experts.

HopeChain Volunteer Corp

Since the launching ceremony of “HopeChain Volunteer Corp” in May 2018, Mirae Asset Daewoo had idea workshops and identified ten CSR models. 20 volunteer organizations have been set up and carried out CSR activities in a voluntary manner led by employees. This program is noteworthy as it is a bottom-up activity where employees plan and participate in various CSR activities themselves, instead of the traditional top-down approach. In 2019 alone, a total of 1,287 employees and their family members participated in CSR activities for 3,040 hours. In addition, a number of programs were introduced in 2019 under the theme of raising the environmental awareness of employees and spreading a culture of donation. These include a “tree-planting campaign” aimed at reducing fine dust, held at one of Han River’s riverside parks, with the participation of employees and their families; a pledge to reduce the use of disposable goods; and the biannual employees’ goods donation campaign that helps create jobs for the disabled.

BUSINESS CASE

Major Programs of HopeChain Volunteer Corp

Let the Earth Breathe

Mirae Asset Daewoo’s HopeChain Volunteer Corp carried out tree-planting activities at one of Han River’s riverside parks in November 2019, in partnership with Seoul Green Trust. “Building Mirae Asset Daewoo Forest” is a social contribution project chosen among the CSR tasks identified by the members of HopeChain Volunteer Corp, with the goal of raising the public awareness on the severity of environmental issues such as fine dust and the importance of urban forest. A total of 154 participants including staff and their family members joined the activities on four occasions, reminding the children of the importance of protecting the nature. Mirae Asset Daewoo will continue the tree-planting campaigns for four times a year for three years to contribute to reducing fine dust and offer a healthy relaxing space for anyone spending leisurely time at the park.

Events to Promote Employee Donation

Under the theme of spreading a corporate culture of donation, a number of events were conducted. A total of 268 employees participated in those events and raised a fund around KRW 30 million. The fund was then used to purchase goods that were donated to global environmental organizations, a children’s rehabilitation hospital, an orchestra for those with development disabilities, and Goodwill Store.



Environmental Management

With the emergence of diverse environmental issues, The financial industry is fulfilling its social responsibilities on environmental issues. Mirae Asset Daewoo has adopted environmental policies to create new business opportunities, while also responding to climate change by reducing GHG emissions, energy consumption, and waste discharge.



Environmental Management System

Environmental Management

We are enhancing environmental awareness of our employees through corporate-wide eco-friendly management, while also engaging in activities to reduce carbon footprint for sustainable development. We systematically manage diverse environmental data, such as greenhouse gas (GHG) emissions, waste discharge, and energy consumption, and report our status on responding to climate change to the Carbon Disclosure Project (CDP). By doing so, we actively take part in international efforts to combat climate change.

Management of GHG and Energy

To reduce energy consumption and GHG emissions, Mirae Asset Daewoo has been reducing unnecessary energy consumption and continually managing energy use. There is almost zero direct GHG emissions caused by energy sources directly owned or managed by Mirae Asset Daewoo, given the nature of the financial industry. We therefore focus on managing Scope 2, which refers to indirect emissions. We also manage Scope 3 by reducing paper use and wastes, and by increasing business trip efficiency. We encourage employees to take part in GHG emissions reduction activities in their daily work, including when they commute, carry out work, and provide client service. In addition, we strive to reduce energy consumption by conducting such campaigns as turning off lights during off hours and refraining from the use of air-conditioning units and heating devices. We will expand the scope of eco-friendly management to cover branches in addition to headquarters, thereby preventing potential environmental risks and fulfilling our environmental responsibilities.

Management of Water, Resources and Waste

Mirae Asset Daewoo has a system in place for using greywater and rainwater. Clean water that is used once and rainwater is purified to be reused for bathrooms and landscaping, and thus saving water. There is a sewage treatment facility inside the Mirae Asset CENTER 1 Building that handles internal purification to minimize our negative impact on the environment. In addition, we are refraining from unnecessary printing and using an electronic reporting system to reduce paper use. Given the nature of the financial industry, all the waste discharged is domestic waste, which is treated by an outsourced company. Wastewater is batch treated at a sewage treatment plant of the Seoul Metropolitan Government, and we also strive to minimize our environmental impact through thorough separation of garbage disposal and recycling.



GOVERNANCE

62

Corporate Governance

66

Ethical Management

70

Risk Management

73

Information Protection



MIRAE ASSET

Corporate Governance

We believe it is essential for the corporate governance to be transparent and independent in order to oversee the development and execution of our robust governance practices and procedures to facilitate our growth of all stakeholders as well as our company.



Roles and Status of BOD

Mirae Asset Daewoo has built a sound and transparent corporate governance structure, in order to promote long-term growth and protect the interest of shareholders, financial consumers, and other stakeholders. In addition, we are making continuous efforts to improve transparency in management and build a robust framework for responsible business management. The BOD consists of seven directors – three executive directors and four independent directors. We maintain the independence of the BOD from management by composing a majority of directors with qualified independent directors.

Appointment and Expertise of Directors

In constituting our Board of Directors, Mirae Asset Daewoo takes diversity into consideration, such as race, gender, religion, birthplace, and nationality in accordance with our Internal Corporate Governance rules. In terms of expertise, we eliminate biases, such as having a specific background or certain job positions to ensure the Board can represent directors with experiences and knowledge in various areas. As of April 2020, the BOD consists of three experts in financial investment, one in economics and business administration, two in financial accounting, and one in new growth industry.

Board of Directors

* As of April 30th, 2020

Classification	Name	Gender	Expertise	Key profile	Tenure
Executive directors	Hyun Man Choi	Male	Financial investment Economics and business administration	<ul style="list-style-type: none"> Executive Vice Chairman & CEO, Mirae Asset Life Insurance Currently Executive Vice Chairman & CEO, Mirae Asset Daewoo 	15 years 11 months
	UngKee Cho	Male	Financial investment Economics and business administration	<ul style="list-style-type: none"> President & CEO, Mirae Asset Securities Currently Vice Chairman & CEO, Mirae Asset Daewoo 	8 years 11 months
	Sang Tae Kim	Male	Financial investment	<ul style="list-style-type: none"> Head of IB Division1, Vice President, Mirae Asset Daewoo Currently Head of IB Unit, President, Mirae Asset Daewoo 	2 years 1 month
Independent directors	Sung Il Cho (Chairman of BOD)	Male	Economics and business administration	<ul style="list-style-type: none"> President and Professor of Graduate School of International Studies, Chung Ang University Administration Currently Honorary Professor of Graduate School of International Studies, Chung Ang University 	11 months
	Yong Sun Jung	Male	Financial accounting	<ul style="list-style-type: none"> President & CEO, Koramco REITs & Trust Currently Advisor of Korea Association of Real Estate Investment Trusts and HW Consulting 	11 months
	Seong Kon Kim	Male	New growth industry	<ul style="list-style-type: none"> Research Specialist of Merck Currently Chief of New Drugs Research & Development Center, Chong Kun Dang 	1 month
	Gemma Lee	Female	Financial accounting	<ul style="list-style-type: none"> Assistant Professor of Department of Finance, Business School of Seton Hall University in the U.S. Currently Associate Professor of College of International Studies, Kyunghee University 	1 month

Independent Director Appointment Process



Operation of BOD

The BOD and committees under the Board are Mirae Asset Daewoo's key decision-making entities and are faithfully performing their roles and responsibilities. Committee for Recommendation of Candidates for Executive Officers, Audit Committee, Risk Management Committee, and Compensation Committee are in place in accordance with Article 16 Section 1 of Act on Corporate Governance of Financial Institution. Each committee holds a majority of its directors as independent directors (2/3 for the Audit Committee) and one of the independent directors serves as a Chair of the committee.

In 2019, a total of 20 board meetings were held, with an attendance rate of 100%, and handled a total of 93 agenda for resolution and reports to discuss on major business-related matters such as business planning, budgeting, settling accounts, gathering of annual general meeting (AGM), acquisition of major assets, and investments. Meeting agenda was distributed prior to the meetings, allowing the directors to review items in advance and if necessary, obtain details from working-level staff to enhance their understanding of the issues at hand. As such, directors from various professional backgrounds have actively taken part in the BOD meetings. Each director faithfully performed their role of providing advisory, checks, and supervision to ensure the company's growth and protect the rights of shareholders and financial consumers as well as fully understanding the corporate's ethical obligations and social responsibilities to reflect those in their decision-making activities.

Audit Committee

The Audit Committee supervises the legitimacy and propriety of the management's actions to help the management make rational management decisions. Comprised of three independent directors qualified in terms of independence, the Committee members have professional backgrounds in economics and business administration, financial supervisory and accounting, and finance. There are grounds to leverage advisory from external experts, if necessary. To reinforce independence and fairness, the Committee members are appointed and dismissed by an AGM, and they execute duties with independence from the BOD or execution bodies. Resolutions made by the Audit Committee cannot be objected by the BOD.

Committees under the BOD

Classification	Roles & Responsibilities	Composition	Number of meetings held in 2019 (Handled agenda)
Committee for Recommendation of Candidates for Executive Officers	<ul style="list-style-type: none"> Recommend candidates for independent directors, members of the Audit Committee, and CEO 	Executive director: 1 Independent directors: 3	2 times (5 agenda)
Audit Committee	<ul style="list-style-type: none"> Build propriety of the overall internal control system Establish and execute internal audit plans to evaluate and improve the company's business performance 	Independent directors: 3	12 times (23 agenda)
Risk Management Committee	<ul style="list-style-type: none"> Supervise comprehensively and create a controlled environment to enable efficient risk management, and build internal control framework Build integrated risk management policies, and control and be responsible for supervising 	Executive director: 1 Independent directors: 2	9 times (17 agenda)
Compensation Committee	<ul style="list-style-type: none"> Determine compensation amount and payment method Develop and disclose an annual report on compensation payment 	Independent directors: 3	3 times (3 agenda)
Steering Committee	<ul style="list-style-type: none"> Deliberate and vote on matters delegated by the BOD, including overall corporate affairs and related matters 	Executive directors: 3	5 times (5 agenda)

Independence and Diversity of BOD

Mirae Asset Daewoo adheres to the principle of appointing independent and professional independent directors to build a transparent corporate governance system. We therefore select candidates who are qualified by the following criteria.

- I. Person with sufficient job experience or professional expertise in such fields as finance, economy, business management, accounting and law, required to perform duties as the company's independent director or audit committee member
- II. Person capable of performing duties without being restricted by certain interests for the interests of all shareholders or financial consumers as the company's independent director or audit committee member
- III. Person with appropriate sense of ethics and responsibility to perform duties as the company's independent director or audit committee member

In addition, we are building a flexible and efficient corporate governance system through a strategic decision-making to review candidates from various fields.

- I. Build a flexible corporate governance system by appointing a person with relevant experience with business management, law, administration and other fields that may comprehensively contribute to the business, despite lack of direct relevance in the financial and securities industries
- II. Constitute the BOD by appointing experts with a proper level of experience and knowledge from diverse areas to fulfill directors' duties; and eliminate biases, such as having a specific common background or representing the interest of certain job positions and groups
- III. Build a dedicated team that consistently provides training and business support to independent directors to support expertise in financial industry, and hold regular and irregular meetings to encourage and complement individual expertise

Criteria for Determining Independency of Independent Directors (Disqualification of Independence, Article 382 of the Commercial Act)

- 01 Directors, executive directors and employees who are engaged in the regular business of the relevant company; or directors, auditors, executive directors and employees who have engaged in the regular business of the relevant company within the latest two years

- 02 The largest shareholder, his or her spouse, lineal ascendants and lineal descendants

- 03 Directors, auditors, executive directors and employees of the corporation, in cases where the largest shareholder is a corporation

- 04 Spouse, lineal ascendants and lineal descendants of directors, auditors and executive directors

- 05 Directors, auditors, executive directors and employees of a parent company or a subsidiary company of the relevant company

- 06 Directors, auditors, executive directors and employees of a corporation which has a significant interest in the relevant company, such as business transactional relationship

- 07 Directors, auditors, executive directors and employees of another company where directors, executive directors and employees of the relevant company serve as directors and executive directors

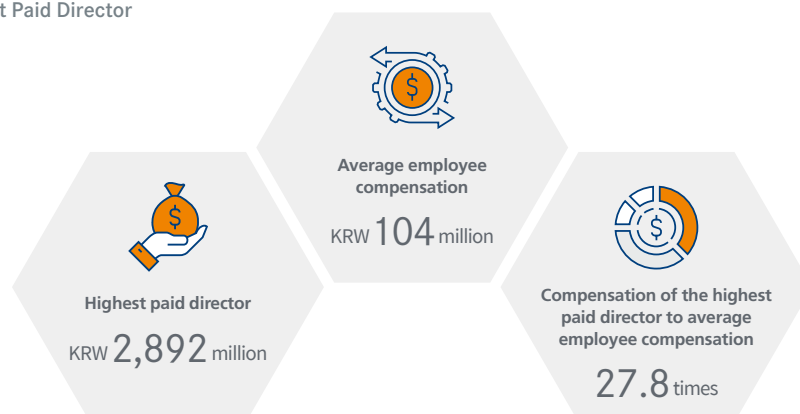
Preventing Conflict of Interest

Directors who wish to leverage business opportunities that benefit or may benefit the company's interests are required to obtain prior approval. Activities related to conflict of interest are managed and monitored as stipulated in the Article 397 and 398 of the Commercial Act. Accordingly, the 9th, 10th, 19th board meetings held in FY2019 deliberated on the fairness of transactions and unanimously voted on the "Comprehensive Approval of the Transactions with Key Shareholders". The Fair Trade Act mandates prior approval from the BOD if affiliates or conglomerates banned from doing cross-investment among affiliates engage in transactions exceeding KRW 5 billion or 5% of the larger between total equity capital and paid-in capital with affiliated persons. We have therefore obtained approval from the 1st, 4th, 5th, 7th, 9th, 10th, 12th, 13th, 14th, 16th, 17th, 19th and 20th board meetings held in FY2019 on large-scale internal transactions of affiliates in accordance with the Fair Trade Act.

Evaluation and Compensation of BOD

Mirae Asset Daewoo reviews the composition and operation of the BOD and its internal committees more than once a year, prior to an AGM. A comprehensive evaluation is carried out, assessing whether the BOD members have adequately performed their roles to contribute to the interests of internal and external stakeholders, as well as their expertise, understanding of work duties, ethical and social responsibilities and demonstrated fairness in conflict of interests. This is initiated by the BOD, but specific duties are commissioned and independently performed by supporting divisions. In addition, the Compensation Committee has set in place under the BOD to build and run a fair compensation framework. The Committee is responsible for reviewing whether the compensation framework for the management level and specific positions are reasonably developed against risk structure, and monitors the correlation among compensation framework, financial status, and risk management on ad hoc basis. The Committee also conducts an independent assessment to monitor whether governance best practices of a financial company are adequately complied with, thereby strengthening the objectivity of evaluation.

Employee Compensation against Highest Paid Director



Compensation of Directors

(Unit: KRW million)

Classification	Headcount ¹⁾ (Persons)	Total amount paid ²⁾	Per capita
Executive Director	3	5,045	1,682
Independent Director	1	53	53
Audit Committee Member	3	181	60

1) Number of registered directors as of December 31st, 2019

2) Total compensation amount paid to directors of the BOD during 2019

Ethical Management



We strive to carry out high ethical standards and effective policies and practices in order to achieve “Clients First” core value.

Ethical Management System

Rules of Ethics on Sales Practices

Mirae Asset Daewoo upholds ethical management as the first and foremost priority of the financial industry and pursues ethical practices to take a firm root in employees’ business activities through the Code of Ethics. In 2018, we established the Rules of Ethics on Sales Practices to prevent illegal practices and financial incidents that may arise in the course of the company’s sales activities and to further enhance the rights and benefits of investors. The Rules of Ethics stipulate fair and accurate business processes and prevention of financial incidents, establishment of a system to prevent conflicts of interest, building a process to provide accurate information, efficient handling of complaints, and protection of investor information. Various efforts are underway to spread the Code of Conduct, that was newly enacted at the end of 2017 to practice ethical management, through internal communication and employee training.

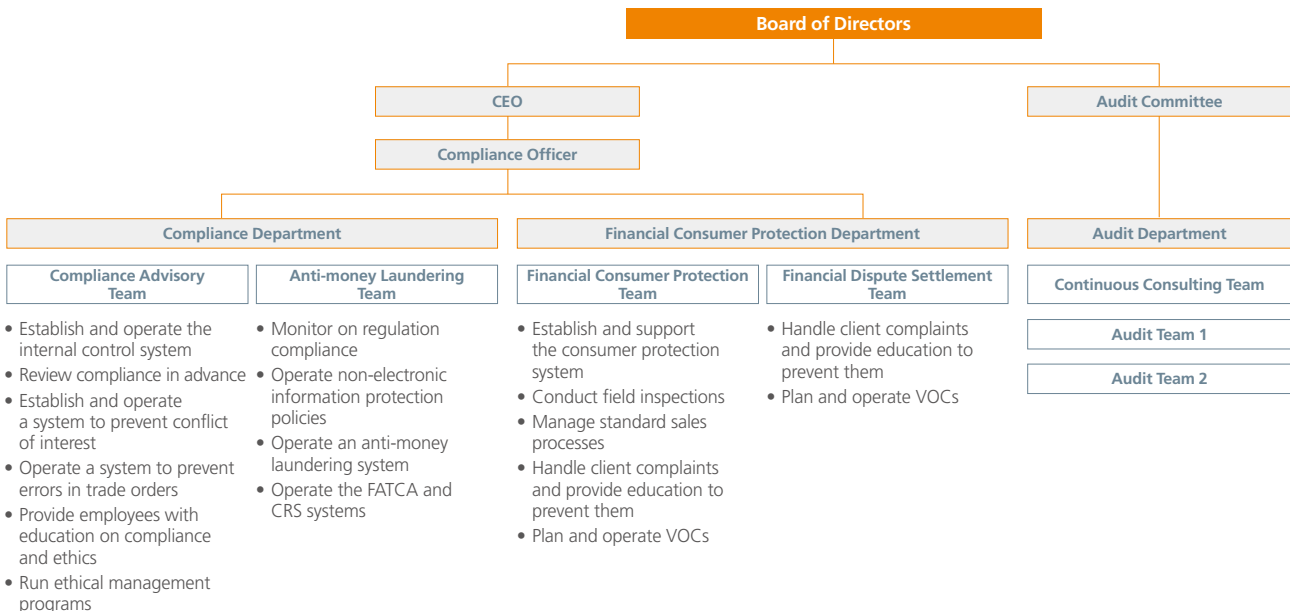
Policies and Regulations on Ethical Management

Code of Ethics	Code of Conduct	Rules of Ethics on Sales Practices
We have overhauled our Code of Ethics to emphasize our ethical responsibilities and obligations we hold for our clients, shareholders and investors, employees and the company, as well as the nation and society as a socially responsible corporation.	We have newly enacted the Code of Conduct to present detailed guidelines to practice ethical management, such as fair execution of job duties, prohibition on obtaining unfair benefits, and fostering a healthy corporate culture.	We have established the Rules of Ethics on Sales Practices to stipulate the company’s internal rules and regulations on such matters as fair and accurate work execution, prevention of financial incidents, establishment of a system to prevent conflicts of interest, building of a faithful information provisioning process, efficient handling of complaints, and protection of investor information.

Organization for Ethical Management

Mirae Asset Daewoo has appointed a Compliance Officer to independently supervise corporate-wide ethics and compliance. In December 2019, the Financial Consumer Protection Department was newly established, independent from the Compliance Department, and the head of the Department was appointed as Chief Consumer Officer (CCO) to reinforce our system to protect financial consumers. The Compliance Department is in charge of managing rules on ethics and compliance, policies and conformity with procedures in a systematic manner while the Financial Consumer Protection Department is in charge of establishing and operating the company’s financial consumer protection system.

Ethical Management Organization



Culture of Ethics and Compliance

Mirae Asset Daewoo strives to enhance the value of employees' integrity and spread a culture of ethics and compliance through continuous training and self-assessment. In 2020, we will make utmost efforts to practice ethics compliance that goes beyond legal compliance.

Ethics and Compliance Day

We have designated the first Wednesday of each month as "Ethics and Compliance Day", in order to prevent financial incidents and foster a compliance culture, and are providing related trainings. It is intended to ensure the entire workforce is aware of changing policies and compliance issues that require particular attention to recognize the importance of establishing a culture of ethics and compliance, and to reaffirm their will to comply ethics principles and rules.

Online Compliance Training

We provide online training to all employees in order to establish a culture of ethics. Each year, we run an online training program on basic obligations for employees, and a total of 3,981 employees completed the course in 2019. In 2020, we plan to enrich contents of ethics and compliance training programs that were newly adopted in 2019, such as the signing of the pledge to ensure ethical contract, social media guidelines, and procedure of reporting outside-company activities through electronic communications medium. In addition, we will provide online compliance trainings to all employees as well as visiting trainings to sales offices.

Activities to Spread a Culture of Ethics and Compliance

Ethics and compliance training



- Provide trainings on the company's ethics and compliance system, basic obligations for employees, hands-on compliance monitoring, and ethics and compliance issues
- Visiting training to sales offices on ethics and compliance; collective training for compliance managers; collective training on ethics and compliance for major sales activities, such as WM, IB, trading, sales & trading, and Research; and training on unfair transactions at the headquarters and branches

Review of the fairness on affiliates' transaction for products and services



- Conduct evaluation whether any transactions between affiliates are made in a fair manner in order to eliminate unfair transactions in products and services
- Prevent discriminatory actions between affiliated companies and non-affiliated companies by reviewing whether fair transaction conditions are met, whether business opportunities were provided for affiliated companies, and reasonable comparison of transaction conditions

Written oath on ethical management practice



- Each year, the entire workforce at Mirae Asset Daewoo shall submit a written oath to practice ethical management which stipulates that employees ought to "conduct fair and transparent ethical management to contribute to enhancing the corporate value and developing a healthy financial industry and to fulfill corporate social responsibilities"
- New hires and newly appointed independent directors are required to submit the oath, in a bid to promote the ethics and compliance mindset across the entire workforce

Self-assessment on ethics and compliance



- The entire workforce is required to conduct self-assessment on their ethics and compliance practice on a regular basis, in order to establish a culture of ethics and compliance culture
- Evaluate whether such ethical behavior criteria are met as the fair execution of duties and ban on receipt of unlawful goods and gifts
- A monthly "Ethics and Compliance Day" is designated so that departments and branches meet to share and discuss key issues on ethics and compliance

Pledge to ensure ethical contract (Jul. 1st, 2019)



- Enact and execute standards for ethical contract under which submitting the pledge to ethical implementation of contract is mandatory to ensure fair business transaction when signing purchase agreement of products and services with external stakeholders
- A total of 111 contracts for procurement of products and services were concluded (July. 1st – Dec. 31st, 2019)

Social media guidelines (Nov. 15th, 2019)



- Set up ethical guidelines that the entire workforce should abide by as a responsible and trusted financial professional with regards to the use of diverse social media, a new way of communication
- Employees should use social media with 1) dignity, 2) in actions of responsibility, and 3) in ways that can protect our clients and the company

Procedure of reporting outside-company activities through electronic communications medium (Aug. 26th, 2019)



- Add precautionary notes to protect investors when broadcasting online and uploading videos on such channels as YouTube
- Add "mandatory information" for each product and acquire prior approval from the Compliance Department when advertising investment products

Ethics and Compliance Reporting

Mirae Asset Daewoo manages internal matters of ethics and compliance violations through a system to protect the whistleblower’s anonymity. Diverse ethics and compliance reporting channels have been established, including company intranet, telephone and emails through which an employee’s ethics violation and compliance failure can be reported. Any kind of disadvantageous treatment and discrimination in the form of working condition against whistleblowers is strictly banned in accordance with the company’s internal control standards and rules of operation. In addition, whistleblowers are entitled to an incentive program to encourage employees’ participation, thereby creating a culture of ethics which is trusted across the company.

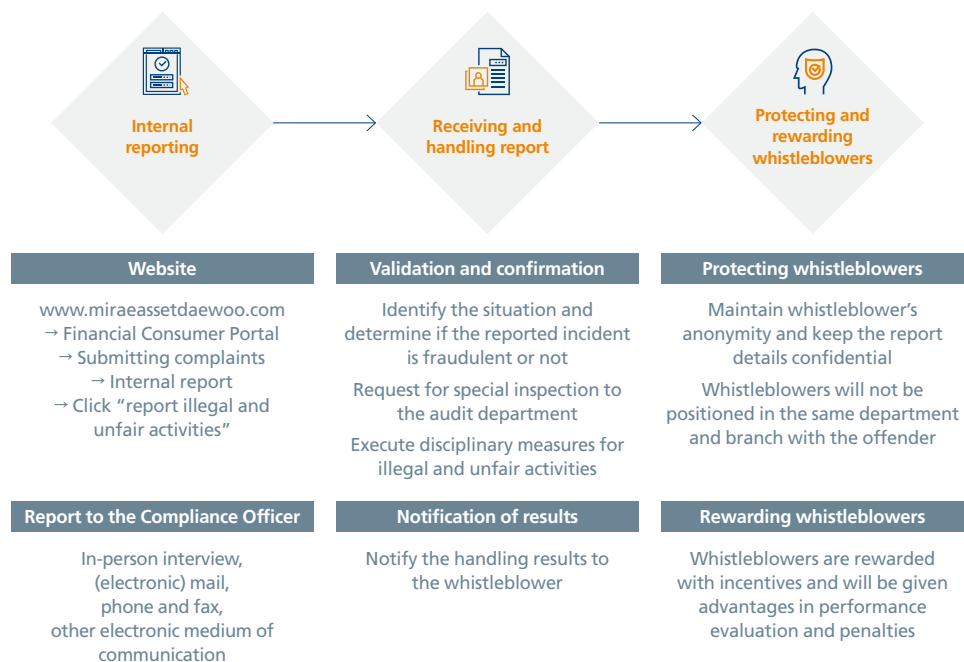
Financial Incidents Report

We operate various channels, such as the Voice of Customer (VOC) system at our Customer Center, the Financial Dispute Settlement Team, and the complaints section on our website, in order to ensure safe financial transactions for our customers. In addition, the Compliance Department operates the internal reporting system. Through these methods, we are striving to prevent financial incidents and to contribute to eradicating corruption. The internal reporting system has several measures in place such as protecting whistleblowers, reducing their liability, and offering rewards.

Ethics and Compliance Reporting and Handling Status

Classification	2019	Note
No. of reports	2	2 unethical behaviors
No. of effective reports	0	Dismissal
No. of disciplinary actions	0	None of the reports were identified to be of non-compliance and illegal nature

Ethics and Compliance Reporting Process



Internal Control System

We have established a corporate-wide internal control system in order to manage the ethical and compliance process, as part of our endeavor to create value of fairness and transparency. Employees are banned from engaging in political activities during business hours, and all company premises are diagnosed for exposure to corruption to further grow the company into one that fulfills its ethical responsibilities.

Internal Control Committee

Following the legislation of the Act on Corporate Governance of Financial Institution in 2017, Mirae Asset Daewoo convenes Internal Control Committee meetings in a semi-annual basis. The CEO presides over the Internal Control Committee meetings to discuss matters pertaining to internal control assessment results and response measures for key internal control issues.

The Committee consists of eight members including the CEO who is also the Chairman of the Committee, Compliance Officer, and heads of core business units. The roles and responsibilities of the Committee include sharing the internal control assessment results; review of improvement plans which reflect employee evaluation; overhauling and planning to respond to internal control vulnerabilities such as financial incidents; deliberation on key matters related to internal control; and reviewing ideas to enhance our employees' sense of ethics and compliance.

Achievement and Plan for the Internal Control System

Achievement in 2019	
Strengthened compliance consulting functions, eliminated regulations on sales activities, upgraded the internal control system	<ul style="list-style-type: none"> Reviewed mandatory vacations (total 26 employees including 17 from WM branches, 9 in HQ) to prevent financial incidents Conducted ethics and compliance trainings via multiple channels to foster a culture of ethics and compliance Upgraded the internal control system (set up the internal control processes regarding the stake ownership disclosure, called "5% rule") Took disciplinary actions on internal control violations (22 cases classified as attention by Compliance Officer, 10 cases as caution, and six cases were referred to the Audit Department)
Strengthened the system to protect financial consumers	<ul style="list-style-type: none"> Developed monitoring of investment advertisements made through text messages in advance and online Happy Call system Conducted on-site inspection of the sales process for financial products (80 branches in total) and strengthened KPI evaluation Improved client communications through the One Company, One School financial education program and client panel Strengthened communication to reconcile with customers to prevent civil appeals (appeals canceled by 36%)
Plan for 2020	
Establish and operate an internal control system to respond to strengthened regulations and meet international standards	<ul style="list-style-type: none"> Conduct on-site inspection and trainings for the entire WM branches and expand mandatory vacations Review new duties in advance and enhance expertise and strengthen preventive functions through systemization Set up global standard for anti-money laundering practices
Respond to policies aimed at protecting financial consumers	<ul style="list-style-type: none"> Overhaul internal business procedures related to enactment and revision of rules and regulations and newly established policies for the purpose of protecting financial consumers Strengthen training and inspections on product selling protocol for the entire workforce

Ethical Management for Partner Companies

Ethics Training for Partner Companies

Mirae Asset Daewoo provides ethics trainings to employees of its partner companies in order to foster ethical practices within the supply chain. In particular, we include an agreement to have the partner company conduct personal information protection training more than once a year in signing a consignment contract.

Support for Developing Partner Companies' Code of Ethics

We have announced details of our Code of Ethics to help partner companies better understand our Code of Ethics in our website. Upon request, we are providing our policies and standards on ethical management to them for reference purpose. In addition, we have stipulated an article in the Code of Ethics to "ban receiving entertainment, gift, or monetary goods from stakeholders outside the company" to prohibit our employees from receiving any undue gifts, entertainment, and monetary goods from external stakeholders with regards to business. Furthermore, when it comes to a partner company, a clause for contracting with integrity is mandated into the partner agreement to ensure all business practices, such as bidding, contracts, and execution of contracts, shall abide by procedures set forth by relevant company regulations and be made in a fair and transparent manner and our employees shall not exploit one's superior position to solicit money and goods, coerce unfair transaction conditions, and make unlawful demands and transactions that intervene with partner company's business execution.

Risk Management

Robust risk management is becoming more important within this disruptive paradigm shift due to digitalization and we will endeavor to prevent the potential risks through our rich experience.

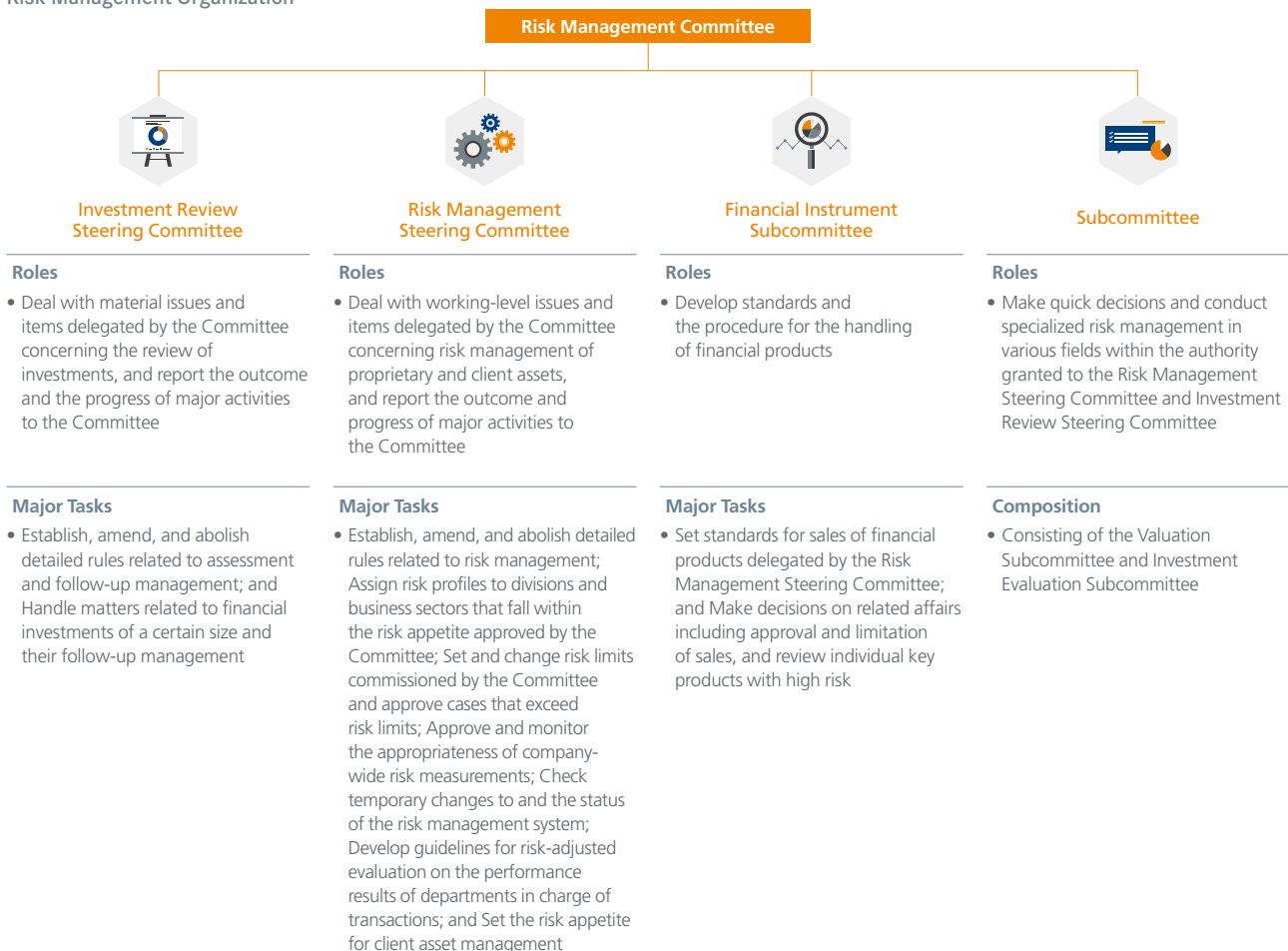


Risk Management System

Risk Management Governance

Mirae Asset Daewoo has set the Risk Management Committee in place under the Board of Directors. The Committee, consisting of more than three directors of which a majority should be independent directors, is the prime decision-making entity on the company's risks and is in charge of formulating a risk management strategy in line with the company's management strategy and supervising whether risk management operations are properly carried out. Major matters deliberated and decided by the Committee include establishing a basic risk management direction and strategies and inspecting implemented matters; establishing, amending, and abolishing general regulations related to risk management; setting the company's risk-adjusted capital and minimum line of asset soundness; establishing the company-wide risk appetite and loss limits and approving excess limits; approving and monitoring stress tests; and handling other significant issues related to the company's risk management system. The Committee members are appointed and dismissed by the BOD, with one independent director chairing the Committee. In addition, we have established two steering committees – the Investment Review Steering Committee and the Risk Management Steering Committee – in order to assist the effective operation of the Risk Management Committee. We have also established the Subcommittee to make quick decisions and conduct specialized risk management in various fields within the authority granted to the Risk Management Steering Committee and the Investment Review Steering Committee.

Risk Management Organization



Financial Instrument Subcommittee Mirae Asset Daewoo has established the Financial Instrument Subcommittee under the Risk Management Steering Committee in accordance with Article 23 of our Risk Management Policy in order to make quick and professional decisions, such as approval and limitation of sales of financial products to customers, and development of standards for sales. In 2020, the subcommittee plans to revise the standards and approval process of handling investment products. The revision, in essence, is about expanding the scope of investors that are subject to risk assessment and strengthen the risk management standards by products. It is in this regards that we will further classify corporate professional investors into institutional investors and other corporate professional investors so that sales to the latter will be subject to risk assessment and reinforce our internal evaluation criteria by putting in place stricter credit rating standards and clarifying the definition of basic asset.

Risk Management System

Integrated Risk Management System Mirae Asset Daewoo has established an integrated risk management system to meet “Minimum Requirements for Risk Management at Securities Firms” recommended by the financial supervisory authorities, and to strengthen the total risk management system. By doing so, we have built a foundation for calculating total capital at risk, managing risk, the risk adjusted performance measurement (RAPM) and stress test.

Integrated Crisis Management System In response to increasing global market volatility, Mirae Asset Daewoo has established an integrated crisis management system for preemptive and timely response to crisis situations. We have classified crisis situations into three categories – attention, caution, and emergency – based on “financial market stability indicators” and “internal soundness indicators”, and set detailed execution plans for each level, in order to thoroughly prepare ourselves against all crisis situations. In addition, we have ensured regular and practical monitoring by diversifying monitoring of domestic and foreign markets and selecting specific risk indicators that reflect the characteristics of each team and product, and reported monitoring results to the management.

To prevent risks that are caused by IT system failures as well as risks arising from natural disasters, such as fire, floods and earthquakes, we have developed and are operating a business continuity plan (BCP) at the company level. We also have created an emergency manual to ensure continuity and stability of business operations by providing seamless business services in case of any other system failures.

Risk Management Framework

Mirae Asset Daewoo has categorized risks to be managed into market risk, credit risk, liquidity risk, and operational risk in order to ensure systematic management of risks we face. In addition, management system and guidelines are established that are appropriate for the characteristics of each risk to execute appropriate recognition, analysis, evaluation, and control of risks.

Market Risk

- We use standardized methods set in the Financial Investment Industry Regulations to measure market risks.
- We calculate internal model Value at Risk (VaR) by adopting a market risk-measuring system using SAS.

Credit Risk

- We set acceptable exposure limits by counterparty type or credit rating. We also maintain an appropriate level of capital adequacy by controlling credit VaR limits based on standard models.
- We identify and closely manage counterparties in the high risk category through regular monitoring of credit risk status.

Liquidity Risk

- We use liquidity gaps and ratios as key indicators to measure liquidity risks. Also, departments related to risk management or funds regularly monitor risks and report them to senior management.
- In addition to general liquidity risk management, we formulate contingency plans to deal with any liquidity crises that may arise. We classify crisis situations into three levels – attention, caution, and emergency – depending on the condition of the company's liquidity and the level of stability in financial markets. Specific action plans are established for each level to prepare for crisis situations.

Operational Risk

- We manage and control operational risks through risk & control self assessment (RCSA), key risk indicator (KRI) management, loss data management, establishment of countermeasures, and calculation of operational VaR based on internal models.
- Regular RCSAs are carried out to gauge the level of risks of concern each department faces. If an indication of risk is found, countermeasures are established to control it preemptively.

Potential Risks

Mirae Asset Daewoo analyzes social and environmental changes on a regular basis, based on which we establish and execute measures that allow us to effectively respond to long-term risk factors that influence our overall business.

Potential Risk	Digital inequalities with the demographic change	Increasing cybercrimes with the growth of digital technology
<p>Business and Social Environment</p> 	<ul style="list-style-type: none"> • According to the Statistics Korea, the senior population aged over 65 accounts for 15.7% of the total population, and Korea is estimated to be the country with the largest senior demographics by 2045. Changing demographics is emerging as a major issue recently. Against this backdrop, the so-called “digital financial era” is coming where financial products, channels, and services are no longer confined to existing channels, coupled with rapid digital innovation. • According to the financial investment industry, merely 6% of those in their 70s is using mobile banking, indicating the significant low digital financial accessibility of the senior group. This situation calls for the corporate social responsibility to improve financial accessibility of those with relatively lower level of understanding and information on digitalization. 	<ul style="list-style-type: none"> • In 2019, the number of cybercrimes in Korea was up by over 20% to reach 180,000 cases with particularly high increase in the financial sector with 87.5% year-over-year increase. In addition, the cyber criminals are adopting increasingly sophisticated skills such as hacking personal information, ransomware and malware through malicious emails, and information leakage risk in the bio-authentication. Such environment calls for a thorough risk management and monitoring to escalate the corporate’s response capabilities against cybercrimes and ensure financial security. • A financial authority is responding to financial incidents through financial consumer protection policy.
<p>Impacts from Risk</p> 	<ul style="list-style-type: none"> • Despite rapid digitalization of financial services offered by financial institutions, customers are showing varying degree of adaptability in the digital environment. • With the aging society expected to increase the number of those digitally-marginalized, if we fail to provide them with easily-accessible financial environments, there is possible risk of reducing our client base. 	<ul style="list-style-type: none"> • As the pace of digitalization in the financial industry is accelerating, such risks as hacking and information leakage may also rise, as well as the risk of damaging a company’s reputation if it fails to counter such risks properly. • Data breaches in financial services will increase financial risks of the company as it may face penalties and/or liability.
<p>Countermeasures</p> 	<ul style="list-style-type: none"> • Provide trainings to those financially vulnerable including seniors on the use of finance platforms for financial services • Seek measures to increase user convenience in financial services by improving UI and UX to minimize inconvenience that client may face when accessing financial services in different conditions and environments 	<ul style="list-style-type: none"> • Strengthen information protection activities by advancing measures to prevent hacking and intrusion, establishing an intelligent data leakage prevention system, and developing proactive security governance • Revamp related policies, rules and systems to ensure the protection of financial consumers’ rights and interests
<p>Future Plans</p> 	<ul style="list-style-type: none"> • Provide various services to help different generations and classes easily adapt to sophisticated digital environment such as hands-on IT technology workshop for seniors, materials and videos for financial education 	<ul style="list-style-type: none"> • Establish a security system to enable flexible response to emerging security threats and risks on the foundation of sustainable financial innovation

Information Protection

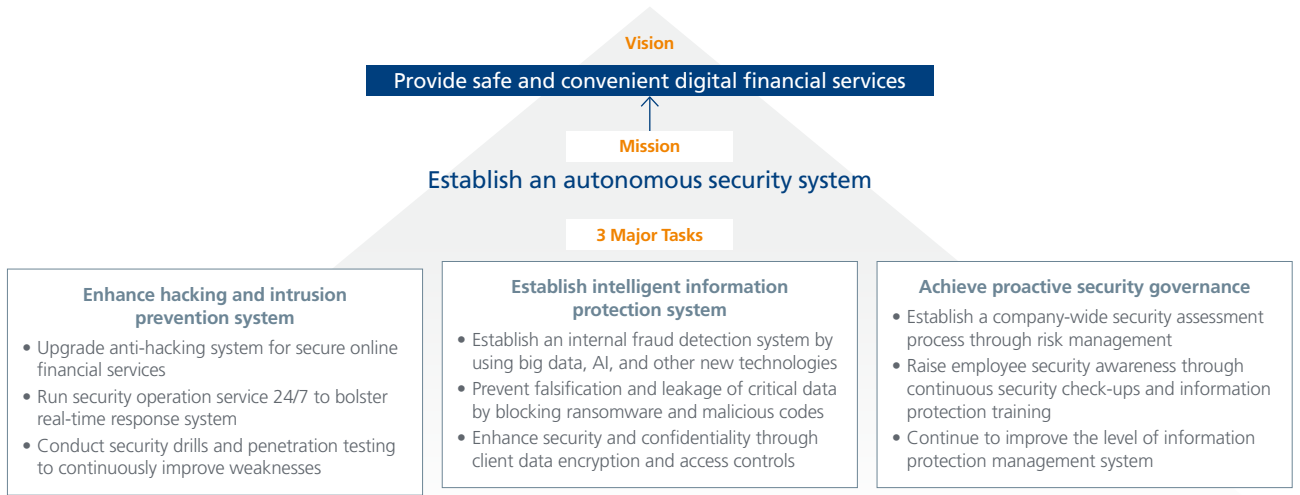
We strive to oversee cybersecurity in order to maintain customers' trust and protect their security information in the world of disruptive improvement of digital finance.



Information Protection Strategy and System

Information Protection Strategy

As an endeavor to deliver digital financial services in a secure and convenient manner, Mirae Asset Daewoo has established information protection strategy and is carrying out information protection activities based on three key major tasks.



Information Protection System

Information Protection Committee Mirae Asset Daewoo is establishing systematic governance to strengthen information protection, and is also operating the Information Protection Committee chaired by the CISO. Three committee meetings were convened in 2019, and the results of the committee's operations are reported to executive management.

Roles	Major tasks
Deliberate and resolve matters critical to information protection and report the Committee activities to the CEO	<ul style="list-style-type: none"> Formulate strategies and plans to ensure security in financial transactions and protect financial consumers Confirm vulnerability analysis and evaluation on online financial infrastructure and action plans for improvement measures Deliberate and resolve disciplinary measures for those involved in IT security breaches and related regulation violations

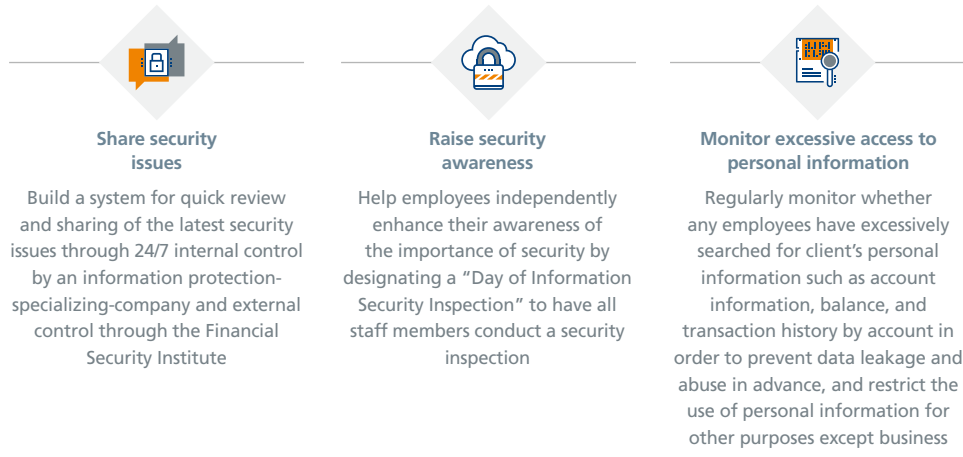
Strengthening information protection infrastructure Client's personal information is more than a means to identify a client in that it is a part of client assets that companies should protect with a sense of responsibility. To strengthen the safety of client information protection, we received ISO 27001 certification, which is an international information protection management system standard, and Information Security Management System (ISMS) certification, which is a domestic certification system. In addition, we strive to protect information and prevent privacy violation through such measures as encryption of key data of clients in accordance with the Personal Information Protection Act. Data protection professionals are conducting security monitoring activities 24/7 to enable prompt response in case security breaches occur.

Strengthening planning and strategic operation on information protection Mira Asset Daewoo is making continuous efforts to strengthen the planning and strategic operation of information protection in a bid to establish a company-wide security governance and an organizational security risk management system. We also have clearly defined the roles and responsibilities for information protection to create a virtuous cycle of protecting information while rolling out diverse internal and external activities aimed at solidifying our information protection management system and spreading the culture of security. A number of preparatory activities are enhanced such as security reviews, mock-up hackings, and vulnerability checks to minimize security risks while R&D activities are carried out in various areas to better respond to newly emerging technologies.

Spreading a Culture of Information Protection

Activities to Spread Information Protection Culture

Mirae Asset Daewoo is carrying out diverse activities to spread the culture of information protection across the company such as information protection and prevention of data leakage.



Information Protection Training

Mirae Asset Daewoo conducts online and offline information protection trainings that are customized by participants that consist of the entire workforce, including IT staff and staff in charge of information protection, as well as employees of partner companies. We also offer optimized security trainings that are above the level required by supervisory agencies. In particular, by having IT developers with relatively high security risks attend offline trainings delivered by 3rd party education agencies specializing in information protection, we are making continuous efforts to help our employees increase their awareness and understanding on information protection.

Activities to Manage Stakeholder Information

<p>Mirae Asset Daewoo</p>	<ul style="list-style-type: none"> • Operate prevention measures against DDOS attacks and intrusion detection systems to safeguard our internal IT system against intrusion and hacking attacks, and adopt a high level of data encryption to prevent data leakage • Strengthen countermeasures against external hacking and internal information leakage incidents by separating the entire work network of the IT Center, headquarters, and branches from the Internet network • Establish a data loss prevention (DLP) system to prevent external breaches of any document containing personal information, and encrypt documents automatically through digital rights management (DRM) in order to block external viewing of information in case of document leakage • Categorize trainees into general staff, IT staff, information protection managers, executives, and partner companies, and conduct information protection training that is adequate for each group • Make an annual contract with an information protection specialist for security consulting, and improve the level of information protection on a regular basis • Obtain and maintain both international standard (ISO 27001) and domestic standard (ISMS) for information protection and management system as part of our continued endeavor for data protection • Operate an anti-APT system to block malicious attacks, such as ransomware, and to prevent subsequent Internal information leakage • Implement more stringent authority management schemes on personal computers to control installation and implementation of unauthorized programs which may contain malicious codes • Continuously monitor security incident status to perform preventive activities against abnormal symptoms and behavior • Analyze various events within the company to detect security risks imposed by employees before they arise, and operate an anomaly-based intrusion detection system to identify security anomalies based on risk level
<p>Clients</p>	<ul style="list-style-type: none"> • Detect and analyze client's login information in real time by establishing the fraud detection system (FDS) for e-financial transactions. Establish a system to contact clients immediately if deemed fraudulent, identify the situation, and register the incident through an integrated system where internal information protection unit, Client Support Center, and other financial institutions are linked • Inform and publicize precautions against online financial fraud to protect clients' financial assets
<p>Partner Companies</p>	<ul style="list-style-type: none"> • Provide training on information protection for staff as well as major partner company employees to enhance awareness of information protection • Set a guideline for outsourced companies entrusted with personal information, and take actions against companies failing to meet minimum standards for correction or replace them • Expand field check-ups for external resources to minimize risks associated with outsourcing

APPENDIX I

76

Mirae Asset
Financial Group

102

Materiality
Test

111

UNGC &
UN SDGs

78

Financial
Performance

104

Stakeholder
Engagement

112

Organization
Chart

98

Social
Performance

105

Verification of GHG
Emissions Data Reports

113

Membership &
Awards

100

Environmental
Performance

106

Independent
Assurance Statement

101

Tax Policy

108

GRI Index



MIRAE ASSET

Mirae Asset Financial Group

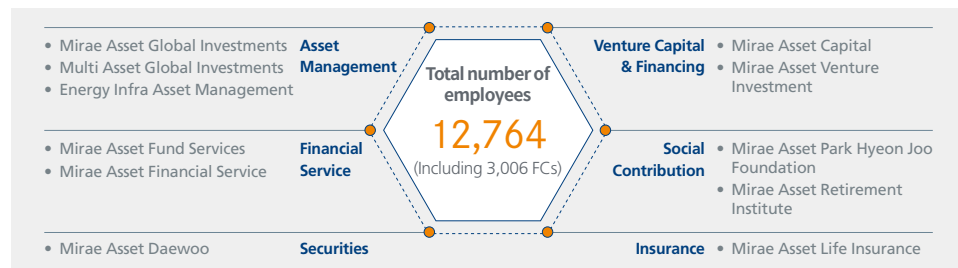
Group Overview

Since its establishment in 1997, Mirae Asset has relentlessly pursued financial innovation including strong entrepreneurship and global business expansion, and has thus grown into a global investment group. We have achieved the paradigm shift from savings to investment, from direct investment to indirect investment, from financial products to asset allocation, while discovering investment opportunities amid disruptive changes and turning them into competitive financial products and services. Our mission is to make contributions to our clients and society through investment. Towards this mission, we strive to manage client asset in a stable manner to ensure a secure retirement, while creating social values through investment.

Asset Under Management and Equity Capital of the Group

On the strengths of distinctive expertise of subsidiaries, Mirae Asset is managing an asset of KRW 460 trillion as of 2019 year-end, while expanding our presence in the global investment market based on stable capital position of all subsidiaries.

Mirae Asset Financial Group Organization



Business Milestones

Beginning with the establishment of Mirae Asset Venture Capital and Mirae Asset Global Investments in 1997, we have established Mirae Asset Securities in 1999 and Mirae Asset Life Insurance in 2005. In 2011, we acquired two ETF providers of Horizons ETFs in Canada and BetaShares in Australia. With the merger between Mirae Asset Securities and Daewoo Securities in December 2016, an integrated Mirae Asset Daewoo was launched as Korea's largest securities company. In 2018, Mirae Asset Life Insurance acquired the Korean subsidiary of PCA Life Insurance, a UK-based insurer, and settled itself as an insurer specializing in variable insurance and pension. Our global business expansion is underway with the acquisition of Global X ETFs, an ETF provider of the U.S., and Mirae Asset Prevoir Life Insurance in 2018. In 2019, Mirae Asset Venture Investment went public on the Korea Securities Dealers Automated Quotations (KOSDAQ), and Mirae Asset Financial Service and Mirae Asset Mobile were merged. Mirae Asset has established Vina Digital Finance Platform in Vietnam and Global X Japan in Japan as a joint venture. Harvard Business School has chosen Mirae Asset's success story as a case study, and our financial innovation journey was covered by a global academic institution, "The Case Centre" in 2017. In 2019, Mirae Asset Daewoo won the presidential award at the 26th Corporate Innovation Awards.

1990~2006

- 1997**
- 07 Finds Mirae Asset Venture Capital
- 08 Finds Mirae Asset Investment Advisory
- 1998**
- 12 Finds Mirae Asset Global Investments
Launches Park Hyeon Joo Fund #1, Korea's first close-ended mutual fund
- 1999**
- 12 Finds Mirae Asset Securities
- 2000**
- 03 Establishes the Mirae Asset Park Hyeon Joo Foundation
- 2001**
- 02 Launches Korea's first open-ended mutual fund, Mirae Asset Independence Fund
Launches Korea's first wrap account service

- 2003**
- 12 Establishes Mirae Asset Global Investments (HK), Korea's first global investment firm
- 2004**
- 02 Establishes Mirae Asset Investment Education & Research Center
Launches Korea's first installment type equity fund
- 06 Launches Korea's first real estate fund
- 12 Launches Korea's first private equity fund (PEF)
- 2005**
- 02 Launches first overseas investment fund, the Mirae Asset Asia Pacific Star Equity Fund
- 06 Finds Mirae Asset Life Insurance
- 2006**
- 02 Mirae Asset Securities listed on KOSPI
- 05 Becomes first Korean company to invest in mainland Chinese building
- 11 Establishes Mirae Asset Global Investments (India)

2007~2010

- 2007**
- 01 Establishes Mirae Asset Securities (Hong Kong)
- 03 Establishes Mirae Asset Global Investments (UK)
- 07 Opens Mirae Asset Securities (Beijing representative office)
- 12 Establishes Mirae Asset Securities (Vietnam)
- 2008**
- 02 Establishes Mirae Asset YiCai Investment Consulting
- 04 Establishes Mirae Asset Global Investments (USA)
Establishes Mirae Asset Global Investments (Brazil)
- 07 Receives Korea's first Qualified Foreign Institutional Investor License from China Securities Regulatory Commission
Launches Mirae Asset's first offshore fund in Luxembourg
- 08 Establishes Mirae Asset Securities (USA)
- 2010**
- 02 Releases first mobile trading service (MTS) in Korea
- 04 Harvard Business School selects Mirae Asset for case study
Launches Korea's first SICAV fund
- 08 Establishes Mirae Asset Securities (Brazil)
- 09 Launches Mirae Asset Discovery Fund (USA)

Affiliates and Subsidiaries

Mirae Asset is a global investment group consisting of asset management, securities, insurance, venture capital & financing, and other financial businesses. Beginning with the establishment of Hong Kong subsidiary of Mirae Asset Global Investments in 2003, for the past 17 years, we have built a global network of 32 overseas subsidiaries and representative offices in 15 countries as of December 31st, 2019.

Korea	Mirae Asset Global Investments, Mirae Asset Daewoo, Mirae Asset Life Insurance, Multi Asset Global Investments, Mirae Asset Financial Service, Mirae Asset Venture Investment, Mirae Asset Capital, Mirae Asset Consulting, Mirae Asset Fund Services, Energy Infra Asset Management, Mirae Asset Retirement Institute, Mirae Asset Park Hyeon Joo Foundation
Mongolia	Mirae Asset Daewoo
United States	Mirae Asset Global Investments, Mirae Asset Daewoo (L.A.), Mirae Asset Daewoo (New York), Global X
Vietnam	Mirae Asset Global Investments, Mirae Asset Daewoo, Mirae Asset Finance Company, Mirae Asset Prevoir Life Insurance, Mirae Asset Capital Vietnam, Vina Digital Finance Platform
Brazil	Mirae Asset Global Investments, Mirae Asset Daewoo
Singapore	Mirae Asset Daewoo
United Kingdom	Mirae Asset Global Investments, Mirae Asset Daewoo
Japan	Global X
India	Mirae Asset Global Investments, Mirae Asset Daewoo
Indonesia	Mirae Asset Daewoo
China	Mirae Asset Global Investments (Shanghai), Mirae Asset Huachen Fund Management, Mirae Asset Daewoo Beijing Rep. Office
Canada	Horizons ETFs
Colombia	Global X
Australia	Mirae Asset Global Investments, BetaShares
Hong Kong ¹⁾	Mirae Asset Global Investments, Mirae Asset Daewoo

* As of March 2020

1) Hong Kong Special Administrative Region of the People's Republic of China

2011~2016

2011

- 01 Becomes Korea's first directly listed ETF on the HKEX
- 11 Acquires top-tier Canadian ETF, Horizons ETFs

2012

- 03 Mirae Asset Global Investments merges with Mirae Asset MAPS Global Investments
- 07 Establishes Mirae Asset Huachen Fund Management

2013

- 01 Finds Mirae Asset Retirement Institute
- 06 Launches Horizons S&P 500 Covered Call ETF, Horizons' first US-listed ETF

2014

- 04 Finds Mirae Asset Financial Service

2015

- 07 Mirae Asset Life Insurance is listed on KOSPI

2016

- 01 Establishes Mirae Asset Global Investments (Australia)
- 04 Launches Multi Asset Global Investments
- 12 Acquires KDB Daewoo Securities and rebrands as Mirae Asset Daewoo

2017~2019

2017

- 01 Invests in the Gyeongdo Marine Tourism Complex in Yeosu
- 07 Mirae Asset Daewoo signs MOU with NAVER
- 09 The Case Centre publishes case study on Mirae Asset's disruptive innovation
- 09 Finds Mirae Asset Capital Markets (India)
- 12 Invests in development of Pangyo Alpha Dome City

2018

- 02 Finds Mirae Asset Capital Vietnam
- 03 Launches Mirae Asset Life Insurance after merger with PCA Life Insurance
- 03 Finds Mirae Asset Global Investments (Vietnam)
- 05 Launches Mirae Asset Prevoir Life Insurance (Vietnam)
- 07 Acquires Global X, an American ETF management company
- 11 Receives private fund management (PFM) license in China

2019

- 03 Mirae Asset Venture Investment is listed on KOSDAQ
- 07 Mirae Asset Financial Service merges with Mirae Asset Mobile
- 07 Establishes Vina Digital Finance Platform (Vietnam)
- 09 Establishes Global X Japan, a JV ETF Provider
- 12 Mirae Asset Daewoo receives presidential award at Corporate Innovation Awards

Financial Performance

Independent Auditors' Report

To the Board of Directors and Shareholders of
Mirae Asset Daewoo Co., Ltd.

Based on a report originally issued in Korean

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of Mirae Asset Daewoo Co., Ltd. and its subsidiaries (collectively the "Group"), which comprise the consolidated statements of financial position as of December 31, 2019 and 2018, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("K-IFRS").

Basis for Opinion

We conducted our audits in accordance with Korean Standards on Auditing (KSAs). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Matter

The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements as of and for the year ended December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

(1) Assessment of measurement of financial instruments classified under level 3 fair value hierarchy

If the fair value of a financial instrument is measured using valuation techniques where significant inputs are not observable, the Group classifies the fair value hierarchy of the financial instrument as Level 3.

As of December 31, 2019, financial assets and liabilities classified as level 3 held by the Group in relation to derivatives, derivative linked securities, hybrid financial instruments, non-listed equity and debt instruments are KRW 5,646,786 million and KRW 13,367,122 million, respectively (refer to Note 12.(2) of the consolidated financial statements).

The fair value assessment of financial instruments classified at level 3 includes significant estimates and judgments by management. Errors in these estimates and judgements may result in misstatement in the financial statements. Therefore, we identified key audit matter for the following risks.

- Risk that the estimate of the financial instruments' fair value is materially misstated due to applying inappropriate valuation methodology and inputs (such as discount rate, stock price, index and volatility in individual input and correlation between inputs, etc).
- Risk that the estimate of the financial instruments' fair value is materially misstated due to inappropriate assumptions used in estimating future cash flows.

The primary audit procedures we performed to address the above key audit matters included:

- We tested certain internal controls of the Group over the validity of changes in the model and input variables used for the fair value evaluation and certain controls over the determination of the model to be applied to new instruments.
- We tested certain internal controls of the Group where qualified control operators utilize checklist to review accuracy and completeness of underlying inputs, consistency of applying valuation methodology, and reasonableness of underlying inputs used in the assessment conducted by the external valuation specialist and identify and follow up exceptions which are significantly different from precise review threshold.
- On a sample basis, we evaluated whether the underlying transaction information and observable inputs used for the valuation of derivatives are accurately and completely reflected in the management's internal valuation system over derivatives.
- We compared the valuation amount of the derivatives which was estimated independently by our specialists using the independent evaluation model and variables with the management's assessment for each sampled instrument.
- On a sample basis, we evaluated the reasonableness of management's assumptions by reviewing the assessment method, assumptions and variable inputs for non-listed shares and debt instruments.

(2) Revenue recognition of commission fee revenues from non-standard transactions

The Group recognized commission revenues of KRW 998,372 million for the year ended December 31, 2019, which includes revenues derived from non-standard transactions of KRW 435,176 million (refer to Note 33 of the consolidated financial statements).

The recognition of commission revenue arising from these non-standard transactions involves significant estimates and judgments by management that may result in misstatements in the financial statements. Therefore, we identified key audit matter for the following risks.

- Risks that revenue may be deliberately misstated through early revenue recognition or adjustment of revenue allocation for the period as a result of management override resulting from the pressure certain individual departments or management may feel to achieve performance goals or expectations.
- Risks that the revenue may be misstated due to the complexity in the calculation of revenue and variations in the terms of each contract.

The primary audit procedures we performed to address the above key audit matter included:

- We tested certain internal controls where qualified control operators utilize checklist to review and evaluate performance obligations in contracts with customers whether revenue should be deferred for certain performance obligations.
- We tested certain internal controls over the calculation of revenue for non-standard transactions where fee revenue recognition is reviewed and approved by the appropriate personnel.
- We assessed the timing and amount of revenue recognition by inspecting supporting documentation, including contracts, for selected agreements. For underwriting commission related to stocks and corporate bonds, we compared underlying inputs used for calculation with information publicly disclosed in the investment prospectus on a sample basis

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with K-IFRS, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used in the preparation of the consolidated financial statements and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may
- cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditors' report is Myung-Ki Seok.

KPMG Samjong Accounting Corp.
Seoul, Korea
March 12, 2020

This report is effective as of March 12, 2020, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

Consolidated Financial Statements

Consolidated Statements of Financial Position

As of December 31, 2019 and 2018

Mirae Asset Daewoo Co., Ltd. and its subsidiaries

(In Korean won)

	Notes	2019	2018
Assets			
Cash and cash equivalents	38, 40	₩ 2,092,290,039,058	1,717,840,165,734
Financial assets measured at fair value through profit or loss	5, 6, 9, 12, 19, 26, 38, 40	40,895,590,961,792	35,064,492,273,331
Financial assets measured at fair value through other comprehensive income	5, 6, 10, 12, 19, 38, 40	9,566,397,953,879	8,203,072,869,074
Financial assets measured at amortized cost	5, 8, 11, 12, 19, 38, 40, 49	75,276,085,785,872	69,385,395,391,406
Investments in associates	14	1,488,917,850,724	1,049,040,379,186
Property and equipment, net	15	456,277,790,870	232,152,045,602
Investment properties, net	16	2,166,871,237,058	1,086,179,552,339
Intangible assets, net	17	621,019,206,622	654,825,151,295
Other assets	18	131,884,690,308	70,023,704,118
Income tax receivable	45	9,548,720,563	3,280,804,264
Deferred tax assets	45	444,913,089,084	619,197,137,563
Total assets		₩ 133,149,797,325,830	118,085,499,473,912
Liabilities			
Financial liabilities measured at fair value through profit or loss	5, 12, 20, 26, 38, 40	₩ 16,916,388,384,908	17,740,007,802,711
Deposits due to customers	5, 12, 21, 38, 40	5,955,595,596,060	5,465,538,408,517
Borrowings	5, 6, 12, 22, 38, 40	86,453,161,150,066	72,363,400,367,451
Debentures	5, 12, 23, 38, 40, 49	6,215,225,733,694	4,249,204,789,706
Provisions	24	19,787,146,553	22,926,315,377
Other liabilities	5, 12, 25, 38, 40, 49	8,392,588,038,762	9,804,343,180,993
Income tax payable	45	3,415,528,637	87,711,840,937
Total liabilities		123,956,161,578,680	109,733,132,705,692
Equity			
Capital stock	28	4,101,960,790,000	4,101,960,790,000
Capital surplus	29	2,157,228,128,344	2,153,912,358,019
Retained earnings	30, 32	2,755,232,802,959	2,250,141,496,796
(Regulatory reserve for credit losses of ₩75,460,938,641 and ₩88,581,001,870 as of December 31, 2019 and 2018 respectively)			
(Reversal of regulatory reserve for credit losses amounted to ₩(-)4,837,931,082 and ₩(-)13,120,063,229 as of December 31, 2019 and 2018 respectively)			
Capital adjustment	31, 48	(10,414,222,044)	(6,847,094,937)
Accumulated other comprehensive income (loss)	10, 31	123,766,092,559	(185,614,512,179)
Non-controlling interests		65,862,155,332	38,813,730,521
Total equity		9,193,635,747,150	8,352,366,768,220
Total liabilities and equity		₩ 133,149,797,325,830	118,085,499,473,912

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Comprehensive Income

For the years ended December 31, 2019 and 2018

Mirae Asset Daewoo Co., Ltd. and its subsidiaries

(In Korean won)

	Notes	2019	2018
Operating revenue			
Commissions	33, 49	₩ 998,372,289,872	1,059,081,807,074
Gains on financial instruments measured at fair value through profit or loss	26, 34	9,295,081,275,231	8,273,683,930,871
Gains on financial assets measured at fair value through other comprehensive income	35	40,932,439,914	4,885,302,388
Interest income	7, 36		
Financial assets measured at amortized cost		2,489,089,357,615	1,793,637,323,651
Financial assets measured at fair value through other comprehensive income		163,053,139,739	130,348,729,098
Financial assets measured at fair value through profit or loss		483,029,724,444	484,386,836,000
Gains on financial assets measured at amortized cost	11, 40	2,112,222,812	-
Reversal of credit loss allowances	37	7,174,190,245	2,018,261,112
Gains on foreign currency transactions	38	1,460,385,782,116	1,181,895,204,758
Others	39, 49	497,685,662,953	394,002,657,506
		15,436,916,084,941	13,323,940,052,458
Operating expenses			
Commissions expense	33, 49	214,973,230,604	203,812,635,264
Losses on financial instruments measured at fair value through profit or loss	26, 34	9,128,793,869,993	8,378,381,247,879
Losses on financial assets measured at fair value through other comprehensive income	35	5,420,255,118	4,081,958,499
Interest expense	7, 36	2,578,043,182,392	1,754,212,264,589
Provision for credit loss allowance	37	44,096,975,278	17,664,878,555
Losses on foreign currency transactions	38	1,432,015,771,338	1,292,743,701,374
Employee costs	41	738,705,560,027	658,267,396,434
Selling and administrative expense	42	512,062,570,741	456,430,612,154
Others	39, 49	54,850,095,626	46,015,990,020
		14,708,961,511,117	12,811,610,684,768
Operating profit		₩ 727,954,573,824	512,329,367,690
Non-operating income, net			
Non-operating income	7, 43	246,106,597,620	154,295,087,590
Non-operating expense	7, 44	80,339,468,972	81,614,666,539
		165,767,128,648	72,680,421,051

See accompanying notes to the consolidated financial statements.

Mirae Asset Daewoo Co., Ltd. and its subsidiaries

(In Korean won)

	Notes	2019	2018
Profit before income tax expense		893,721,702,472	585,009,788,741
Income tax expense	7, 45	229,471,869,672	123,000,183,925
Profit for the year			
Equity holders of the Company		658,998,055,643	456,565,313,872
Non-controlling interests		5,251,777,157	5,444,290,944
		₩ 664,249,832,800	462,009,604,816
Other comprehensive income for the year, net of tax			
Items that are or may be reclassified to profit or loss:			
Gains on financial asset measured at fair value through other comprehensive income	10	29,943,452,285	66,010,063,382
Equity in other comprehensive income of associates	14	49,978,043,205	5,444,934,500
Hedges of net investment in foreign operations	27	(3,023,329,610)	(11,731,060,892)
Foreign currency translation adjustments for foreign operations		90,170,863,431	63,890,554,804
Items that will never be reclassified to profit or loss:			
Valuation gain(loss) on financial asset designated as measured at fair value through other comprehensive income	10	145,675,159,099	(109,625,006,968)
Changes in own credit risk on financial liabilities designated as measured at fair value through profit or loss	20	(7,794,994)	2,577,123,786
Remeasurement of the defined benefit liabilities	25	(3,283,922,322)	-
		309,452,471,094	16,566,608,612
Total comprehensive income for the year			
Equity holders of the Company		968,378,660,381	473,152,003,611
Non-controlling interests		5,323,643,513	5,424,209,817
		₩ 973,702,303,894	478,576,213,428
Earnings per share			
Basic and diluted earnings per share	46		
Common stock		956	660
2 preferred stock		956	660

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Changes in Equity

For the years ended December 31, 2019 and 2018

Mirae Asset Daewoo Co., Ltd. and its subsidiaries

(In Korean won)

	Attributable to equity holders of the Company						Non-controlling interests	Total
	Capital stock	Capital surplus	Capital adjustment	Accumulated other comprehensive income(loss)	Retained earnings	Sub-Total		
Balance at January 1, 2018	₩ 3,401,960,790,000	2,164,649,228,172	(7,714,262,282)	(202,201,201,918)	1,995,132,111,974	7,351,826,665,946	27,586,179,326	7,379,412,845,272
Total comprehensive income for the year:								
Profit for the year	-	-	-	-	456,565,313,872	456,565,313,872	5,444,290,944	462,009,604,816
Net changes in unrealized valuation of financial assets measured at fair value through other comprehensive income	-	-	-	(43,614,943,586)	-	(43,614,943,586)	-	(43,614,943,586)
Equity in other comprehensive income of associates	-	-	-	5,444,934,500	-	5,444,934,500	-	5,444,934,500
Changes in own credit risk on financial liabilities designated as measured at fair value through profit or loss	-	-	-	2,577,123,786	-	2,577,123,786	-	2,577,123,786
Hedges of net investment in foreign operations	-	-	-	(11,731,060,892)	-	(11,731,060,892)	-	(11,731,060,892)
Foreign currency translation adjustments for foreign operations	-	-	-	63,910,635,931	-	63,910,635,931	(20,081,127)	63,890,554,804
Transaction with owners, etc.:								
Dividends paid	-	-	-	-	(124,691,658,520)	(124,691,658,520)	-	(124,691,658,520)
Capital increase with consideration	700,000,000,000	(13,175,806,743)	-	-	-	686,824,193,257	5,472,187,018	692,296,380,275
Changes in treasury stocks	-	2,340,572,587	(76,400,928,322)	-	-	(74,060,355,735)	-	(74,060,355,735)
Retirement in treasury stocks	-	-	76,864,270,530	-	(76,864,270,530)	-	-	-
Stock option	-	-	647,077,315	-	-	647,077,315	429,518,363	1,076,595,678
Others	-	98,364,003	(243,252,178)	-	-	(144,888,175)	(98,364,003)	(243,252,178)
Balance at December 31, 2018	₩ 4,101,960,790,000	2,153,912,358,019	(6,847,094,937)	(185,614,512,179)	2,250,141,496,796	8,313,553,037,699	38,813,730,521	8,352,366,768,220
Balance at January 1, 2019	₩ 4,101,960,790,000	2,153,912,358,019	(6,847,094,937)	(185,614,512,179)	2,250,141,496,796	8,313,553,037,699	38,813,730,521	8,352,366,768,220
Total comprehensive income for the year:								
Profit for the year	-	-	-	-	658,998,055,643	658,998,055,643	5,251,777,157	664,249,832,800
Net changes in unrealized valuation of financial assets measured at fair value through other comprehensive income	-	-	-	175,618,611,384	-	175,618,611,384	-	175,618,611,384
Equity in other comprehensive income of associates	-	-	-	49,978,043,205	-	49,978,043,205	-	49,978,043,205
Changes in own credit risk on financial liabilities designated as measured at fair value through profit or loss	-	-	-	(7,794,994)	-	(7,794,994)	-	(7,794,994)
Hedges of net investment in foreign operations	-	-	-	(3,023,329,610)	-	(3,023,329,610)	-	(3,023,329,610)
Foreign currency translation adjustments for foreign operations	-	-	-	90,098,997,075	-	90,098,997,075	71,866,356	90,170,863,431
Remeasurement of the defined benefit liabilities	-	-	-	(3,283,922,322)	-	(3,283,922,322)	-	(3,283,922,322)
Transaction with owners, etc.:								
Dividends paid	-	-	-	-	(153,906,749,480)	(153,906,749,480)	-	(153,906,749,480)
Capital increase with consideration	-	(483,927,366)	-	-	-	(483,927,366)	20,745,251,866	20,261,324,500
Changes in treasury stocks	-	3,799,697,691	484,726,438	-	-	4,284,424,129	-	4,284,424,129
Stock option	-	-	-	-	-	-	979,529,432	979,529,432
Others	-	-	(4,051,853,545)	-	-	(4,051,853,545)	-	(4,051,853,545)
Balance at December 31, 2019	₩ 4,101,960,790,000	2,157,228,128,344	(10,414,222,044)	123,766,092,559	2,755,232,802,959	9,127,773,591,818	65,862,155,332	9,193,635,747,150

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Cash Flows

For the years ended December 31, 2019 and 2018

Mirae Asset Daewoo Co., Ltd. and its subsidiaries

(In Korean won)

	2019	2018
Cash flows from operating activities		
Profit for the year	₩ 664,249,832,800	462,009,604,816
Adjustments:		
Interest income	(3,135,172,221,798)	(2,408,372,888,749)
Dividend income	(130,528,831,618)	(81,374,193,120)
Interest expense	2,578,043,182,392	1,754,212,264,589
Income tax expense	229,471,869,672	123,000,183,925
Loss on valuation of financial assets measured at fair value through profit or loss	176,393,359,523	534,158,728,885
Loss on valuation of financial liabilities measured at fair value through profit or loss	16,755,625,157	19,482,069,411
Loss on valuation of financial liabilities designated as measured at fair value through profit or loss	642,945,795,219	234,379,942,244
Loss on valuation of derivatives	1,104,645,357,700	1,340,413,565,620
Loss on disposal of financial assets measured at fair value through other comprehensive income	5,420,255,118	4,081,958,499
Impairment loss on financial assets measured at fair value through other comprehensive income	3,234,395,294	2,268,252,290
Loss on valuation of investments in associates	3,198,523,477	9,688,903,637
Loss on disposal of investments in associates	24,962,232	38,153,447
Impairment loss on investments in associates	1,128,978,111	-
Loss on disposal of investments in subsidiaries	3,227,042,735	8,588,332,469
Depreciation	72,124,084,980	24,023,647,165
Depreciation on investment properties	44,282,557,516	29,865,965,523
Loss on disposal of property and equipment	2,035,869,617	628,497,568
Loss on disposal of investment properties	-	6,682,043
Amortization	48,039,207,204	41,844,744,571
Loss on disposal of intangible assets	20,612,210	7,817,040
Stock option expense	593,375,785	3,534,378,078
Rent expense	-	2,227,578,610
Provision of allowances on credit losses	15,332,015,981	9,352,813,621
Provision of allowances on credit losses of other financial assets	24,653,006,128	1,552,746,323
Loss on foreign currency translation	161,618,680,008	77,296,618,298
Provision of allowances	983,248,526	8,990,774,826
Other operating expenses	90,826,562,753	12,998,954,445
Other non-operating expenses	684,613,572	-
Gain on valuation of financial assets measured at fair value through profit or loss	(811,897,667,657)	(405,316,597,359)
Gain on valuation of financial liabilities measured at fair value through profit or loss	(14,018,255,031)	(29,658,052,144)

See accompanying notes to the consolidated financial statements.

Mirae Asset Daewoo Co., Ltd. and its subsidiaries

(In Korean won)

	2019	2018
Gain on valuation of financial liabilities designated as measured at fair value through profit or loss	₩ (393,622,513,010)	(714,828,114,049)
Gain on valuation of derivatives	(1,184,173,548,466)	(858,848,789,630)
Gain on disposal of financial assets measured at fair value through other comprehensive income	(40,932,439,914)	(4,885,302,388)
Gain on valuation of investments in associates	(148,908,783,357)	(40,039,913,005)
Gain on disposal of investments in associates	(1,214,276,261)	-
Gain on disposal of investments in subsidiaries	(38,299,152,672)	(15,773,484,185)
Gain on disposal of property and equipment	(84,656,091)	(2,415,783,388)
Gain on disposal of investment properties	(1,352,752,216)	(48,083,362,851)
Gain on disposal of intangible assets	-	(150,000,000)
Reversal of credit loss allowance	(5,025,750,362)	(171,694,496)
Reversal of provision on credit losses of other financial assets	(12,405,810)	(38,552,466)
Gain on foreign currency translation	(132,429,735,408)	(130,332,632,151)
Reversal of provisions	(2,136,034,073)	(9,905,864,655)
Other operating income	(341,084,565)	-
Other non-operating income	(2,328,644,614)	-
	(816,795,572,013)	(507,551,651,509)
Changes in:		
Due from financial institutions for customer accounts	633,851,331,668	(2,670,231,841,543)
Financial assets measured at fair value through profit or loss	(5,386,709,070,547)	(2,044,850,643,681)
Financial assets measured at amortized cost	3,565,220,266,105	(3,226,225,658,895)
Other assets	(62,886,966,977)	(20,098,028,797)
Financial liabilities measured at fair value through profit or loss	(338,073,797,074)	121,539,315,140
Financial liabilities designated as measured at fair value through profit of loss	(740,544,016,142)	648,148,823,701
Deposits due to customers	494,290,337,135	355,771,556,716
Other liabilities	(1,898,449,148,700)	1,534,616,953,546
Provisions	(4,727,227,912)	(169,296,999)
	(3,738,028,292,444)	(5,301,498,820,812)
Interest received	3,147,259,595,653	2,327,707,493,064
Interest paid	(2,540,642,844,624)	(1,730,967,326,103)
Dividends received	141,863,893,471	75,868,525,683
Income taxes paid	(233,172,264,011)	(201,114,484,955)
Net cash used in operating activities	₩ (3,375,265,651,168)	(4,875,546,659,816)

See accompanying notes to the consolidated financial statements.

Mirae Asset Daewoo Co., Ltd. and its subsidiaries

(In Korean won)

	2019	2018
Cash flows from investing activities		
Proceeds from disposal of financial assets measured at fair value through other comprehensive income	₩ 8,960,209,386,771	4,090,636,831,863
Proceeds from disposal of investments in subsidiaries	508,847,253,512	28,580,217,210
Proceeds from disposal of investments in associates	2,270,085,000	975,474,125
Proceeds from disposal of property and equipment	137,146,473	6,843,580,700
Proceeds from disposal of investment properties	10,510,000,000	57,219,070,833
Proceeds from disposal of intangible assets	510,180,937	1,110,320,000
Decrease in deposits	43,682,500,655	19,241,099,970
Increase in withdrawals	3,606,409,176	377,114,887
Acquisition of financial assets measured at fair value through other comprehensive income	(10,065,423,727,336)	(6,492,854,154,314)
Acquisition of investments in associates	(330,124,595,848)	(360,840,024,027)
Acquisition of property and equipment	(82,688,873,552)	(64,152,258,433)
Acquisition of investment properties	(1,186,392,949,632)	(85,596,047,107)
Acquisition of intangible assets	(14,236,492,812)	(36,318,014,598)
Increase in deposits	(6,931,175,262)	(4,104,179,770)
Decrease in deposits received	(4,026,836,408)	(3,014,370,960)
Net cash used in investing activities	(2,160,051,688,326)	(2,841,895,339,621)
Cash flows from financing activities		
Proceeds from borrowings, net	3,694,021,622,237	6,274,497,896,823
Proceeds from debentures, net	2,030,286,786,871	1,159,391,623,332
Proceeds from capital stock increase with consideration	20,261,324,500	692,296,380,275
Increase in other liabilities	383,625,868,362	277,469,801,339
Payment of lease liabilities, net	(47,312,386,387)	-
Dividends paid	(153,906,749,480)	(124,691,658,520)
Acquisition of treasury stock	-	(76,864,270,530)
Decrease in other liabilities	(11,154,044,821)	(147,854,042,381)
Net cash provided by financing activities	5,915,822,421,282	8,054,245,730,338
Effect of exchange rate fluctuations on cash and cash equivalents held	₩ (6,055,208,464)	6,587,464,929
Net increase in cash and cash equivalents	374,449,873,324	343,391,195,830
Cash and cash equivalents at beginning of year	1,717,840,165,734	1,374,448,969,904
Cash and cash equivalents at end of year	₩ 2,092,290,039,058	1,717,840,165,734

See accompanying notes to the consolidated financial statements.

Independent Auditors' Report

To the Board of Directors and Shareholders of
Mirae Asset Daewoo Co., Ltd.

Based on a report originally issued in Korean

Report on the Audit of the Separate Financial Statements

Opinion

We have audited the separate financial statements of Mirae Asset Daewoo Co., Ltd. (the "Company"), which comprise the separate statements of financial position as of December 31, 2019 and 2018, the separate statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying separate financial statements present fairly, in all material respects, the separate financial position of the Company as of December 31, 2019 and 2018, and its separate financial performance and its separate cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("K-IFRS").

We also have audited, in accordance with Korean Standards on Auditing (KSAs), the Company's Internal Control over Financial Reporting ("ICFR") as of December 31, 2019, based on criteria established in 'Conceptual Framework for Designing and Operating Internal Control over Financial Reporting issued by the Operating Committee of Internal Control over Financial Reporting in the Republic of Korea, and our report dated March 12, 2020 expressed an unmodified opinion on the effectiveness of the Company's internal control over financial reporting thereon.

Basis for Opinion

We conducted our audits in accordance with Korean Standards on Auditing (KSAs). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Separate Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the separate financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Matter

The procedures and practices utilized in the Republic of Korea to audit such separated financial statements may differ from those generally accepted and applied in other countries.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the separate financial statements as of and for the year ended December 31, 2019. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

(1) Assessment of measurement of financial instruments classified under level 3 fair value hierarchy

If the fair value of a financial instrument is measured using valuation techniques where significant inputs are not observable, the Company classifies the fair value hierarchy of the financial instrument as Level 3.

As of December 31, 2019, financial assets and liabilities classified as level 3 held by the Company in relation to derivatives, derivative linked securities, hybrid financial instruments, non-listed equity and debt instruments are KRW 3,672,511 million and KRW 13,367,122 million, respectively (refer to Note 12.(2) of the separate financial statements).

The fair value assessment of financial instruments classified at level 3 includes significant estimates and judgments by management. Errors in these estimates and judgements may result in misstatement in the financial statements. Therefore, we identified key audit matter for the following risks.

- Risk that the estimate of the financial instruments' fair value is materially misstated due to applying inappropriate valuation methodology and inputs (such as discount rate, stock price, index and volatility in individual input and correlation between inputs, etc).
- Risk that the estimate of the financial instruments' fair value is materially misstated due to inappropriate assumptions used in estimating future cash flows.

The primary audit procedures we performed to address the above key audit matters included:

- We tested certain internal controls of the Company over the validity of changes in the model and input variables used for the fair value evaluation and certain controls over the determination of the model to be applied to new instruments.
- We tested certain internal controls of the Company where qualified control operators utilize checklist to review accuracy and completeness of underlying inputs, consistency of applying valuation methodology, and reasonableness of underlying inputs used in the assessment conducted by the external valuation specialist and identify and follow up exceptions which are significantly different from precise review threshold.
- On a sample basis, we evaluated whether the underlying transaction information and observable inputs used for the valuation of derivatives are accurately and completely reflected in the management's internal valuation system over derivatives.
- We compared the valuation amount of the derivatives which was estimated independently by our specialists using the independent evaluation model and variables with the management's assessment for each sampled instrument.
- On a sample basis, we evaluated the reasonableness of management's assumptions by reviewing the assessment method, assumptions and variable inputs for non-listed shares and debt instruments.

(2) Revenue recognition of commission fee revenues from non-standard transactions

The Company recognized commission revenues of KRW 948,742 million for the year ended December 31, 2019, which includes revenues derived from non-standard transactions of KRW 439,035 million (refer to Note 32 of the separate financial statements).

The recognition of commission revenue arising from these non-standard transactions involves significant estimates and judgments by management that may result in misstatements in the financial statements. Therefore, we identified key audit matter for the following risks.

- Risks that revenue may be deliberately misstated through early revenue recognition or adjustment of revenue allocation for the period as a result of management override resulting from the pressure certain individual departments or management may feel to achieve performance goals or expectations.
- Risks that the revenue may be misstated due to the complexity in the calculation of revenue and variations in the terms of each contract.

The primary audit procedures we performed to address the above key audit matter included:

- We tested certain internal controls where qualified control operators utilize checklist to review and evaluate performance obligations in contracts with customers whether revenue should be deferred for certain performance obligations.
- We tested certain internal controls over the calculation of revenue for non-standard transactions where fee revenue recognition is reviewed and approved by the appropriate personnel.
- We assessed the timing and amount of revenue recognition by inspecting supporting documentation, including contracts, for selected agreements. For underwriting commission related to stocks and corporate bonds, we compared underlying inputs used for calculation with information publicly disclosed in the investment prospectus on a sample basis.

Responsibilities of Management and Those Charged with Governance for the Separate Financial Statements

Management is responsible for the preparation and fair presentation of the separate financial statements in accordance with K-IFRS, and for such internal control as management determines is necessary to enable the preparation of separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the separate financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditors' Responsibilities for the Audit of the Company Financial Statements

Our objectives are to obtain reasonable assurance about whether the company financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these separate financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- Evaluate the appropriateness of accounting policies used in the preparation of the separate financial statements and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the separate financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the separate financial statements, including the disclosures, and whether the separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the separate financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditors' report is Myung-Ki Seok.

KPMG Samjong Accounting Corp.
Seoul, Korea
March 12, 2020

This report is effective as of March 12, 2020, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying separate financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

Separate Financial Statements

Separate Statements of Financial Position

As of December 31, 2019 and 2018

Mirae Asset Daewoo Co., Ltd.

(In Korean won)

	2019	2018
Assets		
Cash and cash equivalents	₩ 763,316,958,915	945,067,253,594
Financial assets measured at fair value through profit or loss	36,433,999,273,509	31,576,860,388,993
Financial assets measured at fair value through other comprehensive income	9,199,567,448,784	7,824,119,174,033
Financial assets measured at amortized cost	13,683,757,664,553	18,801,470,714,918
Investments in subsidiaries	6,908,229,752,555	5,404,675,176,709
Investments in associates	809,312,009,641	491,135,355,727
Property and equipment, net	200,881,018,051	199,747,852,975
Investment properties, net	242,394,152,364	147,864,678,942
Intangible assets, net	612,697,913,298	647,732,420,713
Other assets	92,239,249,343	49,116,000,455
Income tax receivable	6,788,499,406	-
Deferred tax asset	458,171,198,481	596,077,712,628
Total assets	₩ 69,411,355,138,900	66,683,866,729,687
Liabilities		
Financial liabilities measured at fair value through profit or loss	₩ 16,820,460,100,701	17,961,111,679,354
Deposits due to customers	5,935,141,939,349	5,371,613,042,052
Borrowings	25,620,483,654,965	22,667,573,778,727
Debentures	5,351,242,809,418	3,649,576,630,992
Provisions	19,899,839,183	22,399,441,209
Other liabilities	6,965,961,974,644	8,692,140,876,141
Income tax payable	-	84,203,681,268
Total liabilities	₩ 60,713,190,318,260	58,448,619,129,743
Equity		
Capital stock	₩ 4,101,960,790,000	4,101,960,790,000
Capital surplus	2,156,189,416,980	2,152,389,719,289
Retained earnings	2,377,024,316,388	2,082,209,872,334
(Regulatory reserve for credit losses of ₩75,460,938,641 and ₩88,581,001,870 as of December 31, 2019 and 2018 respectively)		
(Reversal of regulatory reserve for credit losses amounted to ₩(-)4,837,931,082 and ₩(-)13,120,063,229 as of December 31, 2019 and 2018 respectively)		
Capital adjustment	(1,334,171,381)	2,232,955,726
Accumulated other comprehensive income(loss)	64,324,468,653	(103,545,737,405)
Total equity	8,698,164,820,640	8,235,247,599,944
Total liabilities and equity	₩ 69,411,355,138,900	66,683,866,729,687

Separate Statements of Comprehensive Income

For the years ended December 31, 2019 and 2018

Mirae Asset Daewoo Co., Ltd.

(In Korean won)

	2019	2018
Operating revenue		
Commissions	₩ 948,742,258,659	1,020,575,249,715
Gains on financial instruments measured at fair value through profit or loss	8,998,628,781,399	7,836,819,374,710
Gains on financial assets measured at fair value through other comprehensive income	40,859,473,197	4,785,751,744
Interest income		
Financial assets measured at amortized cost	433,138,880,800	434,135,300,126
Financial assets measured at fair value through other comprehensive income	162,533,379,318	129,532,323,344
Financial assets measured at fair value through profit or loss	461,662,798,631	443,402,720,823
Gains on financial assets measured at amortized cost	2,044,059,886	-
Reversal of credit loss allowances	5,788,609,592	1,988,440,118
Gains on foreign currency transactions	1,393,953,042,843	1,114,908,633,462
Others	314,928,041,296	291,169,890,863
	12,762,279,325,621	11,277,317,684,905
Operating expenses		
Commissions expense	164,953,892,538	166,830,307,869
Losses on financial instruments measured at fair value through profit or loss	8,950,689,542,400	8,097,140,698,635
Losses on financial assets measured at fair value through other comprehensive income	5,420,255,118	3,995,879,686
Interest expense	617,182,849,578	460,812,115,308
Provision for credit loss allowance	28,825,806,305	15,629,744,096
Losses on foreign currency transactions	1,367,150,714,904	1,070,502,478,377
Employee costs	657,780,462,371	588,805,742,746
Selling and administrative expense	360,407,988,745	319,445,299,401
Others	7,603,808,827	12,927,222,783
	12,160,015,320,786	10,736,089,488,901
Operating profit	₩ 602,264,004,835	541,228,196,004
Non-operating income, net		
Non-operating income	44,407,206,496	52,346,205,105
Non-operating expense	16,427,959,332	37,192,384,660
	₩ 27,979,247,164	15,153,820,445

Mirae Asset Daewoo Co., Ltd.

(In Korean won)

	2019	2018
Profit before income tax expense	630,243,251,999	556,382,016,449
Income tax expense	181,522,058,465	122,296,567,474
Profit for the year	₩ 448,721,193,534	434,085,448,975
Other comprehensive income for the year, net of tax		
Items that are or may be reclassified to profit or loss:		
Gains on financial asset measured at fair value through other comprehensive income	29,311,165,215	11,237,467,068
Items that will never be reclassified to profit or loss:		
Valuation gain(loss) on financial asset measured at fair value through other comprehensive income	142,093,174,586	(104,247,626,526)
Changes in own credit risk on financial liabilities designated as measured at fair value through profit or loss	(250,211,421)	2,656,932,638
Remeasurement of the defined benefit liabilities	(3,283,922,322)	-
	167,870,206,058	(90,353,226,820)
Total comprehensive income for the year	₩ 616,591,399,592	343,732,222,155
Earnings per share		
Basic and diluted earnings per share		
Common stock	651	628
2 preferred stock	651	628

Separate Statements of Changes in Equity

For the year ended December 31, 2018

Mirae Asset Daewoo Co., Ltd.

(In Korean won)

	Capital stock	Capital surplus	Capital adjustment	Accumulated other comprehensive income(loss)	Retained earnings	Total
Balance at January 1, 2018	₩ 3,401,960,790,000	2,163,224,953,445	1,364,758,700	(13,192,510,585)	1,849,680,352,409	7,403,038,343,969
Total comprehensive income for the year:						
Profit for the year	-	-	-	-	434,085,448,975	434,085,448,975
Net changes in unrealized valuation of financial assets measured at fair value through other comprehensive income	-	-	-	(93,010,159,458)	-	(93,010,159,458)
Changes in own credit risk on financial liabilities designated as measured at fair value through profit or loss	-	-	-	2,656,932,638	-	2,656,932,638
Transaction with owners, etc.:						
Dividends paid	-	-	-	-	(124,691,658,520)	(124,691,658,520)
Capital increase with consideration	700,000,000,000	(13,175,806,743)	-	-	-	686,824,193,257
Changes in treasury stocks	-	2,340,572,587	(76,400,928,322)	-	-	(74,060,355,735)
Retirement in treasury stocks	-	-	76,864,270,530	-	(76,864,270,530)	-
Others	-	-	404,854,818	-	-	404,854,818
Balance at December 31, 2018	₩ 4,101,960,790,000	2,152,389,719,289	2,232,955,726	(103,545,737,405)	2,082,209,872,334	8,235,247,599,944
Balance at January 1, 2019	₩ 4,101,960,790,000	2,152,389,719,289	2,232,955,726	(103,545,737,405)	2,082,209,872,334	8,235,247,599,944
Total comprehensive income for the year:						
Profit for the year	-	-	-	-	448,721,193,534	448,721,193,534
Net changes in unrealized valuation of financial assets measured at fair value through other comprehensive income	-	-	-	171,404,339,801	-	171,404,339,801
Changes in own credit risk on financial liabilities designated as measured at fair value through profit or loss	-	-	-	(250,211,421)	-	(250,211,421)
Remeasurement factors of defined benefit liabilities	-	-	-	(3,283,922,322)	-	(3,283,922,322)
Transaction with owners, etc.:						
Dividends paid	-	-	-	-	(153,906,749,480)	(153,906,749,480)
Changes in treasury stocks	-	3,799,697,691	484,726,438	-	-	4,284,424,129
Others	-	-	(4,051,853,545)	-	-	(4,051,853,545)
Balance at December 31, 2019	₩ 4,101,960,790,000	2,156,189,416,980	(1,334,171,381)	64,324,468,653	2,377,024,316,388	8,698,164,820,640

Separate Statements of Cash Flows

For the years ended December 31, 2019 and 2018

Mirae Asset Daewoo Co., Ltd.

(In Korean won)

	2019	2018
Cash flows from operating activities		
Profit for the year	₩ 448,721,193,534	434,085,448,975
Adjustments:		
Interest income	(1,057,335,058,749)	(1,007,070,344,293)
Dividend income	(96,903,555,973)	(68,308,230,692)
Interest expense	617,182,849,578	460,812,115,308
Income tax expense	181,522,058,465	122,296,567,474
Loss on valuation of financial assets measured at fair value through profit or loss	128,571,461,756	396,741,542,027
Loss on valuation of financial liabilities measured at fair value through profit or loss	13,452,929,692	19,482,069,411
Loss on valuation of financial liabilities designated as measured at fair value through profit or loss	643,226,832,897	235,307,011,967
Loss on valuation of derivatives	1,037,431,138,862	1,301,936,273,626
Loss on disposal of financial assets measured at fair value through other comprehensive income	5,420,255,118	3,995,879,686
Impairment loss on financial assets measured at fair value through other comprehensive income	3,123,622,047	2,266,422,392
Impairment loss on investments in subsidiaries	3,645,645,956	21,306,090,125
Loss on disposal of investments in subsidiaries	2,733,842,368	8,218,172,327
Loss on disposal of investments in associates	24,962,232	26,140,209
Depreciation	60,200,207,150	22,216,757,205
Depreciation on investment properties	3,724,857,118	2,110,605,856
Loss on disposal of property and equipment	1,975,509,901	621,583,173
Amortization	42,041,410,714	35,080,414,068
Loss on disposal of investment properties	-	6,682,043
Loss on disposal of intangible assets	20,612,210	7,817,040
Stock option expense	593,375,785	3,534,378,078
Rent expense	-	2,227,578,610
Provision of allowances on credit losses	-	7,339,940,374
Provision of allowances on credit losses of other financial assets	24,690,242,127	1,532,315,009
Loss on foreign currency translation	108,255,529,589	55,822,304,455
Provision of allowances	1,011,942,131	8,440,475,889
Other operating expenses	51,594,829,096	12,730,295,360
Other non-operating expenses	684,613,572	-
Gain on valuation of financial assets measured at fair value through profit or loss	(682,114,565,162)	(332,184,519,076)
Gain on valuation of financial liabilities measured at fair value through profit or loss	(13,622,817,760)	(29,459,179,415)

Mirae Asset Daewoo Co., Ltd.

(In Korean won)

	2019	2018
Gain on valuation of financial liabilities designated as measured at fair value through profit or loss	₩ (393,645,595,310)	(715,635,288,811)
Gain on valuation of derivatives	(1,138,125,472,165)	(847,761,620,261)
Gain on disposal of financial assets measured at fair value through other comprehensive income	(40,859,473,197)	(4,785,751,744)
Gain on disposal of investments in subsidiaries	(36,451,535,953)	(9,027,432,977)
Gain on disposal of investments in associates	(1,274,257,154)	-
Gain on disposal of property and equipment	(56,465,000)	(2,398,254,527)
Gain on disposal of investment properties	(1,352,752,216)	(38,351,546,053)
Gain on disposal of intangible assets	-	(150,000,000)
Reversal of credit loss allowance	(3,640,602,818)	(163,657,340)
Reversal of provision on credit losses of other financial assets	(11,972,701)	(16,768,628)
Gain on foreign currency translation	(95,371,846,018)	(103,175,761,988)
Reversal of provisions	(2,136,034,073)	(9,905,864,655)
Other operating income	(341,084,565)	(246,681,053)
Other non-operating income	(2,328,644,614)	-
	(634,443,005,064)	(444,581,469,801)
Changes in:		
Due from financial institutions for customer accounts	1,268,427,306,830	(2,527,541,129,719)
Financial assets measured at fair value through profit or loss	(3,971,159,978,946)	(1,784,233,330,741)
Financial assets measured at amortized cost	3,730,542,341,086	(2,445,725,890,852)
Other assets	(45,310,214,818)	(20,672,201,481)
Financial liabilities measured at fair value through profit or loss	(477,220,116,712)	516,025,372,759
Financial liabilities designated as measured at fair value through profit of loss	(913,187,930,662)	476,953,255,517
Deposits due to customers	571,115,273,890	298,919,932,553
Other liabilities	(1,980,805,502,712)	2,883,524,402,426
Provisions	(4,097,647,175)	(159,340,979)
	(1,821,696,469,219)	(2,602,908,930,517)
Interest received	1,085,587,144,706	973,667,497,967
Interest paid	(612,227,204,064)	(453,736,445,931)
Dividends received	101,244,707,450	70,151,578,252
Income taxes paid	(198,643,435,940)	(177,519,440,602)
Net cash used in operating activities	(1,631,457,068,597)	(2,200,841,761,657)

Mirae Asset Daewoo Co., Ltd.

(In Korean won)

	2019	2018
Cash flows from investing activities		
Proceeds from disposal of financial assets measured at fair value through other comprehensive income	₩ 8,943,339,310,716	4,066,205,924,640
Proceeds from disposal of investments in subsidiaries	1,223,586,320,899	2,967,140,880,261
Proceeds from disposal of investments in associates	2,270,085,000	931,629,003
Proceeds from disposal of property and equipment	60,560,000	6,831,202,829
Proceeds from disposal of investment properties	10,510,000,000	10,465,888,081
Proceeds from disposal of intangible assets	200,587,790	1,105,320,000
Decrease in deposits	42,712,193,406	19,197,293,400
Increase in withdrawals	1,062,143,420	367,958,900
Acquisition of financial assets measured at fair value through other comprehensive income	(10,065,423,727,336)	(6,187,407,754,314)
Acquisition of investments in subsidiaries	(2,932,759,438,795)	(3,676,910,754,391)
Acquisition of investments in associates	(320,116,594,848)	(129,821,775,055)
Acquisition of property and equipment	(79,143,080,956)	(62,187,143,981)
Acquisition of intangible assets	(6,806,693,299)	(34,808,197,157)
Increase in deposits	(6,312,656,042)	(3,047,902,730)
Decrease in deposits received	(4,026,836,408)	(3,014,370,960)
Net cash used in investing activities	(3,190,847,826,453)	(3,024,951,801,474)
Cash flows from financing activities		
Proceeds from borrowings, net	2,902,191,759,431	4,065,346,581,862
Proceeds from debentures, net	1,693,892,895,916	771,231,886,895
Proceeds from capital stock increase with consideration	-	686,824,193,257
Increase in other liabilities	230,000,000,000	-
Payment of lease liabilities, net	(31,842,171,671)	-
Dividends paid	(153,906,749,480)	(124,691,658,520)
Acquisition of treasury stock	-	(76,864,270,530)
Net cash provided by financing activities	4,640,335,734,196	5,321,846,732,964
Effect of exchange rate fluctuations on cash and cash equivalents held	₩ 218,866,175	27,569,127
Net increase(decrease) in cash and cash equivalents	(181,750,294,679)	96,080,738,960
Cash and cash equivalents at beginning of year	945,067,253,594	848,986,514,634
Cash and cash equivalents at end of year	₩ 763,316,958,915	945,067,253,594

Social Performance

Classification		Unit	2017 ¹⁾	2018 ¹⁾	2019	
Total number of employees ²⁾		Persons	4,661	4,565	4,231	
By region	Korea	Persons	4,644	4,545	4,214	
	Overseas ³⁾		17	20	17	
By title	Executive officer	Persons	282	290	275	
	Private banker executive		0	46	56	
	General manager		760	771	791	
	Senior manager		1,534	1,533	1,513	
	Manager		1,502	1,493	1,235	
	Assistant manager		544	394	317	
	Others ⁴⁾		39	38	44	
By employment type	Permanent	Persons	3,988	3,865	3,500	
	Non-permanent		673	700	731	
	Number of employees converted from non-permanent to permanent		139	116	16	
Recruitment and retirement	New hires	Persons	259	276	174	
	New female hires		120	114	34	
	Retirement ratio		%	7.8	8.0	12.4
	Turnover ratio ⁵⁾		%	6.2	7.1	11.0
By gender	Male	Persons	2,616	2,544	2,418	
	Female ⁶⁾		2,045	2,021	1,813	
Minority	Person with disability	Persons	23	23	21	
	Foreigner		24	23	29	
Parental leave	Number of employees who returned to work after maternity and parental leave	Persons	201	174	185	
	Percentage of people staying at work for 12 months since returning to work after parental leave	%	93.9	82.9	79.0	
Labor union membership percentage ⁷⁾		%	45	63	61	
Occupational injury	Number of absentees due to injuries or illness ⁸⁾	Persons	12	50	36	
	Lost work days	Days	271	4,658	2,846	
	Number of injuries	Persons	0	0	0	

Classification		Unit	2018	2019
Entry level wage / local minimum wage		%	238.3	232.7
Performance evaluated employees / eligible employees			91.7	92.4

Classification	Unit	2017	2018	2019
Employee Training				
Total training hours	Hours	198,542	210,524	224,083
Number of employees who completed training	Persons	16,584	18,234	22,194
Total training expenses	KRW billion	6.6	7.2	6.6
Education on Human Rights and Ethics				
Ethical management training	Occasions	165	253	216
Number of employees who participated in education programs on ethics and compliance		4,659	4,277	3,981
Number of employees who participated in education programs on sexual harassment prevention	Persons	4,592	4,915	4,344
Number of employees who participated in education programs on information protection		4,421	4,253	4,050
Social Contribution Expenditures and Participants				
Expenditures in social contributions ⁹⁾	KRW billion	4.0	4.2	5.2
Hours for volunteer activities	Hours	428	733	1,408
Participants in volunteer activities ¹⁰⁾	Persons	140	349	748

1) Data has been revised due to measurement change

2) Number of employees including board members

3) Number of HQ employees dispatched to overseas business sites, excluding locally hired employees

4) Securities advisors + Professional officers

5) Termination + Dispatch + Early retirement

6) Percentage of females in all management positions is 22.28%

7) Major agreements, including collective bargaining agreements with the labor union, are applied to all employees (100%)

8) Major and minor sick leave + Accidental leave caused during work or personal leave

9) CSR expenditures consist of cash donation, goods donation, and operating expenses from employees' voluntary activities. The expense from voluntary activities per employee is calculated by total hours of participation x average hourly wage per person

10) Data from 2017 is based on the number of volunteers and hours for volunteer activities conducted on weekdays only

Major Association Expenses in 2019¹¹⁾

(Unit: KRW million)

Classification	Korea Financial Investment Association	Bank of Korea	Financial Security Institute	Korea Capital Market Institute	Korea Financial Telecommunications and Clearings Institute	Others	Total
Expense amount	4,309	837	676	285	224	754	7,085

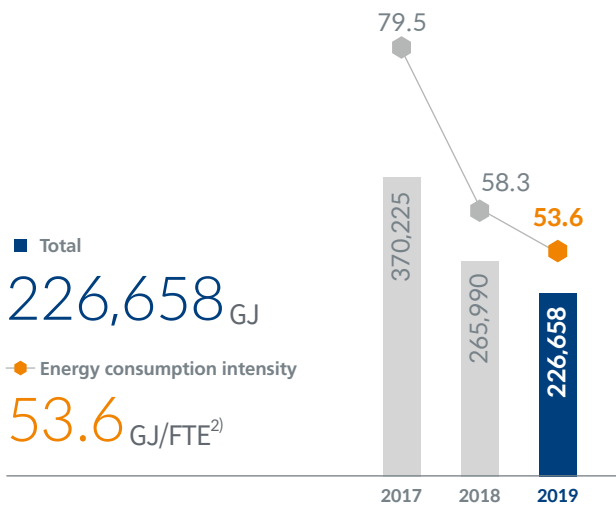
11) Mirae Asset Daewoo strictly bans any forms of donation or aid towards political campaigns and election funds, political parties and political entities, politicians, and lobbying organizations and lobbyists

Data was revised for the scope of measurement was expanded

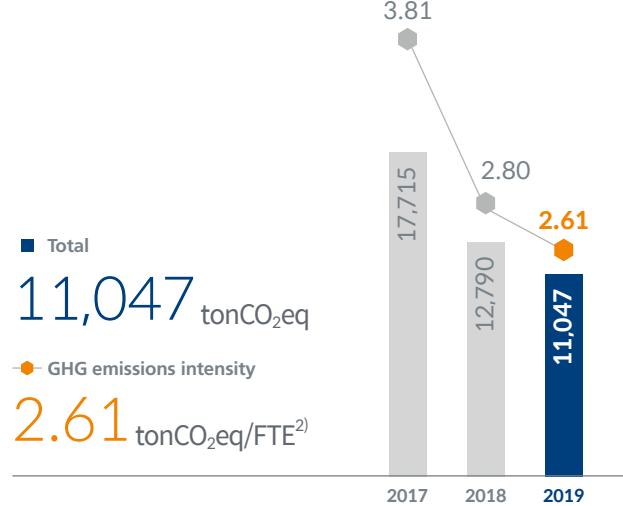
Environmental Performance

Classification	Unit	2017	2018	2019 ¹⁾
Energy Consumption				
LNG		20,401	19,987	17,823
Gasoline / diesel		143	0	0
Kerosene	GJ	442	276	0
Electricity		342,610	242,064	208,835
District heating		6,629	3,663	0
Greenhouse Gas (GHG) Emissions				
Direct GHG emissions (Scope 1)		1,075	1,033	904
Indirect GHG emissions (Scope 2)	tonCO ₂ eq	16,640	11,757	10,143
Other indirect GHG emissions (Scope 3)		681	1,018	1,057
Water Consumption				
Tap water and sewage	m ³	97,545	76,794	100,667
Volume of Waste				
General waste	kg	268,478	245,978	267,829

Energy Consumption



GHG Emissions



Energy consumption intensity
53.6 GJ/FTE
 Target 2021: 52.5 GJ/FTE

GHG emissions intensity
2.61 tonCO₂eq/FTE
 Target 2021: 2.52 tonCO₂eq/FTE

Water consumption intensity
23.79 m³/FTE
 Target 2021: 15.14 m³/FTE

* Total GHG emissions and GHG emissions intensity are based on Scope 1 and Scope 2

1) Scope of measurement was changed due to branch shutdown and the expansion of measurement scope at HQ

2) Full time employee

Tax Policy

Mirae Asset Daewoo understands that compliance with tax laws and responsible, transparent tax payments that go beyond observance of laws is an important factor in contributing to national finance, enhancing shareholder value, and maximizing stakeholder profits, and that it is a fundamental condition that needs to be met for the company's long-term growth. We have therefore established tax rules and policy, and pursue cooperative, constructive relations with taxation authorities for faithful implementation of our tax policy. We make transparent tax payments and disclose relevant information according to the following rules.

Principles on Tax

- We recognize that compliance with tax laws and transparent tax payments are important parts of management.
- We faithfully report and pay taxes in accordance with responsible tax rules.
- We do not abuse differences in tax laws among countries to avoid taxes.
- We evaluate the adequacy of transfer price in accordance with the arm's length principle.
- We do not manage a legal entity for the purpose of avoiding taxes at a tax haven where sharing of tax information is impossible and where we do not have any economic activity.
- We make utmost efforts to fulfill cooperation obligations that are stipulated in tax laws to maintain constructive and cooperative relations with taxation authorities.
- We conduct preemptive management and monitoring to reduce tax risks.
- We document and store tax reports, documentary evidence, and materials related to decision-making on accounting issues.
- We perform regular monitoring of tax issues.

Disclosure of Tax Payment Information

In Korea, we responsibly disclose income tax-related details through an audit report which is available on the Financial Supervisory Service's electronic official notice system (Dart.fss.or.kr). Disclosed content includes the following.

1. Accounting criteria for calculating income taxes
2. Deferred tax asset and liability details
3. Composition details regarding temporary differences
4. Income tax expense composition details and tax rate information

In addition, through our annual Integrated Report and Audited Financial Statement, we disclose revenue and tax payment amount information by country, the difference between the valid tax rate and statutory tax rate of income taxes, and the reason for this difference.

Base Erosion and Profit Shifting

Taxation authorities have made it mandatory to submit a report by country, which is Action 13 (Transfer Pricing Documentation) of the Base Erosion and Profit Shifting (BEPS) Project, for multinational companies through the Adjustment of International Taxes Act. Parties obligated to submit a report, such as a controlling entity in Korea of a multinational company with sales exceeding KRW 1 trillion based on consolidated financial statements of the preceding tax year, is obligated to submit a report by country that includes revenue details, pretax profits and losses, and other such information by country for affiliated companies within the multinational company group. Mirae Asset Daewoo is faithfully fulfilling this obligation.

Materiality Test

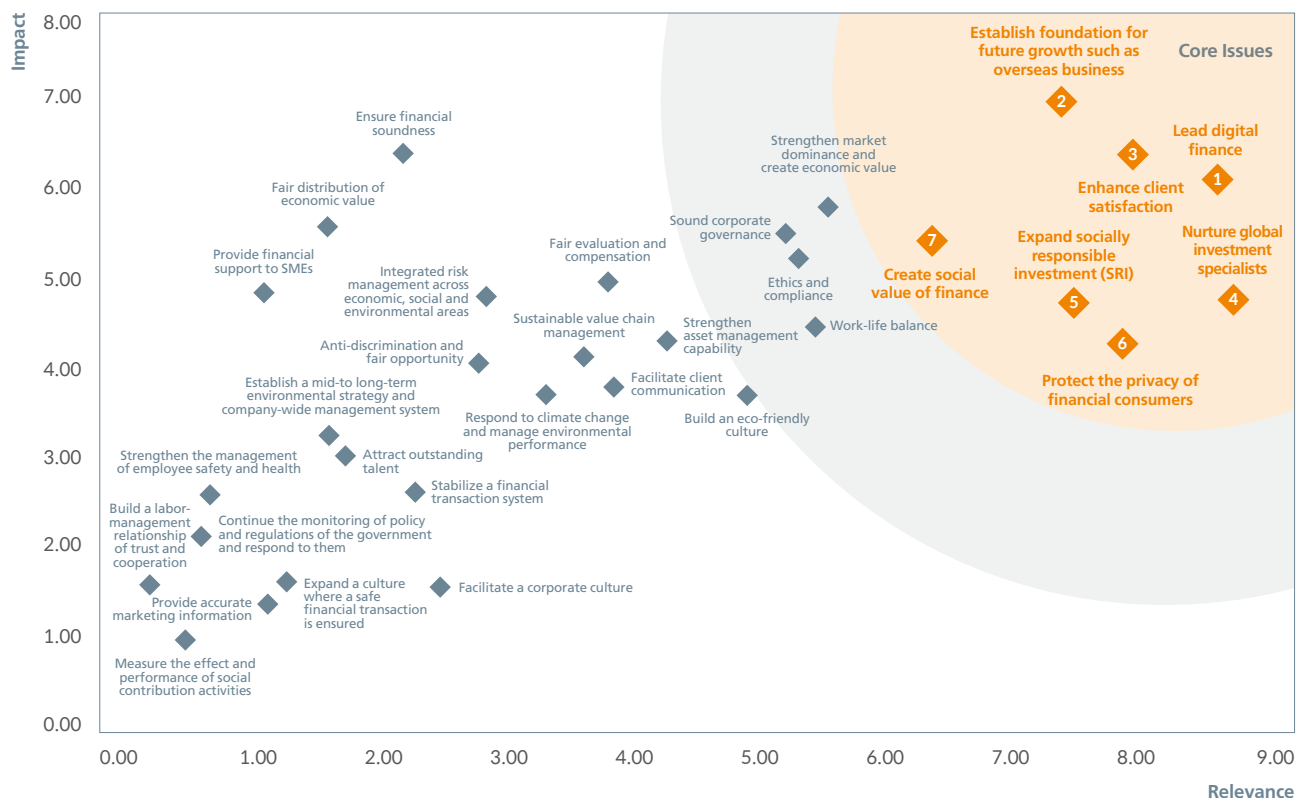
Materiality Test Process

Mirae Asset Daewoo conducts a materiality test in order to identify core issues to be managed with high priority in our efforts to achieve sustainability. The materiality test was carried out in a comprehensive manner based on various methods, such as the methodology of AccountAbility and Global Reporting Initiative (GRI) standards. We analyzed our corporate vision and strategies, global IBs and other industry issues, global standards, and media research, as well as a survey conducted to internal and external stakeholders to identify stakeholders’ areas of interest.



Selecting Core Sustainability Issues

Mirae Asset Daewoo conducted the materiality test in comprehensive consideration of business relevance and direct and indirect impacts of the company on the stakeholders. As a result of the test, seven out of 32 issues were selected as core issues, and our business activities related to such issues are outlined in pages marked in the table below.



No.	Core Issues	Major Stakeholders	Impact Evaluation	Page
1	Lead digital finance	Client, Shareholder & Investor, Local Community	Business operational impact	20-27
2	Establish foundation for future growth such as overseas business	Client, Shareholder & Investor	Business profit impact	20-27
3	Enhance client satisfaction	Client	Brand reputation impact	28-33
4	Nurture global investment specialists	Employee	Business profit impact Brand reputation impact	34-39
5	Expand socially responsible investment (SRI)	Client, Shareholder & Investor, Local Community	Brand reputation impact	20-27
6	Protect the privacy of financial consumers	Client, Shareholder & Investor	Business operational impact	73-74
7	Create social value of finance	Client, Local Community	Brand reputation impact	20-27

Stakeholder Engagement

Stakeholder Management System

Definition of Stakeholders

Mirae Asset Daewoo defines its key stakeholders as the individuals or groups that have a direct or indirect influence on the company and vice versa. This also includes shareholders, group institutions with legal, financial and operational responsibilities, the media, labor union, NGOs, social organizations, local community, competitors, opinion leaders, and academia.

Classification of Stakeholders





Stakeholders of Mirae Asset Daewoo are categorized based on their role, level of impact, and relations. We have designated clients, shareholders & investors, employees, and the local community as four key stakeholders, and then manage them in a systematic manner. We identify key issues and events for each stakeholder group and these are reflected in our business activities.

Stakeholder Communication

Stakeholder Communication Channel

Mirae Asset Daewoo has established various communication channels to listen to stakeholder opinions and expectations, and operates them year-round or on a regular basis. In particular, we undertake stakeholder interviews and surveys to identify core issues, and disclose them in our integrated reports as a way to actively communicate with the stakeholders.

Stakeholder Communication Activities and Channels

Stakeholder	Communication Activities	Communication Channels
Clients (Retail clients, Consumer organizations) 	These stakeholders purchase and use Mirae Asset Daewoo's financial products and services through transactions with the company. We do our utmost to leverage our expertise in which financial consumers can undertake convenient and safe transactions.	<ul style="list-style-type: none"> • Client panel • Customer Service Improvement Council • Voice of Customers (VOC) • Website • Investment forums
Shareholders & Investors (Stockholders, Evaluation organizations) 	These stakeholders own shares of Mirae Asset Daewoo and take part in the company's decision-making process. We strive to maximize shareholder and investor value by generating competitive financial returns.	<ul style="list-style-type: none"> • Annual general meeting • Public disclosure • Company briefing • Investor relations
Employees 	Earning trust from clients requires complete integrity and expertise from our employees. Mirae Asset Daewoo is therefore strengthening employee competencies, and engages in diverse activities to build a healthy corporate culture.	<ul style="list-style-type: none"> • Labor-management Council • Wealth management community
Local Communities 	Mirae Asset Daewoo conducts its social contributions by collaborating with various organizations, including NGOs, and thus strives to fulfill its role as a member of local communities and deliver positive social impacts.	<ul style="list-style-type: none"> • Social contribution activities • Partner institutions • Website

Verification of GHG Emissions Data Reports

Introduction

Korea Productivity Center was required to verify '2019 Greenhouse Gas (GHG) emissions Statements (hereinafter 'Statement')', of which reporting years was defined as January 1st, 2019 to December 31st, 2019, by Mirae Asset Daewoo.

Levels of Assurance

A reasonable level of assurance was agreed.

Verification Scope

2019 Greenhouse gas emissions throughout domestic 10 company buildings of Mirae Asset Daewoo's own

Verification Criteria

- GHG Energy Target Management Guideline
- IPCC Guideline: 2006, WRI/WBCSD GHG Protocol: 2004
- ISO14064-3: 2006 standard

Limitation

Having investigated by sampling method, the Statement might have errors and uncertainties. Final GHG estimates may contain uncertainty for the reasons such as unspecified standard and method, although no exceptional factor has been reported.

Conclusion

- The verification team confirmed that the 'Statements (2019)' was being reported in accordance with self-inspection guideline based on GHG Energy Target Management Guideline and IPCC Guideline.
- Appropriate corrective action was taken by Mirae Asset Daewoo in accordance with investigation results from the verification team.
- The verification team confirms that the 'Statements (2019)' was being reporting 'appropriately' in accordance with relevant standards.

Classification	Classification Greenhouse Gas (GHG) Emissions
Direct Emissions (Scope 1)	904 ton CO ₂ e
Indirect Emissions (Scope 2)	10,143 ton CO ₂ e
Other Indirect Emissions (Scope 3)	1,057 ton CO ₂ e
Total Emissions (Scope 1, Scope 2) ¹⁾	11,047 ton CO ₂ e

1) The total emissions include Scope 1 and Scope 2 only, and are calculated as integers by abandoning decimal places.

July 2nd, 2020

Korea Productivity Center,
Sustainability Management Center

Independent Assurance Statement

To Management and Stakeholders of Mirae Asset Daewoo,

Korea Sustainability Investing Forum (hereinafter called “KoSIF”) has been engaged by Mirae Asset Daewoo (hereinafter called “Company”) to provide an independent assurance report for its 2020 Integrated Report (hereinafter called the “report”), and hereby presents the following assurance statement.

Our Independence and Responsibility

Other than providing this independent assurance report, KoSIF does not hold any interest in the Company that may affect the independence and fairness of the assurance engagement. Although this assurance statement is written for the management and stakeholders of Mirae Asset Daewoo, KoSIF expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this assurance statement.

Basis for Our Opinion

KoSIF has engaged in accordance with

1. Type I, Moderate Level used in AA1000AS (2008).
2. The three accountability principles (inclusivity, materiality, responsiveness) in AA1000APS (2008).
3. Core option of GRI Standard Guideline.

Assurance Process and Limitations

KoSIF carried out an initial review based on publicly available IR materials and supporting data obtained directly from the Company. The on-site audit at the headquarters could not be conducted,¹⁾ and instead was carried out in the form of an interview with a representative from the consulting firm writing the report. For certain data requiring verification from the report, KoSIF conducted phone interviews with the staff from the Company headquarters responsible for the overall report and respective data producer within the Company. KoSIF verified the basis of claims related to the environmental, social, and economic data listed in the report by checking their consistency and conducting sampling inspection. KoSIF confirmed that the financial data were appropriately retrieved from financial statements verified in Data Analysis, Retrieval and Transfer System (DART). Verification for GHG data has been substituted with verification opinion by 3rd party certified professionals. Data and information stretching outside the reporting scope of the Company (e.g. suppliers) were excluded from the audit. The result of the assurance may differ if additional assessment is made.

Results and Opinions

Nothing has come to KoSIF’s attention that causes it to believe the information and data provided were misplaced or misleading. KoSIF could also not find anything that may provide a basis that the report was not prepared in accordance with the Core option of the GRI Standard Guidelines.

KoSIF’s opinion regarding the principles of AA1000 (2008) is as follows:

• Inclusivity

The Company identifies its primary stakeholders into four groups:

1. clients (retail clients, consumer organizations)
2. shareholders and investors (stockholders, evaluation organizations)
3. employees
4. local communities

The company reflects each stakeholder group’s interests, expectations, and opinions through established communication channels continuously and regularly. KoSIF verified that the Company reflects each group’s opinion by surveying to determine material issues annually and that no material stakeholders have been excluded in the process.

1) Due to ‘social distancing’ following the COVID-19 contingency, visit to the headquarters and physical contact with the Company’s staff was limited.

- **Materiality**

The Company drew 32 issues holding strong relevance with the Company by internal issue identification (analysis of conventional sustainability management issues, business strategy and risks, etc.) and external issue identification (analysis of international standards, analysis of key issues and activities of industry peers and model companies in sustainability management, media research, etc.). The Company then conducted an internal and external stakeholder opinion survey, followed by a materiality test considering (in)direct influence of stakeholders and business relevance, through which the Company derived 7 key issues: Lead digital finance, Establish foundation for future growth such as overseas business, Enhance client satisfaction, Nurture global investment specialists, Expand socially responsible investment (SRI), Protect the privacy of financial consumers, Create social value of finance. Through interviews and document review, KoSIF confirmed that material issues have been selected in line with the material assessment process and that no material issue was omitted.

- **Responsiveness**

The Company reports activities and performance relevant to material issues that affect stakeholders. Of the 32 issues identified, 7 material issues have been described thoroughly in its relevant activities and performance. If deemed important, issues apart from the 7 material issues were also reported. KoSIF has not found any evidence that proves omission or misplacement in the Company's reporting of material issues.

Recommendations

In hopes of contributing to the sustainability of stakeholders of the Company, KoSIF recommends the following to enhance the Company's sustainability management and to show timely response to imminent sustainability issues.

- KoSIF suggests that the Company establish a taxonomy of issue pools (e.g. hierarchical category of level 1, 2, 3) for materiality assessment and continuously update issues depending on changing internal and external business environment. This will enable consistent monitoring of changing expectations of the stakeholders and respond accordingly.
- Major international financial authorities (G20, IMF, BIS etc.) are issuing warnings that climate change can result in a financial crisis. Legislation, frameworks, and policies related to sustainable finance led by climate/green finance such as TCFD (Taskforce on Climate-related Financial Disclosures) and NGFS (The Network of central banks and supervisors for Greening the Financial System) are being implemented at an accelerated speed, along with the rising demand for socially responsible investment. KoSIF recommends that the Company establish a strategy to respond to the changing policy environment and communicate its performance with the stakeholders based on the implementation of the strategy.

July 7th 2020

Korea Sustainability Investing Forum

Chairman Kim, Young Ho



GRI Index

1. General Disclosures

Classification	Disclosure	Indicators	Page	Note
Organizational Profile	102-1	Name of the organization	8	
	102-2	Activities, brands, products, and services	8-9, 14-17	
	102-3	Location of headquarters	4-5, 8-9	
	102-4	Location of operations	4-5	
	102-5	Ownership and legal form	4	
	102-6	Markets served	4-5, 14-18, 42-53	
	102-7	Scale of the organization	4-5, 8, 14-17	
	102-8	Information on employees and other workers	98	
	102-9	Supply chain	13	
	102-10	Significant changes to the organization and its supply chain	Refer to page 21-29 in the business report	
	102-11	Precautionary Principle or approach	70-72	
	102-12	External initiatives	111	
	102-13	Membership of associations	113	
Strategy	102-14	Statement from senior decision-maker	6-7	
	102-15	Key impacts, risks, and opportunities	6-7, 70-72	
Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	8	
	102-17	Mechanisms for advice and concerns about ethics	66-69	
Governance	102-18	Governance structure	62-65	
Stakeholder Engagement	102-40	List of stakeholder groups	104	
	102-41	Collective bargaining agreements	38, 98	
	102-42	Identifying and selecting stakeholders	104	
	102-43	Approach to stakeholder engagement	104	
	102-44	Key topics and concerns raised	102-103	
Reporting Practice	102-45	Entities included in the consolidated financial statements	Refer to page 3-7 in the business report	
	102-46	Defining report content and topic Boundaries	20, 28, 34, 102-103	
	102-47	List of material topics	103	
	102-48	Restatements of information	-	Stated separately as a footnote at the related content
	102-49	Changes in reporting	-	Stated separately as a footnote at the related content
	102-50	Reporting period	About This Report	
	102-51	Date of most recent report	About This Report	
	102-52	Reporting cycle	About This Report	
	102-53	Contact point for questions regarding the report	About This Report	
	102-54	Claims of reporting in accordance with the GRI Standards	About This Report	
102-55	GRI content index	108-110		
102-56	External assurance	106-107		

2. Topic-specific Disclosures

Classification	Disclosure	Indicators	Page	Note
Economic Performance	103-1~3	Management Approach	20	
	201-1	Direct economic value generated and distributed	21-27, 42-53	
Training and Education	103-1~3	Management Approach	34	
	404-1	Average hours of training per year per employee	35-39	Provide fair training opportunity regardless of gender and position
Marketing and Labeling	103-1~3	Management Approach	28	
	417-2	Incidents of non-compliance concerning product and service information and labeling	-	No violation
	417-3	Incidents of non-compliance concerning marketing communications	-	No violation
	FS15	Policies for the fair design and sale of financial products and services	29-33	
	FS16	Initiatives to enhance financial literacy by type of beneficiary	26	
Customer Privacy	103-1~3	Management Approach	73	
	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	-	No such case
Product Portfolio	FS1~5	Policies with specific environmental and social components, assessing, monitoring, improving staff competency, and environmental and social risks and opportunities, applied to business lines	20	
	FS7	Monetary value of products and services designed to deliver social benefits for each business line	25	
	FS8	Monetary value of products and services designed to deliver environmental benefits for each business line	25	

3. Disclosures for Non-material Issues

Economic Performance (GRI 200)				
Classification	Disclosure	Indicators	Page	Note
Economic Performance	201-2	Financial implications and other risks and opportunities due to climate change	25-27	
Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	98	
Indirect Economic Impacts	203-1	Infrastructure investments and services supported	54-58, 99	
	203-2	Significant indirect economic impacts	25	
Anti-corruption	205-1	Operations assessed for risks related to corruption	68-69	100%
	205-2	Communication and training about anti-corruption policies and procedures	66-69	
	205-3	Confirmed incidents of corruption and actions taken	68-69	No incident when contracts with business partners were terminated due to violations related to corruption
Anti-competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	-	No such case

Environmental Performance (GRI 300)				
Classification	Disclosure	Indicators	Page	Note
Energy	302-1	Energy consumption within the organization	100	
	302-2	Energy consumption outside of the organization	100	
	302-3	Energy intensity	100	
	302-4	Reduction of energy consumption	59, 100	
Water	303-1	Water withdrawal by source	100	
	303-2	Water sources significantly affected by withdrawal of water	-	All from tap water and sewage
Emissions	305-1	Direct (Scope 1) GHG emissions	100	
	305-2	Energy indirect (Scope 2) GHG emissions	100	
	305-3	Other indirect (Scope 3) GHG emissions	100	
	305-4	GHG emissions intensity	100	
	305-5	Reduction of GHG emissions	59, 100	
Effluents and Waste	306-1	Water discharge by quality and destination	-	Wastewater is treated by a wastewater treatment plant operated by a local autonomous entity
	306-2	Waste by type and disposal method	100	
Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	-	No violation

Social Performance (GRI 400)				
Classification	Disclosure	Indicators	Page	Note
Employment	401-1	New employee hires and employee turnover	98	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	36-38	
	401-3	Parental leave	98	
Occupational Health and Safety	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	98	
Training and Education	404-2	Programs for upgrading employee skills and transition assistance programs	36-37	
	404-3	Percentage of employees receiving regular performance and career development reviews	98	
Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	62, 98	
	405-2	Ratio of basic salary and remuneration of women to men	Refer to page 611 in the business report	
Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	39	No such case
Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	39	No such case
Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	39	No such case
Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	39	No such case
Rights of Indigenous Peoples	411-1	Incidents of violations involving rights of indigenous peoples	39	No such case
	412-1	Operations that have been subject to human rights reviews or impact assessments	39	
Human Rights Assessment	412-2	Employee training on human rights policies or procedures	39, 99	
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	39	
Local Communities	413-2	Operations with significant actual and potential negative impacts on local communities	-	No such case
Socioeconomic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	-	No violation

UNGC & UN SDGs

UNGC

Mirae Asset Daewoo joined the UN Global Compact (UNGC), a voluntary corporate initiative that calls for corporations to assume social responsibility, in October 2006. By abiding by its ten principles concerning human rights, labor, the environment, and anticorruption, we are taking part in global standards on corporate social responsibility and declaring our strong determination to practice sustainability management.

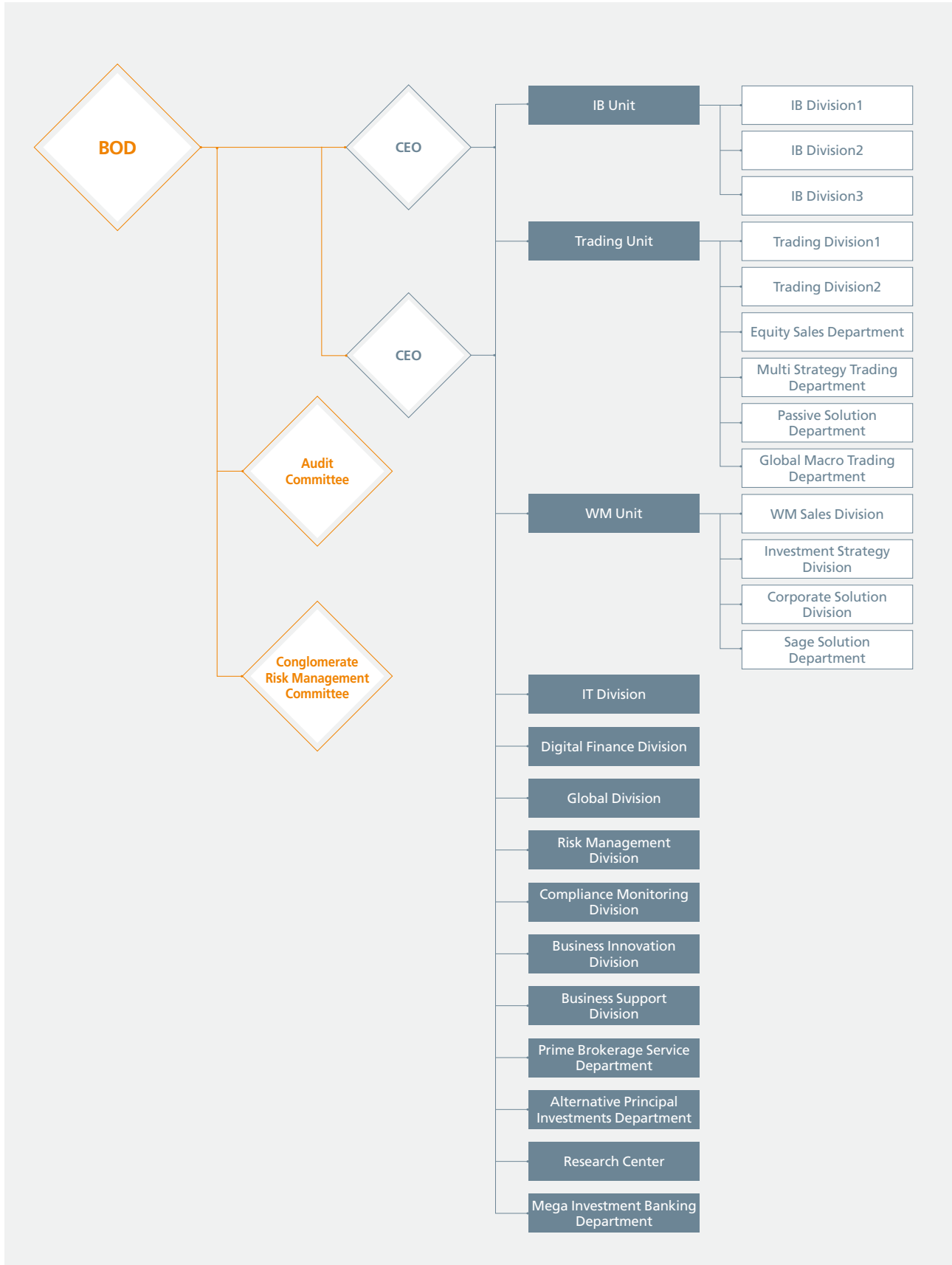
Classification	Principles	Activities of Mirae Asset Daewoo	Page
Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	We establish human rights protection principles, and provide training on preventing various human rights violations, including sexual harassment.	39
	Principle 2: make sure that they are not complicit in human rights abuses.		
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	We operate the Labor-Management Council based on communication.	34-39
	Principle 4: the elimination of all forms of forced and compulsory labour;	We establish principles on protecting human rights concerning the eradication of child labor and forced labor, and implement the principles throughout our business activities.	
	Principle 5: the effective abolition of child labour; and	Prohibition on discrimination based on gender, age, religious belief, social status, region of origin, school, childbirth, medical history, etc. is specified on the Rules of Employment.	
Environment	Principle 6: the elimination of discrimination in respect of employment and occupation.	We develop alternative energy through the Green Index Fund and Clean Energy Fund, participate in new & renewable energy power generation projects, including the floating photovoltaic on Hapcheon Dam, as part of efforts to save energy, and build a green office.	59, 100
	Principle 7: Businesses should support a precautionary approach to environmental challenges;		
	Principle 8: undertake initiatives to promote greater environmental responsibility; and		
Anti-Corruption	Principle 9: encourage the development and diffusion of environmentally friendly technologies.	We conduct compliance and ethical management activities, such as blocking the inflow of illegal funds.	66-69
	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.		

UN SDGs

Mirae Asset Daewoo is conducting activities to achieve the Sustainable Development Goals (SDGs) that were established by the UN for the sustainable development of the international community.

Classification	Goals	Activities of Mirae Asset Daewoo	Page
Goal 04	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Social contributions (Scholarship)	55
Goal 05	Achieve gender equality and empower all women and girls	Career development of female employees	35-39
Goal 07	Ensure access to affordable, reliable, sustainable and modern energy for all	Participating in new & renewable energy power generation projects	25
Goal 08	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Socially responsible finance and fund management, and leading digital finance	25
Goal 09	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Providing financial services customized to medium-sized enterprises and small giants	27
Goal 10	Reduce inequality within and among countries	Fair recruitment and performance evaluation	35
Goal 13	Take urgent action to combat climate change and its impacts	Energy saving efforts	59

Organization Chart



Membership & Awards

Membership

Association of Compliance Officers	Korea Enterprises Federation
Capital Market Association of Securities Companies	Korea Federation of Banks
Financial Information Business Council	Korea Financial Investment Association
Financial Information Security Council	Korea Financial Telecommunications and Clearings Institute
Financial Security Forum	Korea Listed Companies Association
Financial Security Institute	Korea Money and Finance Association
ISDA	Korean Business Association
Korea Association for Chief Financial Officers	Korean Pension Association
Korea Association of Real Estate Investment Trusts	Korean Securities Association
Korea Capital Market Institute	Seoul Financial Forum
Korea Center for International Finance	Seoul IB Forum
Korea Chamber of Commerce & Industry	The Institute of Internal Auditors
Korea Derivatives Association	UN Global Compact
Korea Economic Research Institute	

* As of December 31st, 2019

Awards

Jan. 24	The 8th Yonhap Media Group Finance Awards	IPO
Jan. 24	thebell 2019 Korea Capital Markets thebell League Table Awards	The Best IPO House of the Year and 5 Other Awards
Jan. 30	2018 Research House Awards in Securities Industry by Chosun and FN Guide	Global Coverage Award
Feb. 19	16th Korea IB Awards Sponsored by Money Today	The Best ECM Underwriter
Feb. 21	MK Economy, 2019 Securities Awards	Capital Market Leader Award
Feb. 22	10th Korea Investment Banking Awards by Korea Economy	ECM Award
Feb. 26	7th Capital Market Awards, Newspim	Best IB
Feb. 26	thebell 2019 Korea Wealth Management Awards	Best PBS of the Year
May 02	Herald Biz Capital Market Award	IB Award
Jun. 12	Money Today, Korea Analyst Awards	Top of Best (10th Anniversary)
Sep. 27	Asia Today, Financial Grand Award	Grand Award in Overseas Investment
Oct. 24	Korea Economy TV, Global Financial Awards	Overseas Securities
Oct. 28	Herald Biz Fund Distribution Award	Grand Award in Investment Product Sales
Oct. 31	Money Today, Financial Innovation Awards	Best Innovation Award in Financial Products and Services in Securities and Asset Investment
Nov. 25	Newsis, Securities IR Awards	Best Alternative Investment Award in IB
Nov. 26	Seoul Economy, 2019 Korea Securities Award	Best IB Award
Dec. 03	Tax Daily, 2nd Taxpayers Awards	Securities Industry
Dec. 09	Business Innovation Awards	Presidential Award
Dec. 11	2019 Asia Economy Capital Investment Awards	Grand Award in Retirement Pension
Dec. 17	2019 Aju Economy Securities Awards	Best IB

* As of December 31st, 2019

APPENDIX II

115

Notes to the Consolidated Financial Statements

Notes to the Consolidated Financial Statements

1. Reporting Entity

(1) Parent company

Mirae Asset Daewoo Co., Ltd. (the "Company") was originally incorporated on September 23, 1970, under the name of Dong Yang Securities Co., Ltd. and changed its name to Daewoo Securities Co., Ltd. on October 20, 1983. The Company merged with Sambo Securities Co., Ltd. on December 19, 1983, and changed its name to Mirae Asset Daewoo Co., Ltd. on May 13, 2016. In addition, the Company merged with Mirae Asset Securities Co., Ltd. on December 29, 2016.

The Company is headquartered in Suha-dong, Jung-gu, Seoul and also operates a network of 82 domestic branches, 3 overseas liaison offices, 12 overseas subsidiaries and 1 overseas investment consulting company as of December 31, 2019.

The shares of the Company were initially listed on the Korea Exchange in September 1975, and the Company has increased its capital by issuing new paid-in shares, bonus issue, and stock dividend, etc. The Company's outstanding capital (including preferred shares) as of December 31, 2019, amounted to ₩4,101,961 million, and major shareholders of the Company as of December 31, 2019, are as follows:

Name of shareholder	Number of Shares	Percentage of ownership (%)
Mirae Asset Capital Co., Ltd.	133,492,000	20.28
Treasury stock	108,723,602	16.52
Employee stock ownership association	1,452,623	0.22
Others	414,648,183	62.98
	658,316,408	100.00

(2) Subsidiaries

1) Mirae Asset Venture Investment Co., Ltd.

Mirae Asset Venture Investment Co., Ltd. was founded on June 8, 1999, to primarily support the establishment of smaller businesses and registered as a small investment business company with the Small and Medium Business Administration on June 28, 1999. The entity is mostly engaged in projects regarding investments and venture capital fund managements for small businesses. The entity's headquarters is located at Seongnam City, Gyeonggi Province. The entity had ₩10,000 million as capital at the time of establishment, and with issuances of new stocks, the entity has ₩30,667 million of common stocks and ₩500 million of preferred stocks of paid-in capital, as of December 31, 2019.

2) Mirae Asset Securities (UK) Ltd.

Mirae Asset Securities (UK) Ltd. was established by the Company on May 3, 1991, and it is engaged in securities brokerage, sale, acquisition and arrangement of proprietary assets, etc. The entity changed its name from Daewoo Securities (Europe) Ltd. to Mirae Asset Securities (UK) Ltd. on November 28, 2016.

3) Mirae Asset Securities (USA) Inc.

Mirae Asset Securities (USA) Inc. is wholly owned by Mirae Asset Securities Holdings (USA) Inc.. Established on July 7, 1992, it is engaged in securities brokerage, sale of proprietary assets, etc. The entity changed its name from Daewoo Securities (America) Inc. to Mirae Asset Securities (USA) Inc. on November 28, 2016.

4) Mirae Asset Securities (HK) Limited

Mirae Asset Securities (HK) Limited was established by the Company, and it obtained a permit for operation from relevant authorities in Hong Kong on January 11, 2007. It is engaged in securities brokerage, proprietary trading, corporate finance consulting, and asset management etc. Upon the merge with Daewoo Securities (Hong Kong) Ltd., the entity changed its name from Mirae Asset Wealth Management (HK) Limited to Mirae Asset Securities (HK) Limited on March 1, 2017.

5) Mirae Asset Wealth Management (Brazil) CCTVM

Mirae Asset Wealth Management (Brazil) CCTVM was established through a merger between Mirae Asset Brazil Holdings, a holding company controlled by Mirae Asset Securities (HK) Limited in order to operate securities brokerage business in Brazil, and Mirae Asset Securities (Brazil) CCTVM LTDA for overall business on the region on February 25, 2014. The entity was renamed from Mirae Asset Securities (Brazil) CCTVM to Mirae Asset Wealth Management (Brazil) CCTVM on February 9, 2015.

6) PT. Mirae Asset Sekuritas Indonesia

PT. Mirae Asset Sekuritas Indonesia was established by Mirae Asset Securities (HK) Limited on August 1, 2013. It is engaged in securities brokerage, sale, acquisition and proprietary trading, consulting, etc. The entity is renamed from PT. Daewoo Securities Indonesia to PT. Mirae Asset Sekuritas Indonesia on December 26, 2016.

7) Mirae Asset MAPS Frontier US Private Real Estate Investment Trust 6-2

Mirae Asset MAPS Frontier US Private Real Estate Investment Trust 6-2 is a collective investment securities designed to invest in Fairmont Hotel located in San Francisco, USA on September 21, 2015. The Group holds its equity in the amount of ₩143,018 million (book value) which is 99.92% of equity interest as of December 31, 2019.

8) Mirae Asset MAPS Frontier US Private Real Estate Investment Trust 7

Mirae Asset MAPS Frontier US Private Real Estate Investment Trust 7 is a collective investment securities designed to invest in Hyatt Regency Waikiki Hotel located Oahu Waikiki beach in Hawaii, USA. The Group holds its equity in the amount of ₩322,987 million (book value) which is correspond to 99.83% of its total shares as of December 31, 2019.

2. Basis of preparation**(1) Statement of compliance**

The Company and its subsidiaries ("the Group") have prepared the consolidated financial statements in accordance with the Korean International Financial Reporting Standards ("K-IFRS"), as prescribed in the Act on External Audits of Stock Companies in Republic of Korea.

The accompanying consolidated financial statements have been translated into English from the Korean language financial statements.

The consolidated financial statements were authorized for issue by the Board of Directors on January 30, 2020, which will be submitted for approval to the stockholder's meeting to be held on March 25, 2020.

The consolidated financial statements of the Group initially applied *K-IFRS No. 1116 Leases* from January 1, 2019. Changes in significant accounting policies are described in note 4.

(2) Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis except for the following material items in the consolidated statement of financial position, which are measured on an alternative basis on each reporting date.:

- Derivative financial instruments
- Financial assets measured at fair value through profit or loss
- Financial assets measured at fair value through other comprehensive income
- Share-based payments measured at fair value
- Defined benefit liabilities, deducting the fair value of plan assets from the present value of defined benefit obligations

(3) Functional and presentation currency

Each group entity's financial statements are prepared using the respective currency of the primary economic environment in which the group entities operate (functional currency). The Group's consolidated financial statements are presented in Korean won ("₩"), which is also the Company's functional and presentation currency.

(4) Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are evaluated on an ongoing basis. Revisions to accounting estimates are recognized in the year in which the estimates are revised and in any future years affected.

1) Management's judgment

Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements is included in the following notes:

- Note 3. (7) – Non-derivative financial assets
- Note 3. (8) – Derivative financial assets
- Note 3. (9) – Fair value of financial instruments

- Note 3. (10) – Impairment of financial assets
- Note 3. (14) – Investment property
- Note 3. (18) – Hybrid financial instruments
- Note 3. (20) – Employee benefits
- Note 3. (22) – Provisions
- Note 3. (28) – Income tax

2) Uncertainty of assumptions and estimations

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next fiscal year are included in the following notes:

- Note 3. (20): Employee benefits
- Note 3. (28): Income tax
- Note 11: Financial assets measured at amortized cost
- Note 12: Fair value of financial asset and liability
- Note 24 and 47: Provisions, commitments and contingencies
- Note 48: Share-based payment

3. Significant accounting policies

Except for the new standards and the amendments to existing standards as described in note 4 to the consolidated financial statements, which were applied from January 1, 2019, the accounting policies applied by the Group in preparing the 2019 consolidated financial statements are consistent with prior year. Significant accounting policies applied by the Group are as follows:

(1) Basis of consolidation

The consolidated financial statements integrate the financial statements of the parent and those of its subsidiaries. The Group controls an investee if the Group has 1) Power over the investee 2) Exposure, or rights, to variable returns from its involvement with the investee, and 3) The ability to use its power over the investee to affect its returns. The Group reevaluates whether it controls over an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control.

The Group with less than a majority of the voting rights has rights that are sufficient to give it power when the investor has the practical ability to direct the relevant activities unilaterally. When assessing whether the Group's voting rights are sufficient to give it power, the Group considers all facts and circumstances, including:

- The size of the investor's holding of voting rights relative to the size and dispersion of holdings of the other vote holders.
- Potential voting rights held by the investor, other vote holders or other parties.
- Rights arising from other contractual arrangements, and
- Any additional facts and circumstances that indicate the investor has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

Income and expenses of a subsidiary acquired or disposed of during the year are included in the statement of comprehensive income from the date the Group gains control until the date or the Group ceases to control the subsidiary. The carrying amount of the non-controlling interests is proportionate share of the recognized amount of the identifiable net assets at the acquisition date and the amount of change in equity related to non-controlling interest thereafter. The Group shall also attribute total comprehensive income to the owners of the parent and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

If a subsidiary of the Group uses accounting policies other than those adopted in the consolidated financial statements for like transactions and events in similar circumstances, appropriate adjustments are made to the subsidiary's financial statements in preparing the consolidated financial statements.

All transactions between the group entities are eliminated upon consolidation.

The transactions of changes in the Group's ownership interest that do not result in a loss of control are accounted for as equity transactions. Changes in equity from subsidiary are accounted for by adjusting book value of controlling interest and non-controlling interest. The differences between the adjusted amount of the non-controlling interest and the fair value of the considerations are directly recognized to equity attributable to the parent.

If a parent loses control of a subsidiary it will recognize gains or losses from the disposal of its subsidiaries at the difference between 1) the fair value of the considerations received and 2) the carrying amounts of the assets (including any goodwill), liabilities of the subsidiary and non-controlling interests at the date when control is lost. If a parent loses control of a subsidiary, the parent shall account for all amounts previously recognized in other comprehensive income in relation to that subsidiary on the same basis as would be required if the parent had directly disposed of the related assets or liabilities. At the date of losing control over subsidiaries, the fair value of investment retained in the former subsidiary shall be regarded as the fair value on initial recognition of a financial asset in accordance with *K-IFRS No. 1109* or, when appropriate, the cost on initial recognition of an investment in an associate or joint venture.

(2) Business combinations

Acquisitions of subsidiaries and businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the fair values of the assets transferred by the Group at the acquisition date, liabilities incurred by the Group to the former owners of the acquiree and equity instruments issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognized in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognized at their fair value at the acquisition date, except that:

- Deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognized and measured in accordance with *K-IFRS No. 1012 Income Taxes* and *K-IFRS No. 1019 Employee Benefits* respectively;
- Liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with *K-IFRS No. 1102 Share-based Payment* at the acquisition date; and

Goodwill is measured as the excess of the sum of a) the consideration transferred, b) the amount of any non-controlling interests in the acquiree and c) the fair value of the acquirer's previously held equity interest in the acquiree (if any), over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of a) the consideration transferred, b) the amount of any non-controlling interests in the acquiree and c) the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognized immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are current ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either 1) at fair value or 2) at the non-controlling interests' proportionate share of the recognized amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another K-IFRS.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and is included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement-period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement-period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement-period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with *K-IFRS No. 1109 Financial Instruments*, or *K-IFRS No. 1037 Provisions, Contingent Liabilities and Contingent Assets*, as appropriate, with the corresponding gain or loss being recognized in profit or loss.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (i.e., the date when the Group obtains control) and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group recognizes provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognized to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognized at that date.

(3) Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The results and assets and liabilities of associates or joint ventures are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment is classified as held for sale, in which case it is accounted for in accordance with *K-IFRS No. 1105 Non-current Assets Held for Sale and Discontinued Operations*. Under the equity method, an investment in an associate or a joint venture is initially recognized in the consolidated statement of financial position at cost and adjusted thereafter to recognize the Group's share of the profit or loss and equity changes of the associate or joint venture. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture), the Group discontinues recognizing its share of further losses. Additional losses are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of an associate or a joint venture recognized at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment and it undergoes impairment test as a part of the investment assets. Any excess of the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss.

Upon disposal of an associate or a joint venture that results in the Group losing significant influence over that associate or joint venture, any retained investment is measured at fair value at that date and the fair value is regarded as its fair value on initial recognition as a financial asset in accordance with *K-IFRS No. 1109 Financial Instruments*. The difference between the previous carrying amount of the associate or joint venture attributable to the retained interest and its fair value is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Group accounts for all amounts previously recognized in other comprehensive income in relation to that associate or joint venture on the same basis we would be required if that associate or joint venture had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognized in other comprehensive income by that associate or joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as reclassification adjustment) when it loses significant influence over that associate or joint venture.

When the Group reduces its ownership interest in an associate or a joint venture but the Group continues to use the equity method, the Group reclassifies to profit or loss the proportion of the gain or loss that had previously been recognized in other comprehensive income relating to that reduction in ownership interest if that gain or loss would be reclassified to profit or loss on the disposal of the related assets or liabilities. In addition, the Group applies *K-IFRS No. 1105 Non-current Assets Held for Sale and Discontinued Operations* to a portion of investment in an associate or a joint venture that meets the criteria to be classified as held for sale.

The requirements of *K-IFRS No. 1109 Financial Instruments* are applied to determine whether it is necessary to recognize any impairment loss with respect to the Group's investment in an associate or a joint venture. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with *K-IFRS No. 1036 Impairment of Assets* by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount; any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized in accordance with *K-IFRS No. 1036 Impairment of Assets* to the extent that the recoverable amount of the investment subsequently increases.

The Group continues to use the equity method when an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate reversely. There is no remeasurement to fair value upon such changes in ownership interests.

When a group entity transacts with an associate or a joint venture of the Group, profits and losses resulting from the transactions with the associate or joint venture are recognized in the Group's consolidated financial statements only to the extent of interests in the associate or joint venture that are not related to the Group.

(4) Goodwill

Goodwill resulting from an acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any.

For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units (or groups of cash-generating units) that is expected to benefit from the synergies of the combination.

A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit on a pro-rata basis based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

(5) Foreign currency transactions

1) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of the Group entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rate at the reporting date. Non-monetary assets and liabilities that are measured at fair value in a foreign currency are translated into the functional currency at the exchange rate when the fair value was determined. Non-monetary items that are measured based on historical cost in a foreign currency are translated at the exchange rate at the date of the transaction. Foreign currency differences are generally recognized in profit or loss and presented within co costs.

Foreign currency differences arising on translation of monetary items are recognized in profit or loss, except for differences arising on the settlement of monetary items, a financial liability designated as a hedge of the net investment in a foreign operation, or in a qualifying cash flow hedge, which are recognized in other comprehensive income. Translation differences on Non-monetary items whose fair value gain or loss is recognized in other comprehensive income or profit or loss is also recognized in other comprehensive income or profit or loss, respectively.

2) Foreign operations

If the presentation currency of the Group is different from a foreign operation's functional currency, the financial statements of the foreign operation are translated into the presentation currency using the following methods.

Unless the functional currency of foreign operations is in a state of hyperinflation, assets and liabilities of foreign operations are translated at the closing exchange rate at the end of the reporting period. Revenues and expenses on the statement of comprehensive income are translated at average rate for the accounting period. Foreign currency differences that arise from translation are recognized as other comprehensive income, and reclassified as profit or loss when foreign operations are disposed and the disposal profit or loss is recognized.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of that foreign operation is treated as assets and liabilities of the foreign operation. Thus, they are expressed in the functional currency of the foreign operation and translated at the closing rate.

When a foreign operation is disposed the relevant amount in the translation is transferred to profit or loss as part of the profit or loss on disposal. In any other partial disposal of a foreign operation, the relevant proportion is reclassified to profit or loss.

3) Translation of net investment in the foreign operation

Monetary items receivable from or payable to a foreign operation, with none or little possibility of being settled in the foreseeable future, are considered a part of the net investment in the foreign operation. Therefore, the exchange difference is recognized as other comprehensive profit or loss in the financial statement, and reclassified to profit or loss as of the disposal of the related net investment.

(6) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, demand deposits, and short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in their fair value, and are used by the Group in the management of its short-term commitments. Equity investments are excluded from cash equivalents unless they are, in substance, cash equivalents, for example, in the case of preferred shares when it has a short maturity with a specified redemption date.

(7) Non-derivative financial assets

1) Classification and measurement

In accordance with *K-IFRS No. 1109*, the Group classifies non-derivative financial assets with financial assets measured at fair value (with changes in fair value changes recognized either in other comprehensive income or in profit or loss) or at amortized cost. In general, the classification is determined based on how the financial instrument is managed within business models and its contractual cash flow is characterized.

The Group assesses the purpose of the business models at the portfolio level of financial assets considering how the business is managed and how the information is provided to management, as follows:

- The account policy and purpose stated for the portfolio, and operation of these policies in practice. Including acquisition of contractual interest, maintenance of specific interest rate, match to the duration of liabilities to fund financial asset with the duration of the financial assets, and management's strategy for an outflow or realization of expected cash flow through disposal of assets.
- How to report the assessment to key management, with assessing the performance of financial assets held by business model.
- The risk affecting the performance of business model (and financial assets held by business model) and how to manage the risk
- How is management's compensation determined (e.g., whether based on fair value of assets or contractual cash flows)
- Frequency of sale of financial assets for the past period, amount, timing, reason, the expectation about future sale activity

The Group considers terms and conditions of a contract when assessing whether the contractual cash flow is composed of solely payments of principal and interest. If non-derivative financial assets include terms and conditions of a contract that change the timing or amount of contractual cash flows, the Group determine whether the contractual cash flow that may arise for the lifetime of the financial assets is composed of solely payments of principal and interest. The Group considers the following:

- The conditional situation that may change the amount or timing of cash flows
- Terms that adjust coupon rate including the characteristics of floating rate
- The characteristics of prepayment or extension
- Terms and conditions that restrict the Group's claim on cash flow from specific assets

A non-derivative financial asset is measured initially at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to its acquisition.

① Financial assets measured at amortized cost A financial asset shall be measured at amortized cost if the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows, and the contractual term of the financial asset give rise on specified date to cash flows that are solely payments of principal and interest on the principal amount outstanding. Subsequent to initial recognition, financial assets measured at amortized cost are measured at amortized cost using the effective interest rate method. Amortized cost is reduced by impairment loss. Interest income, profit or loss from translation of foreign currency, impairment losses are recognized in profit or loss.

② Financial assets measured at fair value through other comprehensive income A financial asset shall be measured at fair value through other comprehensive income if the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and the contractual terms of the financial asset give rise on a specified date to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Profit or loss from all financial assets measured at fair value through other comprehensive income except for the credit losses (reversal), interest income, and foreign exchange gain or loss, are recognized in other comprehensive income. The cumulative gain or loss previously recognized in other comprehensive income will be reclassified from equity to profit or loss as a reclassification adjustment.

Investments in equity instrument that is not held for trading can be irrevocably elected to present the subsequent changes in fair value in other comprehensive income. The election is made at individual financial instruments level. Dividends from equity securities designated as measured at fair value through other comprehensive income, which do not belong to refund of invested capital, is recognized as profit or loss. Other items are recognized with other comprehensive income and will never be reclassified to profit or loss.

③ Financial assets measured at fair value through profit or loss A financial instrument shall be measured at fair value through profit or loss unless it is measured at amortized cost or at fair value through other comprehensive income. All gains and losses, including interest and dividend income, are recognized in profit or loss.

A financial asset can be irrevocably designated as financial assets measured at fair value through profit or loss if doing so eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on a different basis.

2) Derecognition of financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows of the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the Group is recognized as a consolidated asset or liability.

If the Group retains substantially all the risks and rewards of ownership of the transferred financial assets, the Group continues to recognize the transferred financial assets and recognizes financial liabilities for the consideration received.

3) Offsetting between financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is presented in the consolidated statement of financial position only when the Group currently has a legally enforceable right to offset the recognized amounts, and there is the intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

(8) Derivative financial instruments

Derivatives are initially recognized at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

1) Hedge accounting

Derivative instruments are accounted for differently depending on whether hedge accounting is applied, and therefore, are classified into trading purpose derivatives and hedging purpose derivatives. A fair value hedge is a hedge of the exposure to changes in fair value of a recognized asset or liability or an unrecognized firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss. A cash flow hedge is a hedge of the exposure to variability in cash flows that (i) is attributable to a particular risk associated with a recognized asset or liability (such as all or some future interest payments on variable rate debt) or a highly probable forecasted transaction and (ii) could affect profit or loss. For trading purpose derivatives transactions, changes in the fair value of derivatives are recognized in profit or loss.

2) Embedded derivative instruments

Derivatives may be embedded in another contractual arrangement (a "host contract"). The terms of the embedded derivative would meet the definition of a derivative if they were included in a separate contract, and the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract.

When the non-derivative financial asset is a hybrid contract with an embedded derivative, except the host contract is not a financial asset under certain condition, the Group considers the entire hybrid contract in determining whether the contractual cash flow is composed of solely payments of principal and interest.

When the non-derivative financial liability is a hybrid contract with an embedded derivative, the Group accounts for the embedded derivative separately from the host contract when the host contract is not measured at fair value through profit or loss. Any changes in the fair value of the separated embedded derivatives are recognized in profit or loss.

3) Other derivative financial instruments

Changes in the fair value of other derivative financial instrument not designated as a hedging instrument are recognized immediately in profit or loss.

(9) Fair value of financial instruments

The fair values of financial instruments not actively traded in markets (e.g., OTC derivatives) are determined by using valuation techniques. The Group determines valuation methods and assumptions based on significant market conditions at the end of each reporting period. Diverse valuation techniques are used to determine the fair value of financial instruments, from general market accepted valuation models to internally developed valuation models that incorporate various types of assumptions and variables.

The Group classifies and discloses fair value of the financial instruments into following three-level hierarchy.

(Level 1) Financial instruments measured at quoted prices from active markets are classified as fair value level 1.

(Level 2) Financial instruments measured using valuation techniques where all significant inputs are observable market data are classified as level 2.

(Level 3) Financial instruments measured using valuation techniques where one or more significant inputs are not based on observable market data are classified as level 3.

The method of measuring fair value of financial instruments are as follows:

Type	Fair value measurement method
Deposits	The carrying amount and fair value is the same for cash, and the carrying amount is determined to be the fair value for deposits.
Financial assets measured at fair value through profit or loss	The quoted prices are applied to financial instruments held for trading traded in active markets, such as listed stocks. If quoted prices are not available, fair values determined by specialized external evaluation agency are applied. Hybrid financial instruments apply the fair values determined by valuation techniques.
Derivatives	The quoted prices are applied to in-market derivatives, and as of off-market derivatives, fair values determined by specialized external evaluation agency are applied.
Financial assets measured at fair value through other comprehensive income	The quoted prices are applied to securities traded in active markets, such as listed stocks, and if quoted prices are not available, fair values determined by specialized external evaluation agency are applied.
Financial assets measured at amortized cost	The carrying amount is determined to be the fair value.
Deposits due to customers	The carrying amount is determined to be the fair value.
Borrowings	The carrying amount is determined to be the fair value.
Debentures	The fair value is measured using discounted cash flow model.
Other financial assets and liabilities	The carrying amount is determined to be the fair value for other financial assets and liabilities that are derived from various transactions, since they are relatively short term.

(10) Impairment of financial assets

The Group assesses the expected credit losses on a debt instrument measured at amortized cost or fair value through other comprehensive income based on the forward-looking information. Impairment approach will depend on whether there is a significant increases in credit risk. Depending on the degree of increase in credit risk on a financial asset since initial recognition, the Group recognizes the amount for loss allowance at an amount equal to either 12-month credit losses or lifetime expected credit losses by 3 stages as shown in the below table.

Description	Expected Credit Loss
Stage 1 No significant increase in credit risk since their initial recognition(*)	12-month ECL: 12-month expected credit losses: the expected credit losses that result from default events on a financial instrument that are possible within the 12 months after the reporting date.
Stage 2 Significant increase in credit risk since their initial recognition	Lifetime ECLs: the expected credit losses that result from all possible default events over the expected life of a financial instrument.
Stage 3 Assets are non-performing and therefore considered as credit-impaired	

(*) The Group may assume that the credit risk on a financial instrument has not increased significantly since initial recognition if the credit risk is low at the reporting date.

The Group recognizes the cumulative changes in lifetime expected credit losses since initial recognition as a loss allowance for credit-impaired financial assets.

As for financial assets measured at amortized cost or debt securities measured at fair value through other comprehensive income, the Group regards the following indication as evidence for a significant increase in credit risk since initial recognition.

i) Loans

- Loans classified as precautionary of the Financial Supervisory Service's asset soundness classification.
- Loans whose level of default risk exceeds absolute or relative rating due to significant changes in internal credit rating as of the reporting date after initial recognition(12-month expected credit losses are recognized if external credit rating corresponding to internal credit rating is qualified investment rating)
- Loans for which the principal or interest is overdue for more than 30 days

ii) Bonds

- Bonds whose level of default risk exceeds absolutely or relatively high due to significant changes in external credit rating of the reporting date after initial recognition(12-month expected credit losses are recognized if external credit rating corresponding to internal credit rating is qualified investment rating)
- Bonds for which the principal or interest is overdue for more than 30 days

The Group considers that credit risk is low if the degree of credit risk rating is at a level that is internationally understood as the definition of 'investment grade'. The Group considers an external credit rating of A or higher to have low credit risk.

The Group defines that a default has occurred if there are objective reasons to reduce the reliably estimated future cash flows after initial recognition. The objective reasons included the following:

- Continuous overdue of principal and interest;
- Deterioration in credit rating such as suspension of overdraft checking accounts of debtor;
- Debtor's bankruptcy or default;
- Occurrence of a significant lawsuit or claim against debtor;
- Debtor's financial situation is poor due to an important factor which is related to a delay in the business schedule; or
- Occurrence of other events that would significantly impact on the solvency of a debtor.

Also, the Group defined the meaning of default in the same way as the regulatory capital management policies. Therefore, the Group believes that the best estimate could be used for the measurement of financial asset impairment.

1) Measurement of expected credit losses

The major variables used by the Group for measuring expected credit losses are as follows. These credit risk measurement factors have applied the probability of default by period and loss given default as defined in the supervisory regulations, and have been adjusted by reflecting forward-looking information.

- Percentage of default by period obtained from independent credit ratings institutions
- Percentage of loss given default defined by regulatory requirement
- The expected exposure at the time of default and the contractual maturity

2) Reflection of forward-looking information

The Group reflects the forward-looking information presented by the internal expert group based on various information when measuring expected credit losses. For the purpose of forecasting these forward-looking information, the Group utilizes the economic prospects disclosed by domestic and overseas research institutes or government and public institutions.

The Group reflects the anticipated future macroeconomic conditions from a neutral point of view without bias, in measuring expected losses. Expected loss in this respect reflects the most likely outcome and is based on the same assumptions as the Group estimates based on its business plan and management strategy.

(11) Day 1 profit or loss recognition

In cases where fair value is determined using data which is not observable in the market, the difference between the transaction price and initial value is amortized in the statement of comprehensive income by using the straight line method over an appropriate period to maturity.

(12) Property and equipment

Property and equipment are initially measured at cost and after initial recognition, are carried at cost less accumulated depreciation and accumulated impairment losses. The cost of property and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent to initial recognition, an item of property and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses.

Subsequent costs are recognized in the carrying amount of property, plant and equipment at cost or, if appropriate, as separate items if it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing are recognized in profit or loss as incurred.

Property and equipment, except for land, are depreciated on a straight-line basis over estimated useful lives that appropriately reflect the pattern in which the asset's future economic benefits are expected to be consumed. A component that is significant compared to the total cost of property and equipment is depreciated over its separate useful life.

The estimated useful lives of the Group's assets by categories are as follows:

Descriptions	Useful lives (years)
Structures	20, 40
Vehicles	4
Furniture and fixtures	4
Data processing equipment	4

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item are depreciated separately. Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized in profit or loss.

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate. The change is accounted for as a change in an accounting estimate.

Property and equipment is impaired when its carrying amount exceeds the recoverable amount. The Group assesses residual value and economic life of its assets at each reporting date and makes adjustments to its useful life when necessary. Any gain or loss arising from the disposal of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is recognized in profit or loss.

(13) Lease

The accounting policies applied by the Group from January 1, 2019

The Group assesses whether the contract is, or contains, a lease at the initial contract date. If a contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration, the contract is, or contains, a lease. In determining whether a contract transfers control of the use of the identified asset, the Group uses the definition in *K-IFRS No.1116 Leases*.

1) Lessee

At the commencement or effective date of the contract that includes the lease element, the Group shall allocate the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease component. But the Group will account for each lease element and associated non-lease element as a single lease element, using the practical expedient of accounting for contracts that include all or part of the lease.

The Group is leasing assets including structures and IT assets, and the terms of the lease are negotiated separately and include various terms and conditions.

The Group recognizes a right-of-use asset and a lease liability at the commencement date. The right-of-use asset is measured at cost at the commencement date, and is measured at cost less any accumulated depreciation, any accumulated impairment losses and adjusted for any remeasurement of the lease liability subsequent to initial recognition. The right-of-use asset that meet the definition of investment property is presented as investment property. The right-of-use asset presented as investment property is measured at cost at the initial recognition date, and is measured according to a cost model same way as the accounting policies the group is applying to investment property subsequent to initial recognition.

A lease liability is measured at the present value of the lease payments that are not paid at the commencement date at the initial recognition using the interest rate implicit in the lease. If the interest rate cannot be readily determined, the present value use the lessee's incremental borrowing rate. The Group generally uses the Group's incremental borrowing rate.

The lease payments included in the measurement of the lease liability consist of the following amounts:

- Fixed lease payments (including actual fixed lease payments, less incentive to receive)
- Variable lease payments that vary according to an index or a rate (interest rate)
- Amounts expected to be paid by the lessee under a residual value guarantee
- The exercise price under a purchase option that the Group is reasonably certain to exercise
- Lease payments in an optional renewal period if the Group is reasonably certain to exercise an extension option and penalties for early termination of a lease unless the Group is reasonably certain not to terminate early

After the commencement date, the lease liability is increased to reflect interest on the lease liability and reduced to reflect the lease payments made. The lease liability is remeasured, if there is a change in future lease payments resulting from change in an index or a rate, change in the amounts expected to be payable under a residual value guarantee, change in assessment whether the lessee is reasonably certain to exercise an option to extend the lease or to purchase the underlying asset, or not to exercise an option to terminate the lease.

The right-of-use asset is measured at cost comprised of the following items.

- Initial measurement amount of the lease liability
- Lease paid on or before the commencement date of the lease (excluding the lease incentive received)
- Initial direct costs incurred by the lessee
- Estimated costs incurred by the lessee when dismantling and removing the underlying asset, restoring the existing leased properties where the underlying asset is located, or restoring the underlying asset itself

The Group presents right-of-use asset that does not meet the definition of investment property in the consolidated financial statement as property, plant and equipment, and lease liabilities as borrowings.

The Group has elected not to recognize low-value leases as right-of-use assets and lease liabilities. The Group recognizes the cost associated with those leases expense as lease expense on a straight-line basis for the period of a lease.

2) Lessor

The accounting policies applied by the Group as a lessor are not different from those applied before January 1, 2019. The Group applies *K-IFRS No. 1115 Revenue from Contracts with Customers* when allocating the consideration in the contract to the lease component and non-lease component.

The accounting policies applied by the Group before January 1, 2019

1) Classification of lease The Group classifies a lease as an operating lease or a finance lease depending on whether it transfers substantially all the risks and rewards incidental to ownership of an lease asset.

2) Lessee The Group as a lessee classified a lease as a finance lease, where substantially all of the risks and rewards of ownership of the underlying asset are transferred to the Group. For finance leases, lease assets are initially measured at either fair value or the lower present value of the minimum lease payments. Minimum lease payments are the amount that the lessee must pay during the lease term, excluding adjustment lease payments. Lease assets are subsequently recognised and accounted for consistently with the accounting policies applicable to those assets.

If classified as an operating lease, there is no lease asset recognised in the consolidated financial statement of the Group. Lease expense is recognised on a straight-line basis over the lease term. If a lease incentive is received, it is recognised by deducting the total lease expenses over the lease term.

3) Lessor The Group as a lessor determines whether the lease is a finance lease or an operating lease at the date of arrangement.

To classify each lease, the Group generally determines whether the lease transfers substantially all of the risks and rewards of ownership of the underlying asset. If they are transferred to the lessee, the lease is classified as a finance lease, otherwise the lease is classified as an operating lease. As part of this evaluation, the Group considers whether the lease term takes up a significant part of the economic useful life of the underlying asset.

(14) Investment property

Property held for the purpose of earning rentals or benefiting from capital appreciation is classified as investment property. Investment property is measured initially at its cost. Transaction costs are included in the initial measurement. Subsequently, investment property is carried at depreciated cost less any accumulated impairment losses.

Investment property is derecognized upon disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from the disposal. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the assets) is included in profit or loss in the period in which the property is derecognized.

Depreciation of investment property is calculated using the straight-line method over their estimated useful lives as follow:

Descriptions	Useful lives (years)
Buildings	20 ~ 78

(15) Intangible assets

Intangible assets are measured initially at cost and after initial recognition are carried at cost less accumulated amortization and accumulated impairment losses.

Amortization of intangible assets is calculated on a straight-line basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value of intangible assets is zero. However, as there are no foreseeable limits to the periods over which memberships and settlement system right of use are expected to be available for use, these intangible assets are determined as having indefinite useful lives and not amortized.

Descriptions	Useful lives (years)
Goodwill	Indefinite useful lives
Development cost	4
Software	4
Memberships	Indefinite useful lives
Settlement system right of use	Indefinite useful lives
Others	7

Amortization periods and the amortization methods for intangible assets with finite useful lives are reviewed at the end of each reporting period. The useful lives of intangible assets that are not being amortized are reviewed at the end of each reporting period to determine whether events and circumstances continue to support indefinite useful life assessments for those assets. Changes are accounted for as changes in accounting estimates.

Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in profit or loss as incurred. Development activities involve a plan or design for the production of new or substantially improved products and processes. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditures are recognized in profit or loss as incurred.

(16) Impairment of non-financial assets

The carrying amounts of the Group's non-financial assets, other than assets from employee benefits and deferred tax assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, irrespective of whether there is any indication of impairment, are tested for impairment annually by comparing their recoverable amount to their carrying amount.

The Group estimates the recoverable amount of an individual asset. If it is impossible to measure the individual recoverable amount of an asset, then the Group estimates the recoverable amount of each cash-generating unit ("CGU"). A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell.

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

(17) Non-derivative financial liabilities

Based on the contractual terms and definition of the financial liabilities, the financial liabilities are classified either as financial liabilities measured at fair value through profit or loss or financial liabilities measured at amortized cost, all of which are recognized in its statement of financial position when, and only when the Group becomes a party to the contractual provisions of the instrument.

1) Financial liabilities measured at fair value through profit or loss

The financial liabilities measured at fair value through profit or loss include financial liabilities designated as measured at fair value through profit or loss at initial recognition. Such financial liabilities measured at fair value through profit or loss are recognized initially at fair value and changes there in are recognized in profit or loss. Upon initial recognition, attributable transaction costs are recognized in profit or loss as incurred.

A financial liability is classified as financial liabilities measured at fair value through profit or loss if:

- It has been acquired principally for the purpose of repurchasing it in the near term; or
- On initial recognition, it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit taking; or
- It is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liabilities measured at fair value through profit or loss may be designated as measured at fair value through profit or loss upon initial recognition if:

- Such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- The financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented Risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- It forms part of a contract containing one or more embedded derivatives and *K-IFRS No.1109 Financial Instruments* permits the entire combined contract (asset or liability) to be designated as measured at fair value through profit or loss.

In accordance with *K-IFRS No.1109*, the Group recognizes the change in fair value of financial liabilities due to change in credit risk in other comprehensive income, unless recognizing the effect of change in credit risk in other comprehensive income causes or expands an accounting mismatch. The change in fair value of financial liabilities due to change in credit risk is not subsequently reclassified to profit or loss, which is reclassified to retained earning when financial liabilities are derecognized.

2) Financial liabilities measured at amortized costs

The non-derivative financial liabilities that are not classified as financial liabilities measured at fair value through profit or loss are measured at amortized costs. Deposits, borrowings and debentures that are not designated as measured at fair value through profit or loss are classified as financial liabilities measured at amortized costs. Financial liabilities measured at amortized cost are recognized initially at fair value, net of transaction costs incurred. They are subsequently carried at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the statement of comprehensive income over the period of the other financial liabilities using the effective interest rate method.

3) Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability. The difference between the carrying value of the original financial liability and the consideration paid is recognized in profit or loss.

(18) Hybrid financial instruments

The hybrid financial instrument issued by the Group is classified as a financial liability or an equity instrument in accordance with the substance of the contractual arrangement.

The liability component of a convertible bond shall be recognized as the fair value of a similar liability on initial recognition and be measured in amortized cost by the effective interest method until it is extinguished. The equity component is determined by deducting the fair value of the financial liability from the fair value of the hybrid financial instrument as a whole on initial recognition. The tax effect shall be reflected and the instrument is not remeasured afterward. Transaction costs that relate to the issuance of a hybrid financial instrument are allocated to the liability and equity components of the instrument in proportion to the allocation of proceeds.

(19) Financial guarantee contract liabilities

A financial guarantee contract refers to a contract that requires the issuer to pay the specified amounts to reimburse the holder for a loss because the specified debtor fails to make payment when due under original or revised contractual terms of debt instruments. Financial guarantee contract liabilities are initially measured at their fair values and amortized during the contractual term.

Financial guarantee contract liabilities are subsequently measured at the higher of:

- The amount of expected credit loss determined in accordance with *K-IFRS No.1109 Financial Instruments* and
- The initial amount less amortization of fees recognized in accordance with *K-IFRS No.1115 Revenue from Contracts with Customers*

(20) Employee benefits

1) Short-term employee benefits

Short-term employee benefits are employee benefits that are due to be settled within 12 months after the end of the period in which the employees render the related service. When an employee has rendered service to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service.

2) Retirement benefits

i) **Defined retirement benefit** The Group operates defined contribution plans for the qualified employees. When an employee has rendered service to the Group during a period, the Group recognizes the contribution payable to a defined contribution plan in exchange for that service as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, the Group recognizes that excess as an asset (prepaid expense) to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

ii) **Salary peak system** The Group operates a salary peak system for employees with certain conditions. Employees may choose voluntary retirement instead of the salary peak system, in which case, a certain amount will be paid as an honorary retirement allowance. The Group recognizes the present value at the end of the reporting period as a defined benefit obligation, considering the probability that the employee subject to the wage peak system chooses voluntary retirement instead of the wage peak system. The defined benefit obligation is calculated according to the projected unit funding method by an independent actuary every year, and the present value of the defined benefit obligation is calculated by discounting the expected future cash outflow at the interest rate of the blue-chip corporate bonds with a similar.

maturity to the payment date. On the other hand, the remeasurement component related to the defined benefit liability is recognized in other comprehensive income.

In the event of a revision or reduction of the system, the gain or loss on changes or reductions in benefits of past service is immediately recognized in profit or loss. The Group recognizes the gain or loss from settlement when settlement of the defined benefit plan occurs.

iii) Meanwhile, the Group operates defined benefit plans for part-time employees. The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets.

3) Termination benefits

Termination benefits are recognized as an expense when the Group is committed demonstrably, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits as a result of an offer made to encourage voluntary redundancy. Termination benefits for voluntary redundancies are recognized as an expense if the Group has made an offer of voluntary redundancy, it is probable that the offer will be accepted and the number of acceptances can be estimated reliably. If benefits are payable more than 12 months after the reporting period, then they are discounted to their present value.

(21) Share-based payments

The Group has granted shares or share options to its employees and other parties. For equity-settled share-based payment transactions, the Group measures the goods or services received, and the corresponding increase in equity as a capital adjustment at the fair value of the goods or services received, unless that fair value cannot be estimated reliably. If the Group cannot reliably estimate the fair value of the goods or services received, the Group measures their value, and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted.

For cash-settled share-based payment transactions, the Group measures the goods or services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the Group remeasures the fair value of the liability at each reporting date and at the date of settlement, with changes in fair value recognized in profit or loss for the period.

(22) Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The risks and uncertainties that inevitably surround many events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimate. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed. Provisions are used only in the expenditures related to initial recognition.

(23) Regular way trades

Equity securities, debt securities and derivatives, which are traded in Korea Exchange or qualified foreign exchange markets, are treated as regular way trades. The Group's accounting policies about regular way trades are described below.

1) Proprietary Trading

In proprietary trading transactions, purchases or sales of asset that require delivery of asset within a time frame established by regulation or convention in the marketplace are recognized or derecognized on the trading date.

2) Brokerage

For brokerage services, the Group serves a customer who trades listed stocks and other securities and recognizes the brokerage fee on the trading date. Until the settlement date of the trading on consignment, the Group does not offset the receivables and payables to customers and offsets the receivables and payables to Korea Exchange.

(24) Interest income and expense

Effective interest method is used in calculating amortized cost of financial assets and liabilities and allocating interest income and expenses through relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life or the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability.

When calculating the effective interest rate, the Group estimates future cash flows considering all contractual terms of the financial instrument, but not future credit losses. The calculation of the effective interest rate includes all fees and points paid or received that are an integral part of the effective interest rate. Transaction costs include incremental costs that are directly attributable to the acquisition or issuance of a financial asset or liability. In exceptional cases where the cash flow or expected life of the financial instruments is not reliably estimated, the interest rate is calculated by using contractual cash flows from contractual period.

If the carrying value of financial instruments or the group of relevant financial instruments is reduced by due to recognition of impairment, interest income is measured using interest rate used in measuring impairment of discounting future cash flows.

(25) Fees and commission income

The Group applies different revenue recognition accounting standards based on the type of service provided to the customers. Fees and commission income and expense that are integral to the effective interest rate on a financial asset or liability are included in the measurement of the effective interest rate.

Fees and commission earned are recognized in accordance with *K-IFRS No. 1115 Revenue from Contracts with Customers* by applying the five-step model (① Identifying the contract → ② Identifying performance obligations → ③ Determine the transaction price → ④ Allocating the transaction price to performance obligations → ⑤ Recognize revenue upon satisfaction of performance obligation).

(26) Net gains (losses) on financial instruments measured at fair value through profit or loss

Net gains (losses) on financial instruments measured at fair value through profit or loss include the following profit or loss (including changes in fair value, interest rate, dividends, and profit or loss from translation of foreign currency).

- Net gains and losses related to financial assets and liabilities measured at fair value through profit or loss
- Net gains and losses related to derivative financial instruments held for trading (including derivative financial instruments that are held for Risk management objectives, but do not meet the criteria as a fair value hedge)

(27) Dividends

Dividend income is recognized when the right to receive income is established.

(28) Income tax

Income tax expense comprises current and deferred tax. It is recognised in profit or loss except to the extent that it relates to a business combination, or items recognised directly in equity or in other comprehensive income.

1) Current tax

Current tax is the expected tax payable or receivable on the taxable profit or loss for the year, using tax rates enacted or substantively enacted at the end of the reporting period and any adjustment to tax payable in respect of previous years. The taxable profit is different from the accounting profit for the period since the taxable profit is calculated excluding the temporary differences, which will be taxable or deductible in determining taxable profit (tax loss) of future periods, and non-taxable or non-deductible items from the accounting profit.

2) Deferred tax

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The Group recognizes deferred tax liabilities for all taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, except to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. The Group recognizes deferred tax assets for all deductible temporary differences arising from investments in subsidiaries and associates, to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and reduces the carrying amount to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities are offset only if there is a legally enforceable right to offset the related current tax liabilities and assets, and they relate to income tax levied by the same tax authority and they intend to settle current tax liabilities and assets on a net basis.

Additional income taxes arising from dividend payments are recognized when expenses related to dividend payments are recognized.

(29) Operating segments

An operating segment is a component of the Group whose operating results are regularly reviewed by the entity's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available. Segment results include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

(30) Earnings per share

The Group calculates basic earnings per share and diluted earnings per share for profit or loss and discloses them in statements of comprehensive income. Basic earnings per share are calculated by dividing the profit or loss attributable to ordinary equity holders of the Group by the weighted-average number of ordinary shares outstanding during the period, adjusted for own shares held. Diluted earnings per share are determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted-average number of ordinary shares outstanding, adjusted for own shares held, for the effects of all dilutive potential ordinary shares.

(31) Accounting for trust accounts

The Group manages trust accounts and its own account separately in accordance with the Financial Investment Services and Capital Market Act. The Group recognizes trust fees earned from the trust accounts as income from trust operations.

(32) Regulatory reserve for loan loss

In case that the total sum of allowance for loan losses in accordance with *K-IFRS No. 1109* is lower than the amount prescribed in the regulations on financial investment business, the Group is required to recognize the difference as a regulatory reserve for loan loss at the end of each fiscal year (as the fiscal year-end reserve amount is not determined every quarter, the projected regulatory reserve for loan losses are measured).

In case the amount of existing regulatory reserve for possible loan losses exceeds the amount needed to be recognized as of the end of the current period, the difference, if any, shall be reversed. If there is undisposed deficit, the Group can accumulate reserves for possible loan losses after disposing deficit.

(33) Treasury stocks

Own equity instruments that are reacquired (treasury shares) are recognized at cost and deducted from equity. No gain or loss is recognized in the consolidated statement of comprehensive income on the purchase, sale, issue or cancellation of the Group's own equity instruments. Any difference between the carrying amount and the consideration is recognized in other capital surplus or capital adjustment.

4. Change in accounting policies

(1) New standards and interpretations adopted

The Group applied the following new accounting standards from January 1, 2019.

1) *K-IFRS No.1116 Leases*

The Group initially applied *K-IFRS No.1116 Leases* from January 1, 2019.

K-IFRS No.1116 introduces a single lessee accounting model, resulting in that the Group recognizes a right-of-use asset that represents the right to use the underlying asset as a lessee and recognizes a lease liability that indicates the obligation to pay the lease. The lessor accounting model is similar to the previous accounting policy.

The Group has recognised the cumulative effect of initial application of *K-IFRS No.1116* in retained earnings on January 1, 2019 (the date of initial application). Consequently, comparative financial information has not been restated and is presented as previously reported in *K-IFRS No.1017*. Specific details of changes of the accounting policy are disclosed below.

- **Definition of lease** The Group determined whether an arrangement contains a lease at the date of arrangement in accordance with *K-IFRIC No.2104 Determining whether an arrangement contains a lease* before January 1, 2019. After January 1, 2019, The Group assesses whether the contract is, or contains, a lease based on *K-IFRS No.1116* as explained in note 3.(13). If a contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration, the contract is, or contains, a lease according to *K-IFRS No.1116*.

The Group has chosen the application of the practical expedient that does not require the Group to reassess whether a contract is, or contains, a lease at the date of initial application of *K-IFRS No.1116*. The Group has applied *K-IFRS No.1116* to contracts that were previously identified as a lease. Contracts that were not previously identified as a lease in accordance with *K-IFRS No.1017* and *K-IFRS No.2104* have not been reassessed whether they are, or contain, a lease. Therefore, the definition of a lease according to *K-IFRS No.1116* was applied only to contracts entered or changed on or after January 1, 2019.

- **As a lessee** As a lessee, the Group is leasing assets including structures and IT assets.

Before January 31, 2019, the Group as a lessee classified a lease as an operating lease or a finance lease depending on whether it transfers substantially all the risks and rewards related to ownership of an underlying asset. The Group recognizes a right-of-use assets and lease liabilities for most of the leases in accordance with *K-IFRS No.1116*. That is, most of the leases are presented on the consolidated financial statements.

The Group, at the date of arrangement including lease component or reassessment, shall allocate the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the non-lease component. But the Group accounts for each lease element and associated non-lease element as a single lease element, using the practical expedient of accounting for contracts that include all or part of the lease or lease.

However, the Group has elected not to recognize low-value leases as right-of-use assets and lease liabilities. The Group recognizes the cost associated with those leases expense as lease expense on a straight-line basis for the period of a lease.

If the right-of-use assets does not meet the definition of investment property, the Group presents the right-of-use assets within the same line item as that within which the corresponding underlying assets would be presented if they were owned. The right-of-use assets that meet the definition of investment property are presented as investment property. The book value of the right-of-use assets is as follows:

		Real estate	IT asset	Vehicles	Others	Total
January 1, 2019	₩	283,947	7,578	3,440	700	295,665
December 31, 2019		271,029	5,521	2,199	127	278,876

The Group includes the lease liabilities in borrowings in the consolidated statement of financial position.

The Group measures the lease liability at the present value of the lease payments that are not paid at that date using incremental borrowing rate as of January 1, 2019 for the operating lease classified in accordance with *K-IFRS No.1017* at the date of initial application. The right-of-use asset is measured by the following method.

· An amount equal to the lease liability (adjusted amount of any prepaid or accrued payments). The Group applies this method to all leases.

When applying *K-IFRS No.1116* to the operating lease classified applying *K-IFRS No.1017*, the Group applies the following practical expedient.

- Initial direct costs are excluded from the measurement of the right-of-use asset at the date of initial application.
- If the contract contains options to extend or terminate the lease, the Group use hindsight.

- As a lessor

The accounting policies applied by the Group as a lessor are not different from *K-IFRS No.1017*.

The Group does not make any adjustments on transition for leases in which it is a lessor. However, the Group applies *K-IFRS No.1115* Revenue from Contracts with Customers when allocating the consideration in the contract to the lease component and non-lease component.

- Impact on the consolidated financial statements

i) The At the date of initial application The Group recognized right-of-use asset and lease liability at the date of initial application of *K-IFRS No.1116* as follows:

	January 1, 2019	
Right-of-use asset presented as property and equipment	₩	295,665
Lease liability		292,094

When the Group has measured the lease liability classified as operating lease, the Group discounted lease payment using incremental borrowing rate at the date of January 1, 2019. The applied incremental borrowing rates are 2.01%~ 8.55%.

	January 1, 2019	
Amounts of operating lease at December 31, 2018	₩	1,232,778
Discounted amounts by the incremental borrowing rate at January 1, 2019		293,718
Finance lease liability recognized at December 31, 2018		-
Applying the practical expedient		
Low-value asset		(1,624)
Lease for which the lease term ends within 12 months of the date of initial application		-
Lease liability recognized at January 1, 2019		292,094

ii) For the period subsequent to adoption As a result of initial application of *K-IFRS No.1116*, as of December 31, 2019, the Group has recognized the right-of-use asset of ₩ 278,876 million and lease liability of ₩ 276,604 million for the leases previously classified as operating lease applying *K-IFRS No.1017*.

The Group has recognized depreciation and interest expense for the leases in accordance with *K-IFRS No.1116* instead of rental expense. The Group has recognized depreciation of ₩ 45,181 million and interest expense of ₩ 16,354 million for those leases for the year ended December 31, 2019.

iii) Statements not applied by the Group IFRS Interpretations Committee published a final agenda revision in 2019 that all economic disadvantages resulting from the termination of a lease shall be taken into account when determining the enforceable period for 'Lease term and useful life of leasehold improvements'. The Group is evaluating the effect of the change in accounting policies on the consolidated financial statements over the enforceable period and will reflect the effect in the consolidated financial statements upon completion of the evaluation.

2) Amendment of *K-IFRS No.1109 'Prepayment Features with Negative Compensation'*

Financial assets that are redeemable with reimbursable financial assets are remeasured to be measured at amortized cost. When the financial liabilities measured at amortized cost are changed but not eliminated, the effect of the change should be recognized in profit or loss. These amendments have no impact on the consolidated financial statements of the Group.

3) Amendment of *K-IFRS No.1019 'Employee benefits'*

If the change in the defined benefit plan results in the revision, reduction or settlement of the plan, the assumptions used in remeasurement of the net defined benefit obligation (asset) to estimate the current service cost and net interest for the remaining period of the period after the adjustments in the plan . In addition, the decrease in excess of the amount of unrecognized actuarial gain or loss is reflected in profit or loss as a part of past service cost or settlement profit or loss. These amendments have no impact on the consolidated financial statements of the Group.

4) Amendment of *K-IFRS No.1028 'Investment in associates and joint ventures'*

The clarification has been conducted that other financial instruments (financial instruments that do not apply the equity method) related to associates or joint ventures are subject to *K-IFRS No.1109*, and that the long-term investment interests that form part of the net investment in the related companies or joint ventures was revised accordingly under *K-IFRS No.1109*. These amendments have no impact on the consolidated financial statements of the Group.

5) *K-IFRS No.2123 'Uncertainty over income tax treatments'*

The interpretation is applied to the recognition and measurement of deferred tax and deferred income tax if there is uncertainty about whether or not the tax treatment applied by the entity will be recognized by the taxing authority. Guidance on accounting units of uncertainty in taxation and circumstances requiring reevaluation includes. These amendments have no impact on the consolidated financial statements of the Group.

6) Annual Improvements to IFRS Standards 2015 - 2017 Cycle

i) *K-IFRS No.1103 Business combination* The business combination that is held in stages to acquire control over the joint business (meeting the definition of the business) while retaining the rights and liabilities for the assets related to the joint business. Therefore, remeasurement should be conducted for all underlying assets and liabilities. These amendments have no impact on the consolidated financial statements of the Group.

ii) *K-IFRS No.1111 Joint arrangements* If a jointly controlled entity that participates in a joint venture but does not have joint control obtains joint control over the joint venture, the previously held equity interest in the joint venture is not remeasured. These amendments have no impact on the consolidated financial statements of the Group.

iii) *K-IFRS No.1012 Income taxes* The provisions of paragraph 57A of *K-IFRS No.1012* (defining the timing and recognition of dividend tax effects) apply to all income tax effects of dividends and are recognized in profit or loss, other comprehensive income or capital. These amendments have no impact on the consolidated financial statements of the Group.

iv) *K-IFRS No.1023 Borrowing costs* If most of the necessary activities to enable the Group to use (or sell) our qualifying assets has been completed, it will include the funds borrowed for specific purposes in ordinary borrowings to acquire those assets. These amendments have no impact on the consolidated financial statements of the Group.

(2) Summary of enactment and amendment not yet effective

A summary of enactment, amendment, which has been enacted or amended, but the effective date is for fiscal year beginning after January 1, 2019, and has not been applied early by the Group, is as follows:

1) Amendments to *K-IFRS No.1001 Presentation of Financial Statements, K-IFRS No.1008 Accounting Policies, Changes in Accounting Estimates and Errors* – Definition of materiality

The definition of materiality has been clarified and *K-IFRS No.1001* and *K-IFRS No.1008* have been amended in accordance with the clarified definitions. In determining importance, it should consider not only the omission or distortion of important information, but also the impact of marginal information and the characteristics of users when determining the information to be disclosed by the Group. This amendment shall apply for fiscal year beginning on or after January 1, 2020, and have no impact on the consolidated financial statements of the Group.

2) Amendments to *K-IFRS No.1103 Business Combinations* – Definition of a Business

The revised definition of a business required the inclusion of inputs and practical processes with the ability to contribute significantly together with the creation of outputs in order to determine acquired activities and the group of assets as businesses, and excluded the economic benefits of reducing costs. In addition, if most of the fair value of the total assets acquired is concentrated in a single identifiable asset or group of asset, an optional intensive test has been added that the acquired activity and the group of assets can be determined by the asset or the group of assets, not by the business. This amendment shall apply for fiscal year beginning on or after January 1, 2020, and have no impact on the consolidated financial statements of the Group.

3) Amendment to *K-IFRS No.1109 Financial Instruments, K-IFRS No.1107 Financial Instruments: Disclosure*

The amendment specifies the exceptions to apply hedge accounting during the period in which uncertainty exists due to the interest rate benchmark reform. Hedge accounting shall be applied under the assumption that the interest rate benchmark on which the cash flows are based, does not change despite reformation to interest rate benchmark at the time of reviewing the probability of expected transactions occurring and conducting prospective assessment of the effect of hedge. Also, it is required that the risk of hedged item should be separately identifiable only at the inception of the hedge relationship for hedges of interest rate risk factors that are not contractually specified. This exception terminates when the uncertainty resulting from interest rate benchmark reform no longer appears in relation to the timing and amount of cash flows based on the interest rate benchmark, or when the hedging relationship is discontinued. The amendment is effective on January 1, 2020 and the Group does not expect any material impact on its consolidated financial statements.

5. Risk management

(1) Risk management organizations and its policies

The Group established and implemented the Risk Management Regulations and general regulations for risk management in order to establish an enterprise-wide and comprehensive risk management system. For a more thorough risk management, the Group implemented inherent asset management rules, customer asset management rules, credit offer risk management rules for customers, management guidelines and issuance for derivatives combined securities and derivative combined bonds, real-estate PF risk management guidelines, and risk management guidelines for overseas local subsidiaries. In addition, for the purpose of ensuring the stability of investment and credit offer and the efficiency of post-management, the Group implemented regulations for general evaluation, rules for evaluation, rules for post-management, and guidelines for estimating of loan collection.

The Risk Management Regulations stipulate the composition, meetings, and decisions of the risk management committee, the highest decision-making body related to risk management of the Group. They also stipulate the composition, progress and operation of the risk management committee and investment review management committee, which are set up to handle details and mandates of the risk management committee's resolutions. The general rules for risk management were enacted to ensure asset soundness and management stability through compliance with the Financial Services Commission's financial investment business regulations and effective management of risks of the Group and efficient allocation of investment resources held by the Group. The general regulations for review were established to manage the investment position of the Group in a stable manner by setting necessary procedures for matters related to equity investment, acquisition and credit offer, and follow-up management.

The general Risk Management Regulations established for practical application of the matters set out in the risk management related regulations stipulate the management procedures for the risk management policies of the Group to be implemented smoothly for market risks, credit risks, liquidity risks, and operational risks. In addition, inherent asset management rules, customer asset management rules, management guidelines and issuance for derivatives combined securities and derivative combined bonds, real-estate PF risk management guidelines, and risk management guidelines for overseas local subsidiaries specify details of risk management practices not included in the Risk Management Regulations. Moreover, for the purpose of ensuring the stability of investment position, the post-management rules and guidelines for calculating the estimates for collection that are implemented for practical application of matters set out in the general regulations for review, specify the details of review and post-management measures.

1) Risk Management Committee (the "Committee")

The Committee, comprised of three registered directors including at least two outside directors, heads the Group's risk management structure. The Committee sets up risk management strategies that correspond to the Group's strategies and supervises the risk management process. Major topics that the Committee resolves include enacting and revising Risk Management Regulations and Guidelines, setting adequate capital ratio level and mandating total risk limits by year and quarter. The Committee is held regularly once per quarter and on an ad hoc basis. Nomination and dismissal of the Committee members is determined by the Board of Directors ("BOD") and the Committee chairman is selected from among outside directors of the Committee members. The chairman presides over the meetings on behalf of the Committee and in the event of a risk-related urgent situation, is entitled to authorize appropriate actions to the pertinent department.

2) Proprietary Asset Risk Management Council & Trust Asset Risk Management Council

The Proprietary Asset Risk Management Council and the Trust Asset Risk Management Council deal with details and the delegated items determined by the Committee and report the results to the Committee. The Council is held quarterly (if necessary, on an as-needed basis). The chairman of Proprietary Asset Risk Management Council and Trust Asset Risk Management Council is Chief Risk Officer and the Council members are appointed by the Committee.

3) Investment Review Committee

The Investment Review Committee is the body responsible for conducting reviews of the Group's investments and is composed of executive officers. The Investment Review Committee is held at least once every quarter (also held at other times when necessary). The chairman of Proprietary Asset Risk Management Council and Trust Asset Risk Management Council is Chief Risk Officer and the Council members are appointed by the Committee.

4) Chief Risk Officer ("CRO")

The CRO serves as chair of the Proprietary Asset Risk Management Council and Trust Asset Risk Management Council and presides over the meetings of the two bodies and has authority over the risk management organization. The CRO is also entitled to take appropriate measures in the event of an urgent situation in relation to the Group's risk management.

5) Risk Management Department

The Risk Management Department operates independently from other departments, executes the risk management policies determined by the Risk Management Committee or the Proprietary and Trust Asset Risk Management Council through appropriate procedures and systems, plans and controls all risk management-related issues and supports the operation of the Risk Management Committee or the Proprietary Asset Risk Management Council. The department also reports the current status of the Group's asset management and overall risk management issues to the executive management.

(2) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group's receivables from customers and investments in debt securities. The Group measures credit exposure and credit risk amount by utilizing the standard model provided by Financial Investment Regulation. To manage appropriate level of credit risk, the Group assigns exposure limits by each quarter and year. Total limit of credit risk of the Group is finally set through approval of the Committee.

Proprietary Asset Risk Management Council sets appropriate level of credit exposure limit considering counterparty's credit rate depending on the type of business. Investment & Credit Assessment Department manages credit risk of each investment position by operating pre-assessment process on investment transactions.

The Risk Management Department reports total exposure of the Group's credit risk to the management on a regular basis and reports the analysis of credit risk exposure to executive management. In addition, credit risk Stress-Testing is performed on a regular basis based on various scenarios for the financial market. Enhanced monitoring is carried out for counterparties with significant credit risks.

1) Maximum exposure to credit risk

The maximum exposure to credit risk as of December 31, 2019 and 2018 is as follows:

		2019	2018
Financial assets measured at fair value through profit or loss	Bonds and other financial instruments (*1)	₩ 33,908,090	25,929,008
	Derivative assets	986,399	968,115
	Hybrid financial instruments	602,400	829,415
		35,496,889	27,726,538
Financial assets measured at fair value through other comprehensive income	Financial assets measured at fair value through other comprehensive income (*1)	8,475,709	7,312,634
Financial assets measured at amortized cost	Deposits	5,618,936	6,246,440
	Loans (*2)	64,711,340	54,917,168
	Other financial assets (*2)	4,945,810	8,221,787
		75,276,086	69,385,395
		119,248,684	104,424,567
Guarantees and commitments	Asset-backed commercial paper and asset backed short-term bond purchase commitments	1,341,218	1,541,900
	Guarantees	946,292	1,287,244
	Unused line of credit	1,548,986	855,434
		3,836,496	3,684,578
		₩ 123,085,180	108,109,145

(*1) Equity securities are excluded.

(*2) Deferred loan originated costs, fees, present value discounts and allowance for credit loss are considered.

2) Credit quality of debt securities

i) The Group manages debt securities based on the external credit rating. Credit soundness of debt securities on the basis of External Credit Assessment Institution's rating as of December 31, 2019 and 2018 is as follows:

Grade	2019				
		Financial assets measured at fair value through profit or loss		Financial assets measured at fair value through other comprehensive income	Total
		Financial assets measured at fair value through profit or loss(*1)	Financial assets designated as measured at fair value through profit or loss		
(1) AAA ~ A	₩	19,612,192	-	8,208,044	27,820,236
(2) A- ~ BBB		240,186	-	267,665	507,851
(3) Lower than BBB-		33,215	-	-	33,215
(4) Unrated		475,038	-	-	475,038
	₩	20,360,631	-	8,475,709	28,836,340

(*1) Amounts of financial assets measured at fair value through profit or loss excluded from credit quality disclosure are other debt instruments ₩13,547,459 million, derivative assets ₩986,399 million, and hybrid financial instruments ₩602,400 million as of December 31, 2019.

Grade	2018				
		Financial assets measured at fair value through profit or loss		Financial assets measured at fair value through other comprehensive income	Total
		Financial assets measured at fair value through profit or loss(*1)	Financial assets designated as measured at fair value through profit or loss		
(1) AAA ~ A	₩	18,557,831	-	7,238,555	25,796,386
(2) A- ~ BBB		192,114	-	74,079	266,193
(3) Lower than BBB-		21,959	-	-	21,959
(4) Unrated		638,769	-	-	638,769
	₩	19,410,673	-	7,312,634	26,723,307

(*1) Amounts of financial assets measured at fair value through profit or loss excluded from credit quality disclosure are other debt instruments ₩6,518,335 million, derivative assets ₩968,115 million, and hybrid financial instruments ₩829,415 million as of December 31, 2018.

ii) Credit quality of debt securities based on external credit rating agencies' evaluation results as of December 31, 2019 and 2018 are as follows:

<Grade Classification>

Domestic	Global		
NICE P&I	MOODY'S	S&P	FITCH
AAA	Aaa ~ Aa3	AAA ~ AA-	AAA ~ AA-
AAAA+ ~ AA-	A1 ~ A3	A+ ~ A-	A+ ~ A-
AA+ ~ BBB-	Baa1 ~ Ba3	BBB+ ~ BB-	BBB+ ~ BB-
BBB-	B1 ~ C	B+ ~ C	B+ ~ C

Credit ratings of debt securities in Korean won are determined based on the domestic external credit rating agency evaluation results. Credit ratings of debt securities in foreign currencies are determined based on the lowest of three external credit rating agencies' evaluation results.

3) Credit ratings of Loan and receivables as of December 31, 2019 and 2018 are as follow:

Grade	2019				
		12-month ECL	Lifetime ECL		Total
			Not Impaired	Impaired	
(1) AAA ~ A	₩	226,551	-	-	226,551
(2) A- ~ BBB		710,535	-	-	710,535
(3) Lower than BBB-		290,733	-	-	290,733
(4) D		-	-	41,656	41,656
	₩	1,227,819	-	41,656	1,269,475

Amounts of loans and receivables excluded from credit quality are call loans of ₩1,417 million, broker's loans of ₩9,021,795 million, securities purchased under resale agreements of ₩54,420,500 million, and loans to employees of ₩56,758 million as of December 31, 2019. Credit quality is based on external credit rating of external credit rating agency.

Grade	2018			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
(1) AAA ~ A	₩ 240,199	-	-	240,199
(2) A- ~ BBB	962,871	-	-	962,871
(3) Lower than BBB-	211,761	-	-	211,761
(4) D	-	-	81,090	81,090
	₩ 1,414,831	-	81,090	1,495,921

Amounts of loans and receivables excluded from credit quality are call loans of ₩328 million, broker's loans of ₩10,719,500 million, securities purchased under resale agreements of ₩42,720,530 million, and loans to employees of ₩57,970 million as of December 31, 2018. Credit quality is based on external credit rating of external credit rating agency.

4) Credit ratings of bonds measured at fair value through other comprehensive income as of December 31, 2019 and 2018 are as follow:

Grade	2019			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
(1) AAA ~ A	₩ 8,208,044	-	-	8,208,044
(2) A- ~ BBB	267,665	-	-	267,665
(3) Lower than BBB-	-	-	-	-
(4) Unrated	-	-	-	-
	₩ 8,475,709	-	-	8,475,709

Grade	2018			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
(1) AAA ~ A	₩ 7,238,555	-	-	7,238,555
(2) A- ~ BBB	74,079	-	-	74,079
(3) Lower than BBB-	-	-	-	-
(4) Unrated	-	-	-	-
	₩ 7,312,634	-	-	7,312,634

5) Credit ratings of financial guarantees, other guarantees and unused line of credit as of December 31, 2019 and 2018 are as follow:

Grade	2019		
	12-month ECL	Lifetime ECL	Total
<Purchase commitments>			
(1) AAA ~ A	₩ 1,341,218	-	1,341,218
(2) A- ~ BBB	-	-	-
(3) Lower than BBB-	-	-	-
(4) Unrated	-	-	-
	₩ 1,341,218	-	1,341,218
<Financial guarantee contract>			
(1) AAA ~ A	₩ 375,136	-	375,136
(2) A- ~ BBB	350,770	-	350,770
(3) Lower than BBB-	195,386	25,000	220,386
(4) Unrated	-	-	-
	₩ 921,292	25,000	946,292
<Unused credit lines and etc.>			
(1) AAA ~ A	₩ 138,929	-	138,929
(2) A- ~ BBB	586,405	-	586,405
(3) Lower than BBB-	168,359	-	168,359
(4) Unrated	655,293	-	655,293
	₩ 1,548,986	-	1,548,986

(*) No financial guarantees, other guarantees and unused line of credit were impaired as of December 31, 2019.

Grade			2018
	12-month ECL	Lifetime ECL	Total
<Purchase commitments>			
(1) AAA ~ A	₩ 1,541,900	-	1,541,900
(2) A- ~ BBB	-	-	-
(3) Lower than BBB-	-	-	-
(4) Unrated	-	-	-
	₩ 1,541,900	-	1,541,900
<Financial guarantee contract>			
(1) AAA ~ A	₩ 145,418	-	145,418
(2) A- ~ BBB	775,320	-	775,320
(3) Lower than BBB-	366,506	-	366,506
(4) Unrated	-	-	-
	₩ 1,287,244	-	1,287,244
<Unused credit lines and etc.>			
(1) AAA ~ A	₩ 9,627	-	9,627
(2) A- ~ BBB	128,761	-	128,761
(3) Lower than BBB-	70,870	-	70,870
(4) Unrated	646,176	-	646,176
	₩ 855,434	-	855,434

(*) No financial guarantees, other guarantees and unused line of credit were impaired as of December 31, 2018.

(3) Market risk

Market risk refers to the possibility of losses that may incur in proprietary investments and short-term management of available liquid funds due to changes of market price (e.g. equity price, interest rate and exchange rate and other). The Group monitors the standard market Value at Risk (VaR), measured according to Financial Investment Regulations set by Financial Supervisory Service ("FSS"). VaR represents the maximum loss expected on an investment, over a given time period and given a specified degree of confidence level when the market price moves in an adverse direction under normal market conditions. The Group has implemented and operates SAS's system which can calculate the internal market VaR.

The Group has set a limit of market risk on a quarterly and yearly basis to manage appropriate level of market risk. The total limit of market risk of the Group is decided by the Risk Management Committee. Proprietary Asset Risk Management Council also sets reasonably the limit for market risk exposure by considering the type of business.

The Group produces assessment and analysis reports on current market risk on a weekly, monthly, and quarterly basis for brief to the executive management. In addition, market risk Stress-Testing is performed on a regular basis based on various scenarios for the financial market.

Details of the risk factor VaR as of December 31, 2019 and 2018 are as follows:

Factors	2019	2018
Foreign currencies	₩ 239,521	107,356
Interest rates	502,124	481,621
Stock prices	813,396	635,845
Commodities	7,890	14,053
Collective investment securities	1,441,882	694,636
Options	141,972	76,761
Total risk	₩ 3,146,785	2,010,272

(4) Liquidity risk

Liquidity risk refers to the "Market Liquidity Risk" that would incur when the Group is unable to offset or settle a position without significantly affecting the market price because of or market disruption. Also, it refers to the "Prudential Liquidity Risk" that would incur when the Group is unable to meet the minimum requirement rate of liquidity.

To measure liquidity risks, the Group operates a liquidity risk management system and uses liquidity gap and liquidity ratios as key indicators. The Group reports the liquidity risk status on a weekly and monthly basis to the executive management while the treasury department also reports the current liquidity situation to the management regularly.

1) Maturity analysis of financial liabilities

i) The Group's non-derivative financial liabilities by residual contractual maturity classified as of December 31, 2019 and 2018 are as follows:

	2019						
	Within 3 months	3 to 6 months	6 to 9 months	9 to 12 months	1 to 5 years	Over 5 years	Total
Financial liabilities measured at fair value through profit or loss	₩ 795,898	-	-	-	-	-	795,898
Deposits due to customers	5,955,596	-	-	-	-	-	5,955,596
Borrowings (*1)	82,878,339	1,714,093	79,173	278,012	716,300	1,744,555	87,410,472
Debentures (*2)	1,789,588	107,950	26,774	45,227	3,944,155	740,135	6,653,829
Other financial liabilities (*3)	4,818,830	3,194	565	1,281	234,925	50	5,058,845
	₩96,238,251	1,825,237	106,512	324,520	4,895,380	2,484,740	105,874,640

	2018						
	Within 3 months	3 to 6 months	6 to 9 months	9 to 12 months	1 to 5 years	Over 5 years	Total
Financial liabilities measured at fair value through profit or loss	₩ 569,076	-	-	-	-	-	569,076
Deposits due to customers	5,465,538	-	-	-	-	-	5,465,538
Borrowings (*1)	71,566,335	177,706	13,371	8,659	595,506	1,823	72,363,400
Debentures (*2)	931,532	288,324	20,047	76,966	2,808,719	136,122	4,261,710
Other financial liabilities (*3)	7,840,045	1,636	806	2,079	6,647	3,433	7,854,646
	₩86,372,526	467,666	34,224	87,704	3,410,872	141,378	90,514,370

(*1) The cash flow of interest is excluded because it cannot be reliably estimated.

(*2) Amounts with maturity of more than three months from the date of acquisition include cash flows of both the principal and interests.

(*3) Financial guarantee liabilities are excluded in other financial liabilities.

ii) The Group's guarantees and commitments by residual contractual maturity classified as of December 31, 2019 and 2018 are as follows:

	2019		
	Within 3 months	Over 3 months	Total
Asset-backed commercial paper and asset backed short-term bond purchase commitments	₩ 1,341,218	-	1,341,218
Guarantees	946,292	-	946,292
Unused line of credit	1,548,986	-	1,548,986
	₩ 3,836,496	-	3,836,496

	2018		
	Within 3 months	Over 3 months	Total
Asset-backed commercial paper and asset backed short-term bond purchase commitments	₩ 1,541,900	-	1,541,900
Guarantees	1,287,244	-	1,287,244
Unused line of credit	855,434	-	855,434
	₩ 3,684,578	-	3,684,578

The balances of purchase commitments, guarantees and commitments on loans that are potentially prone to liquidity risks are reclassified to balances with less than three months' maturity from the date of acquisition, which is the earliest possible for repayment. The guarantees are the maximum amount, which the financial institution must pay under the guarantee contracts when the counterparty defaults and principal debtor demands the amount guaranteed. Commitments on loans includes loan commitments and purchase commitments that are related to asset securitizations.

Asset-backed commercial paper ("ABCP") is issued or refinanced based on the underlying assets for securitization that are purchased by SPEs, including SPEs under *the Asset-Backed Securitization Act* and companies under *the Commercial Law*. In this case, ABCP purchase commitments guarantee the Group's purchase of ABCP when all or a portion of ABCP are not sold in the market.

iii) Expected maturity cash flows of the derivative financial liabilities and financial liabilities designated as measured at fair value through profit of loss as of December 31, 2019 and 2018 are as follows:

		2019						
		Within 3 months	3 to 6 months	6 to 9 months	9 to 12 months	1 to 5 years	Over 5 years	Total
Stock	₩	176,948	16,630	68,271	67,305	19,074	-	348,228
Interest rate		8,572	4,636	5,437	9,723	195,947	175,393	399,708
Currency		154,473	52,706	38,354	10,942	71,126	-	327,601
Credit		-	291	521	2,049	3,957	-	6,818
Commodity		380	-	-	-	251	-	631
Others		-	-	-	-	6,236	14,440	20,676
Derivative-linked securities in short position		234,444	600,628	137,347	4,976,765	7,054,782	1,818,277	14,822,243
	₩	574,817	674,891	249,930	5,066,784	7,351,373	2,008,110	15,925,905
		2018						
		Within 3 months	3 to 6 months	6 to 9 months	9 to 12 months	1 to 5 years	Over 5 years	Total
Stock	₩	179,868	9,264	15,490	11,606	322,692	-	538,920
Interest rate		16,912	19,701	14,288	2,866	125,495	280,542	459,804
Currency		135,789	92,689	61,832	11,686	36,925	-	338,921
Credit		-	-	703	1,177	6,903	-	8,783
Commodity		-	-	-	-	208	-	208
Others		-	-	-	-	17,552	114	17,666
Derivative-linked securities in short position		320,451	616,530	121,105	4,760,757	7,523,800	1,878,500	15,221,143
	₩	653,020	738,184	213,418	4,788,092	8,033,575	2,159,156	16,585,445

(*) Derivatives traded in the Exchange are excluded because the settlement of the transactions takes place by means of the trading margins within a few days.

(5) Operating Risk Management

Operational risk is the possibility of losses arising from shortcomings or failures in internal processes, people or systems, and from external events. The Group manages operational risk through Risk & Control Self Assessment ("RCSA"), Key Risk Indicator ("KRI") management, loss data management, management of countermeasures and calculation of operational VaR using internal model.

By performing RCSA on a regular basis, the Group checks the level of risk of each department, develops countermeasures in advance collects the financial loss data. In addition, the Group implements and operates operational risk management system to work out operational VaR using internal model. The Group has a future plan to expand the target of operational risk management to the parent company and foreign subsidiaries to measure and manage enterprise-wide operational risk.

(6) Capital management

The Group evaluates the capital adequacy by calculating net capital ratio ("NCR") in accordance with the Financial Investments Regulations and Guidelines in order to maintain adequate capital and comply with supervisory regulation.

The Group's Net Capital Ratio (NCR) as of December 31, 2019 and 2018 are 1,728.11% and 1,669.01%, respectively.

(7) Offsetting financial assets and financial liabilities

The Group applies offsetting agreements to derivatives and repurchase agreement transactions.

1) Categories of financial assets that offsetting agreements and other similar agreements apply to as of December 31, 2019 and 2018 are as follows:

Types of financial assets	2019					
	Total amount of recognized financial assets	Total amount of offsetting financial liabilities	Net amount of financial assets in the statement of financial position	Related amount not offset in the statement of financial position (*1)		Net amount
				Financial instruments	Financial collaterals received (cash collateral included)	
Derivative financial assets (*2)	₩ 905,844	-	905,844	673,333	42,125	190,386
Accounts receivable (*3)(*4)	7,565,110	3,549,319	4,015,791	907,567	-	3,108,224
Securities sold under repurchase agreements (*4)	19,997,826	-	19,997,826	18,906,095	-	1,091,731
Securities purchased under resale agreements (*4)	80,102,962	25,682,462	54,420,500	-	54,420,500	-
Assets pledged as collateral for securities lending and borrowing (*4)	16,802,746	-	16,802,746	1,679,393	3,950,444	11,172,909
	₩ 125,374,488	29,231,781	96,142,707	22,166,388	58,413,069	15,563,250

Types of financial assets	2018					
	Total amount of recognized financial assets	Total amount of offsetting financial liabilities	Net amount of financial assets in the statement of financial position	Related amount not offset in the statement of financial position (*1)		Net amount
				Financial instruments	Financial collaterals received (cash collateral included)	
Derivative financial assets (*2)	₩ 875,377	-	875,377	680,698	37,618	157,061
Accounts receivable (*3)	6,253,410	2,245,857	4,007,553	-	-	4,007,553
Securities sold under repurchase agreements (*4)	18,759,240	-	18,759,240	17,287,574	-	1,471,666
Securities purchased under resale agreements (*4)	70,227,575	27,507,045	42,720,530	1,457,976	41,262,554	-
Assets pledged as collateral for securities lending and borrowing (*4)	15,275,500	-	15,275,500	1,108,693	5,754,160	8,412,647
Others	558	-	558	-	-	558
	₩ 111,391,660	29,752,902	81,638,758	20,534,941	47,054,332	14,049,485

(*1) The Group has the right of offsetting only in case of default, insolvency and bankruptcy. Accordingly, transactions that do not meet the offset criteria are presented separately without offsetting in the consolidated statement of financial position.

(*2) Some of the over-the-counter derivatives are traded in accordance with the collective offset agreement of ISDA(International Swaps and Derivatives Association). Under the agreement, in the event of a credit event, such as a bankruptcy of a counterparty, all derivatives transactions with that counterparty will be terminated. At the time of termination, the parties will offset the amount paid or payable for each transaction, and one party will pay a single amount to the other party.

(*3) The total amount was recognised as trade receivables and payables in relation to transactions between the exchange, clients and other financial institutions. However, among the trade receivables and payables related to the exchange and the central counter party, cases arising out of transactions of the same kind of goods meet the offsetting requirements under K-IFRS and are included in the statement of consolidated financial position as net amounts.

(*4) The Group is subject to an offsetting agreement similar to the ISDA collective offsetting agreement. In the case of the transaction of repurchase agreements (RP) of some subsidiaries, the purchase and sale under RP incurred in relation to the Exchange and Central Counterparty are presented in net amounts in the consolidated statement of financial position if the offsetting criteria are met under K-IFRS such as transaction with common counterparty etc.

2) Categories of financial liabilities that offsetting agreements and other similar agreements apply to as of December 31, 2019 and 2018 are as follows:

Types of financial liabilities	2019					
	Total amount of recognized financial liabilities	Total amount of offsetting financial assets	Net amount of financial liabilities in the statement of financial position	Related amount not offset in the statement of financial position (*1)		Net amount
				Financial instruments	Financial collaterals received (cash collateral included)	
Derivative financial liabilities (*2)	₩ 1,037,096	-	1,037,096	673,333	249,908	113,855
Accounts payables (*3)(*4)	7,564,642	3,549,318	4,015,324	907,567	-	3,107,757
Securities sold under repurchase agreements (*4)	99,309,893	25,682,461	73,627,432	18,906,095	54,721,337	-
Liabilities pledged as collateral for securities lending and borrowing (*4)	4,478,129	-	4,478,129	1,019,966	3,458,163	-
Securities sold (*4)	795,898	-	795,898	795,898	-	-
	₩ 113,185,658	29,231,779	83,953,879	22,302,859	58,429,408	3,221,612

Types of financial liabilities	2018					
	Total amount of recognized financial liabilities	Total amount of offsetting financial assets	Net amount of financial liabilities in the statement of financial position	Related amount not offset in the statement of financial position (*1)		Net amount
				Financial instruments	Financial collaterals received (cash collateral included)	
Derivative financial liabilities (*2)	₩ 1,213,336	-	1,213,336	680,698	400,217	132,421
Accounts payables (*3)	6,205,995	2,245,857	3,960,138	-	-	3,960,138
Securities sold under repurchase agreements (*4)	90,155,580	27,507,045	62,648,535	18,722,539	28,043,738	15,882,258
Liabilities pledged as collateral for securities lending and borrowing (*4)	3,596,370	-	3,596,370	540,175	3,056,195	-
Securities sold (*4)	569,076	-	569,076	568,518	-	558
	₩ 101,740,357	29,752,902	71,987,455	20,511,930	31,500,150	19,975,375

(*1) Only for cases of default, insolvency and bankruptcy are eligible to be offset, and all other transactions are considered to have not met the offsetting standards, and therefore are not offset on the statement of financial position, but instead stated separately.

(*2) Some of the Group's OTC derivatives are traded in accordance to agreements of the ISDA. In accordance to this agreement, in case the counterparty is bankrupt or has credit issues, all derivative transactions are settled. At the point of settlement, the trading partners receive payments for each transaction, or may offset payments with each other and offer a single payment to one trading partner.

(*3) Transactions between exchanges, customers and other financial institutions regarding bonds and liabilities are included in the statement of financial position as total amounts in regard to the receivables and payables accounts. Receivables and payables occurring in relation to exchanges and from trading same types of items are eligible to be offset and are disclosed as net amounts on the statement of financial position, according to accounting policies.

(*4) Those are in accordance with the offsetting agreements, which is similar to ISDA offsetting agreements. In the case of the transaction of repurchase agreements (RP) of some subsidiaries, the purchase and sale under RP incurred in relation to the Exchange and Central Counterparty are presented in net amounts in the consolidated statement of financial position if the offsetting criteria is met under K-IFRS such as transaction with common counterparty etc.

6. Transfers of financial assets

(1) Transfers of financial assets that are not derecognized in their entirety as of December 31, 2019 and 2018 are as follows:

Description	2019	2018
Transferred financial assets		
Financial assets measured at fair value through profit or loss (*)	₩ 14,234,654	14,118,526
Financial assets measured at fair value through other comprehensive income (*)	5,763,172	4,640,714
	₩ 19,997,826	18,759,240
Related liabilities		
Bonds sold under repurchase agreements	₩ 18,906,095	17,287,574

(*) Financial instruments above include borrowed securities.

(2) The ownership of the securities is transferred when the Group borrows securities held by the Group, however, the securities are returned at the expiration of the period of the loan, hence the Group continues to recognize the entire loaned securities as most of the risks and rewards of the securities are retained. Details of transferred financial assets whose total loaned securities are not derecognized are stated in Note 47.

7. Operating segments

(1) Reportable segments

The Group's segment information is prepared for the purpose of resource allocation and assessment of each segment's performance and is based on the types of services provided.

Reportable segment	Services provided
WM	Providing securities brokerage to individual customers and non-professional investors, offering products of wealth management and financial consulting services
IB	Conducting corporate finance businesses such as various funding and M&A advisory, etc.
Sales & Trading	Bond dealing and brokerage, supplying derivatives, hedge fund management and sales, principal investment and proprietary trading
Wholesale	Sales of various financial instruments to corporate customers, providing domestic equity and derivatives brokerage and related services to domestic institutional investors
PI(Principal Investment) & Others	Conducting principal investment and supporting parts of headquarters and providing other operating activities aside from the above mentioned activities

(2) Operating results of reportable segments

Details of the operating results of reportable segments for the year ended December 31, 2019 are as follows:

	2019							Total
	WM	IB	Sales & Trading	Wholesale	PI & others	Intersegment eliminations		
Operating revenue	₩ 897,090	892,894	15,453,198	57,686	(1,754,721)	(109,231)	15,436,916	
Interest revenue	308,884	158,270	3,023,840	638	(356,978)	518	3,135,172	
Non-interest revenue	588,206	734,624	12,429,358	57,048	(1,397,743)	(109,749)	12,301,744	
Operating expense	(804,554)	(541,852)	(15,165,997)	(35,767)	1,804,337	34,871	(14,708,962)	
Interest expense	(126,721)	(114,704)	(2,712,881)	(2,881)	378,136	1,008	(2,578,043)	
Non-interest expense	(677,833)	(427,148)	(12,453,116)	(32,886)	1,426,201	33,863	(12,130,919)	
Operating income (loss)	92,536	351,042	287,201	21,919	49,616	(74,360)	727,954	
Non-operating income (loss)	(477)	5,295	1,027	(13)	156,361	3,575	165,768	
Income (Loss) before tax expense	92,059	356,337	288,228	21,906	205,977	(70,785)	893,722	
Income tax expense	(23,637)	(91,493)	(74,005)	(5,625)	(52,887)	18,175	(229,472)	
Profit (Loss) for the year	₩ 68,422	264,844	214,223	16,281	153,090	(52,610)	664,250	

	2018							Total
	WM	IB	Sales & Trading	Wholesale	PI & others	Intersegment eliminations		
Operating revenue	₩ 1,042,497	521,106	9,923,928	2,080,413	(385,622)	141,618	13,323,940	
Interest revenue	328,625	97,927	2,205,104	50,366	(281,980)	8,331	2,408,373	
Non-interest revenue	713,872	423,179	7,718,824	2,030,047	(103,642)	133,287	10,915,567	
Operating expense	(834,983)	(271,462)	(9,875,863)	(2,024,653)	371,784	(176,434)	(12,811,611)	
Interest expense	(147,542)	(62,475)	(1,883,613)	(60,663)	396,331	3,750	(1,754,212)	
Non-interest expense	(687,441)	(208,987)	(7,992,250)	(1,963,990)	(24,547)	(180,184)	(11,057,399)	
Operating income (loss)	207,514	249,644	48,065	55,760	(13,838)	(34,816)	512,329	
Non-operating income (loss)	(155)	1,005	958	131	41,807	28,935	72,681	
Income (Loss) before tax expense	207,359	250,649	49,023	55,891	27,969	(5,881)	585,010	
Income tax expense	(43,598)	(52,700)	(10,307)	(11,751)	(5,881)	1,237	(123,000)	
Profit (Loss) for the year	₩ 163,761	197,949	38,716	44,140	22,088	(4,644)	462,010	

(3) Assets and liabilities of reportable segments

Details of the assets and liabilities of reportable segments as of December 31, 2019 and 2018 are as follows:

	2019							Total
	WM	IB	Sales & Trading	Wholesale	PI & others	Intersegment eliminations		
Assets	₩ 4,232,348	7,172,845	96,657,351	797	33,909,905	(8,823,449)	133,149,797	
Liabilities	5,825,791	1,485,686	88,448,908	1,870	27,955,270	238,637	123,956,162	

	2018							Total
	WM	IB	Sales & Trading	Wholesale	PI & others	Intersegment eliminations		
Assets	₩ 4,810,447	3,965,868	79,393,810	5,116,071	31,882,622	(7,083,319)	118,085,499	
Liabilities	5,124,456	329,537	76,290,705	2,968,283	25,011,541	8,611	109,733,133	

(4) Information on products, services and key customers

The Group's revenues are derived from various services classified as interest, non-interest and others; however, since this classification has already been reflected in the component of the operating segments above, revenue from external customers by service type is not separately disclosed. The Group does not have any key customers who account for more than 10% of the Group's sales for the years ended December 31, 2019 and 2018.

(5) Geographical information

Of the Group's revenue (interest income and non-interest income) from domestic customers for the years ended December 31, 2019 and 2018 amounted to ₩12,820,473 million and ₩11,570,125 million, respectively, and revenue from foreign customers amounted to ₩2,616,443 million and ₩1,753,815 million, respectively. The Group's non-current assets (investment in associates, investment properties, property and equipment and intangible assets) as of December 31, 2019 and 2018 are ₩2,348,679 million and ₩1,807,210 million, respectively, for the Controlling Company and domestic subsidiaries, and ₩2,384,408 million and ₩1,214,987 million, respectively, for foreign subsidiaries.

8. Restricted use of financial assets

Details of restricted use of deposits as of December 31, 2019 and 2018 are as follows:

	2019	2018	Description
Financial assets measured at fair value through profit or loss			
Reserve for claims of customers' deposits (trust)(*)	₩ 4,195,048	3,786,573	Regulation on Financial Investment Business
Financial assets measured at amortized cost			
Reserve for claims of customers' deposits(*)	1,234,101	1,151,255	Regulation on Financial Investment Business
Deposits for exchange-traded derivatives	312,559	1,051,349	Collateral on derivative transaction and others, etc.
Guarantee deposit for account opening	42	50	Guarantee deposit for account opening
Time deposit	3,722,428	3,097,555	Derivatives and collateral on payment and settlement, etc.
	5,269,130	5,300,209	
	₩ 9,464,178	9,086,782	

(*) Pursuant to the *Financial Investment Services and Capital Markets Act* and *Regulation on Financial Investment Business*, the Group is required to deposit with the Korean Securities Finance Corporation for the payment of its customers' deposits and those amounts are restricted for use.

9. Financial assets measured at fair value through profit or loss

The Group's financial assets measured at fair value through profit or loss as of December 31, 2019 and 2018 are classified as mandatory financial assets measured at fair value through profit or loss and financial assets designated as measured at fair value through profit or loss.

(1) Details of financial assets measured at fair value through profit or loss as of December 31, 2019 and 2018 are as follows:

Details	2019	2018
Equity securities	₩ 2,967,666	2,073,603
Investments in partnerships	265,752	245,403
Government and public bonds	2,426,025	2,598,059
Special bonds	6,138,431	6,124,943
Corporate bonds	5,919,040	6,363,126
Corporate commercial papers	716,598	494,125
Collective investment securities	6,787,472	4,522,463
Securities in foreign currencies	4,943,734	4,550,787
Other securities	2,985,646	1,375,679
Reserve for claims of customers' deposits (trust)	4,195,048	3,786,573
Loan and receivables	1,961,380	1,132,201
Derivative financial assets	986,399	968,115
Equity-linked securities	241,966	270,884
Other derivative-linked securities	360,434	558,531
	₩ 40,895,591	35,064,492

(2) There is no financial assets designated as measured at fair value through profit of loss as of December 31, 2019 and 2018.

10. Financial assets measured at fair value through other comprehensive income

The Group's financial assets measured at fair value through other comprehensive income are classified with financial assets measured at fair value through other comprehensive income (debt securities) and equity securities designated as measured at fair value through other comprehensive items at initial recognition, by its contractual cash flow characteristics and its business model of the instruments.

(1) Details of financial assets measured at fair value through profit or loss as of December 31, 2019 and 2018 are as follows:

		2019	2018
Equity securities	₩	723,858	527,867
Equity securities in foreign currencies		366,831	362,572
Government and public bonds		70,391	20,051
Special bonds		2,245,103	1,253,802
Corporate bonds		4,279,639	4,284,984
Bonds in foreign currencies		1,880,576	1,753,797
	₩	9,566,398	8,203,073

(2) Equity securities designated as measured at fair value through other comprehensive income

i) Details of equity securities designated as measured at fair value through other comprehensive income are as follows:

		2019		2018	
		Purchase cost	Book value	Purchase cost	Book value
Equity securities	₩	666,570	723,858	666,570	527,867
Equity securities in foreign currencies		314,077	366,831	314,077	362,572
	₩	980,647	1,090,689	980,647	890,439

(*) They are held for financial business purposes and strategic purposes, not for trading purposes.

There is no dividend from equity securities disposed in 2019. The amount of dividends related to equity securities as of December 31, 2019 and 2018 are ₩26,185 million and ₩12,237 million.

ii) No equity securities designated as measured at fair value through other comprehensive income were disposed for the years ended December 31, 2019 and 2018.

(3) Debt securities

i) Debt securities classified as financial assets measured at fair value through other comprehensive income as of December 31, 2019 and 2018 are as follows:

		2019		
		Face value	Amortized Cost	Book Value
Government and public bonds	₩	70,000	71,392	70,391
Special bonds		2,237,963	2,241,670	2,245,103
Corporate bonds		4,265,350	4,270,158	4,279,639
Bonds in foreign currencies		1,825,801	1,860,670	1,880,576
	₩	8,399,114	8,443,890	8,475,709
		2018		
		Face value	Amortized Cost	Book Value
Government and public bonds	₩	20,000	20,253	20,051
Special bonds		1,256,900	1,253,851	1,253,802
Corporate bonds		4,278,250	4,279,364	4,284,984
Bonds in foreign currencies		1,763,785	1,768,000	1,753,797
	₩	7,318,935	7,321,468	7,312,634

ii) Details of changes in loss allowance of debt securities measured at fair value through other comprehensive income for the years ended December 31, 2019 and 2018 are as follows:

	2019			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 3,278	-	-	3,278
Transfers				
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Transfer to 12-month ECL	-	-	-	-
Increase	3,234	-	-	3,234
Derecognition	(2,826)	-	-	(2,826)
Ending Balance	₩ 3,686	-	-	3,686
	2018			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 2,018	-	-	2,018
Transfers				
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Transfer to 12-month ECL	-	-	-	-
Increase	2,269	-	-	2,269
Derecognition	(1,011)	-	-	(1,011)
Other changes	2	-	-	2
Ending Balance	₩ 3,278	-	-	3,278

iii) Details of changes in total carrying amount of debt securities measured at fair value through other comprehensive income for the years ended December 31, 2019 and 2018 are as follows:

	2019			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 7,312,634	-	-	7,312,634
Transfers				
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Transfer to 12-month ECL	-	-	-	-
Acquisition	9,985,493	-	-	9,985,493
Derecognition	(8,893,780)	-	-	(8,893,780)
Evaluation	40,654	-	-	40,654
Other changes	30,708	-	-	30,708
Ending Balance	₩ 8,475,709	-	-	8,475,709
	2018			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 5,191,196	-	-	5,191,196
Transfers				
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Transfer to 12-month ECL	-	-	-	-
Acquisition	6,193,171	-	-	6,193,171
Derecognition	(4,088,830)	-	-	(4,088,830)
Evaluation	10,220	-	-	10,220
Other changes	6,877	-	-	6,877
Ending Balance	₩ 7,312,634	-	-	7,312,634

(4) Gains and losses on valuation of financial assets measured at fair value through other comprehensive income

Details of changes in gains and losses on valuation of financial assets measured at fair value through other comprehensive income as accumulated other comprehensive income for the years ended December 31, 2019 and 2018 are as follows:

	2019						Ending Balance
	Beginning Balance	Evaluation	Disposals and etc.	Tax effect			
Equity securities	₩ (55,539)	199,573	-	(53,897)			90,137
Government and public bonds	(143)	(799)	10	217			(715)
Special bonds	76	3,483	275	(1,034)			2,800
Corporate bonds	4,501	4,549	(62)	(1,046)			7,942
Bonds in foreign currencies	(8,635)	33,421	184	(9,255)			15,715
	₩ (59,740)	240,227	407	(65,015)			115,879

	2018						
	2017.12.31 (*1)	Reclassification (*2)	Beginning Balance	Evaluation	Disposals and etc.	Tax effect	Ending Balance
Equity securities	₩ 15,058	(16,092)	(1,034)	(94,047)	-	39,542	(55,539)
Investments in partnerships	12,176	(12,176)	-	-	-	-	-
Government and public bonds	(555)	4	(551)	552	10	(154)	(143)
Special bonds	(7,639)	185	(7,454)	8,152	2,234	(2,856)	76
Corporate bonds	(4,693)	(22)	(4,715)	11,211	1,761	(3,756)	4,501
Bonds in foreign currencies	(1,942)	(430)	(2,372)	(9,695)	928	2,504	(8,635)
Collective investment securities	76,156	(76,156)	-	-	-	-	-
Others	23,249	(23,249)	-	-	-	-	-
	₩ 111,810	(127,936)	(16,126)	(83,827)	4,933	35,280	(59,740)

(*1) The above items were classified as net unrealized gains or losses of valuation of available-for-sale financial assets in accumulated other comprehensive income as of December 31, 2017.

(*2) The effect is reclassified to financial assets measured at fair value through profit or loss.

11. Financial assets measured at amortized cost**(1) Details of financial assets measured at amortized cost as of December 31, 2019 and 2018 are as follows:**

	2019	2018
Deposit		
Reserve for claims of customers' deposits	₩ 1,234,101	1,151,255
Trading margin of derivatives	312,559	1,051,349
Long-term deposits	2,608,991	3,617,929
Restricted deposits and others	42	50
Others	1,463,243	425,857
	5,618,936	6,246,440
Loan and receivables		
Call loan	1,417	328
Broker's loan	9,021,795	10,719,500
Securities purchased under resale agreements	54,420,500	42,720,530
Loans receivable	818,703	1,025,425
Loans to employees	56,758	57,970
Loans purchased	83,188	114,920
Advances for customers	1,310	1,310
Privately placed bonds	366,152	354,144
Dishonored bills receivable	122	122
Deferred loan originated cost and fee	(3,857)	(1,941)
	64,766,088	54,992,308

	2019	2018
Other loans		
Accounts receivable	4,508,340	7,716,690
Accrued income	346,425	361,116
Advance payments	61,766	62,737
Deposits provided	79,267	116,406
Present value discount	(5,638)	(8,895)
	4,990,160	8,248,054
Allowance for credit loss(Loans)	(54,748)	(75,140)
Allowance for credit loss(Other financial assets)	(44,350)	(26,267)
	₩ 75,276,086	69,385,395

(2) Details of changes in loss allowance of financial assets measured at amortized cost for the years ended December 31, 2019 and 2018 are as follows:

i) Details of changes in allowances for credit loss of loans and receivables

	2019			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 12,174	-	62,966	75,140
Transfers				
Transfer to 12-month ECL	-	-	-	-
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Write-off	-	-	(15,476)	(15,476)
Disposal	-	-	(14,705)	(14,705)
Increase (Decrease)	(2,517)	-	12,823	10,306
Other changes	-	-	(517)	(517)
Ending Balance	₩ 9,657	-	45,091	54,748
				2018
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 2,987	-	62,969	65,956
Transfers				
Transfer to 12-month ECL	-	-	-	-
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Disposal	-	-	-	-
Increase (Decrease)	9,187	-	(6)	9,181
Other changes	-	-	3	3
Ending Balance	₩ 12,174	-	62,966	75,140

ii) Details of changes of the allowances for credit loss of other financial assets

	2019			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 739	-	25,528	26,267
Transfers				
Transfer to 12-month ECL	-	-	-	-
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Disposal	(6)	-	(6,674)	(6,680)
Increase (Decrease)	(437)	-	25,077	24,640
Other changes	-	-	123	123
Ending Balance	₩ 296	-	44,054	44,350

	2018			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 368	-	24,464	24,832
Transfers				
Transfer to 12-month ECL	-	-	-	-
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Disposal	(5)	-	-	(5)
Increase (Decrease)	376	-	1,138	1,514
Other changes	-	-	(74)	(74)
Ending Balance	₩ 739	-	25,528	26,267

(3) Details of changes in carrying amount of financial assets measured at amortized cost for the years ended December 31, 2019 and 2018 are as follows:

Description(*1)	2019			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 1,414,831	-	81,090	1,495,921
Transfers				
Transfer to 12-month ECL	-	-	-	-
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Execution	1,030,854	-	-	1,030,854
Repayment	(1,057,747)	-	(953)	(1,058,700)
Write-off	-	-	(15,476)	(15,476)
Disposal(*2)	(165,026)	-	(20,000)	(185,026)
Others	4,907	-	(3,005)	1,902
Ending Balance	₩ 1,227,819	-	41,656	1,269,475

(*1) Amounts of loan and receivables excluded from changes in carrying amount are call loans of ₩1,417 million, broker's loans of ₩9,021,795 million, securities purchased under resale agreements of ₩54,420,500 million, and loans to employees of ₩56,758 million as of December 31, 2019. Amounts of allowances for credit loss are broker loans of ₩1,607 million, loans to employees of ₩123 million, and securities purchased under resale agreements of ₩13,628 million as of December 31, 2019. Call loans are excluded.

(*2) The loan was disposed for investment financial tasks for the year ended December 31, 2019, and the profit and loss from the disposal of the loan receivables is ₩2,112 million.

Description(*1)	2018			
	12-month ECL	Lifetime ECL		Total
		Not Impaired	Impaired	
Beginning Balance	₩ 770,318	-	92,421	862,739
Transfers				
Transfer to 12-month ECL	-	-	-	-
Transfer to Lifetime ECL(Not Impaired)	-	-	-	-
Transfer to Lifetime ECL(Impaired)	-	-	-	-
Execution	1,845,641	-	15	1,845,656
Repayment	(1,118,171)	-	(11,346)	(1,129,517)
Disposal(*2)	(82,123)	-	-	(82,123)
Others	(834)	-	-	(834)
Ending Balance	₩ 1,414,831	-	81,090	1,495,921

(*1) Amounts of loan and receivables excluded from changes in carrying amount are call loans of ₩328 million, broker's loans of ₩10,719,500 million, securities purchased under resale agreements of ₩42,720,530 million, and loans to employees of ₩57,970 million as of December 31, 2018. Amounts of allowances for credit loss are broker loans of ₩1,308 million, loans to employees of ₩114 million as of December 31, 2018. Call loans and Securities purchased under resale agreements are excluded.

(*2) The loan was disposed for smooth implementation of capital investment for the year ended December 31, 2018, and there is no profit or loss effect on the disposal.

(4) Details of changes in deferred loan origination fees and costs for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Beginning Balance	₩	(1,941)	(1,901)
Remeasurement(*)		-	162
Beginning balance(Adjusted)		(1,941)	(1,739)
Increase		(5,996)	(4,323)
Amortization		4,080	4,121
Ending balance	₩	(3,857)	(1,941)

(*) As some portion of loans are classified as financial assets measured at fair value through profit or loss, deferred loan originated costs and fees, which incurred by acquisition of the asset at initial recognition, are remeasured.

12. The fair value of financial assets and liabilities

(1) The carrying amount and fair value of the Group's financial assets and liabilities as of December 31, 2019 and 2018 are as follows:

		2019		2018	
		Carrying amount	Fair value	Carrying amount	Fair value
Financial assets					
Deposits	₩	5,618,936	5,618,936	6,246,440	6,246,440
Financial assets measured at fair value through profit or loss(*1)		40,895,591	40,895,591	35,064,492	35,064,492
Financial assets measured at fair value through other comprehensive income		9,566,398	9,566,398	8,203,073	8,203,073
Loans(*2)		64,711,340	64,711,340	54,917,168	54,917,168
Other financial assets(*2), (*3)		4,945,810	4,945,810	8,221,787	8,221,787
	₩	125,738,075	125,738,075	112,652,960	112,652,960
Financial liabilities					
Financial liabilities measured at fair value through profit or loss(*1)	₩	1,948,029	1,948,029	2,280,438	2,280,438
Financial liabilities designated as measured at fair value through profit of loss(*1)		14,968,359	14,968,359	15,459,570	15,459,570
Deposits due to customers(*2)		5,955,596	5,955,596	5,465,538	5,465,538
Borrowings(*2)		86,453,161	86,453,161	72,363,400	72,363,400
Debentures		6,215,226	6,308,344	4,249,205	4,278,954
Other financial liabilities(*2), (*3)		5,091,895	5,091,895	7,919,826	7,919,826
	₩	120,632,266	120,725,384	107,737,977	107,767,726

(*1) The fair value of derivatives, etc., is the sum of book value and day 1 profit or loss.

(*2) As loans and borrowings are due in one year as of December 31, 2019 and 2018, and due to other reasons, the Group regards book value is similar to the fair value.

(*3) Other assets and liabilities in the statement of financial position that do not meet the definition of financial instruments, such as advance payments, advance received and income in advance, are excluded.

(2) Fair value hierarchy of financial instruments measured at fair value

1) Fair value hierarchy of financial instruments measured at fair value as of December 31, 2019 and 2018 is as follows:

Description				2019
	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value through profit or loss	₩ 16,125,494	17,727,564	7,042,533	40,895,591
Financial assets measured at fair value through other comprehensive income	685,769	8,314,996	565,633	9,566,398
	₩ 16,811,263	26,042,560	7,608,166	50,461,989
Financial liabilities				
Financial liabilities measured at fair value through profit or loss	₩ 939,184	924,675	84,170	1,948,029
Financial liabilities designated as measured at fair value through profit of loss	8,651	1,676,756	13,282,952	14,968,359
	₩ 947,835	2,601,431	13,367,122	16,916,388
Description				2018
	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value through profit or loss	₩ 14,144,402	16,045,216	4,874,874	35,064,492
Financial assets measured at fair value through other comprehensive income	363,519	7,292,583	546,971	8,203,073
	₩ 14,507,921	23,337,799	5,421,845	43,267,565
Financial liabilities				
Financial liabilities measured at fair value through profit or loss	₩ 1,079,551	837,265	363,622	2,280,438
Financial liabilities designated as measured at fair value through profit of loss	8,258	6,126,347	9,324,965	15,459,570
	₩ 1,087,809	6,963,612	9,688,587	17,740,008

2) Details of changes in financial assets and liabilities classified into Level 3 for the years ended December 31, 2019 and 2018 are as follows:

	2019							
	Beginning balance	Reclassification(*)	Profit (Loss)	Other comprehensive income	Purchase/issuance	Disposal/settlement	Others	Ending balance
Financial assets:								
Financial assets measured at fair value through profit or loss	₩ 4,874,874	(8,307)	230,917	-	7,752,010	(5,837,744)	30,783	7,042,533
Financial assets measured at fair value through other comprehensive income	546,971	-	-	18,662	-	-	-	565,633
	₩ 5,421,845	(8,307)	230,917	18,662	7,752,010	(5,837,744)	30,783	7,608,166
Financial liabilities:								
Financial liabilities measured at fair value through profit or loss	₩ 363,622	-	(190,150)	-	192,348	(281,650)	-	84,170
Financial liabilities designated as measured at fair value through profit of loss	9,324,965	-	568,469	(337)	14,413,515	(11,023,660)	-	13,282,952
	₩ 9,688,587	-	378,319	(337)	14,605,863	(11,305,310)	-	13,367,122

(*) Reclassification between levels occurred in change of market observable data availability.

The Group recognizes the reclassification of level at the end of the reporting period in which the events or changes in circumstances that may cause the reclassification of level occur.

	2018							
	Beginning balance	Reclassification(*)	Profit (Loss)	Other comprehensive income	Purchase/issuance	Disposal/settlement	Others	Ending balance
Financial assets:								
Financial assets measured at fair value through profit or loss	₩ 3,187,371	17,422	32,823	-	5,347,821	(3,724,528)	13,965	4,874,874
Financial assets measured at fair value through other comprehensive income	181,603	-	-	52,110	313,258	-	-	546,971
	₩ 3,368,974	17,422	32,823	52,110	5,661,079	(3,724,528)	13,965	5,421,845
Financial liabilities:								
Financial liabilities measured at fair value through profit or loss	₩ 119,682	-	69,768	-	244,525	(70,353)	-	363,622
Financial liabilities designated as measured at fair value through profit of loss	9,060,833	-	(54,898)	(3,555)	9,042,499	(8,719,914)	-	9,324,965
	₩ 9,180,515	-	14,870	(3,555)	9,287,024	(8,790,267)	-	9,688,587

(*) Reclassification from level 2 to level 3 is due to change of fair value measurement method.

The Group recognizes the reclassification of level at the end of the reporting period in which the events or changes in circumstances that may cause the reclassification of level occur.

3) Valuation techniques and inputs for financial assets and liabilities classified into Level 2 as of December 31, 2019 and 2018 are as follows:

	2019	2018	Valuation techniques	Inputs
Financial assets				
Financial assets measured at fair value through profit or loss	₩ 17,727,564	16,045,216	DCF, Net asset value, Black-Scholes	Discount rates, Interest rates, Volatility, Underlying asset price
Financial assets measured at fair value through other comprehensive income	8,314,996	7,292,583	DCF	Discount rates
	₩ 26,042,560	23,337,799		
Financial liabilities				
Financial liabilities measured at fair value through profit or loss	₩ 924,675	837,265	Black-Scholes, DCF	Interest rates, Volatility, Discount rates
Financial liabilities designated as measured at fair value through profit or loss	1,676,756	6,126,347	Black-Scholes, DCF	Interest rates, Volatility, Discount rates
	₩ 2,601,431	6,963,612		

4) Quantitative details regarding the valuation techniques and unobservable inputs for financial assets and liabilities classified into Level 3 as of December 31, 2019 and 2018 are as follows:

	2019	Valuation techniques	Inputs	Range
Financial assets				
Financial assets measured at fair value through profit or loss	₩ 7,042,533	Black-Scholes, DCF, Probability model, Net asset value	Volatility, Correlation coefficient, Discount rates	(Stock) Volatility: 0.31%~55.12% Correlation coefficient: -60.24%~99.99% (Others) Correlation coefficient: -33.06%~94.56% Discount rates: 2.46%~16.73%
Financial assets measured at fair value through other comprehensive income	565,633	DCF and others	Discount rates	Discount rates: 10.40%~12.00%
	₩ 7,608,166			
Financial liabilities				
Financial liabilities measured at fair value through profit or loss	₩ 84,170	Black-Scholes, DCF, Probability model	Volatility, Correlation coefficient	(Stock) Volatility: 0.31%~55.12% Correlation coefficient: -60.24%~99.99% (Others) Correlation coefficient: -33.06%~94.56%
Financial liabilities designated as measured at fair value through profit of loss	13,282,952	Black-Scholes, DCF, Probability model	Volatility, Correlation coefficient	(Stock) Volatility: 0.31%~55.12% Correlation coefficient: -60.24%~99.99% (Others) Correlation coefficient: -33.06%~94.56%
	₩ 13,367,122			

	2018	Valuation techniques	Inputs	Range
Financial assets				
Financial assets measured at fair value through profit or loss	₩ 4,874,874	Black-Scholes, DCF, Probability model, Net asset value	Volatility, Correlation coefficient, Discount rates	(Stock) Volatility: 0.42%~62.01% Correlation coefficient: -61.07%~99.99% (Others) Correlation coefficient: -47.49%~90.22% Discount rates: 2.51%~18.96%
Financial assets measured at fair value through other comprehensive income	546,971	DCF and others	Discount rates	Discount rates: 6.50%~15.32%
	₩ 5,421,845			
Financial liabilities				
Financial liabilities measured at fair value through profit or loss	₩ 363,622	Black-Scholes, DCF, Probability model	Volatility, Correlation coefficient	(Stock) Volatility: 0.42%~62.01% Correlation coefficient: -61.07%~99.99% (Others) Correlation coefficient: -47.49%~90.22%
Financial liabilities designated as measured at fair value through profit of loss	9,324,965	Black-Scholes, DCF, Probability model	Volatility, Correlation coefficient	(Stock) Volatility: 0.42%~62.01% Correlation coefficient: -61.07%~99.99% (Others) Correlation coefficient: -47.49%~90.22%
	₩ 9,688,587			

5) Sensitivity analysis on changes in unobservable inputs

Sensitivity analysis of financial instruments is separately estimated as favorable and unfavorable changes based on the changes in value of financial instruments coming from the changes in unobservable inputs using statistical techniques. And sensitivity analysis is calculated based on the most favorable and unfavorable amount in the case that the fair value is affected by more than two inputs.

Sensitivity analysis on changes in inputs of the Group's financial assets and liabilities classified into Level 3 as of December 31, 2019 and 2018 are as follows:

	2019				
		Profit (Loss)		Other comprehensive income (loss)	
		Favorable changes	Unfavorable changes	Favorable changes	Unfavorable changes
Derivatives linked securities sold and related hedging assets(*1)	₩	19,279	(19,012)	-	-
Financial assets measured at fair value through other comprehensive income(*3)		-	-	66,336	(44,185)
Financial assets measured at fair value through profit or loss(*2),(*3),(*4)		26,689	(22,875)	-	-
2018					
		Profit (Loss)		Other comprehensive income (loss)	
		Favorable changes	Unfavorable changes	Favorable changes	Unfavorable changes
Derivatives linked securities sold and related hedging assets(*1)	₩	15,660	(21,916)	-	-
Financial assets measured at fair value through other comprehensive income(*3)		-	-	74,227	(52,985)
Financial assets measured at fair value through profit or loss(*2),(*3),(*4)		3,241	(2,416)	-	-

(*1) Change in fair value is calculated by increasing or decreasing the volatility and correlation of the underlying asset, the main unobservable input, by 10%.

(*2) Change in fair value is calculated by increasing or decreasing the volatility of the underlying asset by 10% , an input that is impossible to observe.

(*3) Change in fair value is calculated by adjusting the growth rate and discount rate each by -1~1%, inputs that are impossible to observe.

(*4) Derivatives linked securities sold and related hedging assets are excluded.

6) Details of changes in deferred day 1 profit or loss for the years ended December 31, 2019 and 2018 are as follows:

Description(*)	2019	2018
Beginning balance	₩ (131,758)	(108,436)
New transactions	(237,677)	(155,442)
Recognized in current profit or loss	204,017	132,120
Ending balance	₩ (165,418)	(131,758)

(*) The deferred day 1 profit or loss arose from derivative financial instruments at Level 3 fair value hierarchy.

(3) Fair value hierarchy of financial instruments disclosed by fair value

1) Fair value hierarchy of financial instruments disclosed by fair value as of December 31, 2019 and 2018 is as follows:

				2019
	Level 1	Level 2	Level 3	Total
2019				
Financial assets				
Deposits	₩ -	-	5,618,936	5,618,936
Loans	-	1,417	64,709,923	64,711,340
Other financial assets	907,751	-	4,038,059	4,945,810
	₩ 907,751	1,417	74,366,918	75,276,086
Financial liabilities				
Deposits due to customers	₩ -	-	5,955,596	5,955,596
Borrowings	-	1,390,000	85,063,161	86,453,161
Debentures	-	6,308,344	-	6,308,344
Other financial liabilities	907,830	-	4,184,065	5,091,895
	₩ 907,830	7,698,344	95,202,822	103,808,996
2018				
	Level 1	Level 2	Level 3	Total
Financial assets				
Deposits	₩ -	-	6,246,440	6,246,440
Loans	-	328	54,916,840	54,917,168
Other financial assets	3,027,433	-	5,194,354	8,221,787
	₩ 3,027,433	328	66,357,634	69,385,395
Financial liabilities				
Deposits due to customers	₩ -	-	5,465,538	5,465,538
Borrowings	-	1,810,000	70,553,400	72,363,400
Debentures	-	4,278,954	-	4,278,954
Other financial liabilities	3,026,460	-	4,893,366	7,919,826
	₩ 3,026,460	6,088,954	80,912,304	90,027,718

2) Valuation techniques and inputs for financial assets and liabilities disclosed by fair values classified into Level 2 as of December 31, 2019 and 2018 are as follows:

	2019	2018	Valuation techniques	Inputs
2019				
Financial assets				
Loans receivable	₩ 1,417	328	DCF	Discount rates
Financial liabilities				
Borrowings	₩ 1,390,000	1,810,000	DCF	Discount rates
Debentures	6,308,344	4,278,954	DCF	Discount rates
	₩ 7,698,344	6,088,954		

13. The Group's subsidiaries

(1) The Group's subsidiaries

Details of subsidiaries as of December 31, 2019 and 2018 are as follows:

Investor	Subsidiaries	Main business	Location	Reporting date	Percentage of ownership and voting rights (%)	
					2019	2018
	Domestic subsidiaries:					
	Mirae Asset Venture Investment	Small-and medium-sized enterprise venture capital	Korea	December, 31	61.59	72.55
	Mirae Asset MAPS India Frontier Private Real Estate Investment Trust 1st	Collective investment	Korea	December, 31	62.50	62.50
	School Infrastructure Private Investment Trust	Collective investment	Korea	December, 31	100.00	100.00
	Hyundai CVC CLO Private Equity Investment Trust 2nd	Collective investment	Korea	December, 31	100.00	100.00
	DB Together Private Equity Investment Trust 67th	Collective investment	Korea	December, 31	100.00	100.00
	Hyundai ING CLO Private Special Asset Investment Trust 1st	Collective investment	Korea	December, 31	100.00	100.00
	Multiasset DW – 2nd Fund	Collective investment	Korea	December, 31	100.00	100.00
	Hyundai Private Real Estate Investment Trust 13th	Collective investment	Korea	December, 31	-	100.00
	Richmond Private Multiflex Real Estate Investment Trust 1st	Collective investment	Korea	December, 31	-	100.00
	Richmond Private Multiflex Real Estate Investment Trust 3rd	Collective investment	Korea	December, 31	-	99.28
	Richmond Private Multiflex Real Estate Investment Trust 4th	Collective investment	Korea	December, 31	-	98.43
	Hana Landchip Private Real Estate Investment Trust No.67	Collective investment	Korea	December, 31	81.91	81.91
	Richmond Private Multiflex Real Estate Investment Trust 5th	Collective investment	Korea	December, 31	-	98.04
Mirae Asset Daewoo Co., Ltd.	Mirae Asset MAPS Frontier US Private Real Estate Investment Trust 6-2	Collective investment	Korea	December, 31	99.92	99.92
	Mirae Asset Maps Frontier US Private Real Estate Investment Trust 7th	Collective investment	Korea	December, 31	99.83	99.83
	MAPS US Professional Investment Private Real Estate Investment Trust 9-1	Collective investment	Korea	December, 31	98.33	98.33
	LK GHC Specialized Privately Placed Investment Trust No.1	Collective investment	Korea	December, 31	78.90	78.90
	Mirae Asset Smart Q Global Hedge Focus Professional Private Investment Trust 1st	Collective investment	Korea	December, 31	83.22	96.16
	Mirae Asset Patriot Professional Private Investment Trust 1st	Collective investment	Korea	December, 31	99.25	99.76
	JB Infra Build-up Professional Private Investment Trust 3rd	Collective investment	Korea	December, 31	96.68	89.38
	Multi Asset Global Private Debt Professional Private Investment Trust 4th	Collective investment	Korea	December, 31	56.09	88.17
	Multi Asset Global Private Equity Professional Private Investment Trust 1st	Collective investment	Korea	December, 31	92.31	92.31
	Hana Alternative Investment US Power Plant Professional Private Special Asset Investment Trust 1st	Collective investment	Korea	December, 31	-	95.67
	INMARK UK Professional Private Real Estate Investment Trust 19th	Collective investment	Korea	December, 31	-	99.91
	Mirae Asset Smart ELS Selection Professional Private Investment Trust 1st	Collective investment	Korea	December, 31	99.06	99.80
	AIP Energy Midstream Professional Private Special Asset 1st	Collective investment	Korea	December, 31	99.91	-
	Multi Asset Overseas Real Estate Professional Private Investment Trust 6th	Collective investment	Korea	December, 31	76.70	-

Investor	Subsidiaries	Main business	Location	Reporting date	Percentage of ownership and voting rights (%)	
					2019	2018
Mirae Asset Daewoo Co., Ltd	Multi Asset Overseas Real Estate Professional Private Investment Trust 6-1	Collective investment	Korea	December, 31	99.91	-
	Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-1	Collective investment	Korea	December, 31	98.85	-
	Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-2	Collective investment	Korea	December, 31	55.75	-
	Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-3	Collective investment	Korea	December, 31	99.54	-
	Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-4(*1)	Collective investment	Korea	December, 31	0.60	-
	Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-5	Collective investment	Korea	December, 31	68.34	-
	Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-6	Collective investment	Korea	December, 31	99.68	-
	Mirae Asset MAPS distribution Professional Real Estate Investment Trust 7th	Collective investment	Korea	December, 31	92.86	-
	Hanwha Debt Strategy Professional Private Real Estate Investment Trust 22nd	Collective investment	Korea	December, 31	99.90	-
	Mirae Asset Daewoo Global K-Growth Private Investment Professional company(*1)	Investment	Korea	December, 31	30.30	30.30
	Mirae Asset Global Bio Investment Fund I	Investment	Korea	December, 31	96.31	96.31
	Mirae Asset Global Unicorn PEF	Investment	Korea	December, 31	86.79	86.79
	Mirae Asset Daewoo Global I Private Equity Fund (*1)	Investment	Korea	December, 31	26.12	26.12
	Mirae Asset Daewoo Korea II Private Equity Fund (*1)	Investment	Korea	December, 31	29.27	29.88
	Good Aiming 1st Co., Ltd. (*2)	Other financial service	Korea	December, 31	-	-
	Good Aiming 2nd Co., Ltd. (*2)	Other financial service	Korea	December, 31	-	-
	Good Chance 5th Co., Ltd. (*2)	Other financial service	Korea	December, 31	-	-
	Good Chance 6th Co., Ltd. (*2)	Other financial service	Korea	December, 31	-	-
	Renewable PG Limited Liability Company(*2)	Other financial service	Korea	December, 31	-	-
	HC Hybrid 1st Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	HC Hybrid 2nd Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MD Series 1st Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MD Flight Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MD Flight 2nd Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MD Flyhigh Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	Fly High 2nd Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MS Paju 1st Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MD Petro 1st Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	No Brand Yellow Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MD Brand Green Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MD Dragon 2nd Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MD Prime 3th Co., Ltd (*2)	Other financial service	Korea	December, 31	-	-
	MAMiascluster CO., LTD (*2)	Other financial service	Korea	December, 31	-	-
Money Market Trust (2019: 25, 2018: 16)	Trust asset management	Korea	December, 31	100.00	100.00	
Mirae Asset Venture Investment	Domestic subsidiaries:					
	2010 KIF-Mirae Asset IT Investment Fund	Investment	Korea	December, 31	-	29.83
	Mirae Asset Social Corporate Investment Fund	Investment	Korea	December, 31	-	16.66
	Mirae Asset Agro Project Fund (*1)	Investment	Korea	December, 31	10.00	10.00
	KoFC-Mirae Asset Pioneer Champ 2011-3rd Investment Fund (*1)	Investment	Korea	December, 31	21.82	21.82
	Mirae Asset Social Corporate Investment Fund 2nd (*1)	Investment	Korea	December, 31	5.00	5.00
	Noroo-Mirae Asset Agrostar Project Venture Fund (*1)	Investment	Korea	December, 31	10.00	10.00

Investor	Subsidiaries	Main business	Location	Reporting date	Percentage of ownership and voting rights (%)	
					2019	2018
Mirae Asset Venture Investment	Domestic subsidiaries:					
	Mirae Asset Good Corporate Secondary Investment Fund	Investment	Korea	December, 31	51.11	51.11
	MAVI Good Company Investment Fund #1	Investment	Korea	December, 31	60.00	60.00
	MAVI Good Company Investment Fund #2	Investment	Korea	December, 31	67.14	67.14
	MIRAE ASSET Global Investment Fund (*1)	Investment	Korea	December, 31	37.50	37.50
	Koscom-Mirae Asset Fintech Company Investment Fund #1	Investment	Korea	December, 31	60.00	60.00
	MIRAE ASSET Young Start-Up Investment Fund (*1)	Investment	Korea	December, 31	17.86	17.86
	Mirae Asset Good Corporate Secondary Investment Fund #2 (*1)	Investment	Korea	December, 31	44.50	44.50
	2016 KIF-MIRAE ASSET ICT Venture Fund (*1)	Investment	Korea	December, 31	30.00	30.00
	MIRAE ASSET Good Company Investment Fund#16-1 (*1)	Investment	Korea	December, 31	10.40	10.40
	MIRAE ASSET Good Company Investment Fund#17-1 (*1)	Investment	Korea	December, 31	9.13	9.13
	Mirae Asset Hi-Tech Frontier Investment Fund (*1)	Investment	Korea	December, 31	24.00	24.00
	MIRAE ASSET Young Start-Up Investment Fund #2 (*1)	Investment	Korea	December, 31	28.00	28.00
	MIRAE ASSET Good Company Secondary Investment Fund#18-1 (*1)	Investment	Korea	December, 31	22.25	22.25
	MIRAE ASSET Young Start-UP Investment Fund #3 (*1)	Investment	Korea	December, 31	40.10	40.10
	MIRAE ASSET Good Company Investment Fund #19-1 (*1)	Investment	Korea	December, 31	14.92	-
	MIRAE ASSET Green Frog Investment Fund (*1)	Investment	Korea	December, 31	10.00	-
	MIRAE ASSET Good Company Investment Fund #19-2(*1)	Investment	Korea	December, 31	9.62	-
MIRAE ASSET Next Korea Intelligence Information Ventur Investment Fund(*1)	Investment	Korea	December, 31	17.78	-	
Mirae Asset Daewoo Co., Ltd.	Overseas subsidiaries:					
	Mirae Asset Securities (UK) Ltd.	Securities brokerage and investment, investment consulting	UK	December, 31	100.00	100.00
	Mirae Asset Securities Holdings (USA) Inc (*3)	Other financial service	USA	December, 31	100.00	100.00
	Mirae Asset Securities (HK) Limited	Securities brokerage and investment	Hong Kong	December, 31	100.00	100.00
	Mirae Asset Realty (Singapore) PTE.	Real estate investment and rent	Singapore	December, 31	100.00	100.00
	Mirae Asset Global Long Short Fund, Ltd.	Collective investment	Cayman Islands	December, 31	100.00	100.00
	MAPS Location (Singapore) Pte. Ltd.	Real estate investment and rent	Singapore	December, 31	90.00	90.00
Mirae Asset Securities (HK) Limited	Overseas subsidiaries:					
	Mirae Asset Securities (Vietnam) LLC	Securities brokerage and investment	Vietnam	December, 31	100.00	100.00
	Mirae Asset Wealth Management (Brazil) CCTVM	Securities brokerage and investment	Brazil	December, 31	100.00	100.00
	Mirae Asset Securities (UK) Ltd.	General	UK	December, 31	-	100.00
	Mirae Asset Investment Advisory (BEIJING) Co., Ltd.	Investment and investment consulting	China	December, 31	100.00	100.00
	Mirae Asset Securities (Singapore) Pte. Ltd.	Securities brokerage	Singapore	December, 31	100.00	100.00
	Mirae Asset Securities Mongolia UTSK LLC	Investment and investment consulting	Mongolia	December, 31	83.16	83.16
	PT. Mirae Asset Sekuritas Indonesia	Securities brokerage	Indonesia	December, 31	99.00	99.00
	Mirae Asset Investment Asia Limited	Investment	Hong Kong	December, 31	-	100.00
	Mirae Asset Capital Markets (India) Private Limited	Securities brokerage and investment	India	December, 31	100.00	100.00

Investor	Subsidiaries	Main business	Location	Reporting date	Percentage of ownership and voting rights (%)	
					2019	2018
Overseas subsidiaries:						
Mirae Asset Securities Holdings (USA) Inc.	Mirae Asset Securities (USA) Inc.	Securities brokerage and investment	USA	December, 31	100.00	100.00
	Mirae Asset Wealth Management (USA) Inc.	Securities brokerage and investment	USA	December, 31	100.00	100.00
Mirae Asset Wealth Management (USA) Inc.	Mirae Asset Securities & Investments (USA), LLC	Investment	USA	December, 31	100.00	100.00
	HGX (USA), LLC	Investment	USA	December, 31	100.00	100.00
	Mirae Asset Global Long Short Fund, LP	Collective investment	USA	December, 31	-	96.15
	Mirae Asset Properties I , DST	Collective investment	USA	December, 31	-	100.00
	Mirae Asset Disruptive Technologies Fund I , LP	Collective investment	USA	December, 31	97.92	-
Mirae Asset Capital Markets(India) Private Limited	Mirae Asset Credit Opportunities Fund	Collective investment	India	December, 31	65.97	65.89
Mirae Asset Maps Frontier US Private Real Estate Investment Trust 7	MAPS HAWAII TWO, LLC.	Real estate investment and rent	USA	December, 31	100.00	100.00
	MAPS WAIKIKI HOTEL, LLC.	Real estate investment and rent	USA	December, 31	100.00	100.00
	MAPS HOTELS AND RESORTS HAWAII 2, LLC.	Real estate investment and rent	USA	December, 31	100.00	100.00
	MAPS ROYAL GROVE, LLC.	Real estate investment and rent	USA	December, 31	100.00	100.00
Mirae Asset Global Bio Investment Fund I	MAGBI Fund Limited	Investment	Hong Kong	December, 31	100.00	100.00
LK GHC Specialized Privately Placed Investment Trust No.1	Super Delta Pte. Ltd.	Investment	Singapore	December, 31	99.12	99.12
Mirae Asset Global Unicorn PEF	MAC Global Mobility Investment Limited	Investment	Cayman Islands	December, 31	100.00	100.00
Mirae Asset Daewoo Global I Private Equity Fund	Mirae Ass et Daewoo Global I , LLC	Investment	USA	December, 31	100.00	100.00
Multi Asset Global Private Equity Professional Private Investment Trust 1 st	Alpha Assai Fund SP	Investment	Cayman Islands	December, 31	100.00	100.00
Hana Alternative Investment US Power Plant Professional Private Special Asset Investment Trust 1st	HPUS1 LLC	Investment	USA	December, 31	-	99.91
Mirae Asset MAPS USA Professiona Private Real Estate Investment Trust 15-1						
Mirae Asset MAPS USA Professiona Private Real Estate Investment Trust 15-2						
Mirae Asset MAPS USA Professiona Private Real Estate Investment Trust 15-3						
Mirae Asset MAPS USA Professiona Private Real Estate Investment Trust 15-4	Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15th	Collective investment	Korea	December, 31	69.60	-
Mirae Asset MAPS USA Professiona Private Real Estate Investment Trust 15-5						
Mirae Asset MAPS USA Professiona Private Real Estate Investment Trust 15-6						

Investor	Subsidiaries	Main business	Location	Reporting date	Percentage of ownership and voting rights (%)	
					2019	2018
Overseas subsidiaries:						
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15th	MAPS HOTELS AND RESORTS ONE, LLC.	Collective investment	Korea	December, 31	100.00	-
Multi Asset Overseas Real Estate Professional Private Investment Trust 6th	OPPCI Mahajunga Holding	Real estate investment and rent	France	December, 31	97.46	-
Multi Asset Overseas Real Estate Professional Private Investment Trust 6-1						
OPPCI Mahajunga Holding	SCI Mahajunga	Real estate investment and rent	France	December, 31	85.00	-

(*1) Although the Group's ownership is less than 50 percent, the Group as General Partner or Collective investor, has substantial power to influence related decisions of the entity and is exposed to significant changes in profit in which the Group can also influence, and therefore, the entity was classified as a subsidiary.

(*2) The entity is a structured entity for assets securitization and although the Group's ownership is less than 50 percent, the Group has substantial power to influence related decisions of the entity, and is exposed to significant changes in profit in which the Group can also influence, and therefore, the entity was classified as a subsidiary.

(*3) During the prior year, Mirae Asset Securities Holdings (USA) Inc. is established by in-kind contribution of Mirae Asset Securities (USA) Inc. stocks held by the Group.

(*4) Eight of the collective investment securities that the Group has substantial power are excluded because they are not material to the Group's consolidated financial information. The Group recognized the collective investment securities in the amount of ₩26,775 million as financial assets measured at fair value through profit or loss.

(2) Changes in subsidiaries

1) Subsidiaries newly included in the scope of consolidation for year ended December 31, 2019 are as follows:

Subsidiaries	Reason
Mirae Asset Debt Investments 1, DST.	They are newly acquired investment trusts and structured entities for the year ended December 31, 2019 on which the Group has control.
Hanwha Debt Strategy Professional Private Real Estate Investment Trust 17th	
NH-Amundi Global Infra Professional Private Special Asset Investment Trust 11th	
AIP Energy Midstream Professional Private Special Asset 1st	
Multi Asset Overseas Real Estate Professional Private Investment Trust 6th	
Multi Asset Overseas Real Estate Professional Private Investment Trust 6-1	
Mirae Asset MAPS Core Professional Real Estate Investment Trust 2-4	
Mirae Asset MAPS Retail Professional Real Estate Investment Trust 1st	
KB North America Aethon Energy Infra Professional Real Estate Investment Trust	
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-1	
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-2	
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-3	
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-4	
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-5	
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-6	
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15th	
Mirae Asset MAPS distribution Professional Real Estate Investment Trust 7th	
Hanwha Debt Strategy Professional Private Real Estate Investment Trust 22nd	
MAPS HOTELS AND RESORTS ONE, LLC.	
Mirae Asset Disruptive Technologies Fund I, LP	
OPPCI Mahajunga Holding	
SCI Mahajunga	
Renewable Limited Liability Company	
MIRAE ASSET Good Company Investment Fund #19-1	
MIRAE ASSET Green Frog Investment Fund	
MIRAE ASSET Good Company Investment Fund #19-2	
MIRAE ASSET Next Korea Intelligence Information Venture Investment Fund	
MD Petro 1st Co., Ltd	

Subsidiaries	Reason
No Brand Yellow Co., Ltd	They are newly acquired investments trusts and structured entities for the year ended December 31, 2019 on which the Group has control.
MD Brand Green Co., Ltd	
MD Dragon 2nd Co., Ltd	
MD Prime 3th Co., Ltd	
MAMiascluster CO., LTD	
Mirae IkJae Moderate Growth Multi-principled scheme 1st Private Equity Investment Fund	

2) Subsidiaries excluded from the scope of consolidation for the year ended December 31, 2019 are as follows:

Subsidiaries	Reason
MADW EP Co., Ltd.	Lost control due to the disposal of all shares in the current period
Good Chance 1st Co., Ltd.	
Good Chance 2nd Co., Ltd.	
Good Chance 4th Co., Ltd.	
Deogi Dream M.S. Co., Ltd.	
MD GlobalS Co., Ltd.	
Fly High 1st Co., Ltd.	
MS Paju 2nd Co., Ltd.	
MASG 1st Co., Ltd.	
MASG 2nd Co., Ltd.	
Landfill Management 1st Co., Ltd.	
Mirae Asset Social Corporate Investment Fund	
2010 KIF-Mirae Asset IT Investment Fund	
Hyundai Private Real Estate Investment Trust 13th	
Richmond Private Multiflex Real Estate Investment Trust 1st	
Richmond Private Multiflex Real Estate Investment Trust 3rd	
Richmond Private Multiflex Real Estate Investment Trust 4th	
Richmond Private Multiflex Real Estate Investment Trust 5th	
Mirae Asset Securities (UK) Ltd.	
Mirae Asset Investment Asia Limited	
Mirae Asset Global Long Short Fund, LP	
Hana Alternative Investment US Power Plant Professional Private Special Asset Investment Trust 1st	Reclassified as financial assets measured at fair value through profit or loss as a result of losing control after partial disposal of interest in subsidiary
INMARK UK Professional Private Real Estate Investment Trust 19th	
Hanwha Debt Strategy Professional Private Real Estate Investment Trust 17th	
NH-Amundi Global Infra Professional Private Special Asset Investment Trust 11th	
Mirae Asset MAPS Retail Professional Real Estate Investment Trust 1st	
Mirae Asset MAPS Core Professional Real Estate Investment Trust 2-4	
KB North America Aethon Energy Infra Professional Real Estate Investment Trust	
HPUS1 LLC	
Mirae Asset Debt Investments I , DST	
Mirae Asset Properties I , DST	
Mirae IkJae Moderate Growth Multi-principled scheme 1st Private Equity Investment Fund	Reclassified as financial assets measured at fair value through profit or loss as a result of losing control after the decrease of its portion of shares

(3) Financial information of subsidiaries

1) Financial information of subsidiaries as of and for the year ended December 31, 2019 is as follows:

	2019					
	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	Total comprehensive income
Mirae Asset Venture Investment	₩ 154,991	3,145	151,846	38,957	11,979	11,979
Mirae Asset MAPS India Frontier Private Real Estate Investment Trust 1st	22,497	614	21,883	898	(4,743)	(4,743)
School Infrastructure Private Investment Trust	17,154	17	17,137	690	401	401
Hyundai CVC CLO Private Equity Investment Trust 2nd	939	-	939	392	(68)	(68)
DB Together Private Equity Investment Trust 67th	22,557	2	22,555	1,029	980	980
Hyundai ING CLO Private Special Asset Investment Trust 1st	6,694	3	6,691	1,361	1,227	1,227
Multiasset DW – 2nd Fund	75	-	75	27	(4)	(4)
Hana Landchip Private Real Estate Investment Trust No.67	41,697	30,783	10,914	2,681	888	888
Mirae Asset Daewoo Global K Growth Private Equity Fund	36,233	165	36,068	8,154	7,589	7,589
Mirae Asset MAPS Frontier US Private Real Estate Investment Trust 6-2	134,768	311	134,457	15,563	(1,903)	(1,903)
Mirae Asset Maps Frontier US Private Real Estate Investment Trust 7th	341,253	19	341,234	52,722	(1,349)	(1,349)
MAPS US Professional Investment Private Real Estate Investment Trust 9-1	123,461	4,919	118,542	61	972	(1,070)
LK GHC Specialized Privately Placed Investment Trust No.1	45,039	14	45,025	6	94	94
Mirae Asset Smart Q Global Hedge Focus Professional Private Investment Trust 1st	88,579	4,789	83,790	26,447	10,199	10,199
Mirae Asset Patriot Professional Private Investment Trust 1st	39,784	4	39,780	12,134	6,856	6,856
JB Infra Build-up Professional Private Investment Trust 3rd	2,908	2	2,906	153	39	39
Multi Asset Global Private Debt Professional Private Investment Trust 4th	11,774	2	11,772	2,532	1,659	1,659
Multi Asset Global Private Equity Professional Private Investment Trust 1st	132,564	1,572	130,992	5,619	3,024	3,024
Mirae Asset Smart ELS Selection Professional Private Investment Trust 1st	12,808	2	12,806	5,019	4,867	4,867
AIP Energy Midstream Professional Private Special Asset 1st	82,140	45	82,095	19,819	9,456	9,456
Multi Asset Overseas Real Estate Professional Private Investment Trust 6th	341,452	49	341,403	11,467	(8,899)	(8,899)
Multi Asset Overseas Real Estate Professional Private Investment Trust 6-1	105,445	15	105,430	3,586	(2,394)	(2,394)
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-1	46,282	-	46,282	40	(1,406)	(1,406)
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-2	244,894	1,141	243,753	204	(8,374)	(1,454)
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-3	63,605	-	63,605	1	1	(2,147)
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-4	54,943	261	54,682	46	(1,883)	(326)
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-6	166,275	-	166,275	143	(5,051)	(5,051)
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15-6	127,032	-	127,032	3	2	(4,287)
Mirae Asset MAPS USA Professional Private Real Estate Investment Trust 15th	684,144	-	684,144	-	-	(21,569)
MAPS HOTELS AND RESORTS ONE, LLC.	684,143	-	684,143	-	(1)	(21,570)
Mirae Asset MAPS distribution Professional Real Estate Investment Trust 7th	2,802	2	2,800	2	-	-

	2019					
	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	Total comprehensive income
Hanwha Debt Strategy Professional Private Real Estate Investment Trust 22th	₩ 279	-	279	775	(3)	(3)
Good Aiming 1st Co., Ltd.	-	-	-	1,467	98	98
Good Aiming 2nd Co., Ltd.	1,115	-	1,115	2,755	174	174
Good Chance 5th Co., Ltd.	-	-	-	2,397	1,371	1,371
Good Chance 6th Co., Ltd.	50,100	50,101	(1)	1,214	4	4
Renewable Limited Liability Company	-	-	-	-	-	-
HC Hybrid 1st Co.,Ltd	20,541	20,174	367	1,346	260	260
HC Hybrid 2nd Co.,Ltd	10,497	10,249	248	816	281	281
MD Series 1st Co.,Ltd	49,899	50,444	(545)	2,274	14	62
MD Flight Co.,Ltd	30,575	30,679	(104)	1,548	(180)	(127)
MD Flight 2nd Co.,Ltd	20,249	20,480	(231)	958	(90)	(55)
MD Flyhigh Co.,Ltd	31,358	30,741	617	2,493	811	811
Fly High 2nd Co.,Ltd	30,338	30,475	(137)	1,745	(214)	(85)
MS Paju 1st Co.,Ltd	52,440	52,576	(136)	2,223	(136)	1
MD Petro 1st Co.,Ltd	103,423	101,979	1,444	6,186	1,444	1,444
No Brand Yellow Co.,Ltd	102,222	101,438	784	4,119	784	784
MD Brand Green Co.,Ltd	50,219	50,455	(236)	1,499	(236)	(598)
MD Dragon 2nd Co.,Ltd	195,899	195,688	211	4,005	211	211
MD Prime 3th Co.,Ltd	30,238	30,300	(62)	339	(62)	(62)
MAMiascluster CO.,LTD	13,234	13,290	(56)	145	(56)	-
Mirae Asset Global Bio Investment Fund I	82,864	-	82,864	2,275	556	2,791
Mirae Asset Global Unicorn PEF	255,644	1,929	253,715	40	(3,801)	(3,801)
Mirae Asset Daewoo Global I Private Equity Fund	114,678	714	113,964	18	(868)	(868)
Mirae Asset Daewoo Korea II Private Equity Fund	146,829	12	146,817	4,175	2,385	2,385
Mirae Asset Agro Project Fund	4,391	1,238	3,153	1,010	(898)	(898)
KoFC-Mirae Asset Pioneer Champ 2011-3rd Investment Fund	14,949	224	14,725	2,682	(446)	(446)
Mirae Asset Social Corporate Investment Fund 2nd	3,898	14	3,884	43	(1)	(1)
Noroo-Mirae Asset Agrostar Project Venture Fund	4,539	117	4,422	1,091	(726)	(726)
Mirae Asset Good Corporate Secondary Investment Fund	7,000	6	6,994	1,911	916	916
MAVI Good Company Investment Fund #1	9,000	156	8,844	3,657	3,229	3,229
MAVI Good Company Investment Fund #2	7,104	134	6,970	2,845	2,157	2,157
MIRAE ASSET Global Investment Fund	30,626	501	30,125	7,146	2,204	2,204
Koscom-Mirae Asset Fintech Company Investment Fund #1	3,018	29	2,989	700	648	648
MIRAE ASSET Young Start-Up Investment Fund	13,394	240	13,154	1,599	47	47
Mirae Asset Good Corporate Secondary Investment Fund #2	18,231	191	18,040	252	(1,136)	(1,136)
2016 KIF-MIRAE ASSET ICT Venture Fund	26,235	149	26,086	1,346	(1,637)	(1,637)
MIRAE ASSET Good Company Investment Fund #16-1	20,103	58	20,045	12,512	11,402	11,402
MIRAE ASSET Good Company Investment Fund #17-1	19,331	67	19,264	7,757	6,748	6,748
Mirae Asset Hi-Tech Frontier Investment Fund	21,340	166	21,174	2,205	1,552	1,552
MIRAE ASSET Young Start-Up Investment Fund #2	23,636	164	23,472	884	(907)	(907)
MIRAE ASSET Good Company Secondary Investment Fund #18-1	14,409	62	14,347	406	(649)	(649)
MIRAE ASSET Young Start-UP Investment Fund #3	19,219	146	19,073	24	(869)	(869)
MIRAE ASSET Good Company Investment Fund #19-1	21,877	90	21,787	70	(213)	(213)
MIRAE ASSET Green Frog Investment Fund	3,962	27	3,935	4	(65)	(65)
MIRAE ASSET Good Company Investment Fund #19-2	18,009	35	17,974	9	(26)	(26)

	2019					
	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	Total comprehensive income
MIRAE ASSET Next Korea Intelligence Information Venture Investment Fund	₩ 3,962	27	3,935	4	(65)	(65)
Mirae Asset Securities (UK) Ltd.	385,343	23,883	361,460	25,928	14,638	9,469
Mirae Asset Securities Holdings (USA) Inc.	660,090	26	660,064	54	54	24,178
Mirae Asset Securities (USA) Inc.	59,879,219	59,610,560	268,659	1,942,078	98	9,306
Mirae Asset Wealth Management (USA) Inc.	381,853	4,998	376,855	4,570	(4,473)	8,631
Mirae Asset Securities & Investments (USA), LLC	331,623	4,283	327,340	16,534	12,454	23,170
HGX (USA), LLC	125,526	16	125,510	7,884	7,866	7,136
Mirae Asset Securities (HK) Limited	2,586,629	156,000	2,430,629	201,268	66,882	123,625
Mirae Asset Securities (Vietnam) LLC	512,982	206,678	306,304	48,368	18,403	25,020
Mirae Asset Wealth Management (Brazil) CCTVM	159,026	81,937	77,089	21,840	3,586	3,281
Mirae Asset Investment Advisory (BEIJING) Co., Ltd.	4,638	1,325	3,313	252	(546)	(452)
Mirae Asset securities (Singapore) Pte., Ltd.	42,251	320	41,931	1,943	30	1,041
Mirae Asset Securities Mongolia UTsk LLC	1,928	32	1,896	475	180	184
PT. Mirae Asset Sekuritas Indonesia	200,502	87,440	113,062	38,725	12,775	19,895
Mirae Asset Capital Markets (India) Private Limited	341,108	3,520	337,588	24,385	11,340	15,024
Mirae Asset Credit Opportunities Fund	8,571	259	8,312	(284)	(457)	(354)
Mirae Asset Realty (Singapore) PTE.	207	54	153	-	(8)	(3)
Mirae Asset Global Long Short Fund, Ltd.	159,598	-	159,598	-	(5,548)	10,803
Mirae Asset Disruptive Technologies Fund I , LP	2,163	617	1,546	-	(1,053)	(1,099)
MAPS Location (Singapore) Pte. Ltd.	7,736	14	7,722	117	46	277
MAPS HAWAII TWO, LLC.	380,500	169,050	211,450	-	(11,966)	(3,812)
MAPS WAIKIKI HOTEL, LLC.	847,001	478,936	368,065	77,391	(2,717)	11,801
MAPS HOTELS AND RESORTS HAWAII 2, LLC.	7,652	12,795	(5,143)	165,639	(1,692)	(1,480)
MAPS ROYAL GROVE, LLC.	-	16	(16)	182	(31)	(31)
MAGBI Fund Limited	78,835	17,810	61,025	150	(758)	1,728
Super Delta Pte. Ltd.	21,999	11	21,988	1,259	(7,521)	(6,460)
MAC Global Unicorn Investment Limited	275,217	309	274,908	-	(43)	9,385
Mirae Asset Daewoo Global I , LLC	115,854	-	115,854	-	(42)	4,460
Alpha Assai Fund SP	173,747	77	173,670	-	-	5,955
OPPCI Mahajunga Holding	444,247	158,889	285,358	-	6,879	3,329
SCI Mahajunga	1,152,395	946,725	205,670	38,867	2,306	46
25 Money Market Trust	1,141,524	121	1,141,403	14,370	9,546	12,499

(*) The financial statements of some subsidiaries are adjusted to conform to the accounting policies of the Group.

2) Financial information of subsidiaries as of and for the year ended December 31, 2018 is as follows:

	2018					
	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	Total comprehensive income
Mirae Asset Venture Investment	₩ 120,819	3,549	117,270	39,034	19,218	19,218
Mirae Asset MAPS India Frontier Private Real Estate Investment Trust 1st	27,193	568	26,625	-	(27,777)	(27,777)
School Infrastructure Private Investment Trust	19,079	19	19,060	759	446	446
Hyundai CVC CLO Private Equity Investment Trust 2nd	5,711	2	5,709	8,843	(24)	(24)
DB Together Private Equity Investment Trust 67th	22,510	2	22,508	1,338	1,300	1,300
Hyundai ING CLO Private Special Asset Investment Trust 1st	6,206	3	6,203	940	630	630
Multiasset DW – 2nd Fund	79	-	79	26	26	26
Hyundai Private Real Estate Investment Trust 13th	21	17	4	1,110	7,577	7,577
Richmond Private Multiflex Real Estate Investment Trust 1st	5,740	3,018	2,722	489	262	262
Richmond Private Multiflex Real Estate Investment Trust 3rd	14,275	7,892	6,383	963	309	309

							2018
	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	Total comprehensive income	
Richmond Private Multiflex Real Estate Investment Trust 4th	₩ 9,837	5,124	4,713	732	364	364	
Hana Landchip Private Real Estate Investment Trust No.67	42,080	30,779	11,301	2,542	791	791	
Richmond Private Multiflex Real Estate Investment Trust 5th	7,063	4,157	2,906	514	219	219	
Mirae Asset Daewoo Global K Growth Private Equity Fund	35,333	339	34,994	831	(1,075)	(1,075)	
Mirae Asset MAPS Frontier US Private Real Estate Investment Trust 6-2	137,393	9	137,384	15,671	3,791	3,791	
Mirae Asset Maps Frontier US Private Real Estate Investment Trust 7th	343,899	21	343,878	44,273	6,485	6,485	
MAPS US Professional Investment Private Real Estate Investment Trust 9-1	121,496	5	121,491	16,529	6,820	6,820	
LK GHC Specialized Privately Placed Investment Trust No.1	45,126	13	45,113	9	(387)	(387)	
Mirae Asset Smart Q Global Hedge Focus Professional Private Investment Trust 1st	114,809	1,096	113,713	40,140	(10,664)	(10,664)	
Mirae Asset Patriot Professional Private Investment Trust 1st	141,477	24,125	117,352	2,808	(7,789)	(7,789)	
JB Infra Build-up Professional Private Investment Trust 3rd	877	-	877	2	(43)	(43)	
Multi Asset Global Private Debt Professional Private Investment Trust 4th	43,658	9	43,649	15,280	6,064	6,064	
Multi Asset Global Private Equity Professional Private Investment Trust 1st	128,478	510	127,968	55	(2,032)	(2,032)	
Hana Alternative Investment US Power Plant Professional Private Special Asset Investment Trust 1st	108,698	579	108,119	3,730	2,640	2,640	
INMARK UK Professional Private Real Estate Investment Trust 19th	106,592	31	106,561	1,671	(220)	(220)	
Mirae Asset Smart ELS Selection Professional Private Investment Trust 1st	48,611	7	48,604	134	(1,496)	(1,496)	
MADW EP Co. Ltd	3,546	1,286	2,260	-	-	-	
Good Aiming 1st Co., Ltd.	25,202	25,300	(98)	2,426	423	423	
Good Aiming 2nd Co., Ltd.	46,641	45,700	941	2,653	497	497	
Good Chance 1st Co., Ltd.	187	187	-	1,598	890	890	
Good Chance 2nd Co., Ltd.	108	108	-	5,049	(107)	(107)	
Deogi Dream M.S. Co.,Ltd.	17,887	18,557	(670)	-	-	-	
Good Chance 4th Co., Ltd.	486	-	486	143	113	113	
Good Chance 5th Co., Ltd.	101,129	102,500	(1,371)	1,769	(383)	(383)	
Good Chance 6th Co., Ltd.	50,095	50,101	(6)	948	202	202	
HC Hybrid 1st Co.,Ltd	20,090	19,984	106	1,811	107	107	
HC Hybrid 2nd Co.,Ltd	10,132	10,165	(33)	410	(34)	(34)	
MD Series 1st Co.,Ltd	49,952	50,511	(559)	2,363	(559)	(559)	
MD Flight Co.,Ltd	30,588	30,512	76	2,924	76	76	
MD Flight 2nd Co.,Ltd	20,263	20,404	(141)	972	(141)	(141)	
MD GlobalS Co.,Ltd	20,297	20,297	-	84	-	-	
MD Flyhigh Co.,Ltd	30,351	30,545	(194)	160	(194)	(194)	
Fly High 1st Co.,Ltd	25,483	25,533	(50)	2,996	(50)	(50)	
Fly High 2nd Co.,Ltd	30,639	30,562	77	2,999	77	77	
MS Paju 1st Co.,Ltd	35,113	35,113	-	833	-	-	
MS Paju 2nd Co.,Ltd	10,293	10,293	-	368	-	-	
MASG 1st Co.,Ltd	15,100	15,142	(42)	82	(41)	(41)	
MASG 2nd Co.,Ltd	-	-	-	-	-	-	
Landfill Management 1st Co.,Ltd	7,503	8,190	(687)	-	(686)	(686)	
Mirae Asset Global Bio Investment Fund I	79,518	-	79,518	1,845	(59)	139	
Mirae Asset Global Unicorn PEF	256,645	1,929	254,716	46	(3,184)	(3,184)	
Mirae Asset Daewoo Global I Private Equity Fund	114,832	-	114,832	3	(1,168)	(1,168)	

						2018
	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	Total comprehensive income
Mirae Asset Daewoo Korea II Private Equity Fund	145,600	36	145,564	-	(36)	(36)
2010 KIF-Mirae Asset IT Investment Fund	14,451	4	14,447	7,719	4,516	4,516
Mirae Asset Social Corporate Investment Fund	143	5	138	191	(348)	(348)
Mirae Asset Agro Project Fund	9,013	1,363	7,650	2,603	1,716	1,716
KoFC-Mirae Asset Pioneer Champ 2011-3rd Investment Fund	19,794	2,053	17,741	10,151	1,891	1,891
Mirae Asset Social Corporate Investment Fund 2nd	4,161	27	4,134	136	(94)	(94)
Noroo-Mirae Asset grostar Project Venture Fund	6,646	217	6,429	1,474	(2,727)	(2,727)
Mirae Asset Good Corporate Secondary Investment Fund	8,096	1	8,095	2,084	(2,681)	(2,681)
MAVI Good Company Investment Fund #1	5,746	131	5,615	2,464	2,133	2,133
MAVI Good Company Investment Fund #2	4,930	117	4,813	2,279	1,832	1,832
MIRAE ASSET Global Investment Fund	28,377	350	28,027	6,884	2,530	2,530
Koscom-Mirae Asset Fintech Company Investment Fund #1	2,353	12	2,341	496	445	445
MIRAE ASSET Young Start-Up Investment Fund	13,248	94	13,154	218	(144)	(144)
Mirae Asset Good Corporate Secondary Investment Fund #2	19,975	133	19,842	11,570	5,333	5,333
2016 KIF-MIRAE ASSET ICT Venture Fund	21,928	157	21,771	325	(520)	(520)
MIRAE ASSET Good Company Investment Fund #16-1	12,517	58	12,459	7,305	4,567	4,567
MIRAE ASSET Good Company Investment Fund #17-1	16,880	68	16,812	7,106	5,648	5,648
Mirae Asset Hi-Tech Frontier Investment Fund	20,443	163	20,280	1,599	454	454
MIRAE ASSET Young Start-Up Investment Fund #2	14,540	160	14,380	18	(612)	(612)
MIRAE ASSET Good Company Secondary Investment Fund #18-1	15,066	62	15,004	148	4	4
MIRAE ASSET Young Start-Up Investment Fund #3	5,003	61	4,942	3	(58)	(58)
Mirae Asset Securities (UK) Ltd.	685,188	7,235	677,953	24,860	993	58,108
Mirae Asset Securities Holdings (USA) Inc.	637,404	25	637,379	-	-	8,507
Mirae Asset Securities (HK) Limited	1,669,690	210,735	1,458,955	64,416	40,016	55,890
Mirae Asset Realty (Singapore) PTE.	200	45	155	-	(8)	(1)
Mirae Asset Global Long Short Fund, Ltd.	335,660	-	335,660	-	31,727	(23,455)
MAPS Location (Singapore) Pte. Ltd.	7,538	126	7,412	-	(408)	(440)
Mirae Asset Securities (Vietnam) LLC	344,940	122,608	222,332	26,821	9,681	12,059
Mirae Asset Wealth Management (Brazil) CCTVM	134,176	60,369	73,807	20,737	3,362	(10,627)
Mirae Asset Securities (UK) Ltd.	-	-	-	-	-	-
Mirae Asset Investment Advisory (BEIJING) Co., Ltd.	3,967	201	3,766	1,319	297	245
Mirae Asset Securities (Singapore) Pte. Ltd.	7,100	293	6,807	1,136	6	175
Mirae Asset Securities Mongolia UTsk LLC	1,745	33	1,712	562	201	127
PT. Mirae Asset Sekuritas Indonesia	153,113	59,946	93,167	31,181	9,888	9,123
Mirae Asset Investment Asia Limited	-	-	-	-	-	-
Mirae Asset Capital Markets (India) Private Limited	323,981	1,417	322,564	18,339	10,238	2,709
Mirae Asset Securities (USA) Inc.	49,479,072	49,219,719	259,353	1,296,420	3,602	14,339
Mirae Asset Wealth Management (USA) Inc.	369,310	1,085	368,225	38,331	8,887	23,567
Mirae Asset Securities & Investments (USA), LLC	304,492	323	304,169	4,196	2,245	6,518
HGX (USA), LLC	121,558	1	121,557	1,531	1,530	22,059
Mirae Asset Properties I, DST	85,880	47,073	38,807	190	(442)	(439)
Mirae Asset Global Long Short Fund, LP	52,939	-	52,939	-	(5,119)	(3,814)
Mirae Asset Credit Opportunities Fund	8,292	42	8,250	312	(149)	205
MAPS HAWAII TWO, LLC.	389,471	164,031	225,440	-	(11,314)	(661)
MAPS WAIKIKI HOTEL, LLC.	853,620	453,578	400,042	72,361	(3,170)	13,720
MAPS HOTELS AND RESORTS HAWAII 2, LLC.	17,691	13,516	4,175	152,333	160	308
MAPS ROYAL GROVE, LLC.	15	1	14	169	(38)	(36)
MAGBI Fund Limited	76,547	17,250	59,297	97	278	(103)

						2018
	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	Total comprehensive income
Super Delta Pte. Ltd.	28,459	11	28,448	908	(8,171)	(9,244)
MAC Global Unicorn Investment Limited	265,549	26	265,523	-	(26)	1,938
Mirae Asset Daewoo Global I, LLC	111,280	-	111,280	-	-	-
Alpha Assai Fund SP	167,790	75	167,715	-	-	(3,310)
OPPCI Mahajunga Holding	453,349	169,240	284,109	-	1,813	2,081
SCI Mahajunga	1,167,196	955,543	211,653	21,125	614	1,080
HPUS1 LLC	104,538	75,346	29,192	-	(4,130)	(4,033)
16 Money Market Trust	595,221	77	595,144	11,612	(1,654)	(2,605)

(*) The financial statements of some subsidiaries are adjusted to conform to the accounting policies of the Group.

14. Investments in associates

(1) Details of investments in associates as of December 31, 2019 and 2018 are as follows:

Associates	Main business	Location	Percentage of ownership (%)	2019	
				Acquisition cost	Carrying amount
Mirae Asset Life Insurance Co., Ltd (*1)	Insurance	Korea	22.01	₩ 370,295	642,635
Pantos Logistics Co., Ltd (*2)	Shipping and transport	Korea	19.90	145,000	155,788
Mirae Asset-NAVER New Growth Fund I	Investment	Korea	45.00	35,100	33,957
Mirae Asset-GS Retail New Growth Fund I (*3)	Investment	Korea	50.00	30,000	28,310
Mirae Asset-Celltrion New Growth Fund I	Investment	Korea	45.00	39,375	39,963
Hancom-Miraeasset 4IR Fund	Investment	Korea	32.26	5,000	4,905
Curious Mirae Asset SUTT Corporate Financial Stability PEF (*4)	Investment	Korea	9.95	1,978	2,013
SKS Mirae Asset Corporate Financial Stability PEF (*5)	Investment	Korea	4.83	10,000	9,973
Mirae Asset Partners PEF 4th (*5)	Investment	Korea	3.97	4,587	4
New Growth Engine Green Future PEF (*5)	Investment	Korea	9.99	454	330
Mirae Asset Naver Asia Growth PEF (*3)	Investment	Korea	83.17	254,191	254,114
Mirae Asset Daewoo 1st SPAC (*2)	SPAC	Korea	0.83	40	73
Mirae Asset Daewoo 2nd SPAC (*2)	SPAC	Korea	0.33	10	19
Mirae Asset Daewoo 3rd SPAC (*2)	SPAC	Korea	0.25	16	24
Mirae Asset Daewoo 4th SPAC (*2)	SPAC	Korea	4.76	15	16
Daejo PFV Co., Ltd (*6)	Real estate investment	Korea	39.99	3,200	3,448
Suwon Galleria Station Area Complex Development PFV Co., Ltd (*2)	Real estate investment	Korea	19.90	995	995
Yangjae PFV Co., Ltd (*6)	Real estate investment	Korea	39.99	2,400	2,363
2019 PCC New Technology Fund	Investment	Korea	31.75	1,000	999
Cheongdam Complex PFV Co., Ltd (*2)	Real estate investment	Korea	15.00	750	749
IMM Global PEF	Investment	Korea	32.05	29,124	28,221
SMC RMB Investors II Limited	Investment	China	30.73	245	5,891
Cassava Investment Korea Pte. Ltd.	Investment	Singapore	-	-	-
Transwestern Corporate Properties I LLC	Investment	USA	27.40	121,215	121,299
Traphaco Joint Stock Company	Manufacturing	Vietnam	40.00	108,283	116,273
HPJV1 LLC (*3)	Manufacturing	USA	-	-	-
Nabou Green Energy Limited (*3)	Manufacturing	Fiji	60.00	-	-
Asia Cinema Group Ltd.	Investment	China	30.00	38,105	36,556
				₩ 1,201,379	1,488,918

(*1) The Group's ownership is 28.14 and 21.60 percent as of December 31, 2019 and 2018, considering the treasury stocks held by Mirae Asset Life Insurance Co., Ltd.

(*2) Although the Group's ownership is less than 20 percent as of December 31, 2019, the Group has significant influence because it has voting power over the financial and operating policies of the investee and thus was included as associate.

(*3) Although the Group's ownership is more than 50 percent as of December 31, 2019, the Group does not have control since the Group is not the General Partner.

(*4) Since the Group has registered as the General Partner during the year, the Group has significant influence over those associates, and thus reclassified them from financial assets measured at fair value through profit or loss to investments in associates.

(*5) The Group has significant influence since the Group is a General Partner.

(*6) The Group's ownership is 15.99 percent as of December 31, 2019.

Associates	Main business	Location	Percentage of ownership (%)	2018	
				Acquisition cost	Carrying amount
Mirae Asset Life Insurance Co., Ltd (*1)	Insurance	Korea	17.11	₩ 326,729	426,095
Pantos Logistics Co., Ltd (*2)	Shipping and transport	Korea	19.90	145,000	145,000
Mirae Asset-NAVER New Growth Fund I	Investment	Korea	45.00	17,100	16,356
Mirae Asset-GS Retail New Growth Fund I (*3)	Investment	Korea	50.00	20,000	18,487
Mirae Asset-Celltrion New Growth Fund I	Investment	Korea	45.00	22,500	22,126
Hancom-Miraeasset 4IR Fund	Investment	Korea	32.26	5,000	4,948
Mirae Asset Partners PEF 4th (*5)	Investment	Korea	3.97	6,087	1,511
New Growth Engine Green Future PEF (*5)	Investment	Korea	9.99	1,223	1,102
Lotte KDB Mirae Asset Daewoo Global Investment Partnership PEF (*5)	Investment	Korea	11.00	10	7
Mirae Asset Naver Asia Growth PEF (*3)	Investment	Korea	83.17	98,129	94,101
Mirae Asset 5th SPAC (*2)	SPAC	Korea	0.29	14	27
Mirae Asset Daewoo 1st SPAC (*2)	SPAC	Korea	0.83	40	73
Mirae Asset Daewoo 2nd SPAC (*2)	SPAC	Korea	0.33	10	19
SMC RMB Investors II Limited	Investment	China	30.73	245	4,968
Cassava Investment Korea Pte. Ltd.	Investment	Singapore	24.53	280	-
Transwestern Corporate Properties I LLC	Investment	USA	27.40	121,215	122,911
Traphaco Joint Stock Company	Manufacturing	Vietnam	40.00	108,283	112,402
HPJV1 LLC (*3)	Manufacturing	USA	80.00	82,847	78,907
				₩ 954,712	1,049,040

(*1) The Group's ownership is 28.14 and 21.60 percent as of December 31, 2019 and 2018, considering the treasury stocks held by Mirae Asset Life Insurance Co., Ltd.

(*2) Although the Group's ownership is less than 20 percent as of December 31, 2019, the Group has significant influence because it has voting power over the financial and operating policies of the investee and thus was included as associate.

(*3) Although the Group's ownership is more than 50 percent as of December 31, 2019, the Group does not have control since the Group is not the General Partner.

(*4) Since the Group has registered as the General Partner during the year, the Group has significant influence over those associates, and thus reclassified them from financial assets measured at fair value through profit or loss to investments in associates.

(*5) The Group has significant influence since the Group is a General Partner.

(*6) The Group's ownership is 15.99 percent as of December 31, 2019.

(2) Details of changes in the carrying amounts of investments in associates for the years ended December 31, 2019 and 2018 are as follows:

	2019							
	Beginning balance	Acquisition	Disposal	Reclassification	Dividend received	Share of profits (losses)	Effect on change in equity	Ending balance
Mirae Asset Life Insurance Co., Ltd	₩ 426,095	43,567	-	-	(4,966)	127,334	50,605	642,635
Pantos Logistics Co., Ltd	145,000	-	-	-	(4,099)	13,408	1,479	155,788
Mirae Asset-NAVER New Growth Fund I	16,356	18,000	-	-	-	(399)	-	33,957
Mirae Asset-GS Retail New Growth Fund I	18,487	10,000	-	-	-	(177)	-	28,310
Mirae Asset-Celltrion New Growth Fund I	22,126	16,875	-	-	-	962	-	39,963
Hancom-Miraeasset 4IR Fund	4,948	-	-	-	-	(43)	-	4,905
Curious Mirae Asset SUTT Corporate Financial Stability PEF	-	-	-	1,978	(170)	205	-	2,013
SKS Mirae Asset Corporate Financial Stability PEF	-	10,000	-	-	-	(27)	-	9,973
Mirae Asset Partners PEF 4th	1,511	-	(359)	-	-	(1,135)	(13)	4
New Growth Engine Green Future PEF	1,102	-	(769)	-	-	(3)	-	330
Lotte KDB Mirae Asset Daewoo Global Investment Partnership PEF	7	15	(6)	-	-	(16)	-	-
Mirae Asset Naver Asia Growth PEF	94,101	156,062	-	-	-	(439)	4,390	254,114
Mirae Asset 5th SPAC	27	-	-	(12)	-	-	(15)	-
Mirae Asset Daewoo 1st SPAC	73	-	-	-	-	-	-	73
Mirae Asset Daewoo 2nd SPAC	19	-	-	-	-	-	-	19
Mirae Asset Daewoo 3rd SPAC	-	16	-	-	-	-	8	24
Mirae Asset Daewoo 4nd SPAC	-	15	-	-	-	(1)	2	16
Daejo PFV Co., Ltd	-	3,200	-	-	-	91	157	3,448

	2019							
	Beginning balance	Acquisition	Disposal	Reclassification	Dividend received	Share of profits (losses)	Effect on change in equity	Ending balance
Suwon Galleria Station Area Complex Development PFV Co., Ltd	-	995	-	-	-	-	-	995
Yangjae PFV Co., Ltd	-	2,400	-	-	-	(37)	-	2,363
2019 PCC New Technology Fund	-	1,000	-	-	-	(1)	-	999
Cheongdam Complex PFV Co., Ltd	-	750	-	-	-	(1)	-	749
IMM Global PEF	-	29,125	-	-	-	(524)	(380)	28,221
SMC RMB Investors II Limited	4,968	-	-	-	-	915	8	5,891
Cassava Investment Korea Pte. Ltd.	-	-	-	-	-	-	-	-
Transwestern Corporate Properties I LLC	122,911	-	-	-	(9,583)	3,995	3,976	121,299
Traphaco Joint Stock Company	112,402	-	-	-	(2,455)	1,783	4,543	116,273
HPJV1 LLC	78,907	-	-	(78,907)	-	-	-	-
Nabou Green Energy Limited	-	-	-	-	-	-	-	-
Asia Cinema Group Ltd.	-	38,105	-	-	-	(1,309)	(240)	36,556
	₩ 1,049,040	330,125	(1,134)	(76,941)	(21,273)	144,581	64,520	1,488,918
								2018
	Beginning balance	Acquisition	Disposal	Reclassification	Dividend received	Share of profits (losses)	Effect on change in equity	Ending balance
Mirae Asset Life Insurance Co., Ltd	₩ 394,770	6,433	-	-	(4,903)	29,340	455	426,095
Pantos Logistics Co., Ltd	-	145,000	-	-	-	-	-	145,000
Mirae Asset-NAVER New Growth Fund I	17,601	-	(900)	-	-	(345)	-	16,356
Mirae Asset-GS Retail New Growth Fund I	9,685	10,000	-	-	-	(1,198)	-	18,487
Mirae Asset-Celltrion New Growth Fund I	10,764	11,250	-	-	-	112	-	22,126
Hancom-Miraeasset 4IR Fund	-	5,000	-	-	-	(52)	-	4,948
Mirae Asset Partners PEF 4th	1,333	-	-	-	-	130	48	1,511
New Growth Engine Green Future PEF	1,259	-	-	-	-	(157)	-	1,102
Lotte KDB Mirae Asset Daewoo Global Investment Partnership PEF	8	-	-	-	-	(1)	-	7
Mirae Asset Naver Asia Growth PEF	-	98,129	-	-	-	(3,404)	(624)	94,101
Mirae Asset 3rd SPAC	37	-	(37)	-	-	-	-	-
Mirae Asset 5th SPAC	27	-	-	-	-	-	-	27
Daewoo Special Purpose Acquisition 3 Co., Ltd	39	-	(39)	-	-	-	-	-
Mirae Asset Daewoo 1st SPAC	73	-	-	-	-	-	-	73
Mirae Asset Daewoo 2nd SPAC	-	10	-	-	-	-	9	19
SMC RMB Investors II Limited	5,517	-	-	-	-	(594)	45	4,968
Cassava Investment Korea Pte. Ltd.	-	-	-	-	-	-	-	-
Transwestern Corporate Properties I LLC	106,610	2,171	-	-	(4,590)	6,960	11,760	122,911
Traphaco Joint Stock Company	125,332	-	-	(9,867)	(2,074)	3,499	(4,488)	112,402
HPJV1 LLC	-	82,847	-	-	-	(3,940)	-	78,907
	₩ 673,055	360,840	(976)	(9,867)	(11,567)	30,350	7,205	1,049,040

(3) Financial information of investments in associates as of December 31, 2019 and 2018 is as follows:

	2019					
	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	Total comprehensive income
Mirae Asset Life Insurance Co., Ltd	₩ 38,011,129	35,678,410	2,332,719	3,491,615	105,737	306,242
Pantos Logistics Co., Ltd	1,417,163	856,157	561,006	4,199,815	74,613	80,183
Mirae Asset-NAVER New Growth Fund I	75,472	12	75,460	154	(887)	(887)
Mirae Asset-GS Retail New Growth Fund I	56,621	-	56,621	701	(354)	(354)
Mirae Asset-Celltrion New Growth Fund I	88,806	-	88,806	6,930	2,138	2,138
Hancom-Miraeasset 4IR Fund	15,198	-	15,198	256	(142)	(142)
Curious Mirae Asset SUTT Corporate Financial Stability PEF	20,413	81	20,332	795	795	795
SKS Mirae Asset Corporate Financial Stability PEF	206,806	358	206,448	(552)	(552)	(552)
Mirae Asset Partners PEF 4th	128	28	100	28	(139)	(139)
New Growth Engine Green Future PEF	3,300	-	3,300	3	(26)	(26)
Mirae Asset Naver Asia Growth PEF	526,520	14,239	512,281	7,778	1,764	6,744
Mirae Asset Daewoo 1st SPAC	10,065	1,147	8,918	-	56	56
Mirae Asset Daewoo 2nd SPAC	6,826	1,089	5,737	-	(67)	(67)
Mirae Asset Daewoo 3rd SPAC	14,827	2,235	12,592	-	12	12
Mirae Asset Daewoo 4nd SPAC	2,705	2,379	326	-	(31)	(31)
Daejo PFV Co., Ltd	97,082	88,462	8,620	709	227	227
Suwon Galleria Station Area Complex Development PFV Co., Ltd	5,024	25	4,999	-	(1)	(1)
Yangjae PFV Co., Ltd	32,908	27,000	5,908	-	(92)	(92)
2019 PCC New Technology Fund	3,146	-	3,146	-	(4)	(4)
Cheongdam Complex PFV Co., Ltd	32,968	27,972	4,996	-	(4)	(4)
IMM Global PEF	506,556	418,508	88,048	345	(1,636)	(2,822)
SMC RMB Investors II Limited	20,977	1,806	19,171	3,356	2,977	3,007
Transwestern Corporate Properties I LLC	396,970	-	396,970	56,256	14,635	28,869
Traphaco Joint Stock Company	80,946	23,057	57,889	83,160	4,559	4,673
Nabou Green Energy Limited	100,821	97,349	3,472	-	(6,989)	(7,002)
Asia Cinema Group Ltd.	337,206	215,351	121,855	-	(4,362)	(5,163)
						2018
	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	Total comprehensive income
Mirae Asset Life Insurance Co., Ltd	₩ 34,640,500	32,580,300	2,060,200	3,781,253	101,821	40,199
Pantos Logistics Co., Ltd	145,000	-	145,000	-	-	-
Mirae Asset-NAVER New Growth Fund I	36,348	-	36,348	250	(767)	(767)
Mirae Asset-GS Retail New Growth Fund I	36,975	-	36,975	143	(2,395)	(2,395)
Mirae Asset-Celltrion New Growth Fund I	49,168	-	49,168	1,428	(99)	(99)
Hancom-Miraeasset 4IR Fund	15,343	4	15,339	33	(161)	(161)
Mirae Asset Partners PEF 4th	72,131	28	72,103	-	(2)	(2)
New Growth Engine Green Future PEF	11,034	1	11,033	848	(1,572)	(1,572)
Lotte KDB Mirae Asset Daewoo Global Investment Partnership PEF	77	-	77	1	(2)	(2)
Mirae Asset Naver Asia Growth PEF	202,835	13,186	189,649	(4,413)	(6,268)	(7,019)
Mirae Asset 5th SPAC	10,429	1,067	9,362	153	21	21
Mirae Asset Daewoo 1st SPAC	9,976	1,115	8,861	-	38	38
Mirae Asset Daewoo 2nd SPAC	6,968	1,164	5,804	-	(12)	(12)
SMC RMB Investors II Limited	17,629	1,465	16,164	(2,276)	(1,932)	(1,790)
Cassava Investment Korea Pte. Ltd.	2	11,295	(11,293)	-	-	-
Transwestern Corporate Properties I LLC	403,756	4	403,752	17,052	30,828	28,182
Traphaco Joint Stock Company	56,629	7,997	48,632	20,914	1,733	(723)
HPJV1 LLC	102,740	-	102,740	1,065	1,065	1,301

15. Property and equipment

(1) Details of property and equipment as of December 31, 2019 and 2018 are as follows:

	2019		
	Acquisition cost	Accumulated depreciation	Carrying amount, net
Land	₩ 81,139	-	81,139
Structure	20,032	(6,669)	13,363
Vehicles	1,738	(1,033)	705
Furniture and fixtures	116,255	(51,631)	64,624
Data processing equipment	97,917	(83,646)	14,271
Leasehold facilities	311	(291)	20
Construction in progress	-	-	-
Others	5,266	(1,986)	3,280
Right-of-use asset:			
Real estate	310,439	(39,410)	271,029
IT Asset	7,551	(2,030)	5,521
Vehicles	4,654	(2,455)	2,199
Others	544	(417)	127
Total	₩ 645,846	(189,568)	456,278
	2018		
	Acquisition cost	Accumulated depreciation	Book Value
Land	₩ 80,760	-	80,760
Structure	19,769	(4,504)	15,265
Vehicles	1,302	(1,010)	292
Furniture and fixtures	114,340	(57,254)	57,086
Data processing equipment	97,958	(77,869)	20,089
Leasehold facilities	8,181	(6,608)	1,573
Construction in progress	54,356	-	54,356
Others	4,354	(1,623)	2,731
Total	₩ 381,020	(148,868)	232,152

(2) The Group has not recognized any impairment loss in property and equipment as of December 31, 2019 and 2018.

(3) Details of changes in property and equipment other than right-of-use asset for the years ended December 31, 2019 and 2018 are as follows:

	2019							
	Beginning balance	Adoption effect of K-IFRS No.1116	Acquisition	Disposal	Depreciation	Reclassification(*1)	Others(*2)	Ending balance
Land	₩ 80,760	-	379	-	-	-	-	81,139
Structure	15,265	-	1,572	(2,283)	(2,164)	973	-	13,363
Vehicles	292	-	593	(23)	(159)	-	2	705
Furniture and fixtures	57,086	-	18,891	(1,596)	(14,666)	2,581	2,328	64,624
Data processing equipment	20,089	-	3,652	7	(9,484)	-	7	14,271
Leasehold facilities	1,573	(1,545)	6	-	(30)	-	16	20
Construction in progress	54,356	-	56,610	-	-	(110,966)	-	-
Others	2,731	-	985	(39)	(440)	-	43	3,280
	₩ 232,152	(1,545)	82,688	(3,934)	(26,943)	(107,412)	2,396	177,402

(*1) Reclassification of construction in progress and reclassification between investment properties and property and equipment due to changes of leasable area.

(*2) Changes in scope of consolidation and fluctuation of foreign exchange rate.

								2018
	Beginning balance	Acquisition	Disposal	Depreciation	Reclassification(*1)	Others(*2)	Ending balance	
Land	₩ 84,291	-	(3,118)	-	(413)	-	80,760	
Structure	19,413	2,283	(1,315)	(2,196)	(2,920)	-	15,265	
Vehicles	274	104	-	(132)	-	46	292	
Furniture and fixtures	52,256	15,313	(612)	(11,167)	(36)	1,332	57,086	
Data processing equipment	19,020	10,497	-	(9,431)	-	3	20,089	
Leasehold facilities(*3)	1,961	356	-	(744)	-	-	1,573	
Construction in progress	19,029	35,327	-	-	-	-	54,356	
Others	2,332	628	(11)	(354)	36	100	2,731	
	₩ 198,576	64,508	(5,056)	24,024	(3,333)	1,481	232,152	

(*1) Reclassification to Investment properties by changes of leasable area.

(*2) Changes in scope of consolidation and fluctuation of foreign exchange rate.

(*3) ₩356 million acquired from leasehold facilities through a transfer of provision of restoration incurred in relation to new lease contract.

(4) Details of changes in right-of-use asset for the year ended December 31, 2019 are as follows:

								2019
	Beginning balance	Adoption effect of K-IFRS No. 1116	Increase	Decrease	Depreciation	Fluctuation of exchange rate	Ending balance	
Right-of-use asset								
Real estate(*)	₩ -	283,947	28,785	(9,085)	(39,685)	7,067	271,029	
IT asset	-	7,578	252	(279)	(2,030)	-	5,521	
Vehicles	-	3,440	1,834	(481)	(2,600)	6	2,199	
Others	-	700	297	(4)	(866)	-	127	
	₩ -	295,665	31,168	(9,849)	(45,181)	7,073	278,876	

(*) ₩2,252 million of increase in Right-of-use asset Real estate was recognized as provision of restoration in relation to new lease contract.

(5) The Group is leasing a portion of the buildings, including the Yeouido office building, etc., to Standard Chartered Bank Korea Limited, etc., and therefore, it established the right to collateral security of ₩12,047 million and ₩14,136 million as of December 31, 2019 and 2018 and the right to lease on a deposit basis of ₩3,444 million and ₩3,916 million related to the lease respectively

16. Investment properties

(1) Details of investment properties as of December 31, 2019 and 2018 are as follows:

	2019		
	Land	Structures	Total
Acquisition cost	₩ 744,897	1,533,998	2,278,895
Accumulated depreciation	-	(112,024)	(112,024)
The carrying amount, net	₩ 744,897	1,421,974	2,166,871
	2018		
	Land	Structures	Total
Acquisition cost	₩ 148,512	1,007,527	1,156,039
Accumulated depreciation	-	(69,859)	(69,859)
The carrying amount, net	₩ 148,512	937,668	1,086,180

(2) The Group has not recognized any impairment loss in investment properties as of December 31, 2019 and 2018.

(3) Details of changes in investment properties for the years ended December 31, 2019 and 2018 are as follows:

	2019						
	Beginning balance	Acquisition	Depreciation	Disposal	Reclassification(*1)	Others (*2)	Ending balance
Land	₩ 148,512	622,029	-	(8,347)	22,733	(40,030)	744,897
Structures	937,668	564,364	(44,283)	(810)	84,679	(119,644)	1,421,974
	₩ 1,086,180	1,186,393	(44,283)	(9,157)	107,412	(159,674)	2,166,871

(*1) Reclassification of construction in progress and reclassification between investment properties and property and equipment due to changes of leasable area.

(*2) Effects from changes of foreign currency exchange rates and scope of consolidation.

	2018						
	Beginning balance	Acquisition	Depreciation	Disposal	Reclassification(*1)	Others (*2)	Ending balance
Land	₩ 260,113	-	-	(91,751)	413	(20,263)	148,512
Structures	880,487	85,596	(29,866)	(54,905)	2,920	53,436	937,668
	₩ 1,140,600	85,596	(29,866)	(146,656)	3,333	33,173	1,086,180

(*1) Reclassification from properties by changes of leasable area.

(*2) Effects from changes of foreign currency exchange rates and scope of consolidation.

(4) Details of gain (loss) on investment properties for the years ended December 31, 2019 and 2018 are as follows:

	2019	2018
Rental income	₩ 184,513	143,810
Direct operating expenses for investment properties that generated rental income	(113,019)	(101,759)

(5) Fair value of investment properties as of December 31, 2019 and 2018 are as follows:

	2019	2018
Land	₩ 755,038	153,810
Structures	1,572,825	1,055,252
	₩ 2,327,863	1,209,062

(*) Valuation was conducted by professional independent appraisers who have evaluated similar properties in the past. Valuation was based on inputs used in valuation technique and fair values is classified to Level 3.

(6) Valuation methods of investment property and input factor are as follows:

	Valuation technique	Inputs
Land	Transaction comparison approach	Transaction price
Structures	Discounted cash flow analysis	Future cash flows (deposits, rental income, expenses, vacancy rate and others), discount rates

17. Intangible assets**(1) Details of changes in intangible assets for the years ended December 31, 2019 and 2018 are as follows:**

	2019				
	Goodwill	Development cost	Software	Others	Total
Beginning balance, net	₩ 397,777	58,842	7,647	190,559	654,825
Acquisition	-	5,505	2,324	6,407	14,236
Amortization	-	(21,623)	(3,479)	(22,937)	(48,039)
Disposal	-	-	(1)	(530)	(531)
Fluctuation of foreign exchange rate	-	(25)	3	550	528
Ending balance, net	₩ 397,777	42,699	6,494	174,049	621,019

	2018				
	Goodwill	Development cost	Software	Others	Total
Beginning balance, net	₩ 397,777	29,993	8,245	214,039	650,054
Acquisition	-	32,947	2,800	570	36,317
Transfers (*)	-	10,300	384	-	10,684
Amortization	-	(14,388)	(3,759)	(23,698)	(41,845)
Disposal	-	-	-	(968)	(968)
Fluctuation of foreign exchange rate	-	(10)	(23)	616	583
Ending balance, net	₩ 397,777	58,842	7,647	190,559	654,825

(*) It is transferred from advance payments for the year ended December 31, 2018.

(2) Impairment test of intangible assets

1) Details of intangible assets tested for impairment as of December 31, 2019 and 2018 are as follows:

	2019	2018
Goodwill	₩ 397,777	397,777
Brand	56,614	56,614
	₩ 454,391	454,391

2) The recoverable amount of the CGU was evaluated based upon their respective value in use. The value was calculated using DCF method with consideration of special aspects of financial institution.

i) **Measurement date and projection period** Measurement date for the calculation of recoverable amount is September 30, 2019 and its projection period for cash flow estimates is adjusted to 5.25 years. Terminal growth rate used in measuring the periods beyond the projection period.

ii) **Discount rate and terminal growth rate** The required rates of return expected by shareholders were applied to the discount rates by calculating the cost of capital which comprises a risk-free interest rate, a market risk premium and a systemic risk (beta factor). Expected terminal growth rate after the projection period is estimated to be 1%.

iii) The main assumptions used in estimating future cash flows are about GDP growth rate, inflation rate and wage growth rate among macroeconomic indicators.

3) As a result of an impairment test, the recoverable amount of the CGU exceeds its book value by ₩743,751 million, therefore no impairment was recognized.

18. Other assets

Details of other assets as of December 31, 2019 and 2018 are as follows:

	2019	2018
Advance payments	₩ 79,870	24,764
Prepaid expenses	35,950	37,485
Others	16,065	7,775
	₩ 131,885	70,024

19. Pledged assets

Details of pledged assets as of December 31, 2019 and 2018 are as follows:

	2019		2018	Purpose(*1)
Financial assets measured at fair value through profit or loss	₩	25,082,727	22,199,657	Securities sold under repurchase agreements(*2), securities borrowing, trading with collateral on derivatives(*3), etc.
Financial assets measured at fair value through other comprehensive income		7,515,029	6,478,173	Securities sold under repurchase agreements(*2), etc.
Financial assets at amortized cost		62,373,748	52,107,489	Derivatives-linked securities, payments and settlements etc.
	₩	94,971,504	80,785,319	

(*1) The pledged assets above include securities borrowed, etc.

(*2) The Group has a contract to repurchase the transferred assets at predetermined price or selling price, plus a certain rate of return, and therefore, financial assets derecognized are provided as collaterals and the transferee can sell or practice rehypothecation. After transfer, the Group recognizes securities sold under repurchase agreements as liabilities since the transferred asset is continuously recognized.

(*3) The Group provides collateral for the margin call arising due to the decline in valuation of derivative in OTC derivative transactions.

20. Financial liabilities measured at fair value through profit or loss

The Group's financial liabilities measured at fair value through profit or loss is classified with financial liabilities measured at fair value through profit or loss and financial liabilities designated as measured at fair value through profit or loss.

(1) Financial liabilities measured at fair value through profit or loss

i) Details of the financial liabilities measured at fair value through profit or loss as of December 31, 2019 and 2018 are as follows:

	2019		2018
Securities in short position	₩	795,898	569,076
Derivative liabilities		1,152,131	1,711,362
	₩	1,948,029	2,280,438

ii) Details of the securities in short position as of December 31, 2019 and 2018 are as follows:

Description(*)		2019		2018	Valuation
Securities in short position	Equity securities	₩	430,797	275,775	Fair value
	Bonds		311,357	293,261	Fair value
	Others (ETF sold)		53,744	40	Fair value
		₩	795,898	569,076	

(*) The Group treats securities lending and borrowing, manages memorandum account for the securities borrowed from the Korea Securities Depository and recognizes them as financial liabilities at fair value through profit or loss when the Group sells securities borrowed.

(2) Financial liabilities designated as measured at fair value through profit or loss

i) Details of the financial liabilities at fair value through profit or loss as of December 31, 2019 and 2018 are as follows:

Reason for designation	Description	2019		2018
Hybrid financial assets	Equity-linked securities sold	₩	11,489,608	12,029,041
	Other derivatives combine securities sold		3,478,751	3,430,529
		₩	14,968,359	15,459,570

ii) Details of changes in fair value by credit risk fluctuation of financial liabilities designated as measured at fair value through profit or loss for the years ended December 31, 2019 and 2018 are as follows:

	2019		2018
Beginning balance	₩	5,062	2,485
Credit risk increase recognized in other comprehensive income		6,350	7,696
Credit risk decrease recognized in other comprehensive income		(211)	(342)
Disposal		(6,149)	(3,799)
Income tax effect		2	(978)
Ending balance	₩	5,054	5,062

iii) Differences of contractual payment due at maturity and the carrying amount of financial liabilities designated as measured at fair value through profit or loss as of December 31, 2019 and 2018 are as follows:

	2019			
		Contractual payment at maturity	Book value	Difference
Equity-linked securities sold	₩	11,396,352	11,489,608	(93,256)
Other derivatives combine securities sold		3,425,891	3,478,751	(52,860)
	₩	14,822,243	14,968,359	(146,116)
				2018
		Contractual payment at maturity	Book value	Difference
Equity-linked securities sold	₩	11,852,267	12,029,041	(176,774)
Other derivatives combine securities sold		3,368,876	3,430,529	(61,653)
	₩	15,221,143	15,459,570	(238,427)

21. Deposits due to customers (“Deposits”)

Details of the deposits due to customers as of December 31, 2019 and 2018 are as follows:

	2019	2018
Customers' deposits		
Customers' deposits for brokerage	₩ 5,428,262	4,736,347
Customers' deposits for exchange traded derivatives trading	355,288	338,691
Customers' deposits for savings	55,112	44,714
Customers' deposits for collective investment securities	111,994	281,319
Others	2,053	1,967
	5,952,709	5,403,038
Others	2,887	62,500
	₩ 5,955,596	5,465,538

22. Borrowings

(1) Details of the borrowings as of December 31, 2019 and 2018 are as follows:

	2019			
	Lender	Interest rate (%)	Amount	
Borrowings	Korea Securities Finance Corp. and others	1.45 ~ 2.04	₩ 5,269,204	
	KEB Hana Bank and others	3.40 ~ 5.50	108,510	
	KDB Bank and others	2.50 ~ 4.43	1,250,003	
Call money	KB Kookmin bank and others	1.38 ~ 1.44	1,390,000	
Securities sold under repurchase agreements		0.05 ~ 4.75	73,627,432	
Lease liabilities	Others	-	276,604	
Others		0.20 ~ 3.60	4,531,408	
			₩ 86,453,161	
				2018
	Lender	Interest rate (%)	Amount	
Borrowings	Korea Securities Finance Corp. and others	1.89 ~ 2.28	₩ 3,570,447	
	KEB Hana Bank and others	3.40 ~ 5.50	47,872	
	KDB Bank and others	2.80 ~ 7.90	587,676	
Call money	KB Kookmin bank and others	1.87 ~ 2.01	1,810,000	
Securities sold under repurchase agreements		0.30 ~ 7.01	62,648,535	
Others	Others	0.13 ~ 2.30	3,698,870	
			₩ 72,363,400	

(2) Details of changes of cash flow in borrowings for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Beginning balance	₩	72,363,400	49,390,196
Changes from financing cash flow			
Changes of borrowings, net		3,694,022	6,274,498
Changes of lease liabilities, net		(47,312)	-
Effect from fluctuations in exchange rate		1,679,397	1,313,271
Interest expense on lease liabilities		16,354	-
Others		8,747,300	15,385,435
Ending balance	₩	86,453,161	72,363,400

(3) The total cash outflow of leases during the year is ₩ 49,733 million won.**23. Debentures**

Details of the debentures as of December 31, 2019 and 2018 are as follows:

(1) General bonds

	Issued date	Due date	Interest rate (%)		2019	2018
The 5th public offering subordinated Debenture	2016.07.28	2022.01.28	3.500	₩	300,000	300,000
The 38-3rd public offering Debenture	2012.11.20	2019.11.20	3.370		-	50,000
The 39-2nd public offering Debenture	2015.05.28	2020.05.28	2.387		50,000	50,000
The 40th public offering Debenture	2016.06.03	2019.06.03	1.857		-	250,000
The 41th public offering Debenture	2016.06.29	2021.06.29	1.833		80,000	80,000
The 42th public offering Debenture	2016.07.22	2021.07.22	1.768		170,000	170,000
The 43th public offering subordinated Debenture	2016.12.08	2022.06.08	4.000		40,000	40,000
The 44th public offering subordinated Debenture	2016.12.15	2022.06.15	4.000		210,000	210,000
The 45th public offering subordinated Debenture	2016.12.20	2022.06.20	4.000		150,000	150,000
The 46th public offering subordinated Debenture	2017.01.20	2022.07.20	3.700		220,000	220,000
The 47-1st public offering Debenture	2018.04.26	2021.04.26	2.707		260,000	260,000
The 47-2nd public offering Debenture	2018.04.26	2023.04.26	3.005		240,000	240,000
The 48-1st public offering Debenture	2018.09.12	2021.09.12	2.287		110,000	110,000
The 48-2nd public offering Debenture	2018.09.12	2023.09.12	2.505		260,000	260,000
The 48-3rd public offering Debenture	2018.09.12	2025.09.12	2.691		130,000	130,000
The 49-1rd public offering Debenture	2019.01.18	2022.01.18	2.160		240,000	-
The 49-2rd public offering Debenture	2019.01.18	2024.01.18	2.341		160,000	-
The 49-3rd public offering Debenture	2019.01.18	2026.01.28	2.459		100,000	-
The 50th public offering subordinated Debenture	2019.03.21	2025.03.21	3.550		500,000	-
Unsecured Reg S Senior Bond #1	2018.11.07	2021.11.06	4.125		347,340	335,220
Unsecured Reg S Senior Bond #2	2019.05.07	2022.05.09	3.125		347,340	-
Unsecured Reg S Senior Bond #3	2019.05.07	2024.05.07	3.375		347,340	-
MAPS HAWAII TWO LLC Mezzanine Loan	2016.09.12	2021.09.22	5.400		167,881	162,125
MAS/2018/CNSHTP-01	2018.04.16	2019.04.16	7.900		-	2,412
MAS/2018/CNSHTP-02	2018.04.16	2019.04.16	7.900		-	2,412
MAS/2018/CNSHTP-03	2018.04.16	2020.04.16	7.900		-	2,412
MAS/2/2018/CNSHTP-01	2018.07.09	2019.07.09	7.900		-	772
MAS/2/2018/CNSHTP-02	2018.07.09	2019.07.09	7.900		-	5,018
MAS/01-2019/1Y-01	2019.02.27	2020.02.27	8.000		4,996	-
MAS/01-2019/1Y-02	2019.02.27	2020.02.27	8.000		2,498	-
MAS/01-2019/1Y-03	2019.02.27	2020.02.27	8.000		12,491	-
MAS/02-2019/1Y-01	2019.05.13	2020.05.13	8.000		9,993	-
MAS/02-2019/1Y-02	2019.05.13	2020.05.13	8.000		250	-
MAS/02-2019/1Y-03	2019.05.13	2020.05.13	8.000		1,999	-
MAS/02-2019/1Y-04	2019.05.13	2020.05.13	8.000		100	-
MAS/03-2019/2Y-01	2019.08.20	2021.08.20	8.000		4,996	-

	Issued date	Due date	Interest rate (%)	2019	2018
MAS/03-2019/2Y-02	2019.08.20	2021.08.20	8.000	150	-
MAS/03-2019/2Y-03	2019.08.20	2021.08.20	8.000	100	-
Face Value				4,467,474	3,030,371
Discount on Debentures				(11,248)	(6,349)
Book Value				₩ 4,456,226	3,024,022

(2) Asset backed short-term bond

		Interest rate (%)		2019
	Lender			Amount
Asset backed short-term bond	Samsung Investment Trust Management Co., Ltd and others	1.42 ~ 2.16	₩	1,759,000
		Interest rate (%)		2018
	Lender			Amount
Asset backed short-term bond	Samsung Investment Trust Management Co., Ltd and others	1.99 ~ 2.75	₩	1,225,183

(3) Details of changes in debentures for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Beginning balance	₩	4,249,205	3,085,497
Changes from financing cash flow			
Changes of debentures, net		2,030,287	1,159,392
Amortization of discount on debentures		2,617	(885)
Effect from fluctuations in exchange rate		11,695	5,201
Effect from changes in scope of consolidation		(78,578)	-
Ending balance	₩	6,215,226	4,249,205

24. Provisions**(1) Details of provisions as of December 31, 2019 and 2018 are as follows:**

		2019	2018
Provisions:			
Provision of restoration(*)	₩	7,442	9,288
Provision of litigations		6,809	7,314
Provision of off-balance items		3,912	5,170
Others		1,624	1,154
	₩	19,787	22,926

(*) Provision of restoration represents the estimated costs to restore the existing leased properties, which are discounted to the present value using the appropriate discount rate at the end of the reporting period. Disbursements of such costs are expected to occur at the end of the lease contract. Such costs are reasonably estimated using the average lease year from initial contract date to the end of the contract as of December 31, 2019. The average restoration expense is calculated based on the actual costs incurred for the past five years using the five-year average inflation rate.

(2) Details of changes in provisions(except for provisions of off-balance items) for the years ended December 31, 2019 and 2018 are as follows:

		Provision of restoration	Provision of litigations	Others	Total
Beginning balance	₩	9,288	7,314	1,154	17,756
Provisions provided(*1)		130	106	987	1,223
Provisions occurred(*2)		2,252	-	-	2,252
Others		(4,228)	(611)	(517)	(5,356)
Ending balance	₩	7,442	6,809	1,624	15,875

(*1) Provisions provided for the year ended December 31, 2019 consist of provision of restoration of ₩130 million which occurred in relation to new lease contracts and interest expenses, provision of allowance for litigations ₩106 million and provisions related to point provided to customers ₩987 million.

(*2) Provisions occurred in relation to new lease contracts.

	2018				
		Provision of restoration	Provision of litigations	Others	Total
Beginning balance	₩	9,751	9,993	633	20,377
Provisions provided(*1)		129	4,500	804	5,433
Reversal of unused amount		(948)	(7,150)	-	(8,098)
Provisions occurred(*2)		356	-	-	356
Others		-	(29)	(283)	(312)
Ending balance	₩	9,288	7,314	1,154	17,756

(*1) Provisions provided for the year ended December 31, 2018 consist of provision of restoration of ₩129 million which occurred in relation to new lease contracts and interest expenses, provision of allowance for litigations ₩4,500 million and provisions related to point provided to customers ₩804 million.

(*2) Provisions occurred in relation to new lease contracts.

(3) Details of changes in expected credit loss of off-balance items as of December 31, 2019 and 2018 are as follows:

	2019							
		Purchase agreement		Financial guarantee		Unused credit line		Total
		12-month ECL	Lifetime ECL	12-month ECL	Lifetime ECL	12-month ECL	Lifetime ECL	
Beginning Balance	₩	522	-	2,636	-	2,012	-	5,170
Reclassification to Lifetime ECL		-	-	-	-	-	-	-
Reclassification to 12-month ECL		-	-	-	-	-	-	-
Provision allowances (Reversal)		(173)	-	(1,466)	-	381	-	(1,258)
Ending Balance	₩	349	-	1,170	-	2,393	-	3,912
Financial guarantee liabilities	₩	-	-	32,414	978	-	-	33,392
Provision(*)		349	-	1,170	-	2,393	-	3,912

(*) When amount of expected credit losses exceeds amount of financial guarantee liabilities, the excess amount is recognized as provisions(described in note 25).

	2018							
		Purchase agreement		Financial guarantee		Unused credit line		Total
		12-month ECL	Lifetime ECL	12-month ECL	Lifetime ECL	12-month ECL	Lifetime ECL	
Beginning Balance	₩	413	-	1,940	-	116	-	2,469
Reclassification to Lifetime ECL		-	-	-	-	-	-	-
Reclassification to 12-month ECL		-	-	-	-	-	-	-
Provision allowances (Reversal)		91	-	696	-	1,896	-	2,683
Other changes		18	-	-	-	-	-	18
Ending Balance	₩	522	-	2,636	-	2,012	-	5,170
Financial guarantee liabilities	₩	-	-	65,412	-	-	-	65,412
Provision(*)		522	-	2,636	-	2,012	-	5,170

(*) When amount of expected credit losses exceeds amount of financial guarantee liabilities, the excess amount is recognized as provisions(described in note 25).

(4) Details of changes in balances of off-balance items as of December 31, 2019 and 2018 are as follows:

	2019							
		Purchase agreement		Financial guarantee		Unused credit line		Total
		12-month ECL	Lifetime ECL	12-month ECL	Lifetime ECL	12-month ECL	Lifetime ECL	
Beginning Balance	₩	1,541,900	-	1,287,244	-	855,434	-	3,684,578
Reclassification to Lifetime ECL		-	-	(25,000)	25,000	-	-	-
Reclassification to 12-month ECL		-	-	-	-	-	-	-
Increase (Decrease)		(200,682)	-	(340,952)	-	693,552	-	151,918
Ending Balance	₩	1,341,218	-	921,292	25,000	1,548,986	-	3,836,496
	2018							
		Purchase agreement		Financial guarantee		Unused credit line		Total
		12-month ECL	Lifetime ECL	12-month ECL	Lifetime ECL	12-month ECL	Lifetime ECL	
Beginning Balance	₩	1,438,500	-	1,769,876	-	369,714	-	3,578,090
Reclassification to Lifetime ECL		-	-	-	-	-	-	-
Reclassification to 12-month ECL		-	-	-	-	-	-	-
Increase (Decrease)		103,400	-	(482,632)	-	485,720	-	106,488
Ending Balance	₩	1,541,900	-	1,287,244	-	855,434	-	3,684,578

25. Other liabilities

(1) Details of other liabilities as of December 31, 2019 and 2018 are as follows:

	2019	2018
Other financial liabilities:		
Accounts payable	₩ 4,676,755	7,546,316
Accrued expenses	365,531	287,994
Deposits received	16,215	20,102
Financial guarantee contract liabilities	33,392	65,412
Dividends payable	2	2
	5,091,895	7,919,826
Other liabilities:		
Deposits received	45,163	36,931
Income in advance	27,572	20,224
Net Defined benefit liabilities	27,454	1,175
Other Long-term employee benefit liabilities	6,911	-
Others	3,193,593	1,826,187
	3,300,693	1,884,517
	₩ 8,392,588	9,804,343

(2) Defined benefit liabilities as of December 31, 2019 and 2018 are as follows:

	2019	2018
Present Value of Defined benefit obligation	₩ 27,531	1,246
plan assets	(77)	(71)
Net Defined benefit liabilities	₩ 27,454	1,175

(3) Details of changes in Present Value of defined benefit obligation for the years ended December 31, 2019 and 2018 are as follows:

	2019	2018
Beginning balance	₩ 1,246	717
Current service cost	1,797	677
Past service cost	20,917	-
Interest expense	542	-
Remeasurements of the defined benefit liability	4,529	-
Salaries paid	(1,546)	(158)
Gain on foreign exchange	46	10
Ending balance	₩ 27,531	1,246

(4) Details of changes in plan assets for the years ended December 31, 2019 and 2018 are as follows:

	2019	2018
Beginning balance	₩ 71	83
Benefits paid by the plan	6	(12)
Ending balance	₩ 77	71

(5) Details of expenses recognized in profit or loss regarding retirement benefits for the years ended December 31, 2019 and 2018 are as follows:

	2019	2018
Defined contribution	₩ 36,367	34,250
Current service cost (Defined benefit)	1,797	677
Past service cost (Defined benefit)	20,917	-
Interest expense (Defined benefit)	542	-
	₩ 59,623	34,927

(6) Details of main assumptions for actuarial evaluation for the year ended December 31, 2019 are as follows:

	Ratio(%)	Remarks
Demographic assumptions		
Mortality rate	0.002~ 0.099	Korea Insurance Development Institute's expected death rate
Quit rate	6.58~29.79	
Financial assumptions		
Salary increase rate	3.60	Overall weighted average
Discount rate	3.19~3.40	The yield on high-quality corporate bonds (AA-)

(7) Details of changes in defined benefit obligation for the year ended December 31, 2019 are as follows:

	Defined benefit obligation	1% increase	1% decrease
Discount rate	₩ 27,531	25,235	30,161
Salary increase rate	27,531	30,123	25,222

(8) As of December 31, 2019, the weighted average maturity of the defined benefit obligation is 9.42 years.**26. Derivatives for trading****(1) Details of derivatives for trading as of December 31, 2019 and 2018 are as follows:**

	2019			2018		
	Contracts	Assets	Liabilities	Contracts	Assets	Liabilities
Equity:						
Forwards	₩ 1,037,148	32,606	-	-	-	-
Futures	2,460,192	8,987	16,609	2,587,807	27,632	11,944
Option	13,796,049	168,813	148,418	13,610,056	52,865	474,834
Swaps	13,921,988	134,947	262,451	14,549,189	233,276	512,427
	31,215,377	345,353	427,478	30,747,052	313,773	999,205
Interest rate:						
Forwards	280,000	-	41,874	280,000	-	28,244
Futures	1,971,536	3,082	756	2,368,526	1,857	9,320
Option	2,106,084	40,209	66,985	2,419,528	25,933	84,438
Swaps	101,620,338	291,767	290,850	101,902,780	236,733	347,122
	105,977,958	335,058	400,465	106,970,834	264,523	469,124
Currency:						
Forwards	26,248,763	256,738	253,995	33,090,600	278,549	244,124
Futures	393,675	-	551	89,002	-	827
Option	57,890	8	-	-	-	-
Swaps	6,154,668	76,777	73,606	4,727,255	102,246	93,643
	32,854,996	333,523	328,152	37,906,857	380,795	338,594
Credit:						
Swaps	1,801,790	9,931	6,818	2,512,227	14,185	8,783
Commodity:						
Futures	69,239	1,201	1,516	162,583	2,602	4,355
Option	235,623	1	4,698	409,804	6,955	8,397
Swaps	15,257	112	631	16,351	2,168	208
	320,119	1,314	6,845	588,738	11,725	12,960
Others:						
Option	13,000	40	-	13,000	59	-
Swaps	811,472	12,478	20,676	351,511	-	17,666
ELW	-	1,115	28,263	-	-	13,688
Others	360,229	9,195	-	-	8,192	-
	1,184,701	22,828	48,939	364,511	8,251	31,354
Credit value adjustment	-	(5,614)	(1,725)	-	(4,254)	(1,966)
Day 1 profit or loss	-	(65,456)	(64,841)	-	(23,143)	(147,846)
	₩ 173,354,941	976,937	1,152,131	179,090,219	965,855	1,710,208

(2) Details of gains or losses on valuation and transaction of derivatives for trading for the years ended December 31, 2019 and 2018 are as follows:

		2019		2018	
		Valuation	Transaction	Valuation	Transaction
Equity	₩	149,362	437,137	(288,844)	497,718
Interest rate		46,294	(51,791)	(82,644)	(29,287)
Currency		(5,680)	(41,918)	25,353	(50,338)
Credit		(1,320)	2,252	(532)	4,850
Commodity		7,133	16,294	4,908	(3,710)
Others		26,911	19,518	(2,512)	177,736
	₩	222,700	381,492	(344,271)	596,969

27. Derivatives for hedging

(1) Strategy of risk management

The Group has a foreign currency exposure arising from net investments in foreign operations whose functional currency differs from the Group's presentation currency. The Group uses forward exchange as a hedging instrument to hedge foreign currency risk.

Prospective effectiveness testing should be performed at the inception of the hedge and each reporting date. The hedge relationship is highly effective because the foreign currency gains and losses on the hedged item (net investment) that are attributable to the hedged risk (changes in spot exchange rates) are expected to be offset by the foreign currency gains and losses on the hedging instrument (forward exchange).

Because the critical terms of the hedging instrument perfectly match the critical terms of the hedged item and the foreign currency exposure of hedging instrument is designated as a hedge of the change in the same nominal amount of the hedged item, the relative weight of the nominal amount between the hedging instrument and the hedged item is 1:1.

The Group is exposed to credit risk of the hedging instrument which is not offset by credit risk of the hedged item in relation to the net investment risk of the foreign operation. Unsettled portions of the credit risk of the hedging instrument and the credit risk of the hedged item are the main sources of hedge ineffectiveness. However, the Group expects the credit risk does not significantly increase and there is no hedge ineffectiveness.

(2) Hedge instruments (Derivative assets and liabilities)

i) Details of Derivatives for hedging as of December 31, 2019 and 2018 are as follows:

		2019			2018		
		Contracts	Assets	Liabilities	Contracts	Assets	Liabilities
Hedges of a Net Investment in Foreign Operations							
Currency Forwards	₩	398,847	9,462	-	334,856	2,260	1,154

ii) Maturity and Nominal amounts of Derivatives for hedging as of December 31, 2019 and 2018 are as follows:

		2019				
		Maturity				
		Less than 1 month	1 month-3 months	3 months-1 year	More than 5 years	Total
Hedges of a Net Investment in Foreign Operations						
Currency Forwards						
Nominal Amount (*)	₩	-	-	398,847	-	398,847
Average foreign currency exchange rate (KRW/Dollar)		-	-	1,173.39	-	-

(*) For foreign exchange derivatives whose nominal amounts exist simultaneously on the basis of won and foreign currency, the nominal amount based on the foreign currency was converted using the exchange rate at the end of the current year.

	2018					
	Maturity					
	Less than 1 month	1 month-3 months	3 months-1 year	More than 5 years	Total	
Hedges of a Net Investment in Foreign Operations						
Currency Forwards						
Nominal Amount (*)	₩	-	223,620	111,236	-	334,856
Average foreign currency exchange rate (KRW/Dollar)		-	1,120.52	1,088.70	-	-

(*) For foreign exchange derivatives whose nominal amounts exist simultaneously on the basis of won and foreign currency, the nominal amount based on the foreign currency was converted using the exchange rate at the end of the current year.

(3) Ineffective portion of hedging

i) Details of changes in fair value used on the basis of recognition of hedge ineffectiveness for the years ended December 31, 2019 and 2018 are as follows:

	2019				
	Fair value fluctuation for testing hedge effectiveness		Effective portion	Reserves of foreign exchange translation(*)	
	Hedging instruments	Hedged item			
Hedges of a Net Investment in Foreign Operations					
Currency rate fluctuation risk	₩	(19,942)	19,942	(3,023)	(2,154)

(*) It includes foreign currency translation reserve of ₩ (-)8,525 million in a hedging relationship that no longer applies hedge accounting.

	2018				
	Fair value fluctuation for testing hedge effectiveness		Effective portion	Reserves of foreign exchange translation	
	Hedging instruments	Hedged item			
Hedges of a Net Investment in Foreign Operations					
Currency rate fluctuation risk	₩	(16,743)	16,743	(11,731)	869

ii) There is no hedge ineffectiveness recognised in profit or loss in relation to net investment hedge in foreign operations for the years ended December 31, 2019 and 2018.

28. Capital stock

(1) Authorized shares of capital stock for the Group as of December 31, 2019 are 1,000,000,000 shares.

(2) Details of the capital stock for the Group as of December 31, 2019 and 2018 are as follows:

	2019	2018
Issued shares of capital stock	658,316,408 shares	658,316,408 shares
Issued shares of capital stock (preferred stock)	14,075,750 shares	14,075,750 shares
Issued shares of capital stock (2 preferred stock)	140,000,000 shares	140,000,000 shares
Par value per share (in Korean won)	5,000	5,000
Capital stock (*)	₩ 4,101,961	4,101,961

(*) Due to retirement of stock during the year, the amount of capital stock does not correspond to total face value of the Group's issued shares.

29. Capital surplus

Details of capital surplus as of December 31, 2019 and 2018 are as follows:

	2019	2018
Additional paid-in capital	₩ 1,795,980	1,795,980
Gain on sales of treasury stocks	357,586	353,786
Consideration of convertible bonds	2,623	2,623
Others	1,039	1,523
	₩ 2,157,228	2,153,912

30. Retained earnings and dividends

(1) The Group's legal reserve and other reserves as of December 31, 2019 and 2018 are as follows:

		2019	2018
Legal reserve (*1)	₩	136,904	121,513
Reserve for loss on future transactions (*2)		67	67
Other regulatory reserve		3,334	1,448
Regulatory reserve for loan losses		75,461	88,581
Unappropriated retained earnings		2,539,467	2,038,533
	₩	2,755,233	2,250,142

(*1) The Commercial Law of the Republic of Korea requires the Group to appropriate an amount equal to a minimum of 10% of cash dividends paid as a legal reserve, until such reserve equals 50% of its issued capital stock. This reserve is not available for the payment of cash dividends, but may be transferred to capital stock, or used to reduce accumulated deficit, if any, with the ratification of the Group's majority shareholders.

(*2) Pursuant to Article 50 of the Korean Futures Trading Act and Article 13-10 of the Enforcement Decree of the same Act, the Group reserved for loss on futures. The additional reserve for loss on futures transactions is not required according to enactment of the Act on Indirect Investment Asset Management Business and is classified as voluntary reserves.

(2) Details of changes in unappropriated retained earnings for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Beginning balance	₩	2,038,533	1,715,023
Adoption effect of K-IFRS No. 1109		-	120,150
Net income attributable to equity holder of the Controlling Company		658,998	456,565
Dividends		(153,907)	(124,692)
Provision for legal reserve		(15,391)	(12,469)
Reversal of (Provision for) regulatory reserve for loan losses		13,120	(37,732)
Regulatory reserve allowances		(1,886)	(1,448)
Retirement of treasury stock		-	(76,864)
Ending balance	₩	2,539,467	2,038,533

(3) Details of dividend for the year ended December 31, 2019 are as follows:

Description	Issued shares (in shares)	Treasury stock (in shares)	Shares outstanding (in shares)	Cash dividend per share (in won)	Total cash dividend
Common stock	658,316,408	109,581,643	548,734,765	₩ 220	₩ 120,722
Preferred stock	14,075,750	4,219,960	9,855,790	242	2,385
2 preferred stock	140,000,000	-	140,000,000	220	30,800
	812,392,158	113,801,603	698,590,555		₩ 153,907

(4) Statements of appropriation of retained earnings of the Controlling Company for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
		Expected date of appropriation: March 25, 2020	Determined date of appropriation: March 27, 2019
I. Unappropriated retained earnings			
Unappropriated retained earning carried forward from the prior year	₩	1,715,900	1,430,271
Adoption effect of K-IFRS No. 1109		-	84,586
Retirement in treasury stock		-	(76,864)
Net income for the year		448,721	434,085
		2,164,621	1,872,078
II. Transfer from voluntary reserves, etc.			
Transfer from regulatory reserve for loan losses		4,838	13,120
		4,838	13,120

	2019	2018
	Expected date of appropriation: March 25, 2020	Determined date of appropriation: March 27, 2019
III. Appropriation of retained earnings		
Legal reserve	18,211	15,391
Cash dividends		
Dividends per share in won		
Common stock		
Current year: ₩260 (5.2%)		
Previous year: ₩220 (4.4%)		
Preferred stock	182,113	153,907
Current year: ₩286(5.72%)		
Previous year: ₩242(4.84%)		
2 Preferred stock		
Current year: ₩260(5.2%)		
Previous year: ₩220(4.4%)		
	200,324	169,298
IV. Unappropriated retained earnings to be carried over to subsequent year	₩ 1,969,135	1,715,900

31. Capital adjustment and accumulated other comprehensive income

(1) Details of capital adjustment as of December 31, 2019 and 2018 are as follows:

	2019	2018
Treasury stock	₩ (61,515)	(62,000)
Stock options	1,836	1,836
Others(*)	49,265	53,317
	₩ (10,414)	(6,847)

(*) It is the stock options and others endowed applying financial investment company compensation system framework by financial supervisory service.

(2) Details of accumulated other comprehensive income as of December 31, 2019 and 2018 are as follows:

	2019	2018
Gain(Loss) on valuation of financial assets measured at fair value through other comprehensive income	₩ 115,879	(59,740)
Gain on valuation of financial liabilities measured at fair value through profit or loss	5,054	5,062
Gain(Loss) on valuation of derivatives	(2,155)	869
Gain on valuation of investments in associates	72,556	22,578
Loss on foreign currency translation adjustment	(64,284)	(154,383)
Remeasurement of defined benefit obligation	(3,284)	-
	₩ 123,766	(185,614)

32. Regulatory reserve for loan losses

(1) According to the Regulation on Financial Investment Business 3-8, if the allowances for loan losses reserved for the accounting purpose in accordance with K-IFRS are less than the amount of the allowances for loan losses reserving with the supervision purpose, the differences are disclosed as regulatory reserve for loan losses.

(2) Details of the ending balance of regulatory reserve for loan losses as of December 31, 2019 and 2018 are as follows:

	2019	2018
Regulatory reserve for loan losses	₩ 75,461	88,581
Estimated regulatory reserve for loan losses(*)	(4,838)	(13,120)
	₩ 70,623	75,461

(*) On estimated regulatory reserve for loan losses as of December 31, 2018, ₩5,410 million for the decrease effect of regulatory reserve by the adoption of K-IFRS No.1109 are included.

(3) Details of net income and earnings per share adjusted for regulatory reserve for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Net income	₩	658,998	456,565
Provision for (Reversal of) regulatory reserve for loan losses		4,838	13,120
Net income adjusted for regulatory reserve	₩	663,836	469,685
Earnings per share adjusted for regulatory reserve (in Korean won)			
EPS for Common stock		963	679
EPS for 2 Preferred stock		963	679

33. Fee income and expense

(1) Fee income for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Brokerage commissions	₩	395,401	504,421
Underwriting commissions		144,155	120,425
Handling fee of collective investments		79,813	86,217
Management fee on asset management		33,968	35,511
Trust fee		52,657	51,938
Debt guarantee commissions		55,208	91,662
Others		237,170	168,908
	₩	998,372	1,059,082

(2) Fee expenses incurred for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Trading commissions	₩	57,360	55,075
Investment solicitor fee		3,456	4,486
Others		154,157	144,252
	₩	214,973	203,813

34. Gains (Losses) on financial assets measured at fair value through profit or loss

(1) Details of gains on change in value of and disposal of financial assets measured at fair value through profit or loss for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Gain on disposal of financial assets at fair value through profit or loss	₩	1,082,162	666,040
Gain on valuation of financial assets at fair value through profit or loss		809,361	403,760
Gain on disposal of financial liabilities at fair value through profit or loss		146,319	86,670
Gain on valuation of financial liabilities at fair value through profit or loss		14,018	29,658
Gain on transaction of derivatives		5,671,136	5,484,272
Gain on valuation of derivatives		1,171,237	851,210
Gain on disposal of financial liabilities designated as measured at fair value through profit or loss		331,924	274,707
Gain on valuation of financial liabilities designated as measured at fair value through profit or loss		68,924	477,367
	₩	9,295,081	8,273,684

(2) Details of losses on change in value of and disposal of financial instruments at fair value through profit or loss for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Loss on disposal of financial assets at fair value through profit or loss	₩	530,813	817,340
Loss on valuation of financial assets at fair value through profit or loss		171,628	527,756
Loss on disposal of financial liabilities at fair value through profit or loss		156,357	89,060
Loss on valuation of financial liabilities at fair value through profit or loss		16,756	19,482
Loss on transaction of derivatives		5,289,644	4,887,303
Loss on valuation of derivatives		948,537	1,195,481
Loss on disposal of financial liabilities designated as measured at fair value through profit or loss		1,396,650	625,892
Loss on valuation of financial liabilities designated as measured at fair value through profit or loss		618,409	216,067
	₩	9,128,794	8,378,381

35. Gains and losses on valuation and disposal of financial assets measured at fair value through other comprehensive income

(1) Details of gains on financial assets measured at fair value through other comprehensive income recognized for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Gain on disposal of financial assets at fair value through other comprehensive income	₩	40,932	4,885

(2) Details of losses on financial assets at fair value through other comprehensive income recognized for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Loss on disposal of financial assets at fair value through other comprehensive income	₩	5,420	4,082

36. Interest income and expense

(1) Details of interest income for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Financial assets measured at fair value through profit and loss			
Interest on securities	₩	419,351	461,184
Interest on derivatives		9,299	6,840
Interest on loans		54,380	16,363
		483,030	484,387
Financial assets measured at fair value through other comprehensive income Interest on securities		163,053	130,349
Financial assets measured at amortized cost			
Interest on deposits		150,593	98,866
Interest on loans		2,211,674	1,553,804
Interest on other assets		126,822	140,967
		2,489,089	1,793,637
Total	₩	3,135,172	2,408,373

(2) Details of interest expenses for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Interest on derivatives	₩	8,216	7,001
Interest on deposits due to customers		41,191	45,637
Interest on borrowings		2,154,940	1,451,105
Interest on debentures		154,255	100,853
Others		219,441	149,616
	₩	2,578,043	1,754,212

37. Allowances (Reversals) of provision on expected credit losses

Details of allowances (reversals) of provision on expected credit losses recognized for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Financial assets measured at fair value through other comprehensive income (Note 10)	₩	3,234	2,269
Financial assets at amortized cost (Note 11)		34,946	10,695
Provision for off-balance items (Note 24)		(1,258)	2,683
	₩	36,922	15,647

38. Gains and losses on foreign transaction

(1) Details of the assets and liabilities denominated in foreign currency as of December 31, 2019 and 2018 are as follows:

(In thousands of dollar, in millions of won)	2019		2018	
	Foreign Currency	Won	Foreign Currency	Won
Assets				
Cash and cash equivalent	1,252,440	₩ 1,450,075	1,088,198	₩ 1,216,714
Financial assets measured at fair value through profit or loss	5,725,754	6,629,277	5,400,190	6,037,952
Financial assets measured at fair value through other comprehensive income	1,941,101	2,247,406	1,892,826	2,116,369
Financial assets measured at amortized cost	54,113,604	62,652,733	48,171,188	53,860,206
	63,032,899	₩ 72,979,491	56,552,402	₩ 63,231,241
Liabilities				
Financial liabilities measured at fair value through profit or loss	2,166,243	₩ 2,508,076	2,471,322	₩ 2,763,185
Deposits due to customers	948,074	1,097,680	844,785	944,555
Borrowings	53,541,058	61,989,836	46,029,884	51,466,013
Debentures	1,071,064	1,240,078	453,015	506,516
Other financial liabilities	2,905,597	3,364,101	2,987,787	3,340,645
	60,632,036	₩ 70,199,771	52,786,793	₩ 59,020,914

(2) Details of gains and losses on foreign currency transactions for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Gains on foreign currency transactions	₩	1,327,956	1,051,562
Gains on foreign currency translations		132,430	130,333
Losses on foreign currency transactions		(1,270,397)	(1,215,447)
Losses on foreign currency translations		(161,619)	(77,297)
	₩	28,370	(110,849)

39. Other operating income and expense

(1) Details of other operating income for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Dividend income	₩	130,529	81,374
Distribution income		169,492	144,892
Rental income from investment property		184,513	143,810
Reversal of allowances for litigation		-	7,150
Others		13,152	16,777
	₩	497,686	394,003

(2) Details of other operating expenses for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Provision of allowances for litigation	₩	106	4,500
Others		54,744	41,516
	₩	54,850	46,016

40. Classification of financial instruments by category**(1) Details of categories of financial assets as of December 31, 2019 and 2018 are as follows:**

		2019			
		Financial assets measured at amortized cost	Financial assets measured at fair value through profit or loss	Financial assets measured at fair value through other comprehensive income	Total
Cash and cash equivalents	₩	2,092,290	-	-	2,092,290
Financial assets measured at fair value through profit or loss		-	40,895,591	-	40,895,591
Financial assets measured at fair value through other comprehensive income		-	-	9,566,398	9,566,398
Financial assets at amortized cost		75,276,086	-	-	75,276,086
	₩	77,368,376	40,895,591	9,566,398	127,830,365
					2018
		Financial assets measured at amortized cost	Financial assets measured at fair value through profit or loss	Financial assets measured at fair value through other comprehensive income	Total
Cash and cash equivalents	₩	1,717,840	-	-	1,717,840
Financial assets measured at fair value through profit or loss		-	35,064,492	-	35,064,492
Financial assets measured at fair value through other comprehensive income		-	-	8,203,073	8,203,073
Financial assets at amortized cost		69,385,395	-	-	69,385,395
	₩	71,103,235	35,064,492	8,203,073	114,370,800

(2) Details of categories of financial liabilities as of December 31, 2019 and 2018 are as follows:

		2019			
		Financial liabilities measured at fair value through profit or loss	Financial liabilities designated as measured at fair value through profit or loss	Financial liabilities measured at amortized cost	Total
Financial liabilities measured at fair value through profit or loss	₩	1,948,029	-	-	1,948,029
Financial liabilities designated as measured at fair value through profit or loss		-	14,968,359	-	14,968,359
Deposits due to customers		-	-	5,955,596	5,955,596
Borrowings		-	-	86,453,161	86,453,161
Debentures		-	-	6,215,226	6,215,226
Other financial liabilities		-	-	5,091,895	5,091,895
	₩	1,948,029	14,968,359	103,715,878	120,632,266

	2018				
		Financial liabilities measured at fair value through profit or loss	Financial liabilities designated as measured at fair value through profit or loss	Financial liabilities measured at amortized cost	Total
Financial liabilities measured at fair value through profit or loss	₩	2,280,438	-	-	2,280,438
Financial liabilities designated as measured at fair value through profit or loss		-	15,459,570	-	15,459,570
Deposits due to customers		-	-	5,465,538	5,465,538
Borrowings		-	-	72,363,400	72,363,400
Debentures		-	-	4,249,205	4,249,205
Other financial liabilities		-	-	7,919,826	7,919,826
	₩	2,280,438	15,459,570	89,997,969	107,737,977

(3) Details of categories of financial assets as of December 31, 2019 and 2018 are as follows:

	2019						
	Dividend income and distribution income	Interest income (expense)	Gain on valuation	Loss on valuation	Gain on transaction and redemption	Loss on transaction and redemption	Allowances of provision on expected credit losses(*4)
Financial assets:							
Financial assets measured at fair value through profit or loss (except for derivatives)	₩ 256,494	473,731	809,361	(171,628)	1,082,162	(530,813)	-
Financial assets measured at fair value through other comprehensive income (*1)	26,185	163,053	-	-	40,932	(5,420)	(3,234)
Financial assets measured at amortized cost	-	2,489,089	-	-	2,112	-	(34,947)
	282,679	3,125,873	809,361	(171,628)	1,125,206	(536,233)	(38,181)
Financial liabilities:							
Financial liabilities measured at fair value through profit or loss (except for derivatives)	-	-	14,018	(16,756)	146,319	(156,357)	-
Financial liabilities designated as measured at fair value through profit or loss (*2)	-	-	68,924	(618,409)	331,924	(1,396,650)	-
Deposits due to customers	-	(41,191)	-	-	-	-	-
Borrowings	-	(2,154,940)	-	-	-	-	-
Debentures	-	(154,255)	-	-	-	-	-
Other financial liabilities	-	(219,441)	-	-	-	-	-
	-	(2,569,827)	82,942	(635,165)	478,243	(1,553,007)	-
Derivatives(*3)	-	1,083	1,171,237	(948,537)	5,671,136	(5,289,644)	-
	₩ 282,679	557,129	2,063,540	(1,755,330)	7,274,585	(7,378,884)	(38,181)

(*1) Gains and losses on valuation and disposal of equity securities designated as measured at fair value through other comprehensive income are excluded because they are recognized to equity (details described in Note 10).

(*2) The above items were excluded, as changes in fair value by credit risk fluctuation is recognized as other comprehensive income (details described in Note 20).

(*3) Except for the designation of the derivative financial assets to effective hedge instrument, the Group classifies it with financial instruments measured at fair value through profit or loss or designated at fair value through profit or loss.

(*4) ₩1,258 million for recovery of allowances for provisions of expected credit loss of off-balance sheet items are excluded (details described in Note 37).

	2018						
	Dividend income and distribution income	Interest income (expense)	Gain on valuation	Loss on valuation	Gain on transaction and redemption	Loss on transaction and redemption	Allowances of provision on expected credit losses(*4)
Financial assets:							
Financial assets measured at fair value through profit or loss (except for derivatives)	₩ 194,187	477,547	403,760	(527,756)	666,040	(817,340)	-
Financial assets measured at fair value through other comprehensive income (*1)	12,237	130,349	-	-	4,885	(4,082)	(2,269)
Financial assets measured at amortized cost	-	1,793,637	-	-	-	-	(10,695)
	206,424	2,401,533	403,760	(527,756)	670,925	(821,422)	(12,964)

							2018
	Dividend income and distribution income	Interest income (expense)	Gain on valuation	Loss on valuation	Gain on transaction and redemption	Loss on transaction and redemption	Allowances of provision on expected credit losses(*4)
Financial liabilities:							
Financial liabilities measured at fair value through profit or loss (except for derivatives)	-	-	29,658	(19,482)	86,670	(89,060)	-
Financial liabilities designated as measured at fair value through profit or loss (*2)	-	-	477,367	(216,067)	274,707	(625,892)	-
Deposits due to customers	-	(45,637)	-	-	-	-	-
Borrowings	-	1,451,105)	-	-	-	-	-
Debentures	-	(100,853)	-	-	-	-	-
Other financial liabilities	-	(149,616)	-	-	-	-	-
	-	(1,747,211)	507,025	(235,549)	361,377	(714,952)	-
Derivatives(*3)	-	(161)	851,210	(1,195,481)	5,484,272	(4,887,303)	-
	₩ 206,424	654,161	1,761,995	(1,958,786)	6,516,574	(6,423,677)	(12,964)

(*1) Gains and losses on valuation and disposal of equity securities designated as measured at fair value through other comprehensive income are excluded because they are recognized to equity (details described in Note 10).

(*2) The above items were excluded, as changes in fair value by credit risk fluctuation is recognized as other comprehensive income (details described in Note 20).

(*3) Except for the designation of the derivative financial assets to effective hedge instrument, the Group classifies it with financial instruments measured at fair value through profit or loss or designated at fair value through profit or loss.

(*4) ₩2,683 million for recovery of allowances for provisions of expected credit loss of off-balance sheet items are excluded (details described in Note 37)

41. Employee costs

Details of employee costs for the years ended December 31, 2019 and 2018 are as follows:

	2019	2018
Salaries	₩ 556,342	553,391
Post-employment benefits of defined contribution plans	36,367	34,250
Post-employment benefits of defined benefit plans	23,256	677
Termination benefits	37,633	-
Employee benefits	77,303	69,950
Long-term employee benefits	7,804	-
	₩ 738,705	658,268

42. Selling and administrative expenses

Details of selling and administrative expenses for the years ended December 31, 2019 and 2018 are as follows:

	2019	2018
Electronic data processing	₩ 58,403	55,282
Rental	23,739	77,637
Commission	42,827	33,805
Entertainment	21,920	20,855
Advertisement	33,607	32,323
Depreciation	72,124	24,024
Depreciation on investment property	44,283	29,866
Training	6,542	6,213
Amortization	48,039	41,845
Taxes and dues	59,472	41,826
Lease of low-value asset	2,421	-
Others	98,686	92,755
	₩ 512,063	456,431

43. Non-operating income

Details of non-operating income for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Gain on disposal of property and equipment	₩	85	2,416
Gain on disposal of investment properties		1,353	48,083
Gain on disposal of intangible assets		-	150
Gain on disposal of investments in subsidiaries		38,299	15,773
Gain on disposal of investments in associates		1,214	-
Gain on valuation of investments in associates		148,909	40,040
Others		56,247	47,833
	₩	246,107	154,295

44. Non-operating expense

Details of non-operating expense for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Loss on disposal of property and equipment	₩	2,036	629
Loss on disposal of investment properties		-	7
Loss on disposal of intangible assets		21	8
Loss on disposal of investments in subsidiaries		3,227	8,588
Impairment loss on investments in associates		1,129	-
Loss on disposal of investments in associates		25	38
Loss on valuation of investments in associates		3,199	9,689
Donations		5,192	4,193
Others		65,510	58,463
	₩	80,339	81,615

45. Income tax expense

(1) Details of income tax expenses for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Current income tax payable	₩	139,221	205,088
Changes in deferred income tax due to temporary differences		174,284	(175,275)
Changes in other prepaid income tax, etc.		(543)	60,839
Income tax expense recognized directly in equity		(83,490)	32,348
Income tax expense for the Group	₩	229,472	123,000

(2) Profit before income taxes and income tax expense for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Profit before income tax	₩	893,722	585,010
Tax calculated at statutory tax rate		235,411	136,832
Adjustments:			
Non-deductible expense		5,523	4,382
Non-taxable income		148	-
Temporary differences not recognized		(1,111)	(36,850)
Effects of change in tax rate and other		(10,499)	18,636
Income tax expense for the Group	₩	229,472	123,000
Effective tax rate		25.68%	21.03%

(3) Details of changes in temporary differences and the deferred tax assets and liabilities for the years ended December 31, 2019 and 2018 are as follows:

	2019		
	Beginning balance	Addition (deduction)	Ending balance
Financial assets measured at fair value through profit or loss	₩ 50,069	(538,622)	(488,553)
Investment on subsidiaries and associates	(302,705)	(375,813)	(678,518)
Accrued interest receivable	(123,081)	32,750	(90,331)
Impairment loss on financial assets measured at fair value through other comprehensive income	164,684	(80,410)	84,274
Gain (loss) on valuation of financial assets measured at fair value through other comprehensive income	6,379	(227,908)	(221,529)
Financial assets measured at fair value through other comprehensive income	35,723	(16,099)	19,624
Gain (loss) on valuation of derivatives	402,162	(426,840)	(24,678)
Gain (loss) on valuation of derivative-linked securities	7,276	(49,814)	(42,538)
Gain (loss) on valuation of derivative-linked securities in short position	(241,033)	721,921	480,888
Gain (loss) on valuation of securities in short position	(12,609)	12,705	96
Incentive payables	129,790	25,380	155,170
Provision of payment guarantees	63,862	(7,364)	56,498
Restoration liabilities	9,288	(1,846)	7,442
Gain (loss) on foreign currency translation	(6,745)	18,506	11,761
Tangible assets	5,480	(56,174)	(50,694)
Intangible assets	(528,562)	17,452	(511,110)
Treasury stocks	1,743,066	(13,256)	1,729,810
Others	66,079	66,745	132,824
	1,469,123	(898,687)	570,436
Not recognized as deferred tax assets (liabilities)	(753,682)		(952,256)
Recognized as deferred tax assets (liabilities)	2,222,805		1,522,692
Tax rate	27.50%, etc.		27.50%, etc.
Deferred tax assets (liabilities)	₩ 619,197		444,913

	2018				
	Beginning Balance	Adjustment due to K-IFRS No. 1109 adoption (*)	Beginning Balance (Adjusted)	Addition (deduction)	Ending Balance
Financial assets at fair value through profit or loss	₩ 83,669	(83,669)	-	-	-
Financial assets measured at fair value through profit or loss	-	92,608	92,608	(42,539)	50,069
Investment on subsidiaries and associates	(63,853)	-	(63,853)	(238,852)	(302,705)
Accrued interest receivable	(110,694)	-	(110,694)	(12,387)	(123,081)
Impairment loss on available-for-sale financial assets	177,809	(177,809)	-	-	-
Impairment loss on financial assets measured at fair value through other comprehensive income	-	167,220	167,220	(2,536)	164,684
Gain (loss) on valuation of available-for-sale financial assets	(312,116)	312,116	-	-	-
Gain (loss) on valuation of financial assets measured at fair value through other comprehensive income	-	(310,133)	(310,133)	316,512	6,379
Available-for-sale financial assets	31,226	(31,226)	-	-	-
Financial assets measured at fair value through other comprehensive income	-	31,226	31,226	4,497	35,723
Gain (loss) on valuation of derivatives	(144,765)	(333)	(145,098)	547,260	402,162
Gain (loss) on valuation of derivative-linked securities	(22,449)	-	(22,449)	29,725	7,276
Gain (loss) on valuation of derivative-linked securities in short position	167,037	-	167,037	(408,070)	(241,033)
Gain (loss) on valuation of securities in short position	7,458	-	7,458	(20,067)	(12,609)
Incentive payables	125,671	-	125,671	4,119	129,790
Provision of payment guarantees	77,955	-	77,955	(14,093)	63,862
Restoration liabilities	9,751	-	9,751	(463)	9,288
Gain (loss) on foreign currency translation	(18,625)	-	(18,625)	11,880	(6,745)
Tangible assets	(75,122)	-	(75,122)	80,602	5,480

	2018				
	Beginning Balance	Adjustment due to K-IFRS No. 1109 adoption (*)	Beginning Balance (Adjusted)	Addition (deduction)	Ending Balance
Intangible assets	(550,377)	-	(550,377)	21,815	(528,562)
Treasury stocks	1,788,526	-	1,788,526	(45,460)	1,743,066
Others	12,668	5,248	17,916	48,163	66,079
	1,183,769	5,248	1,189,017	280,106	1,469,123
Not recognized as deferred tax assets (liabilities)	(438,243)				(753,682)
Recognized as deferred tax assets (liabilities)	1,622,012				2,222,805
Tax rate	27.50%, etc.				27.50%, etc.
Deferred tax assets (liabilities)	₩ 443,922				619,197

(*) Corporate tax reconciliations by adopting K-IFRS No. 1109 were considered.

(4) Temporary differences that are not recognized as deferred tax liabilities as of December 31, 2019 and 2018 are as follows:

	2019	2018
taxable temporary differences		
Investment in subsidiaries	₩ (562,633)	(361,278)
Goodwill	(397,776)	(397,776)
	(960,409)	(759,054)
Deductible temporary differences		
Investment in subsidiaries	8,153	5,372
	₩ (952,256)	(753,682)

(5) Details of deferred tax relating to items that are recognized directly in equity for the years ended December 31, 2019 and 2018 are as follows:

	2019	2018
Deferred tax:		
Gain (loss) on valuation of financial assets measured at fair value through other comprehensive income	₩ 65,015	(35,280)
Gain (loss) on valuation of financial liabilities designated as measured at fair value through profit or loss	(2)	978
Changes in equity adjustments from equity-method valuation	12,960	2,014
Remeasurement of the defined benefit liabilities.	(1,246)	-
Other	6,839	(23)
	83,566	(32,311)
Current income tax:		
Gain on disposition of treasury stock	1,295	888
Stock option	(1,371)	(925)
	(76)	(37)
Income tax expense recognized directly in equity	₩ 83,490	(32,348)

46. Earnings per share (“EPS”)

Earnings per share are earnings for one share of common stock (basic earnings per share) or earnings for one share of common stock and diluted potential common stock (diluted earnings per share), and the details are as follows.

(1) Basic EPS for the years ended December 31, 2019 and 2018 are as follows:

	2019	
	Common stocks	2 preferred stocks
Net profit attributable equity holder of the Controlling Company	₩ 525,195	133,803
Weighted-average number of common shares outstanding (shares)	549,518,731	140,000,000
Basic EPS (in Korean won)	956	956

	2018	
	Common stocks	2 preferred stocks
Net profit attributable equity holder of the Controlling Company	₩ 364,104	92,461
Weighted-average number of common shares outstanding (shares)	551,310,375	140,000,000
Basic EPS (in Korean won)	660	660

(2) Details of weighted-average number of shares of common stocks outstanding for the years ended December 31, 2019 and 2018 are as follows:

	2019			
	Common stocks		2 preferred stocks	
	Stocks outstanding	Cumulative shares	Stocks outstanding	Cumulative shares
Issued stock	658,316,408	240,285,488,920	140,000,000	51,100,000,000
Treasury stock	(108,723,602)	(39,711,152,229)	-	-
Shares outstanding	549,592,806	200,574,336,691	140,000,000	51,100,000,000
Days		365		365
Weighted-average number of shares of common stocks outstanding		549,518,731		140,000,000

	2018			
	Common stocks		2 preferred stocks	
	Stocks outstanding	Cumulative shares	Stocks outstanding	Cumulative shares
Issued stock	658,316,408	241,485,488,920	140,000,000	51,100,000,000
Treasury stock	(109,581,643)	(40,257,202,100)	-	-
Shares outstanding	548,734,765	201,228,286,820	140,000,000	51,100,000,000
Days		365		365
Weighted-average number of shares of common stocks outstanding		551,310,375		140,000,000

(*) For the participating/cumulative profit dividend shares issued through capital increase with consideration during prior year, it is assumed that those shares were issued at January 1, 2018 for the calculation EPS.

(3) Diluted EPS

Diluted EPS is same as basic EPS for the years ended December 31, 2019 and 2018.

47. Commitments and contingencies

(1) The Group has entered into various agreements with various financial institutions as of December 31, 2019, and the details are as follows:

Description	Financial Institution	Contract amount
Collateral financial support borrowings	Korea Securities Finance Corp.	₩ 2,000,000
Agency operation borrowings		₩ 1,200,000
Agency operation borrowings (Reserve for claims of customer's deposits)		₩ within the range of amount of deposits
Notes discounting		₩ 300,000
Notes discounting (Deposits for subscription)		₩ within the range of amount of deposits
Overdraft for operation (daily)		₩ 200,000
Margin loans		₩ 1,200,000
Overdraft for operation (daily)	Shinhan Bank, etc.	₩ 680,000
	KDB(London Branch)	USD 20,000,000
	Shinhan Bank(London Branch)	USD 20,000,000
	Shinhan Bank New York	USD 100,000,000
Term loan	Bank of Montreal Harris Bank	USD 200,000,000
	Texas Capital Bank	USD 75,000,000
	Woori Bank LA Branch	USD 10,000,000
	KDB(Singapore Branch)	USD 80,000,000

Description	Financial Institution		Contract amount
Term loan	Woori Bank Singapore	USD	20,000,000
	Shinhan Bank Hong Kong	USD	19,000,000
	Woori Bank Viet Nam	VND	491,500,000,000
	Vietinbank	VND	50,000,000,000
	Vietcombank	VND	50,000,000,000
	BIDV	VND	174,600,000,000
	Shinhan Bank Viet Nam	VND	212,000,000,000
Overdraft	Bank of China (Hong Kong) Limited	HKD	50,000,000
	Euroclear Bank SA/NV	USD	10,000,000
Overdraft for operation (Intra-day)	Bank of China (Hong Kong) Limited	HKD	300,000,000
	The Bank of New York Mellon	USD	100,000,000
	Bank of Montreal Harris Bank	USD	30,000,000
	Texas Capital Bank	USD	75,000,000
Overdraft for operation (Credit Facility)	Standard Chartered Bank	USD	1,000,000,000
	Korean Investment & Securities	USD	2,000,000,000
Overdraft for operation (Line of credit)	Woori Bank Vietnam	VND	67,000,000,000
	Woori Bank(HK Branch)	USD	20,000,000
	UOB Indonesia	IDR	100,000,000,000
	CIMB Indonesia	IDR	100,000,000,000
	Permata Bank	IDR	50,000,000,000
	DBS Bank	IDR	100,000,000,000
	KEB Hana Indonesia	IDR	100,000,000,000

(2) As of December 31, 2019, the Group is involved in 30 lawsuits as a defendant (lawsuit amount: ₩68,860 million) and in 13 lawsuits as a plaintiff (lawsuit amount: ₩233,099 million). Except for 6 lawsuits for which the Group has recognized provisions, the results of the litigations cannot be predicted at the moment.

(3) Details of liabilities related financial guarantee contracts as of December 31, 2019 are as follows:

	Guarantee amount	Financial guarantee contract liabilities
Lang&Cie. Rhein-Ruhr Real Estate AG	₩ 3,568	2019.07.31-2022.09.15
Kwangkyo Triton 1st Co., Ltd.	13,838	2018.04.09-2021.04.09
DaejoPFV Co., Ltd.	32,000	2019.12.30-2023.03.30
DWS GangNam MICE Co., Ltd	40,000	2018.06.29-2021.02.26
DWSSIA Co., LTD	13,800	2015.10.20-2023.10.11
Rostov1st Co., Ltd	11,590	2018.12.21-2021.04.21
Mione gwangan 1st Co., Ltd.	11,200	2018.09.17-2020.12.15
Mione dongchen Co., Ltd	20,000	2018.12.21-2022.05.21
Mirae SF 3ho Co., Ltd	10,000	2018.07.12-2021.11.12
Mirae SF 2ho Co., Ltd	10,000	2018.04.20-2021.04.13
Best Award 1st Co., Ltd.	25,000	2017.07.31-2020.07.31
VLM 1st Co., Ltd	6,200	2019.12.09-2020.06.23
Blossom Food 1st Co., Ltd.	50,300	2019.12.03-2020.12.04
BL Energy 1st Co., Ltd.	118,700	2017.02.24-2020.02.25
Samil Invest 1st Co., Ltd.	10,000	2019.06.28-2022.01.26
MD Sadang Retail 1ST Co., Ltd	4,006	2017.11.28-2020.11.27
MDLD 2nd Co., Ltd	43,400	2017.04.28-2021.10.28
MS Gwangjoo Moollyu 1st Co., Ltd	42,900	2017.05.31-2020.05.28
MS Geojeong 1st Co., Ltd.	35,000	2019.01.25-2023.01.25
MS Deokun work Co., Ltd.	15,000	2019.05.23-2023.09.23
MS Myeongnyun 1st. Ltd	25,012	2018.12.28-2022.08.28
MS Sejong 3rd Co., Ltd	10,000	2017.08.24-2022.08.26
MS Songdo Retail 2nd Co., Ltd	37,800	2017.06.01-2022.06.01
MS Songdo Retail 1st Co., Ltd	5,000	2017.06.01-2022.06.01
MS Ansan 1st Co., LTD	25,000	2018.09.04-2021.03.04

	Guarantee amount	Financial guarantee contract liabilities
MSSP 1st Co., Ltd	27,500	2014.12.29-2020.12.29
MS Wirye 1st Co., LTD	5,620	2018.01.15-2021.01.15
MS Hogye 1ST Co., Ltd	6,580	2017.11.30-2020.01.30
MA Dasan 1st Co., Ltd.	26,477	2019.06.05-2022.12.05
Madw Dt5-1 Co., Ltd.	17,000	2016.09.09-2020.03.08
Madw Seongsu Wcenter Co., Ltd.	30,000	2017.05.02-2020.08.02
MA Emulbury Co., Ltd.	12,610	2019.01.16-2022.05.16
MASG 1st Co., Ltd.	18,783	2018.11.20-2021.04.20
MA Hwayang Co., Ltd.	23,000	2019.02.27-2022.02.28
MJ 1st Co., LTD	10,000	2018.11.16-2022.11.16
Wingsky 1st Co., Ltd	11,100	2015.05.06-2021.05.06
Investship 1st Co., Ltd	22,700	2015.03.31-2021.07.03
Paradiseyeongjong the 1st Co., Ltd	50,000	2018.12.17-2023.12.17
Mirae SF 1st Co., Ltd	10,000	2017.06.20-2020.02.20
Madw Misa 1st Co., LTD	5,500	2018.04.11-2021.04.11
Madw Misa 2nd Co., LTD	20,000	2018.04.11-2021.04.11
Monetary Authority of Singapore	30,108	2019.08.12~License End Date
	₩ 946,292	

- (4) As of December 31, 2019, the Group entered into an agreement to purchase a portion of the commercial paper and asset backed short-term bond when the commercial paper and asset backed short-term bond will not be purchased or paid until the issue date based on the purchase guarantee contract. The details of agreements are as follows:

Institution	Contract amount	Contract Period
Good Aiming 4th Co., Ltd.	₩ 50,000	2016.04.25-2021.05.25
Good Aiming 3rd Co., Ltd.	49,900	2015.09.23-2020.10.19
Gimpo Han River Park 1st Co., Ltd.	29,800	2017.09.11-2022.10.11
Rebounce 8th Co., LTD	99,927	2018.06.27-2023.06.29
Sangok The Seven Co., Ltd	22,900	2017.10.25-2020.12.25
MDLFirst Co., LTD	43,000	2018.02.23-2022.11.23
MD Prime 1st Co., Ltd	404,769	2017.11.16-2022.08.16
MD Hybrid 2nd Co., Ltd.	17,579	2019.04.26-2021.05.21
MS GADI Co., Ltd	49,000	2017.11.29-2022.08.29
MS Dangjin 1st Inc.	10,000	2019.02.18-2021.02.18
MS Misa 1st Inc.	40,000	2017.04.07-2020.10.07
MS Beuma 1st Co., Ltd.	62,000	2017.11.16-2021.02.16
MS Sejong 1st Inc.	51,543	2014.02.27-2022.08.26
MS Songjeong 1st Inc.	22,000	2017.10.25-2020.10.25
MSSP 3rd Inc.	45,000	2014.12.29-2020.12.29
MSSP 2nd Inc.	50,000	2014.12.29-2020.12.29
MS Youngsin 1st. Ltd.	50,000	2018.06.28-2021.02.28
Constellation 1st Co., Ltd.	30,100	2016.03.22-2020.12.21
K1 Empo Co., Ltd	18,800	2018.05.14-2020.02.21
Hyundai Card Co., Ltd.	50,000	2017.08.16-2020.05.18
Hyundai Capital Co., Ltd.	50,000	2017.08.18-2020.05.18
MD Unicorn 1st Co., Ltd.	94,900	2019.09.25-2022.09.25
	₩ 1,341,218	

(*) As of December 31, 2019, the exercised amount of the purchase guarantee agreement was ₩ 50,182 million.

- (5) As of December 31, 2019, the amount of unexecuted loan agreement and etc. are ₩1,548,986 million, and the amount of loan agreements with submission of a letter of commitment without payment are ₩1,181,296 million.

(6) As of December 31, 2019 and 2018 the securities in custody on behalf of the Group's customers are as follows:

		2019	2018	Valuation method
Trust or securities in custody	₩	130,801,270	145,500,573	Fair value
Saver securities in custody		323,573	317,760	Fair value
Collective investment securities		50,009,959	42,005,751	Standard sold price
	₩	181,134,802	187,824,084	

(7) Details of loaned securities as of December 31, 2019 and 2018 are as follows:

		2019	2018	Valuation method
Equity securities	₩	2,424,922	2,346,183	Fair value
Others (ETF)		1,114,112	606,153	Fair value
	₩	3,539,034	2,952,336	

(8) Details of borrowed securities as of December 31, 2019 and 2018 are as follows:

		2019	2018	Valuation method
Equity securities	₩	3,126,060	2,772,448	Fair value
Bonds		6,464,378	5,225,831	Fair value
Others (ETF)		362,788	275,623	Fair value
	₩	9,953,226	8,273,902	

(*) The Group treats securities lending and borrowing, manages memorandum account for the securities borrowed from the Korea Securities Depository and recognizes them as financial liabilities measured at fair value through profit or loss when the Controlling Company sells securities borrowed.

(9) Mirae Asset Securities (HK) Limited, Mirae Asset Securities (UK) Ltd., Mirae Asset Securities (USA) Inc., Mirae Asset Wealth Management (USA) Inc., Mirae Asset Securities & Investments (USA), and LLC have signed a contract with Citibank (Korea, Hong Kong, London, New York) to set up credit lines for electronic money transfer transaction using FX, REPO, SEPA and ACH networks. The Controlling Company recognized the fact that the credit line was established as the Controlling Company of the above corporations and provided Letter of Support that it would make reasonable efforts to repay the debt in case of default.

48. Share-based payments

(1) Stock options

1) Details of the Group's share-based compensation as of December 31, 2019, is as follows:

	Mirae Asset Daewoo Co., Ltd.		Mirae Asset Wealth Management (HK) Limited	Mirae Asset Venture Investment Co., Ltd.	
	Executives	Executives	Executives	Executives and employees	Executives and employees
Grant date	2012.06.05	2014.07.15	2008.04.02	2015.03.31, 2015.07.08	2018.08.03
Granted shares	310,000 shares	15,000 shares	74,700,000 shares	1,920,000 shares	500,000 shares
Grant method	Issuance of treasury stock	Issuance of treasury stock	Issuance of treasury stock	Issuance of new shares	Issuance of new shares
Vesting condition	2 years of service from grant date	2 years of service from grant date	3 months of service from grant date	2 years of service from grant date	2 years of service from grant date
Exercise period	2015.06.05– 2020.06.04	2017.07.15– 2022.07.14	2008.07.02– 2023.04.01	2017.03.31– 2024.07.08	2020.08.04– 2027.08.04
Exercise price (in KRW)	Type 1: 37,463 Type 2: 47,680	39,192	HKD 1.10	2,600	6,000
Granted shares	Type 1: 230,000 shares Type 2: 80,000 shares	15,000 shares	74,700,000 shares	1,920,000 shares	500,000 shares
Residual shares as of December 31, 2019	210,000 shares 80,000 shares	15,000 shares	49,800,000 shares	240,000 shares	500,000 shares
Exercisable shares as of December 31, 2019	210,000 shares 80,000 shares	15,000 shares	49,800,000 shares	240,000 shares	-

	Mirae Asset Daewoo Co., Ltd.	Mirae Asset Wealth Management (HK) Limited	Mirae Asset Venture Investment Co., Ltd.		
<Various factors for fair value measurements>					
Option pricing model	Binomial tree	Black-Scholes option pricing model	Black-Scholes option pricing model	DCF, Binomial tree	DCF, Binomial tree
Risk-free interest rate	3.6%, 3.34%	2.583%, 2.865%	1.90%	2.09%, 2.41%	2.54%
Expected stock price volatility	46.19%, 39.59%, 48.11%	33.17%	46.38%	52.03%, 62.13%	95.33%
Assumption for dividend	Assumed dividend payment of KRW 500 at the end of each year	Assumed dividend payment of KRW 350 at the end of each year	-	-	-
Stock price at grant date (in KRW)	30,850	49,450	-	2,420, 2,896	6,159
Fair value of stock option (in KRW)	Type 1: 8,444 Type 2: 6,758	14,575	HKD 0.6047	1,427, 1,806	5,332

2) The Group recognized costs and carrying amounts of equity related to share-based payments as follows:

	Mirae Asset Daewoo Co., Ltd.	Mirae Asset Wealth Management (HK) Limited	Mirae Asset Venture Investment Co., Ltd.
Estimated amount of shares vested at settlement date (shares) (*1)	305,000	49,800,000	740,000
Total compensation cost	₩ 2,533	HKD 30,117,721	₩ 3,065
Amount recognized as stock option expenses for the year ended December 31, 2019	-	-	1,256
Balances of Stock Option as of December 31, 2019(*2)	1,836	-	-

(*1) The Group assumed that the stock options are fully vested at the end of the service period as the Group could not make a reasonable assumption of the forfeiture rate.

(*2) Mirae Asset Securities (HK) Ltd. and Mirae Asset Venture Investment Co., Ltd. recognized capital adjustment related to share-based payments of HKD 30,117,721 and ₩1,720 million for the year ended December 31, 2019. These were adjusted and thus there is no balance of capital adjustment in the Controlling Company's consolidated statement of financial position as of December 31, 2019.

3) Details of changes in granted shares for the years ended December 31, 2019 and 2018 are as follows:

		(In shares)			
		2019			
		Beginning	Grant	Expired	Ending
Mirae Asset Daewoo					
2012 Grant	Type 1	210,000	-	-	210,000
	Type 2	80,000	-	-	80,000
2014 Grant		15,000	-	-	15,000
		305,000	-	-	305,000
Mirae Asset Wealth Management (HK) Limited					
2008 Grant		49,800,000	-	-	49,800,000
Mirae Asset Venture Investment Co., Ltd.					
2015 Grant		240,000	-	-	240,000
2018 Grant		500,000	-	-	500,000
		740,000	-	-	740,000
		50,845,000	-	-	50,845,000

					2018
		Beginning	Grant	Expired	Ending
Mirae Asset Daewoo					
2012 Grant	Type 1	210,000	-	-	210,000
	Type 2	80,000	-	-	80,000
2014 Grant		15,000	-	-	15,000
		305,000	-	-	305,000
Mirae Asset Wealth Management (HK) Limited					
2008 Grant		49,800,000	-	-	49,800,000
Mirae Asset Venture Investment Co., Ltd.					
2015 Grant(*)		1,610,000	-	(1,370,000)	240,000
2018 Grant		-	500,000	-	500,000
		1,610,000	500,000	(1,370,000)	740,000
		51,715,000	500,000	(1,370,000)	50,845,000

(*) The shares were split at the ratio of 5-for-1 for the year ended December 31, 2018.

(2) Share-based Payments

In conformity with the performance-based compensation system model for financial investment companies, the Group deferred portions of management incentives and divided payments across three years, and therefore recognized equity and liabilities as of December 31, 2019 and 2018 are as follows:

		2019	2018
Accrued expenses	₩	28,936	19,688
Capital adjustment		1,218	4,833

49. Related-party transactions

(1) As of December 31, 2019, the list of associates and other related parties of the Group are as follows:

Type	Name of the related parties
Associates	Mirae Asset Life Insurance Co., Ltd
	Pantos Logistics Co., Ltd(*1)
	Mirae Asset Daewoo 1st SPAC
	Mirae Asset Daewoo 2nd SPAC
	Mirae Asset Daewoo 3rd SPAC
	Mirae Asset Daewoo 4th SPAC
	Mirae Asset Partners PEF 4th
	New Growth Engine Green Future PEF
	Mirae Asset-NAVER New Growth Fund I
	Mirae Asset-GS Retail New Growth Fund I
	Mirae Asset-Celltrion New Growth Fund I
	Hancom-Miraeasset 4IR Fund
	Curious Mirae Assets SUTT Corporate Recovery Private Equity Fund(*2)
	SKS Mirae Assets Corporate Recovery Private Equity Fund(*2)
	Mirae Asset Naver Asia Growth PEF
	Daejo PFV Co., Ltd.
	Suwon Galleria SIA Complex Development PFV
	Yangjae PFV Co., Ltd.
	2019 PCC PEF
	Cheongdam Complexity PFV Co., Ltd.
	IMM Global PEF
	SMC RMB Investors II Limited
	Transwestern Corporate Properties I LLC(*3)

Type	Name of the related parties
Associates	Traphaco Joint Stock Company(*4)
	Nabou Green Energy Limited(*5)
Other related parties	Asia Cinema Group Ltd.
	Mirae Asset Capital Co., Ltd.
	Mirae Asset Global Investment Co., Ltd.
	Mirae Asset Consulting Co., Ltd.
	Miraeasset fund services Co., Ltd, and member firm in a Large Business Group

(*1) Pantos Logistics Co., Ltd is an associate of Mirae Asset Daewoo Korea II Private Equity Fund

(*2) Curious Mirae Asset SUTT Corporate Recovery Private Equity Fund and SKS Mirae Assets Corporate Recovery Private Equity Fund are associates of Mirae Asset Venture Investment Co., Ltd.

(*3) Transwestern Corporate Properties I LLC is an associate of MAPS US Professional Investment Private Real Estate Investment Trust 9-1.

(*4) Traphaco Joint Stock Company is an associate to which MAGBI Fund Ltd and Super Delta Pte. Ltd. jointly invested.

(*5) Nabou Green Energy Limited is an associate to which the Controlling Company and Renewable PG Limited Liability Company, the subsidiary, jointly invested.

(2) Significant assets and liabilities from transactions with related parties as of December 31, 2019 and 2018 are as follows:

		2019				
		Loans	Guarantees	Receivables		Payables
				Others	Debentures	Others
Associates						
Mirae Asset Life Insurance Co., Ltd.	₩	-	-	-	391,517	5,450
Mirae Asset Daewoo 1st SPAC		760	-	-	-	-
Mirae Asset Daewoo 2nd SPAC		-	-	490	-	-
Mirae Asset Daewoo 3rd SPAC		-	-	1,192	-	-
Mirae Asset Daewoo 4th SPAC		-	-	1,085	-	-
Daejo PFV Co., Ltd.		39,000	-	6,000	-	489
Yangjae PFV Co., Ltd.		-	-	-	-	1,630
Cheongdam Complexity PFV Co., Ltd.		-	-	-	-	755
Asia Cinema Group Ltd.		122,727	-	241	-	-
Other related parties						
Mirae Asset Capital Co., Ltd.,		-	-	12,375	60,324	50,034
Mirae Asset Global Investment Co., Ltd.		-	-	17,084	-	9,177
Others		-	15,481	29,325	-	31,334
	₩	162,487	15,481	67,792	451,841	98,869
2018						
		Loans	Guarantees	Receivables		Payables
				Others	Debentures	Others
Associates						
Mirae Asset Life Insurance Co., Ltd.	₩	-	-	-	341,446	10,504
Mirae Asset 5th SPAC		-	-	700	-	-
Mirae Asset Daewoo 1st SPAC		760	-	-	-	-
Mirae Asset Daewoo 2nd SPAC		-	-	573	-	-
Cassava Investment Korea Pte. Ltd.(*)		2,751	-	-	-	-
Other related parties						
Mirae Asset Capital Co., Ltd.,		-	-	15,849	50,223	860
Mirae Asset Global Investment Co., Ltd.		-	-	11,277	-	71,675
Others		-	15,085	2,355	-	5,005
	₩	3,511	15,085	30,754	391,669	88,044

(*) Bad debt allowances set at 100% as of December 31, 2018 due to business delays.

(3) Significant transactions with related parties for the years ended December 31, 2019 and 2018 are as follows:

	2019						
	Profit transaction			Loss transaction			
	Dividends	Commissions	Others	Selling and administrative expense, etc	Commissions	Others	
Associates							
Mirae Asset Life Insurance Co., Ltd. (*1)	₩	5,590	1,663	4,940	-	1,321	14,217
Pantos Logistics Co., Ltd		-	116	-	-	-	-
Mirae Asset-Celltrion New Growth Fund 1st		-	2	-	-	-	-
Lotte KDB Mirae Asset Daewoo Global Investment Partnership PEF		-	-	-	-	12	-
Mirae Asset 5th SPAC		-	400	-	-	-	-
Mirae Asset Daewoo 3rd SPAC		-	185	-	-	-	-
Mirae Asset Daewoo 4th SPAC		-	122	-	-	-	-
Daejo PFV Co., Ltd.		-	2,969	573	-	1	-
Yangjae PFV Co., Ltd.		-	2	-	-	-	-
Asia Cinema Group Ltd.		-	2,177	241	-	-	-
Other related parties							
Mirae Asset Capital Co., Ltd.(*2)		-	1,120	1,146	-	15	2,414
Mirae Asset Global Investment Co., Ltd.(*3)		23,455	1,213	1,297	-	33,611	-
Others		3,747	1,175	448	22,560	3,555	9,720
	₩	32,792	11,144	8,645	22,560	38,515	26,351
2018							
	Profit transaction			Loss transaction			
	Dividends	Commissions	Others	Selling and administrative expense, etc	Commissions	Others	
Associates							
Mirae Asset Life Insurance Co., Ltd. (*1)	₩	5,368	2,986	5,204	-	2,452	13,397
Mirae Asset Daewoo 2nd SPAC		-	83	-	-	-	-
Other related parties							
Mirae Asset Capital Co., Ltd.(*2)		-	523	688	-	19	2,100
Mirae Asset Global Investment Co., Ltd.(*3)		8,836	4,380	1,203	-	22,283	-
Others		2,928	1,597	440	20,987	7,062	3,006
	₩	17,132	9,569	7,535	20,987	31,816	18,503

(*1) The amount of transactions of tangible assets including land for the year ended December 31, 2019 is ₩13,661 million, and the amount of transaction of financial instruments including collective investment securities for the year ended December 31, 2018 is ₩78,317 million.

(*2) The amount of transactions of financial instruments including bonds, for the year ended December 31, 2019 is ₩50,800 million, and the amount of transaction of financial instruments including investment money for the year ended December 31, 2018 is ₩7,115 million.

(*3) The amount of transactions of tangible assets including land, for the year ended December 31, 2019 is ₩10,848 million, and the amount of transaction of financial instruments including investment money for the year ended December 31, 2018 is ₩1,164 million.

(4) Significant borrowing transactions with related parties for the years ended December 31, 2019 and 2018 are as follows:

	2019				
	Beginning	Increase	Decrease	Ending	
Associates					
Mirae Asset Life Insurance Co., Ltd	₩	340,000	50,000	-	390,000
Others relate parties					
Mirae Asset Capital Co., Ltd		50,000	50,000	-	100,000
	₩	390,000	100,000	-	490,000

				2018
	Beginning	Increase	Decrease	Ending
Associates				
Mirae Asset Life Insurance Co., Ltd	₩ 360,000	-	(20,000)	340,000
Others relate parties				
Mirae Asset Capital Co., Ltd	50,000	-	-	50,000
	₩ 410,000	-	(20,000)	390,000

(*1) Transactions under formalized terms and conditions such as CMA, MMW and etc. are excluded.

(*2) Discount on debentures is excluded.

(5) Significant loan transactions with related parties for the years ended December 31, 2019 and 2018 are as follows:

					2019
		Beginning	Increase	Decrease	Ending
Associates					
Mirae Asset 5th SPAC	Corporate bonds	₩ 700	-	(700)	-
Mirae Asset Daewoo 1st SPAC	Loans	760	-	-	760
Mirae Asset Daewoo 2nd SPAC	Corporate bonds	490	-	-	490
Mirae Asset Daewoo 3rd SPAC	Corporate bonds	-	1,192	-	1,192
Mirae Asset Daewoo 4th SPAC	Corporate bonds	-	1,085	-	1,085
Daejo PFV Co., Ltd.	Loans	-	39,000	-	39,000
	Corporate bonds	-	6,000	-	6,000
Cassava Investment Korea Pte. Ltd.	Loans	2,751	-	(2,751)	-
Asia Cinema Group Ltd.	Loans	-	122,727	-	122,727
		₩ 4,701	170,004	(3,451)	171,254

					2018
		Beginning	Increase	Decrease	Ending
Associates					
Mirae Asset 5th SPAC	Corporate bonds	₩ 700	-	-	700
Daewoo Special Purpose Acquisition 3 Co., Ltd	Loans	980	-	(980)	-
Mirae Asset Daewoo 1st SPAC	Loans	760	-	-	760
Mirae Asset Daewoo 2nd SPAC	Corporate bonds	-	490	-	490
Cassava Investment Korea Pte. Ltd. (*)	Loans	2,751	-	-	2,751
		₩ 5,191	490	(980)	4,701

(*) Bad debt allowances set at 100% as of December 31, 2018 due to business delays.

(6) Dividends paid by the Group to related parties for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Other related parties			
Mirae Asset Capital Co., Ltd.	Stocks	₩ 29,256	27,301
	Investment in partnerships	24	1,890
Mirae Asset Global Investment Co., Ltd.	Beneficiary certificate	2	4
Others	Beneficiary certificate	12	21
		₩ 29,294	29,216

(7) The Group has entered into the entrusted investment service agreement for the Group's Wrap Account with Mirae Asset Global Investment Co., Ltd., a related party.

		2019	2018
Wrap Account			
Outstanding balance of the Wrap Account		₩ 261,036	183,111
Wrap Account			
Operating expenses		(1,641)	(1,445)

(8) Compensations for key management, which consists of officers and chief managers who have important duties and responsibilities over the planning, operating and control of the Controlling Company, for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Salaries	₩	21,410	12,967
Severance benefits		1,723	1,535
	₩	23,133	14,502

50. Interests in unconsolidated structured entities

(1) Characteristics and scope of the interests in unconsolidated structured entities

Characteristics	Purpose	Main business	Financing method	Total Asset	
				2019	2018
SPC	Liquidity improvements for the asset holder through early liquidation of assets	- Execution of assetbacked plans - Transfer and collect liquidated assets - Issuance and redemption of ABS	Issuance of ABS	₩ 2,277,303	2,717,020
Project financing SPC	SOC, investing and financing for real estate development	- SOC for construction and real estate development	Investor investments and borrowing from financial institutions	7,470,333	5,631,188
Investment fund (*)	Generate revenue from investment in financial and non-financial instruments	- Managing and operating fund assets - Remuneration fund payment and distribution of operating revenue	- Sales of beneficiary certificates - General Partner and Limited Partner investments	31,209,668	20,762,478

(*) Beneficiary of certificate, PEF, etc.

(2) Carrying amounts of the interests related to unconsolidated structured entities and maximum exposure to loss as of December 31, 2019 and 2018 are as follows:

		2019			
		SPC	financing SPC	Investment fund	Total
Assets					
Available-for-sale financial assets	₩	17,608	26,017	2,845,891	2,889,516
Associates		-	74,467	393,495	467,962
Loans		663,632	1,679,838	7,500	2,350,970
		681,240	1,780,322	3,246,886	5,708,448
Purchasing commitments and guarantees		1,093,486	1,883,082	233,630	3,210,198
Maximum exposure amount of loss	₩	1,774,726	3,663,404	3,480,516	8,918,646
					2018
		SPC	financing SPC	Investment fund	Total
Assets					
Financial assets measured at fair value through profit or loss	₩	4	57,886	2,224,828	2,282,718
Associates		-	-	164,343	164,343
Loans		324,918	1,050,544	7,094	1,382,556
		324,922	1,108,430	2,396,265	3,829,617
Purchasing commitments and guarantees		1,495,296	1,406,695	645,393	3,547,384
Maximum exposure amount of loss	₩	1,820,218	2,515,125	3,041,658	7,377,001

51. Supplemental cash flow information

Significant non-cash transactions liabilities for the years ended December 31, 2019 and 2018 are as follows:

		2019	2018
Gains on valuation of financial assets measured at fair value through other comprehensive income	₩	240,227	(80,356)
Reclassification of properties to investment properties		107,412	3,333
Retirement of treasury stocks		-	76,864



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