# ANNUAL REPORT 2017

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### **KDB** Bank

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# KDB, the Leader of Innovative Growth



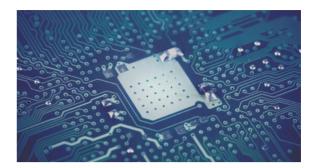
KDB forms an ecosystem for innovative industries as a financial control tower for the 4<sup>th</sup> Industrial Revolution, and spearheads future growth of the national economy as part of a shift in the economic paradigm. We fulfill our role as Korea's representative financial institution for the development of the national economy and the financial industry by concentrating our competencies on innovative growth drivers and enhancing stability in policy financing.

# 2017 BUSINESS HIGHLIGHTS





Secured Future Growth Engines to Adapt to Industrial Changes





- Developed special products such as the 'New Growth Industry Support Fund (KRW 10 trillion)', '4<sup>th</sup> Industrial Revolution Partnership Fund (KRW 2 trillion)', and 'New Industrial Development Fund (KRW 0.3 trillion)' to promote new growth areas
- Spearheaded the development of MEs, the cornerstone of the national economy, by extending KRW 21.4 trillion in financing, up KRW 2.9 trillion from the previous year (+15.7%)
- Fostered an investment ecosystem for start-ups through 'KDB Next Round' program to nurture innovative tech firms with 75 rounds of IR for 282 companies



Drove the Overseas Advancement of Domestic Companies

- Completed financial arrangements for the 'Development and Management Project for Area 4 in offshore Mozambique' where the project sponsor is Korea Gas Corporation and where Samsung Heavy Industries received orders for FLNG ships, thus contributing to the revitalization of the domestic market for resources development and improving the economic conditions in the shipbuilding sector
- Facilitated Korean companies' inroads into the Asian infrastructure market by investing USD 75 million in the 'Haikou Hainan Meilan International Airport Expansion Project' which is a part of the 'One Belt, One Road Initiative' in China



Endorsed the government's policy to encourage firms to secure EPC contracts or investments in overseas infrastructure projects by forming the Global Infrastructure Venture Fund worth KRW 85 billion in conjunction with the Ministry of Land, Infrastructure and Transport







### Improved Profitability and Financial Soundness for Sustainable Management

- Returned to surplus by reducing credit losses based on improved profitability and preemptive risk management
- Issued Tier 2 bond worth KRW 500 billion in March in response to our expanded roles in the economy, and maintained a sound BIS capital ratio of 15.26% through the government's capital injection in May
- Systematized the loan/review process for exposure management, and realigned the organization and system for efficient asset management by launching the Credit Portfolio Management unit



CEO MESSAGE

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## <u>CEO</u> MESSAGE



#### Lee, Dong Gull

Chairman & CEO Korea Development Bank

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#### Dear Clients and Readers,

First of all, we are sincerely grateful for your interest and support for the Korea Development Bank (KDB) over the past year.

Despite many headwinds, 2017 in retrospect was a significant year for KDB as we worked hard to invigorate national economy and foster new growth engines for the future. It was also a year of surplus thanks to the untiring efforts by everyone at KDB to return to profitability.

Throughout the year, we made a full commitment to our policy financing role of facilitating the real economy by continually making funds available to the country's industries, with a special emphasis on SMEs and MEs and sectors deemed essential as Korea's next engines of growth. We also implemented normalization procedures for each of the companies in our restructuring portfolio.

At the same time, as a financial control tower for the 4<sup>th</sup> Industrial Revolution, we made a significant effort to establish a support system, for instance by coming up with Industry 4.0 classification and support standards through our New Growth Engine Industry Policy Finance Center.

We also strengthened our investment platform, KDB Next Round, to help create an ecosystem of startups and ventures. Another area of priority was revitalizing our overseas business through diverse efforts which included leveraging the Global Infrastructure Fund to further encourage domestic companies' effort to go global.

On the sustainability front, KDB issued green bonds to build up investors leading environmental and social impact, while executing investment for renewable and energy efficiency projects as well.

Looking ahead, 2018 will be an inflection point for the Korean economy. The country stands at a juncture of wide-ranging technological innovations and a resulting transition of a global scale in many industries. In order to take Korea beyond the inflection point and make yet another leap forward by shifting its economic paradigms, KDB will focus on promoting innovative growth and proactively respond to the new wave of change, accompanied by efforts to increase its competitiveness and reinforce the stability of policy finance in the country.

To this end, KDB will move forward with a sense of duty and confidence to restore soundness and vitality of the Korean economy, improve the fundamentals and competitiveness of companies and industries, and step up its corporate social responsibilities.

First, we will take a leadership role in reorienting the industries towards the 4<sup>th</sup> Industrial Revolution by further strengthening the

startup ecosystem and paying special attention to SMEs and MEs, a crucial segment for improving Korea's economic fundamentals.

This will be done by leveraging the venture capital at our disposal such as the Growth Support Fund and the Global Partnership Fund to scale up the development of innovative companies. Simultaneously, we will provide financial solutions to foster future industries and promote existing players' transition to a new era by strengthening our market-driven platforms such as KDB Next Round and IP Mart.

Our focus on SMEs and MEs will ensure that our policy financing initiatives, for instance KDB Global Challenger 200 Program, will directly link up with generating growth momentum for the economy, marked by stronger fundamentals and decent jobs.

Secondly, we will continue to develop new financial markets abroad and pursue a paradigm shift in Korea's corporate restructuring. Our efforts overseas will encourage domestic SMEs and MEs to venture abroad, while pioneering global markets through the expansion of overseas project finance and cross-border loans.

For corporate restructuring, we will promote a market-driven restructuring scheme with a focus on preventing corporate failures before they take place and strengthening the competitiveness inherent in each company. This will require us to lay the foundation for utilizing private capital in restructuring through efforts including creating restructuring funds for public-private matching.

Thirdly, we will focus on strengthening our role as a responsible corporate citizen and ensuring sustainability in policy finance. For this, we will take the initiative in encouraging social responsibility practices by increasing funds for social enterprises and promoting mutual growth among companies, while actively applying global standards on our operations such as the Equator Principles.

In order to ensure sustainability in policy finance and thereby solidifying the groundwork for a sustainable growth, we plan to steadily enhance the quality of our operating assets by managing the portfolios closely in line with our mid- to long-term strategies, continually improving profit and financial soundness along the way.

At this critical inflection point before a historic change, all of us at KDB will unite in 2018 to bring ourselves closer to our vision "Financial Engine for Korea's Takeoff - Global KDB" by constantly thinking outside the box and proactively adjusting to changes both anticipated and unanticipated.

Thank you very much and we ask for your continued trust and support for KDB.



### <u>BOARD OF</u> <u>DIRECTORS & SENIOR</u> <u>MANAGEMENT</u>

KDB strives to create values for the benefit of its stakeholders through a responsible and transparent management system which is made possible by its advanced governance.



Lee, Dong Gull Chairman & CEO





**Lee, Dai Hyun** Vice Chairman & COO



Seo, Cheol Hwan Auditor





1. **Lee, Dong Gull** Chairman & CEO

5. **Lee, Dai Hyun** Vice Chairman & COO 2. Shin, Hi Taek Independent Director

6. Seo, Cheol Hwan Auditor 3. Chung, Hay Young Independent Director

7. Choi, Bhang Gil Independent Director

4. Yang, Chae Yeol Independent Director

Senior Management: Division Heads



**Cho, Seung Hyun** SME Banking Division / International Business Division



**Jun, Young Sam** Capital Market Division



**Kim, Jae Ik** Risk Management Division



Baek, In Gyun Business Administration Division



Sung, Joo Yung Corporate Banking Division / Corporate Restructuring Division



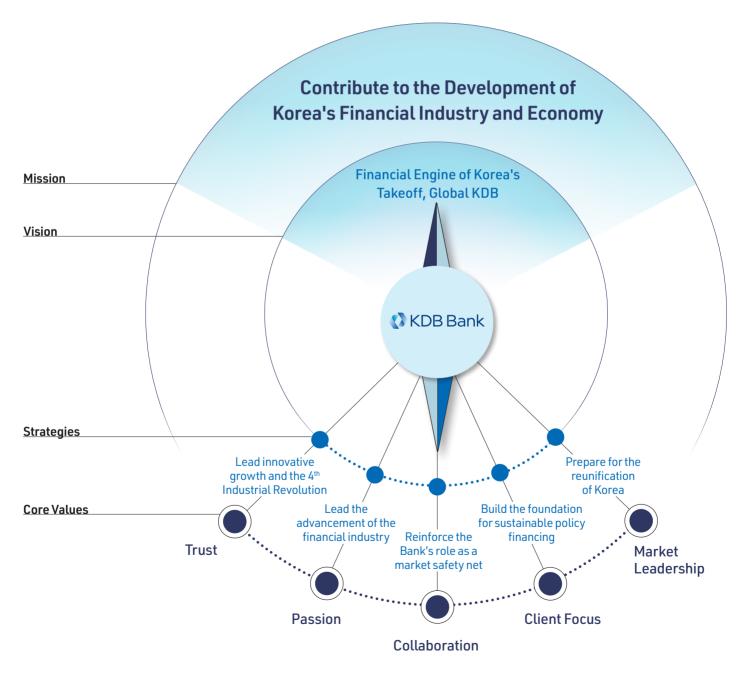
Lim, Maeng Ho Credit Review Division



**Kim, Keon Yeol** Strategy & Planning Division



As a leading financial institution in Korea, KDB has laid the foundation for the advancement of the national economy and the financial industry in each stage of Korea's economic development. KDB draws on the competence of all its employees in order to realize its vision of being the 'Financial Engine of Korea's Takeoff, Global KDB'.



### → Vision

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Strategies

KDB's mission is to contribute to the development of the financial industry and national economy of Korea. To that end, KDB established its mid-to long-term vision as being the 'Financial Engine of Korea's Takeoff, Global KDB'. The mission and vision of KDB will play a key role in the economic development of Korea by facilitating the growth of the real economy, as well as lead the future growth of the national economy by spearheading the advancement of the financial industry.

KDB is committed to achieving its goals and mission based on the five mid-to long-term management strategies as follows:

Lead innovative growth and the 4<sup>th</sup> Industrial Revolution 01

> KDB aims to foster industries with growth potential and sustain growth momentum for the national economy through the supply of venture capital to technology and creativity-driven SMEs and innovative start-ups.

#### 02 Spearhead the advancement of the financial industry

We will discover new financial inroads for Korean financial institutions by spearheading financial expertise and globalization, and play a leadership role in the advancement of the Korean financial industry.

#### Reinforce the Bank's role as a market safety net 03

We will bolster our market safety net role as Korea's representative financial institution, by preemptively instituting restructuring measures for companies and industries amid the global trend of slow growth and continued volatility.

#### N4 Build the foundation for sustainable policy financing

We will strive to ensure sustainability - a prerequisite for undertaking our roles including financial, personnel, organizational, and social responsibilities, recognizing the importance of sustainable financing in fulfilling our mission and roles.

#### 05 Prepare for the reunification of Korea

We launched the Reunification Business Department in 2015 to prepare for reunification with North Korea, building up necessary competencies by researching measures to scale up financial services for pre/post-reunification periods through business cooperation and personnel exchanges with relevant institutions.



We share with stakeholders the five core values of trust, passion, collaboration, client focus, and market leadership to successfully realize our vision and mid-to long-term strategies.



the respect of clients and colleagues by achieving above and beyond our social responsibilities as a financial institution

the development of the financial industry and facilitate the growth of the real economy

departments and employees to provide cutting-edge financial services

promote the success of our customers

#### **Market Leadership**

fields based on distinctive competitiveness





### 2017 FINANCIAL HIGHLIGHTS

(Unit : KRW billion; Consolidated basis)



	0017	2017	Change	
	2017	2016	Amount	%
Total Assets	263,811.7	272,837.8	(9,026.1)	(3.3)
Cash & due from banks	8,235.5	9,171.2	(935.7)	(10.2)
Securities	75,713.8	79,531.6	(3,817.8)	(4.8)
Loans	143,224.1	144,516.2	(1,292.1)	(0.9)
Other assets	36,638.3	39,618.8	(2,980.5)	(7.5)
Total Liabilities	230,240.9	241,818.4	(11,577.5)	(4.8)
Deposits	34,300.1	39,398.1	(5,098.0)	(12.9)
Borrowings	28,692.7	31,203.4	(2,510.7)	(8.0)
Bonds	120,228.0	121,890.1	(1,662.1)	(1.4)
Other liabilities	47,020.1	49,326.8	(2,306.7)	(4.7)
Total Equity	33,570.8	31,019.4	2,551.4	8.2
Issued capital	17,938.1	17,543.1	395.0	2.3
Capital surplus	1,058.4	1,236.7	(178.3)	(14.4)
Retained earnings	9,827.1	9,333.7	493.4	5.3
Capital adjustments	324.6	215.2	109.4	50.8
Accumulated other comprehensive income	694.5	582.5	112.0	19.2
Non-controlling interest	3,728.1	2,108.2	1,619.9	76.8



Statement of Income

	2017	2016	Change		
	2017	2010	Amount	%	
Net operating revenue	3,534.6	1,456.0	2,078.6	142.8	
Net interest income	2,254.3	2,043.7	210.6	10.3	
Non-interest income	1,280.3	(587.7)	1,868.0	-	
Provision for loan loss	977.0	2,684.4	(1,707.4)	(63.6)	
G&A expenses	1,790.3	1,925.8	(135.5)	(7.0)	
Operating income	767.3	(3,145.3)	3,921.6	-	
Non-operating income	778.4	1,916.3	(1,137.9)	(59.4)	
Income tax expense	982.3	1,118.4	(136.1)	(12.2)	
Profit from discontinued operations	-	294.8	(294.8)	(100.0)	
Net profit	563.4	(2,061.6)	2,625.0	-	





### MANAGEMENT PLANS FOR 2018



# BUSINESS REVIEW

- 018 CORPORATE BANKING & RESTRUCTURING
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In 2017, KDB fulfilled its role in policy financing to revitalize the national economy through the steady supply of industrial funding, especially for SMEs & MEs and in areas of future growth. KDB is committed to concentrating its competencies on supporting innovative growth for the national economy to leap forward, and raising stability in policy financing through higher competitiveness by proactively staying ahead of new industry trends.



## CORPORATE BANKING & RESTRUCTURING

#### **Corporate Banking**

#### Review of 2017

KDB proactively facilitates preemptive corporate structural adjustment and business realignment as Korea's leading financial institution, while providing customized financial services through a wide range of financial products. KDB strives for sustainable development of the national economy by fostering stronger competitiveness for corporate clients through support for stable growth of MEs and the provision of financial support associated with the 4<sup>th</sup> Industrial Revolution.

In 2017, the domestic economy witnessed higher demand in export and CAPEX driven by a gradual turnaround of the global economy and the synchronous recovery of both advanced and emerging markets. As such, we further tapped into industries that will serve as growth engines in the future through the provision of financing, seeking to locate growth engines throughout the economy. We also took the lead in creating an economic ecosystem for the balanced mutual growth of corporate groups and MEs by proactively inducing corporate groups to realign their businesses toward stronger core competencies and the acquisition of new growth engines, while stepping up the supply of financing by expanding our reach to new MEs.

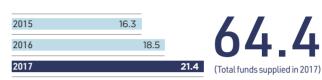
However, monetary tightening and trade protectionism in major economies posed downside risks on the domestic economy. Accordingly, KDB encouraged corporate groups struggling with temporary shortages in liquidity to perform preemptive restructuring by implementing self-rehabilitation plans, while making real and effective financial support available based on constant liquidity monitoring and other means of systematic risk management. By doing so, we strived to counter risks and ensure that a crisis from certain companies doesn't spread throughout the economy.

In 2017, the total amount of funds supplied by KDB reached KRW 64.4 trillion, among which KRW 42.0 trillion was extended to SMEs/MEs, approximately 65.2% of the total. In particular, KDB extended KRW 2.4 trillion and KRW 0.4 trillion through its SME/ME funding vehicles, the 'Corporate Investment Stimulus Program' and the 'Mutual Growth Fund'. We also committed ourselves to participating in the 'Interministerial Task Force for Innovation in Policies for MEs' led by the Ministry of Trade, Industry and Energy in September 2017,

which enhanced collaboration among the relevant bodies from the government, financial institutions and industry associations to nurture MEs of Korea.

#### Funds supplied to MEs\*

(Unit: KRW trillion)

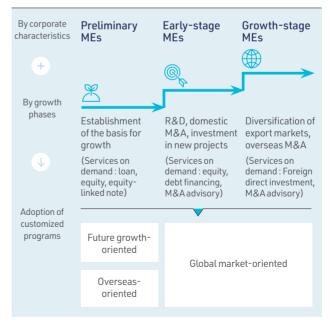


\*MEs: Companies that neither fall under the legally defined scope of SMEs nor are affiliated to conglomerates restricted from cross-shareholdings

#### Plans for 2018

The landscape for competition in 2018 is projected to go through major changes driven by convergence among industries against the backdrop of the 4<sup>th</sup> Industrial Revolution. Companies will move quickly to adjust to the changes, and the financial sector is likely to fall in line accordingly. As KDB aims to establish itself as 'a financial institution leading the 4<sup>th</sup> Industrial Revolution', it plans to expand the supply of financing to foster key areas and technologies that drive the Revolution.

#### **KDB Global Challengers 200**



We also plan to launch 'KDB Global Challengers 200', a program to foster MEs by selecting 200 existing and preliminary MEs with outstanding technologies and



growth potential to help them grow into global top-notch companies. Through the program, we hope to assist with their technological innovation by facilitating their CAPEX and R&D investments while offering them with comprehensive financial services ranging from derivatives and F/X management to M&A advisory and business consulting.

### **On-lending**

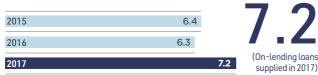
On-lending is one of Korea's representative policy finance programs. When financial intermediaries, such as commercial banks in Korea, request funds by selecting targeted SMEs and MEs, KDB supplies long term, low-interest rate funds to finance those intermediaries, which in turn lend the funds to qualified companies.

KDB supplied a total of KRW 7.2 trillion to about 6,700 companies in 2017 through the on-lending program, up approximately KRW 1.0 trillion from the previous year, serving as a springboard for the growth of SMEs and MEs.

In 2018, KDB plans to launch and manage special on-lending products aiming to expand financial support for outstanding tech firms along with preliminary R&D assistance for developing core technologies of the 4<sup>th</sup> Industrial Revolution.

#### On-lending loans supplied by year

(Unit: KRW trillion)



#### Consulting

Since 2003, KDB has been involved with over 800 projects in various sectors, including management/finance, public service/ development, corporate turnarounds, as well as in-house and overseas consulting. In 2017, our key focus was corporate growth and preemptive risk management and consulting services for such purposes made up 40% of the total.

Key plans for 2018 are to provide customized consulting for MEs and SMEs by their respective growth stages, with a particular focus on providing specific management consulting to help them adapt to the 4<sup>th</sup> Industrial Revolution.

#### **Corporate Restructuring**

#### Review of 2017

As a policy finance institution, KDB does its utmost to pursue timely normalization of companies undergoing restructuring. We have served as a safety net for the national economy and major industries through principle-based efficient restructuring. In particular, our safety net contributed to stabilizing the market as we promptly responded to corporate insolvencies in corporate groups that might have had a massive impact on the nation's economy, while striving to improve fundamentals and competitiveness of domestic companies.

In addition, we steadily pursued normalization of companies struggling with the unprecedented downturn in the industries as a result of the elongated global economic slowdown. Such efforts aim at minimizing the potential impact of a crisis on the national economy and intensifying industrial competitiveness through structural improvements.

#### Plans for 2018

In 2018, KDB plans to continue to serve as a safety net in the market, while providing financial means to help companies successfully normalize their businesses at the earliest date possible by initiating measures based on disciplined corporate restructuring. Moreover, we will actively seek to implement preemptive restructuring by encouraging voluntary structural realignment and financial improvements.

To this end, we will make use of our accumulated know-how in restructuring and specialized workforce. KDB will help distressed companies continuously implement prompt and efficient restructuring measures to help them recover swiftly as it strives to enhance the national economy and ensure renewed growth in a variety of different fields.

### CAPITAL MARKETS

#### **Debt Capital Markets**

#### Review of 2017

KDB is the only bank in Korea with the license to arrange domestic corporate bond issuances. KDB also maintains a leading position in arranging and underwriting securities issuances, providing advisory services in structured finance, and arranging syndicated loans.

In 2017, KDB successfully arranged the issuance of an Arirang bond by Nomura International Funding for three consecutive years since 2015, positioning itself as a competitive partner for procuring KRW for global financial companies. KDB laid the foundation for the Korean capital market to expand into a reliable funding source for foreign companies with prime credit ratings.

KDB also arranged the issuance of a USD-denominated 'Foreign Exchange Stabilization Bond' at the lowest ever rate by capturing the most optimal timing in the market, establishing a benchmark for private borrowing and fulfilling the role as Korea's representative investment bank. Moreover, by arranging Korean companies' public and private bond placement activities overseas, KDB helped to secure sufficient foreign funding necessary for their business operations.

Another notable highlight of 2017 was the 'Best Securitization Deal, Korea' that KDB received from The Asset, an economic and financial magazine in Asia, for the successful issuance of a cross-border ABS securitizing airfare receivables without any credit enhancement from financial institutions.

#### Plans for 2018

In 2018, we will strengthen our overseas DCM business by expanding the horizons for the operations. Based on our accumulated experiences, we will play a leading role in arranging Arirang bonds for foreign companies with prime credit ratings in line with the government's policies to globalize the domestic capital market.

In addition, we will offer differentiated DCM products to nurture SMEs, MEs, and new growth industries in tandem with government policies for innovative growth. We will fully encourage industrial innovation and the continued growth of SMEs and MEs by offering products which are suited to the nature of each industry and company including mezzanine and structured products to enhance the accessibility of SMEs and MEs to the capital market.

### M&A

#### Review of 2017

KDB provides financial advisory services on M&As for companies at home and abroad. We also arrange financing for companies that are seeking to refinance their existing borrowing after or during an M&A transaction.

In 2017, we successfully advised on the sale of companies (Hyundai Cement, Oriental Precision and Engineering, and STX Engine, etc.) under our restructuring portfolio. In particular, the successful sale of the equity in Hyundai Cement held by creditors in 2017 took place against a backdrop of an industry-wide restructuring in the cement sector. Not only the deal contributed to the normalization of the insolvent company by putting an end to the work-out procedure but also improved KDB's financial structure through gains from the sale.

Furthermore, we stepped up acquisition financing by arranging funds for Prostar Capital's acquisition of Kyungnam Energy, MBK's acquisition of Daesung Industrial Gases, and a refinancing for Coway. Over the past three years, KDB has advised on transactions worth USD 1.6 billion per year on average. The number of transactions we advised on in 2017 grew to eight from four last year, driven by a rise in M&A activities among MEs.

#### Plans for 2018

In 2018, we are committed to promoting the steady growth of domestic companies and exploring global markets by facilitating cross-border M&As and encouraging the discovery of innovation-driven SMEs and MEs through advisory support on promising new industries. Furthermore, we will continually advise on M&As to promote market-driven restructuring by selling off our equity stakes in portfolio companies, while supporting the normalization of marginal companies through preemptive and ex-post restructuring.



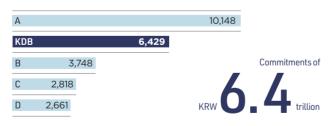
#### **Private Equity**

#### Review of 2017

KDB marks the 13th anniversary of its private equity business in 2018 since beginning the operation in January 2005. Diverse experiences in fund management include buy-outs, growth and mezzanine financing by setting up a total of 26 funds. As of the end of December 2017, KDB's commitment totaled KRW 6.4 trillion with 14 funds under management. We are a top-tier PE house in Korea with a market share of 10.3% in the domestic market.

#### **KDB's GP commitments**

(As of December 31, 2017; Unit: KRW billion)



The number of PEF managers in Korea has skyrocketed from 15 in 2005 to 215 in December 2017 amid intensifying competition as a result of high liquidity in the market. Notwithstanding the harsh competition and challenging financial market conditions, KDB invested in a project to expand Haikou Hainan Meilan International Airport as a part of the One Belt, One Road Initiative of the Chinese government by forming the 'KDB-IAP One Belt, One Road Fund' worth USD 89.5 million in 2017. In addition, KDB set up the ECOREA Fund worth KRW 135.2 billion, playing a pioneering role in encouraging the growth of the domestic environmental industry.

#### KDB-IAP One Belt, One Road Private Equity Fund

- Formation of the Fund : Jul. 23, 2017
- Fund Maturity : 5 years
- Fund Size : USD 89.5 million
- Investment Target : Expansion project of Haikou Hainan Meilan
   International Airport

#### Plans for 2018

KDB is keen to maintain its status as a top-tier PE house in Korea through qualitative and quantitative expansion. We are committed to driving the growth of the companies leading the 4<sup>th</sup> Industrial Revolution and technologically innovative SMEs and MEs by forming the 'KDB SME and ME Mezzanine Fund'.

At the same time, we will continue to provide a safety net through efforts to become a financial investor when MEs expand their businesses and corporate groups acquire affiliates for business alignment. We will also help establish a virtuous cycle for policy finance by facilitating value maximization of portfolio companies and targeting for early exits.

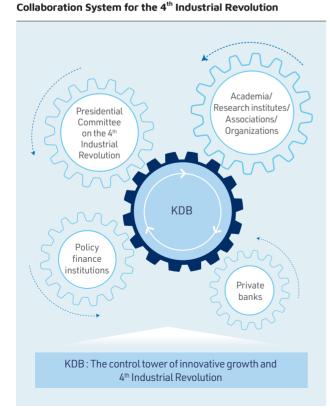
# INNOVATION & GROWTH BANKING

### Leading Innovative Growth

KDB is transforming itself into an institution leading Korea's innovative growth in line with the government's policies. To this end, KDB launched the Innovation & Growth Banking Center covering financial support for the 4<sup>th</sup> Industrial Revolution in January 2018.

In order to lead changes driven by the 4<sup>th</sup> Industrial Revolution, KDB is setting up a system to efficiently promote the Revolution. KDB will contribute to accelerating innovative growth by fostering future-oriented new industries and encouraging the transformation suitable for the 4<sup>th</sup> Industrial Revolution.

Moreover, plans are underway to strengthen support for innovative companies to start their business and expand financial supply for the scale-up of those companies, seeking to form an innovative start-up ecosystem. This will enable KDB to intensify the linkage between financial support and policy directions for innovative growth.



## Establishing a System for the 4<sup>th</sup> Industrial Revolution

The new administration has suggested policies to spur innovative growth by nurturing SMEs with high potential as new growth engines, and transforming the national economy into a productivity-driven one through appropriate responses to the 4<sup>th</sup> Industrial Revolution. Accordingly, KDB seeks to establish an efficient system to foster policy financing in the fields of the 4<sup>th</sup> Industrial Revolution and innovative growth as well as generate synergies across policy finance institutions.

First of all, KDB plans to establish the basis for continuous update of 'Joint Standards for Innovative Growth' by jointly developing and managing the 'Innovative Growth Intelligence System' with other policy finance institutions, which systematically analyzes and reports on information related to the 4<sup>th</sup> Industrial Revolution.

Moreover, plans are in the pipeline to develop new financial products related to the 4<sup>th</sup> Industrial Revolution both inside and outside the Bank. Internally, KDB will expand efficient measures in fields related to the 4<sup>th</sup> Industrial Revolution by designing hybrid financing structures for investments and loans. Externally, KDB will take a leading role in nurturing innovative industries and accelerating innovative growth jointly with other policy finance institutions.

### Venture & Technology Banking

As a market-driven policy finance institution, KDB fully supports the government's policies to nurture new growth industries by expanding investment in leading companies in the 4<sup>th</sup> Industrial Revolution.

The scope of KDB's participation includes investment in equity and equity-linked securities for tech-savvy startups and SMEs, the formation of Global Partnership Funds to foster overseas expansion of domestic start-ups, and comprehensive financial support including consulting services.

The 'KDB Next Round' is running as a market-driven startup platform created to facilitate the formation of a market to invest in start-ups. Start-ups then have opportunities to attract investment and investors are provided with opportunities to invest in promising start-ups.



To this end, KDB conducted IR presentations 100 times for 372 companies by 2017-end, among which 66 companies attracted follow-up investment worth KRW 201 billion. KDB also formed the 'KDB-ME Open Innovation Fund' in July 2017. This fund induced local MEs to invest in start-ups, which in turn linked local MEs with the start-up ecosystem.

KDB plans to continuously implement initiatives for venture & technology banking to support the government's policies to nurture new growth industries and start-ups in 2018. We will facilitate the start-ups investment market by expanding the 'KDB Next Round' initiative as well as through direct investment in start-ups. Plans are also underway to leverage overseas venture capital and KDB's global competencies by creating 'Global Partnership Fund IV' as a platform to help domestic start-ups tap into overseas markets.

#### Indirect Investment

KDB has supplied customized funding to companies based on their growth stage via Private Equity (PE) and Venture Capital (VC) funds. In particular, through the establishment of funds to respond to government policies including the Growth Ladder Fund, Promising Service Industries Fund, and New Industry

#### **KDB-ME** Open Innovation Fund

- Formation of the Fund : Sep. 21, 2017
- Fund Maturity : 8 years
- Fund Size : KRW 41.3 billion
- Investment Target : Start-ups and tech-savvy companies in Korea

Development Fund, KDB leads the domestic venture capital market by promoting market-friendly capital investment.

In 2017, KDB established 19 PE and VC funds worth KRW 1.9 trillion, totaling to KRW 5.5 trillion for 175 funds as of the end of 2017, which signifies how KDB is playing a leading role as a key investor in the domestic market. Other achievements include inducing the participation of investors from the private sector and contributing to advancement of the capital market by promoting the early adoption and expansion of the Stewardship Code.

#### Indirect investment volume

(As of December 31, 2017; Unit : KRW billion)



Total fund size

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KDB participation as LP
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In 2018, KDB plans to intensively supply growth capital and promote M&As for start-ups, SMEs and MEs by taking the initiative in forming the Growth Support Fund. We will also enhance the investment environment through expansion of autonomy for fund managers and facilitation of performance-oriented fund management. KDB will further fulfill its role as Korea's representative capital investment institution, which contributes to the formation of an ecosystem for innovative start-ups through the proactive supply of venture capital.

### PROJECT FINANCE

#### Review of 2017

KDB provides comprehensive PF services including financial advisory and arrangement to cater to the needs of the sponsors in SOC, power, plants/resources, public real estate, and ship/aircraft financing projects. KDB successfully arranged financing for the Incheon International Airport Highway project in 1995, the first time project financing was used in Korea.

Since then, for 23 years, KDB has led the advancement of financial institutions in Korea, while fulfilling its roles that include the expansion of national infrastructure, improvements in power supply, and facilitation of the regional economies. To this end, we leveraged creative competencies of the private sector while pioneering the PF market in Korea, encouraging financial institutions to engage in long-term investments.

In 2017, KDB successfully concluded financial arrangements worth KRW 7.2 trillion for 27 projects – 12 SOC projects and 15 regional development projects – in the domestic PF market. In the overseas market, KDB completed 22 financial arrangements worth USD 1.5 billion, along with 39 projects worth USD 2.9 billion in the ship/aircraft sector.

In domestic infrastructure, KDB provided financial services to new and refinancing projects including the Icheon-Osan and the Sangju-Yeongcheon Highway PPP projects using its infrastructure fund and other vehicles. Having completed financial arrangements worth KRW 3.9 trillion including a new BTO-a project to improve a national wastewater treatment plant, KDB has cultivated a distinctive brand as Korea's PF market leader and a representative financial institution.

In real estate, KDB participated in several governmentinitiated projects including an urban development project in the Pungmu subway station area through equity investment, and a development project for the Singyeongju KTX express train station area as a financial arranger. KDB's financial arrangements reached KRW 3.3 trillion which included a financing for a general industrial complex in the Uiwang Techno Park, contributing to revitalizing regional economies.

#### Plans for 2018

For infrastructure, KDB seeks to create financing opportunities by scaling up arrangements for brownfield projects. By identifying such projects, we will increase the private sector participation in new infrastructure opportunities and contribute to extending the national infrastructure base.

Moreover, in line with the government initiative to lower toll fees on private highways, KDB will provide advisory to the government for the restructuring of highway PFs while actively responding to new funding needs.

In the real estate sector, KDB plans to fully promote the government's 'New Deal Policy for Urban Restoration' by participating in restoration projects developed by SH and LH Corporations. At the same time, we will continuously engage in urban maintenance projects to enhance urban functions and strengthen our roles by increasing our participation in public rental housing projects.





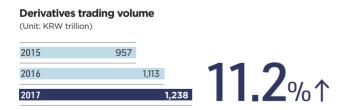
#### F/X & Derivatives Trading

We were a 'market pioneer' and created an initial market in Korea during the 1980s when F/X and derivatives products were scarce in Korea. Currently, we not only handle general derivatives trading operations but also are capable of providing foreign exchange and derivatives solutions to customers unable to utilize hedging products due to credit ratings and other issues. As such, we endeavor to provide optimal solutions to respective customers to adhere to their interests and enhance our reputation in the markets.

#### Review of 2017

In 2017, the Bank of Korea raised the base rate for the first time in seven years following the U.S rate hikes and growing volatility fuelled by geopolitical concerns. Even under the pressing market conditions, KDB offered hedge products customized to the needs of the corporate clients, drawing on its extensive experiences and a seasoned group of professionals.

As a result, KDB was ranked No.1 among Korean banks in terms of the outstanding balance of derivatives in 2017 for the second year in a row. KDB was also selected as the best derivatives house in Korea by Asia Risk, a magazine specializing in derivatives.



KDB is at the forefront of promoting the mutual growth of both large enterprises and SMEs/MEs. For instance, KDB launched an exclusive business unit for MEs last year for enhanced service and upgraded the online F/X transactions system, providing differentiated services for SMEs/MEs. In addition, we strengthened our capability to manage structured products by issuing structured notes denominated in foreign currencies.

#### Plans for 2018

KDB plans to fulfill the role as a reliable partner to its corporate clients through timely offering of diverse and customized products designed to promote business stability against market uncertainties. Furthermore, KDB will expand its structured product portfolio for non-resident clients to include derivatives involving ship/aircraft financing and international PF transactions. Along with global business expansion through establishing an Asian currency NDF trading platform, KDB will ensure that all these efforts lead to solidifying its presence as Korea's top-tier derivatives house.

#### Money Market & Capital Market Trading

#### Review of 2017

As volatility in the global financial market heightened following the three interest rate hikes by the Fed in 2017, we beefed up our flexible responses to changes in the market, while controlling risks by diversifying our portfolios by region, sector, and maturity with a focus on high-quality assets in advanced economies. In addition, we implemented portfolio strategies to increase the weight of countries and sectors with high growth potential. We also worked to manage the credit and interest rate risks based on flexible hedging driven by portfolio diversification, IRS trading, and duration adjustments. As a result, in 2017, KDB recorded a stable investment income and fulfilled its goal of managing foreign currency liquidity.

#### Plans for 2018

In 2018, we will also focus on acquiring stable income and minimizing risks through diversified investments in products including stocks, bonds, and short-term financial vehicles (MMF and CD) in the Chinese market, which remains an attractive investment destination despite the recent economic slowdown. In particular, we will strive to acquire hedging instruments for interest rate risks in the onshore Chinese market by acquiring the Direct Access license to the China Interbank Bond Market.

### **OVERSEAS BUSINESS**

#### **Accelerating Overseas Entry**

KDB's overseas network covers 26 cities in 21 countries as of the end of 2017. In 2017, we designated Asia as the key area for business, which has high growth potentials and financial demand in tandem with the government's New Southern Policy, while establishing 'mid-and long-term global business strategies' for systematic overseas entry.

Accordingly, we decided to launch Asia Regional Head Office in Singapore as the business hub in Southeast Asia, and entrust roles as a control tower covering our branches in Southeast Asia, China, and Japan. KDB strives to acquire dominance in the Asian financial market by utilizing syndicated loans and overseas PF operations, key strengths of KDB, to take the lead as 'Global KDB', facilitating the entry of Korean companies into global markets.

In 2018, KDB is committed to improving portfolios for overseas assets and realigning its organizational structure for overseas business by fully leveraging its core competencies. Plans are underway to expand opportunities for engagement in Southeast Asian markets with high financial demand for infrastructure investment and resources development through syndicated loans and overseas PF, etc. Moreover, we plan to increase the portion of non-Korean assets up to 50% of overseas assets by 2021, focusing on corporate borrowers with prime credit ratings in major countries.

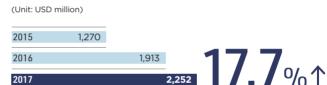
#### **Cross-Border Syndicated Loans**

The syndicated loan market slowed down in the Asia Pacific region as political risks increased throughout 2017. Nevertheless, KDB reported favorable performance by proactively discovering customers with prime credit ratings, and providing financial arrangement services in emerging economies such as Chile and Vietnam.

In 2017, we played a key role in establishing a foothold as a leader among Korean banks in the global financial market by arranging the following deals: Reliance Industries (India), Dewan Housing Finance Corp. (India), PT Astra Sedaya Finance (Indonesia), and Winson Oil International Ltd. (Hong Kong). In particular, KDB's arrangement of a syndicated loan worth USD 1.5 billion for Reliance Industries was the largest of its kind jointly conducted with 19 globally-renowned banks. The financial arrangement for India's largest private company with a strong global presence has contributed to expanding our business base within India, a representative emerging market.

In 2018, we plan to proactively pursue the expansion of KDB's financial territory based on our entry into the global syndication market, while scaling up the presence of Korean financial industry by continuously looking for opportunities to participate in international financial transactions. To this end, we will devise strategies reflecting the nature of local business in each region by collaborating with global financial institutions specialized in local markets, and by identifying promising industries in each major country. By doing so, we will strive to enhance the reputation of KDB in overseas markets through region-specific market approaches.

#### Non-Korean cross-border banking assets\*



\* Based on assets held by the headquarters and overseas hub networks (Hong Kong, Singapore, and London)

#### **Overseas Project Finance**

In 2017, KDB completed 22 financial arrangements worth USD 1.5 billion in overseas PF markets. We tapped into new overseas markets which include new and renewable energy sectors such as the offshore wind farms of Butendiek in Germany, wind power generation of North Kent in Canada, and hybrid power generation in Mexico. KDB's solid performance was also evidenced by the successful financial arrangement of ship financing worth USD 162 million for Angelicoussis Shipping Group.

Meanwhile, we increased local specialists along with the establishment of PF desks in key financial hubs such as New York, London, and Singapore to become a solid market participant with a strong global presence. We also strengthened the basis for overseas business, setting up global deal sourcing networks by dispatching personnel to international financial institutions. The New York Desk was additionally set up in 2015 following the Singapore PF Desk which has been in operation since 2011. The London and Beijing PF Desks have been up and running since 2016.



According to Dealogic, KDB ranked second in PF arrangement of Global Public Private Partnerships (PPP), and ranked third in PF arrangement of global infrastructure projects. KDB also solidified its reputation as a domestic PF market leader and a global PF house as 10 overseas projects in 2017 arranged by KDB were recognized as 'Deals of the Year' by Project Finance International (PFI), Marine Money, and Airline Economics.

#### KDB's project finance 2017 league table ranking

(Unit: USD million)

	Rank	Amount
Arrangement of Global PPP PF	2 <sup>nd</sup>	3,124
Arrangement of Global Infra PF	3 <sup>rd</sup>	3,188
Arrangement of Asia PF	4 <sup>th</sup>	3,167

Source : Dealogic

In 2018, we plan to scale up the scope of our PF business by strengthening our competency as a financial advisory bank. We will also create opportunities for Korean financial institutions to participate in overseas projects by serving as the Initial Mandated Lead Arranger for global projects. KDB will offer a wide range of service to the domestic companies by equity and loan financing through the Global Infrastructure Fund (GIF) and Global Infrastructure Venture Fund (GIVF). In addition, we will strive to further explore opportunities to advance into global markets along with Korean companies. To this end, we will provide co-financing to Korean companies by expanding collaboration with Multilateral Development Banks (MDBs) including the Asian Development Bank (ADB).

#### **Trade Finance**

KDB provides comprehensive trade finance services to relevant institutions. KDB also conducts global trade finance operations by extending credit lines to overseas banks to boost its reputation as Korea's representative financial institution and discover new sources of income. KDB also formed strategic partnerships with major supranational agencies for the first time among Korean financial institutions, and signed master agreements with major overseas banks in key geographical zones, providing funds for trade finance to financial institutions from emerging markets.

In terms of risk participation (RP) transactions - interbank trade finance asset transactions -, KDB achieved a deal volume of USD 1.5 billion in 2017, a 33% increase from the previous year. This is attributable to expanded transactions with banks that maintain strong relationships with KDB, and new RP transactions with global banks. Meanwhile, in terms of credit line management, we recorded a deal volume of USD 175 million in 2017, a 23% increase from 2016, by expanding our networks from the existing Middle Eastern region to South Europe and South Asia.

In 2018, we plan to proactively promote trade finance transactions through full-fledged collaboration with our clients. We will raise the quality of trade finance operations by scaling up the volume of risk participation transactions, and look for opportunities to tap into the primary market in emerging economies.

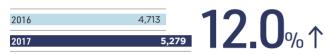


#### Pension

The strength of KDB's pension operations lies in the asset management know-how we have long accumulated as Korea's leading corporate banking specialist.

#### Pension assets under management

(Unit: KRW billion)



As of the end of 2017, KDB ranked 11th in terms of pension assets under management (AUM) among 44 domestic pension operators in Korea. KDB's pension AUM increased by 12.0% from 2016, ending 2017 at KRW 5.3 trillion. The pension market is expected to grow further on growing interest in post-retirement finances in an era of aging population, lowgrowth, and low-interest rates.

True to its mission and legacy, KDB is committed to government pension policies and to the stable growth of Korea's retirement pension market. Specifically, KDB will hone its strategies to respond effectively to the fast-evolving retirement pension market as well as boost its pension asset management capabilities.

### Trust

Diverse assets including money, real estate, and debentures are under KDB's custody. As part of KDB's trust business, KDB retains, operates, and manages assets, granting them to beneficiaries upon maturity. In 1989, KDB entered the trust business with money trust products, introducing property trusts and custody products in 2000 and 2003, respectively.

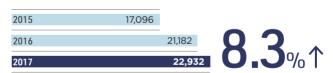
KDB's trust assets have steadily increased over the past three years. The total amount of trust assets in 2017 stood at KRW 12.9 trillion, up 20.5%, mostly driven by property trusts. The custody balance of assets went up 8.3% due to an expansion in KDB's agency operations.



#### Trust assets balance

(Unit: KRW billion) 2015 10,187 2016 10,732 2017 12,937 Custody balance

(Unit: KRW billion)



In 2018, market entry regulations are expected to be eased and more new products are anticipated to hit the market, hinting at further expansion and facilitation of the trust market. KDB plans to strengthen its operational competencies by responding to institutional changes. For instance, by leveraging its corporate banking expertise, KDB will prepare to introduce new products in response to the potential enactment of the Trust Business Act.

In the custody business, we will enhance our presence by forming stronger ties with institutions such as funds of funds, while proactively offering custody services for investment partnerships. We will also diversify our services by expanding agency operations for syndicated loans.

### **RESEARCH & CREDIT REVIEW**

#### Industry & Technology Research

KDB conducts industrial reviews and analysis – industrial assessment, industrial outlook, industrial issue analysis, technical reviews, and technical competitiveness evaluations for corporate clients – and evaluates the value of intellectual properties. Such endeavors support our overall operations such as risk management, loans, and investments, by providing a firm groundwork to seamlessly fulfill our roles of facilitating industrial structure improvement and advancement of new growth industries.

In 2017, KDB's research focused on smart factories, artificial intelligence, and block chains as we stepped up our research capabilities for emerging technologies and industries of the 4<sup>th</sup> Industrial Revolution. Through these efforts, we provided analysis and directions to respond to the six new technologies including big data and Internet of Things.

KDB received Level 3 Tech Credit Bureau (TCB) Certification from Korea Credit Information Services in March 2017 under the Bank's plan to set up its own tech credit assessment system in accordance with the government's 'Roadmap for implementing Technology Financing'. Preparation is underway to acquire Level 4 Certification to expand the scope of the Bank's tech credit assessments. Furthermore, KDB Future Strategy Research Institute was ranked 23<sup>rd</sup> among 100 research institutes in Korea by the Hankyung Business Weekly, up 36 places from 2016, positioning itself as Korea's top-notch bank-affiliated research institute.

In 2018, the newly established research unit will be in charge of research on the 4<sup>th</sup> Industrial Revolution while the Bank begins the process to apply quantitative analysis to industrial assessment models. Plans are also underway to aid local branches in their credit portfolio management using the latest industrial outlook and issues derived from big data analysis.

#### **Credit Review**

In 2017, KDB proactively performed credit reviews to solidify its role as a safety net and representative financial institution as well as to enhance asset quality amid the continued economic downturn and greater uncertainties. In particular, an effective management system for large-scale credit was established by setting credit line limits in consideration of industrial analysis and financial demand by corporate groups and their affiliates. We also strengthened exposure management for mid-size corporate groups by expanding the number of targets from 29 to 83.

In 2018, we plan to focus on creating a credit review system for emerging industries and technologies of the 4<sup>th</sup> Industrial Revolution and promoting higher efficiency in SME review procedures. In addition, we will establish a database for integrated credit reviews to enable analysis of corporate risks, affiliate risks, and industrial and environmental risks, thus raising asset quality through sophisticated review and analysis.

#### **Research on Reunification Finance**

While pursuing measures to expand KDB's role in reunification finance in preparation for the eventual reunification of Korea, KDB conducted an in-depth economic and industrial research on promoting the development of the North Korean economy and facilitating inter-Korean economic cooperation.

The government declared the implementation of the New Northern Policy with an emphasis on northern economic cooperation, triggered by Korea-Russia summit talks in 2017. Confronting changes in the external environment, we enhanced our research programs by continuously producing diverse reports on reunification finance and the North Korean economy and industries, while fully cooperating with the government's new policies as Korea's representative development finance institution.

In 2018, we plan to promote the government's reunification and North Korea policies, while intensifying our competencies for reunification in preparation for changes in inter-Korean relations. Accordingly, we are committed to catering to reunification-related government policies by reviewing financial issues and KDB's roles prior to and post reunification, promoting the development of the North Korean economy, and performing in-depth research and analysis of industries in North Korea.

# SUSTAINABILITY REVIEW

- 032 LIABILITY MANAGEMENT
- 034 RISK MANAGEMENT
- 036 ETHICAL MANAGEMENT
- 038 HUMAN RESOURCES MANAGEMENT
- 039 CORPORATE SOCIAL RESPONSIBILITY



KDB focuses its competencies on laying the foundation for sustainability in policy financing and fulfilling its social roles. KDB makes steadfast efforts to enhance profitability and financial soundness as well as improve its operating assets in order to ensure fundamentals for sustainable growth. Moreover, KDB concentrates its competencies to enable sustainable growth of social communities, in addition to the development of the financial industry, facilitating companies in their fulfillment of corporate social responsibilities.

### **LIABILITY MANAGEMENT**

#### **KDB Bonds**

KDB issues Industrial Finance Bonds (KDB Bonds) in KRW and foreign currencies to procure the resources required to supply funds for the promotion of sustainable growth in accordance with the Korea Development Bank Act. As a policy bank, KDB enjoys the same credit rating as the government in terms of risks under Basel III.

As a result, KDB bonds are issued at the lowest interest rate possible among special bonds (bonds issued by public organizations) and financial bonds, except for governmentguaranteed special bonds (Korea Deposit Insurance Corporation Bonds and Korea Student Aid Foundation Bonds).

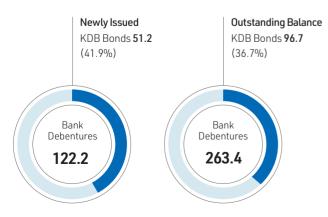
#### **KRW-denominated**

#### Review of 2017

In 2017, the base rate of the Bank of Korea was raised for the first time in six years and five months due to the continued recovery of the global economy and continued growth in the domestic economy. The KRW-dominated bond market saw a big rise in yields driven by normalized monetary policies in major countries including three interest rate hikes by the Fed and greater expectations for an economic turnaround. The amount of KDB Bonds issued and the balance in 2017 increased to KRW 51.2 trillion and KRW 96.7 trillion, respectively, up KRW 12 trillion and KRW 2.8 trillion from 2016.

#### KDB bonds and outstanding balance

(As of December 31, Unit: KRW trillion)



This is the largest scale based on the amount issued throughout the KRW-denominated bond market excluding government institutions. The total balance is the third largest behind Korea Treasury Bonds and Monetary Stabilization Bonds. Moreover, the market interest rate of KDB bonds is utilized as a key benchmark rate in the bond market by the Korea Financial Investment Association along with Korea Treasury Bonds and Monetary Stabilization Bonds, maintaining its status as a representative market interest rate.

After the adoption of Basel III, KDB issued subordinated debts worth KRW 500 billion in 2017 following similar moves in 2016, thus contributing to stronger capital adequacy. KDB also issued floating-rate notes (FRN) amounting to KRW 15.3 trillion to acquire resources for floating interest rate loans and manage interest rate risk in 2017.

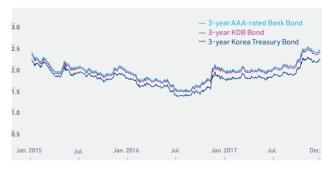
#### Market interest rate of major bonds

(As of December 31, Unit: %)

	1Y	3Y	5Y	10Y
Korea Treasury Bonds	1.853	2.134	2.347	2.467
KDB Bonds	1.926	2.312	2.548	2.583
Bank Debentures (AAA)	1.969	2.363	2.575	2.676

#### Recent key bond rates trend

(As of December 31, 2017; Unit: %)



#### Plans for 2018

In 2018, KDB will continue to maintain flexibility in implementing the Bank's funding schemes, seek to reduce additional financing costs by inducing market adaptability and diversity in financing, and enhance the reputation of KDB Bonds and their associated investor base. We will strive to secure a stable supply of capital required to develop and foster industry through timely financing in tandem with the financial market environment and the flow of internal funds.

#### Foreign currency-denominated

#### Review of 2017

In 2017, despite a geopolitical risk, KDB succeeded in issuing global bonds under favorable conditions through flexible issuance strategies. In addition, KDB issued green bonds, while executing investment for green projects. We also diversified financing channels by easing dependence on the USD market through the financing in niche markets, issuing Formosa Bonds and Sterling Bonds, and appealing to investors in different regions with high credit ratings. In total, we issued approximately USD 5.5 billion in foreign currencydenominated KDB bonds during 2017. The outstanding balance stood at USD 23.2 billion.

#### Plans for 2018

In 2018, our funding strategy will continue to focus on flexibility, bracing for potential changes in the market such as base rate hikes and tapering in advanced countries. In addition to USDdenominated global bonds, KDB will constantly monitor market conditions and serve as Korea's benchmark borrower in various markets covering EUR, JPY-denominated bonds, sustainability bonds, etc. Simultaneously, we will make concerted efforts to improve borrowing conditions for Korean institutions hit hard by geopolitical risks while expanding our supranational, subsovereign, and agency (SSA) investor base.

#### Deposits

KDB is at the forefront of the continued supply of funds by properly supplementing KDB Bonds, which are sensitive to market conditions, with KRW-denominated deposits. KDB has continued to reduce funding costs by attracting SME/ ME deposits and money market deposit accounts through strategic management. This has established the foundation for stable funding. For instance, we launched KDB Partners Bank Book, a specialized product for MEs, in February 2017, attracting approximately KRW 1.1 trillion in deposits in 2017, which contributed to facilitating SME deposits and stable maintenance of deposits.

#### **KRW-denominated deposits**

(Unit: KRW trillion)

2015	21.1	15.7	36.8
2016	22.3	14.2	36.5
2017	20.4	13.6	34.0

Corporate Deposits

Retail Deposits

#### Number of retail customers

(Unit: 1,000 people)



In 2018, we seek to improve the funding structure by further facilitating SME and ME deposits, leveraging our strength as a corporate banking specialist, and also to focus on policies that expand financial support for SMEs and MEs. In addition, we plan to reinforce our funding basis for stable financing through the expansion of non face-to-face products and services.

#### Liquidity Management

KDB ensures the stable management of liquidity through diverse management strategies including operations of call loans, Repo, MMF, and CP, utilizing surplus funds.

As volatility in the global financial market is expected to increase, likely due to an additional rise of the interest rates in the U.S., KDB will look to avoid liquidity gaps through preemptive risk management by maintaining an optimal level of liquidity through closely monitoring market conditions and flexibly adapting to supply-and-demand swings.

Against this backdrop, KDB strives for stable management of funds based on diversified investment by product type and maturity structure for appropriate liquidity and risk management.

## RISK MANAGEMENT

KDB effectively manages the diverse risks that are involved in maintaining its soundness based on the following principles:

#### **KDB Risk Management Principles**

- Risk must be managed in a manner that is independent, comprehensive, and uniform on a bank-wide basis;
- Risk must be accurately identified, measured, and evaluated, and properly managed;
- Risk must be maintained at a level in balance to profit;
- Risk must be diversified to prevent a buildup of assets concentrated in a specific category; and
- Risk must be managed within certain limits or guidelines in order to prevent undue exposure.

### Effective Risk Management through Specialized Councils

KDB runs independent committees and councils for prompt and effective decision-making related to risk management. The Risk Management Committee is KDB's highest consultative body, composed of independent directors with extensive experience and knowledge of finance and economic matters. The Committee examines and makes decisions on yearly risk management plans and the setting of total risk limits deemed appropriate by KDB. Chaired by one of the Bank's independent directors, the Committee is equipped with a decision-making mechanism that maintains balanced views on critical risk management matters for the Bank. Agenda items for decision-making at the Risk Management Committee are reported to the Board of Directors.

A total of 16 agenda items were reported to the Risk Management Committee in 2017. Key agenda adopted for resolution included the basic risk management plans for 2017 and matters associated with redevelopment of the corporate credit rating system. Agenda which were reported to the Committee included key issues on risk management such as analysis report on bank-wide stress test results and BIS capital ratio verification.

The Risk Management Council is a body that consists of heads of divisions which is tasked with fine-tuning operations so that risks can be effectively managed in each operation unit, while also monitoring constant risk variables. The Council sets distribution limits by divisions for the Bank, as well as limits for trading losses and limits for exchange positions within the risk limits set by the Committee.

#### Key committees and councils for risk management



### **Management Methodologies**

#### **Credit risks**

Credit risks refer to possible losses in the event of the failure of counterparties to carry out their obligations. We measure credit risks for the entire Bank and for individual sectors across all assets exposed to risk using the Credit Manager System.

#### Market risks

Market risks refer to possible losses to the Bank's assets resulting from fluctuations of interest rates, stock prices, foreign exchange rates, and other variables. We measure and manage possible losses in trading positions (including positions from securities and derivatives held for trading) due to negative movements of market indices.

Moreover, by classifying the severity of market movements into three stages - precautionary, semi-crisis, and crisis stages - in accordance with the degree of fluctuation of standard indices, we maintain Market Risk Contingency Plans appropriate to each of the three stages. We also conduct stress tests to measure the potential scale of losses based on scenarios of significant fluctuations in major market indices over the last three years.

#### Interest risks

Interest risks refer to possible losses that might occur when interest rate movements negatively affect the Bank's financial status. We ensure continual monitoring of interest rate Value at Risk (VaR), which measures the reduction of net present value (NPV), and interest Eanings at Risk (EaR), which measures the decrease of net interest income, with regular simulations based on scenarios of interest rate fluctuations.

#### Liquidity risks

Liquidity risk refers to the possibility of default due to a shortage in funds resulting from a mismatch of financing and management periods or an unexpected financial outflow. In addition, since the 2008 financial crisis, we take into consideration the quality of liquidity and its ability to withstand cash outflow in contingency situations when managing liquidity.

#### **Operational risks**

Operational risks refer to possible losses which may occur due to misleading internal procedures, employees, systems, and external incidents. We analyze why they occurred, quantify each risk level and manage them accordingly. Through a Control Self-Assessment (CSA) program implemented at three-month intervals, we ask employees to assess potential operational risks associated with their job activities in order to ascertain that such risks are properly managed in accordance with established guidelines.

We have developed business continuity plans by job function to guard against possible business disruptions due to disasters, strikes, and other emergencies. Yearly mock-up drills are held to ensure that major operations of the Bank can be resumed within a target timeframe in case of an emergency.

#### Review of 2017

In 2017, KDB has steadily improved its risk management system in tandem with intensifying risk management standards imposed at home and abroad. First, the corporate credit assessment models were redeveloped to reflect the nature of KDB specialized in corporate banking. While reclassifying the existing 10-tier credit rating system into a 14-tier system, financial assessment was adopted for non-resident models, thus raising objectivity in credit assessment. Furthermore, we made revision to the current system to reduce concentration risks over the long term. In 2017, we launched a unit dedicated to credit portfolio management, designed to lower concentration risks and help create sound credit portfolios across the Bank. In particular, based on the internal principles of credit portfolio management, we made rational distribution of credit limits by company, affiliate, and industry. All these efforts were aligned with the Bank's operating policies, contributing to laying the foundation for an effective portfolio management.

Lastly, we have proactively responded to more stringent risk management standards around the globe. Besides successfully complying with the Liquidity Coverage Ratio (LCR) regulations for foreign currencies adopted in 2017, we have improved the risk management system for compliance with the IFRS9 and the Net Stable Funding Ratio (NSFR) regulations.

#### Plans for 2018

We are committed to steadily improving the risk management system to lay the foundation for sustainable growth in policy financing. To this end, we plan to initiate portfolio adjustment in phases by setting mid-and long-term targets based on concentration and industry risks. While differentiating exposure management by identifying risk factors and growth potential by company, affiliate, and industry, we will adequately manage risk exposure within acceptable levels.

At the same time, we will further elaborate the risk management system in line with changes in the industrial structure driven by the 4<sup>th</sup> Industrial Revolution. In particular, we plan to establish a response strategy by preemptively analyzing the impact of potential risks on the business portfolios of the Bank, while identifying risk factors related to disruptive innovation technologies and conducting research to devise countermeasures.

Lastly, we will stay ahead of strengthening regulations in the global financial system. While seeking to fully comply with regulations adopted in 2018, we will do our utmost to ensure new regulations such as the Fundamental Review of the Trading Book (FRTB) and regulations on large-scale exposures are seamlessly adopted for stronger levels of soundness in the financial system.

### **ETHICAL MANAGEMENT**

#### Compliance

KDB practices ethical management by continuously realigning its anti-corruption infrastructure and running a wide range of programs to promote its code of conduct. Effective training on ethics for employees is provided to boost ethical awareness, and a culture of ethical management has taken root to cultivate a transparent and fair workplace.

2017 was a year that required a high level of ethical awareness as well as fair conduct of business by employees in policy finance institutions. In addition, the external financial environment underwent rapid changes with the advent of the 4<sup>th</sup> Industrial Revolution. Also, crimes, illegal acts, and overheated speculation have resulted from extreme fluctuations in the valuation of cryptocurrencies.

Aiming to proactively respond to these changes, we have made concerted efforts to enable the 1) establishment of an autonomous anti-corruption culture of integrity to eradicate potential inside corruption and irregularities; and 2) creation of a bank-wide compliance infrastructure based on an effective internal control system.

As part of such efforts, the newly launched 'Working-level Council on Internal Control' is in operation consisting of team heads from internal control-related departments. The aims of the council are enhanced management of the 'Internal Control Committee' which was organized in 2016 and prior consultation on the agenda of the Committee.

Anti-Corruption & Civil Rights Commission upgraded both KDB's Integrity Assessment (IA) and Anti-Corruption Initiatives Assessment (AIA) ratings after its evaluation in 2017. In addition, on-site compliance training took place for employees in the headquarters and branches.

Under the goal of adopting strengthened standards against money laundering, we have implemented risk assessment for money laundering and financing of terrorism, improved Suspicious Transaction Report (STR) rules, enhanced quality and promptness in reporting, and intensified internal controls related to anti-money laundering at overseas branches. In 2017, in particular, we conducted risk assessment for money laundering and financing of terrorism at both domestic and overseas branches, and made improvements based on the outcomes. Lastly, we took measures to improve the ethical management system for financial subsidiaries by establishing an internal control process. Specifically, we verified the implementation status of ethical management plans and conducted management evaluations on a monthly basis at each of the subsidiaries.

#### Major compliance management programs

Ethical Management Programs	Details
Evaluation/Reward Programs	Evaluates and rewards integrity-related tasks which are voluntarily taken on by each department
Securities Report System	Requires employees engaging in loan business to report on their securities accounts biannually
Financial Investment Product Trade Report System	Requires employees engaged in Capital Markets Act-defined specific functions to report on their buying and selling of financial investment products, monthly or quarterly
Clean Report Center / No Gift Campaign	Bans gifts and benefits exceeding specified amounts
Solicitation Report System	Requires executives and employees to report on unlawful solicitation from fellow employees and people outside the Bank
Compliance Self-Check System	Checks the compliance status of all employees biannually
Whistleblowing System	Rewards whistleblowers and ensures their anonymity
Executive Pledge of Ethics	Mandates registered directors to maintain integrity in job performance
Code of Conduct Pledge	Mandates new hires to abide by the pledge
Compliance Training	Trains new hires, employees by job rank and job function
Compliance Monitoring	Monitors compliance including the results of self- inspection by branches and monthly compliance training

As Korea's representative financial institution, KDB will make concerted efforts to ensure stronger internal controls and transparency in corporate management in 2018.

To this end, we plan to designate and promote key tasks in specific areas: 1) internal controls, 2) ethical management, and 3) anti-money laundering.

In terms of internal controls, we will devise a 'checklist for compliance monitoring' reflecting the nature of our operations and enhance the role of internal control specialists to encourage effective compliance monitoring.

In order to promote a culture of autonomous integrity and enhance ethical management programs, we will hold bankwide contests for best practices and policies and task each department with a unique integrity mission. In addition, a pilot program 'Voice of Integrity' will be launched to facilitate internal whistleblowing.

In the area of anti-money laundering, we will revamp our system dealing with cryptocurrencies and small-sum international money transfers in order to boost our ability to address risks resulting from the development of new technologies. Furthermore, we will enhance internal controls related to antimoney laundering operations at our overseas branches.

# **Consumer Protection**

KDB continuously improves its systems to promote mutual growth with customers based on core values – the protection of the rights of financial consumers.

KDB engages in diverse efforts to protect the rights of financial services consumers in tandem with growing focus on consumer protection.

First, we review and regularly examine factors which may infringe on consumer rights throughout a business cycle – product development, selling, and after-sale – by setting protection guidelines for each stage, thus preventing improper or incomplete selling of products. Moreover, departments in charge of product development and sales share with each other recent consumer protection issues and maintain close cooperation as part of the Financial Consumer Protection Council. Driven by such endeavors, KDB acquired 'Excellent' ratings in all categories in the 'Evaluation of Consumer Protection Status' organized by the Financial Supervisory Service in 2017.

We also systematized the complaint handling system to foster a customer service mindset throughout the Bank and improve overall customer satisfaction. We set up an SMS-based notification service as part of the complaint handling procedure to promptly address customer inquiries. Training takes place on handling complaints in conjunction with an analysis of frequent complaints and the distribution of a checklist for the prevention of such issues. By doing so, we strive to reduce the volume of customer complaints. Furthermore, we do our utmost to upgrade service satisfaction levels by conducting in-house surveys on consumer satisfaction.

We also make concerted efforts to protect the personal information of customers. We have established specific standards at each stage of personal information handling and check the status of personal information management on a regular basis. As a result, KDB earned an 'Excellent' rating in the 'Determination of Personal Information Protection Level' from the Ministry of the Interior and Safety in 2017.

#### 2017 Milestones and performance for consumer protection

Milestones	Performance
Established system for consumer protection in each stage of financial products sales	<ul> <li>(Planning &amp; Development Stage) Reviewed consumer right infringement when developing and revising new products and services</li> <li>(Sales Stage) Prevented incomplete sales by providing appropriate information on key product features and risks</li> <li>(After-sales Stage) Improved consumer protection levels through on-site reviews of consumer protection status</li> </ul>
Raised customer satisfaction by collecting customer opinions	<ul> <li>Collected diverse customer opinions from the Voice of Customer (VOC) system</li> <li>Facilitated customer service training by integrating the results of customer service surveys</li> <li>Received / handled complaints, and conducted follow-up checks</li> </ul>
Disclosed information to expand the public's right to know	Proactive information disclosure in accordance with the aim of the system     Information disclosure status (number of cases)     2015     76     2016     97     2017     66
Performed personal information protection activities	<ul> <li>Routine review of the browsing history and provision history of personal information to a third party</li> <li>Campaign to delete critical personal information files stored on PCs at work</li> <li>Acquisition of an 'Excellent' rating (94.16 points) in the 'Determination of Personal Information Protection Level' from the Ministry of the Interior and Safety</li> </ul>
Conducted monitoring to prevent losses from electronic financial fraud	<ul> <li>Reestablishment of the Fraud Detection System (FDS)</li> <li>Continued improvement of the system to prevent and monitor electronic financial fraud</li> </ul>

We will devise stronger and more solid systems for the mutual development of the Bank and its customers based on consumer trust. To this end, we will strengthen our systems to protect the underprivileged at risk of being neglected in the financial market, including older consumers and the disabled.

Moreover, we will establish a system for constant feedback based on customer opinions so that all employees can share case studies of complaint handling and KDB can become a bank that listens more closely to the voices of its customers. We will also actively seek solutions for consumers by facilitating autonomous resolution of complaints and disputes.

# 😣 HUMAN RESOURCES MANAGEMENT

KDB seeks to retain forward-looking global talent driven by passion and determination, with the qualifications and sense of ethics needed to lead the development of the Korean financial industry.

# Fair and Competency-driven Recruitment of Talent

KDB recruits new employees each year so that the Bank can undertake effective responses to the changing external economic situation and business environment influenced by the 4<sup>th</sup> Industrial Revolution, etc., and intensify organizational competencies. By adopting 'blind recruitment' practices to ensure equal opportunity and fair selection, the fairness of recruitment procedures has been enhanced. Competencydriven recruitment of talent is promoted with an emphasis on recruits' basic capabilities as well as a focus on financial sector specialization combined with an assessment of organizational fit. In 2017, we recruited 64 new employees through a multi-dimensional evaluation in each recruitment stage reflecting the National Competency Standards (NCS).

# **Efforts to Intensify Job Expertise**

To improve individual job competency and thus maximize organizational capability, we have segmented the entirety of our business operations into 172 categories and actively supported the development of individual employee competencies in the category of their choice through our Career Development Program (CDP). The program is divided into exploration, development, and master phases. Employees in the first phase are given chances to strengthen their basic capabilities through CDP and at the same time to broaden their experience in other relevant job tasks.

In addition, specialized job functions requiring more expertise are filled with employees selected through an open competitive in-house process. In 2017, certain job posts in project finance, risk management, industrial analysis and evaluation were filled through this process, with more efforts on the way to develop employee specialties. We also introduced the Open Position System in 2017, which enabled us to hire specialized personnel for three strategic areas of the bank operations – the 4<sup>th</sup> Industrial Revolution, litigation, and risk management – using an open competition held both internally and externally. Through the system, we contributed to intensifying workforce expertise and imbued vitality within the corporate culture.

# Training Programs for Development of Global Talent

We offer our employees a wide variety of opportunities to further cultivate relevant expertise or redirect their pursuit of knowledge to areas other than their current field. For this, a career training roadmap curriculum is in place based on job function and by career phase, and a variety of in-house training courses are offered covering key areas including loans, deposits, and F/X transactions. To free its employees from time and location constraints, KDB also offers virtual training programs through KDB e-campus, in partnership with professional training institutions.

Furthermore, there is a wide range of programs geared toward developing skills crucial to tap into new overseas markets; particularly to train regional specialists to be dispatched to Indonesia, Vietnam, and China, where KDB expects an increase in demand for qualified personnel among its workforce. KDB also trains employees as part of its efforts to explore global markets through foreign language training courses offered before and after working hours. Relevant employees are sent to overseas networks in London, Hong Kong, Brazil, Singapore, Beijing, Shanghai and other places for on-the-job-training in partnership with global partner institutions.

Apart from regular training, KDB also offers opportunities at home and abroad to those who want to advance their academic aptitude at the graduate level. For employees who joined KDB immediately after high school, KDB operates the KDB Financial University, Korea's first accredited in-company college, also renowned for its outstanding faculty inclusive of seasoned KDB employees in the field. KDB also offers leadership courses open to all employees. CORPORATE SOCIAL RESPONSIBILITY

COMMUNITY HEALING

SOCIALLY RESPONSIBLE FINANCING (CASES)

SOCIALLY RESPONSIBLE FINANCING

KNOWLEDGE SHARING

HUMAN RESOURCES MANAGEMENT

38



KDB seeks to retail by passion and det sense of ethics need financial industry.

# **Fair and Comr** Recruitment c

KDB recruits new can undertake effect economic situation the 4<sup>th</sup> Industrial Rev competencies. By a ensure equal oppor recruitment proced driven recruitment on recruits' basic ca sector specializati organizational fit. Ir through a multi-dim stage reflecting the

# **Efforts to Inte**

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All members of KDB are imbued with 'a responsibility to contribute to sustainable growth in society', and strive to make a positive difference in society through social contribution activities.

# **KDB's Founding Mission:**

To contribute to the sound development of the financial industry and the national economy

KDB's corporate social responsibility (CSR) activities can be categorized into the following three types:



Conduct socially responsible financing for the development of Korea's industry and economy through funding, financial intermediation and other activities appropriate to KDB's business role



Community Healing

Extend a helping hand to various groups in society through various non-financial activities, and promote and maintain a healthy society



Share the know-how and experience accumulated from the aforementioned activities, and offer society yet another foundation for development, and create positive momentum and value

# SOCIALLY RESPONSIBLE FINANCING

KDB maintains a keen interest in fostering future growth engines, pursuing the balanced growth of companies of various sizes and regions, expanding public infrastructure, and improving the environment, while providing socially responsible financial products and services.



# 2017 Summary for socially responsible financing

(Unit: KRW billion)

Objectives of funds	Amount supplied by KDB	Number of projects
Fostering the growth of SMEs and MEs	2,660	1,143
Invigorating provincial economies and pursuing balanced growth	5,032	239
Repairing and ramping up social infrastructure	503	387
Nurturing environmentally-friendly industry	245	134
Contributing to improving industrial safety	3,136	281



KDB seeks t by passion a sense of ethi financial indu

# Fair and Recruitm

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In addition expertise are competitive project finan evaluation w on the way to





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CASE 2

Fully-accredited GCF Implementing Entity

KDB was accredited as an Implementing Entity of the Green Climate Fund (GCF) for the first time among Korean institutions in December 2016, followed by the signing of the Accreditation Master Agreement in April 2017, the final confirmation step in the GCF Implementing Entity protocol. The accreditation was evidence that KDB has made strides as a world-class financial institution equipped with management systems, environmental and social standards complying with global standards equivalent to those of other international organizations and advanced financial institutions. In addition, KDB organized the Climate Financing Forum in July 2017 under the theme of the Business Development of Korean companies and the Roles of Finance in Response to Climate Change, inviting Korean companies looking to work with the GCF in the area of renewable energies. KDB shared its insights on the roles of climate financing and case studies of new and renewable energy projects in developing countries as a GCF Implementing Entity.

# **Adoption of the Equator Principles**

As the only Korean institution to have adopted the Equator Principles - the international norms in the financial industry on environmental and social risk management in project finance, KDB has established internal regulations for environmental and social risk reviews in projects. We assign three categories from A to C in the order of environmental and social risks to projects which are subject to the scope of the Equator Principles (corporate loans over USD 50 million and PFs exceeding USD 10 million in size). Then we thoroughly review if environmental and social management plans are appropriately established for each of the projects in line with designated categories.



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CASE 3

# **Green Bond Issuer**

In June 2017, KDB issued a Green Bond (USD 300 million, 5-year maturity) to facilitate projects related to new renewable energies, while attracting investors interested in eco-friendly and socially responsible investment.

# Allocation of net proceeds

As of December 31, 2017, 100% of the net proceeds from the Green Bond issued in June 2017 were allocated to KDB's selected green portfolio as shown in the table below.

Sector	Regions	Total Project	KDB's partion in financing	cipation
		Size	Total Loan Size	Disbursed Amount by 2017
Solar Power	Japan, Chile, UAE	1,344	136	65
Offshore Wind Power	UK, Germany	4,557	164	116
Offshore Wind Power	UK, Canada, Chile	1,045	166	146
Biomass	UK	1,188	54	28
Sum		8,134	34 520	

### Composition of KDB green portfolio

In KDB's green portfolio, wind power projects account for 64%, consisting of offshore and onshore wind power equally, and solar power projects follow with 26%. Biomass plant for generating combined heat and power takes up 10%. Geographically, KDB's investments are relatively well diversified among the continents across Europe, America (North and South), and Middle East.



\* The composition is computed based on KDB's participation in the projects.

## Current status of KDB green portfolio

34% of KDB's selected green portfolio is currently under operations and the others are still under construction and expected to be completed between 2018 and 2020.

Current Status	Total Project	KDB's participation in financing		
	Size	Total Loan Size	Disbursed Amount by 2017	
Under Operations	1,493	175	175	
Under Construction	6,641	345	180	
Sum	8,134	520	355	

(Unit: USD million)

(Unit: tCO<sub>2</sub>/Year)

# Environmental impact

The  $CO_2$  emission avoided ( $CO_2e$  Avoided) by using renewable energy generated from KDB's green portfolio serves as an indicator of environmental impact. If all projects under KDB green portfolio are completed and under operations, then the total  $CO_2e$  Avoided from the green portfolio will be 5,645,212 tons per year and KDB Share out of the total  $CO_2e$  Avoided be 425,577 tons per year. Considering investors' investment in KDB Green Bond, the  $CO_2e$  Avoided per 1 USD invested in KDB Green Bond would be 1.42 kg/Year.

Sector	Regions	Energy Generation Capacity(MWh)		Estimated CO₂e Avoided -KDB Share
Solar Power	Japan, Chile, UAE	939	1,047,562	92,496
Offshore Wind Power	UK, Germany	893	2,297,240	105,206
Offshore Wind Power	UK, Canada, Chile	572	1,211,251	173,417
Biomass	UK	299	1,089,159	54,458
Sum		2,703	5,645,212	425,577

\* Please be noted that the  $CO_2e$  Avoided is calculated based upon the "Methodology for the Assessment of Project GHG Emissions and Emission Variations" released in 2014 by European Investment Bank and the "Projected Costs of Generating Electricity" published in 2015 by International Energy Agency for the capacity factors of the renewable energy plants by country.



# Special On-lending for Eco-friendly Companies

In May 2017, KDB launched 'Special On-lending for Eco-friendly Companies' to extend funds to SMEs involved in eco-friendly businesses. The product was extended for a total amount of KRW 100 billion through eight intermediary financial institutions which have signed on-lending loan agreements with KDB, and its recipients are SMEs involved in businesses for energy efficiency and renewable energy facilities. In particular, Energy Service Companies (ESCOs) and energy users can minimize initial investment costs for projects to replace existing energy facilities with high-efficiency ones through facility loans.

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Instead of simple donations or one-off volunteer activities, KDB carries out community service activities that involve long-term commitment under the four key themes of neighborhood, education, culture, and nation.



# KDB family volunteer group

Since 1996, KDB employees and family volunteers have paid regular visits to care facilities including centers for patients in rehab, the hearing impaired and orphanages, sharing neighborly love and goodwill. We also provide much-needed supplies for those respective centers every quarter.

## Sponsorship targeting those unable to receive welfare benefits

KDB aims to discover welfare support blind spots, characterized by an absence of welfare benefits despite a desperate need for financial support and subsequently provide support in the spirit of 'Daddy-Long-Legs'. KDB began the program at the end of 2016 to explore recipient candidates among the underprivileged without support from the government or companies, and sponsor them by collecting information from the mass media, news reports, the National Police Agency, and local governments, etc. In 2017, we provided sponsorship in 19 cases starting with 'support for exemplary servicemen facing financial struggles'.

# **Kimchi Sharing**

Every year since 2008, we have held kimchi-making events with our employees, executives' wives club, and the Seoul City Women's Society, and delivered kimchi to the needy. In November, 2017, we made around 12,000 cabbages of kimchi and delivered them to underprivileged households and welfare centers in Seoul.

# Support for Yeouido Park Skating Rink

In 2015, KDB started to sponsor the construction of an ice skating rink in Yeouido Park, a project designed to transform an unpopular park in winter into a sports and cultural hotspot for Seoul citizens and a new tourist attraction that can represent Seoul. 'Yeoui Ice Park' was created as a result of our suggestion for a public interest project to the Seoul Metropolitan Government and now marks its third year, establishing itself as a representative sports space in Seoul for everybody to enjoy at an affordable price.

# Regular sharing events

In conjunction with Yeongdeungpo Senior Welfare Center, we visit the elderly living alone each year to give out rice and daily necessities. We are also engaged in diverse volunteering activities: free meal support, financial donations, and volunteering activities on New Year's Day, Korean Thanksgiving and during Family Month; as well as fundraising and volunteering activities involving all employees at the end of each year.

# **Blood Drives**

KDB has run blood drives for pediatric patients with leukemia and cancers and delivered blood donation certificates, employee donations and KDB's matching donations to relevant institutions.

# Employee donations

KDB has collected the last four-digit portion of its employees' monthly wages and donated the sum to provide support for the low-income and single-parent households.





biggest city in Korea.



KDB has provided biannual pro-bono financial education programs targeting teenagers. Also, since

1985, we have invited children living on remote islands to Seoul to help them experience life in the

KDB's various Mecenat activities are focused on bringing culture, arts, and sports closer to the public. We invite youths from low-income families and disabled teenagers to various cultural events and provide sponsorships for marathon events.

# → Nation

# PyeongChang 2018

# One-Company-for-One-Village & One-Company-for-One-Platoon campaigns

For 12 years, KDB has run a 'One-Company-for-One-Village' campaign to provide voluntary medical services, hold events to promote purchases of local specialties, and organize volunteer programs to provide a helping hand for farmers. We also have a 'One-Company-for-One-Platoon' brotherhood campaign to support military events, invite soldiers to cultural events and encourage employees to experience the importance of national security.

# Sponsorship for the 2018 PyeongChang Winter Olympics

In order to support the successful hosting of the 2018 PyeongChang Winter Olympics held for the first time in Korea, KDB decided to proactively promote corporate social responsibility. To this end, KDB donated a portion of funding for admission tickets and meal/transport fees to the Korea Child Welfare Association.

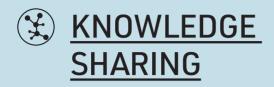
# KDB Foundation's Start-up Support Projects

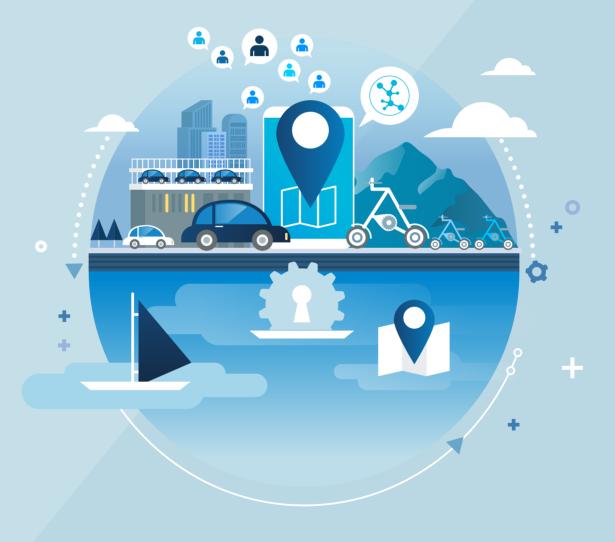
Since 2013, 'KDB Start-up Program', a representative youth start-up support project, has supported 81 preliminary entrepreneurs, resulting in 68 cases of successful business launch. By providing proper training, investment arrangements, and follow-up support, our program resulted in the creation of 258 new jobs, and attracted KRW 6.4 billion in investment. The number of application teams increased each year, and, in 2017, 486 teams applied for the KDB Start-up Program, and we selected 30 teams to participate in the final round, offering a diverse range of start-up training and mentoring programs. Moreover, we have strived to nurture young talent in start-ups by supporting training session since 2017. As such, we are engaged in numerous efforts to spread start-up culture among Korean youths.

'KDB Start-up Fund' is a project to support start-ups for the underprivileged and marks its 11th anniversary in 2017. The project has provided funding worth KRW 3.4 billion for 208 entrepreneurs, supporting the self-sufficiency of the socially underprivileged and reinvigorating their willingness to stand tall again.

Through 'KDB Social Enterprise Support Program', another iconic program, we selected 10 outstanding social enterprises in 2017, and provided mentoring related to management and marketing as well as funds for their facilities. We also implemented a project to provide goods produced by social enterprises to the underprivileged, thus contributing to the sustainability of social enterprises.







KDB does its utmost to enable society to move forward in a more constructive direction by sharing its vast knowledge database with the public, accumulated over many years of experience.



We have shared our knowledge and experience accumulated over the past years. In July 2017, we invited senior public officials from finance ministries and central banks of 13 developing countries including ASEAN member nations to participate in a knowledge-sharing program. It served as an opportunity to broaden the scope of their understanding of KDB and was conducive to strengthening our partnerships with developing countries in Asia. In August 2017, KDB provided lectures on the roles and functions of the Bank for 22 intermediate-level managers of the Bank of Investment and Development of Vietnam upon request after the signing of an MOU, and organized visits to related departments at the Bank.



In July 2017, KDB Foundation invited 32 ethnic Korean university students living in Central Asia to the '2017 KDB Global Talent Development Program'. The students who participated in the program were locally selected as those with high potential to grow into global leaders.

The six-week-long program covered cultural and art experiences as well as leadership training based on intensive Korean language courses offered at various levels of proficiency. It consisted of subprograms to promote awareness of cultural diversity through an understanding of other cultures and communication, as well as the Korean past and the present.

KDB will make concerted efforts to promote talent among ethnic Koreans in Central Asia and develop them into global talent connecting Korea and the region through continuous and systematic social contributions. A total of 188 graduates were generated from the program which was held 8 times as of 2017, and 30 of the graduates were admitted to prestigious graduate schools in Korea.



We have devised training programs in areas where we have expertise, namely PF, M&A, and corporate restructuring, for the general public. These programs are open to anyone and provided via KDB Academy, created to share our advanced knowledge and experience in the financial services business.

↔ KDB e-book center KDB set up the KDB e-book Center, adding multimedia features to various publications by the Bank including economic/financial/industrial analysis reports, thereby enhancing their utility. By doing so, KDB secured a new knowledge-sharing platform with customers by managing publications for external usage in e-book format.



# FINANCIAL REVIEW

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# MANAGEMENT'S DISCUSSION & ANALYSIS

The 2017 financial statements prepared by KDB conform to the Korean International Financial Reporting Standards (K-IFRS). K-IFRS refers to what Korea has adopted out of the standards and interpretations released by the International Accounting Standards Board (IASB). The 2017 financial statements of KDB cover financial performance from January 1 to December 31 of the year, and the financial figures in this Management's Discussion & Analysis (MD&A), unless specifically indicated, are based on consolidated financial statements.

# 2017 Review

The global economy in 2017 witnessed high volatility in the global financial market due to three interest-rate hikes by the Fed amid the economic turnaround in the U.S. and geopolitical risks. The domestic economy in Korea, likewise, experienced high market volatility because the Bank of Korea raised the base rate for the first time in seven years while companies and industries went through restructuring. Meanwhile, the operating performance of banks, securities firms, and insurers in the domestic financial sector improved, but competition gradually intensified due to the emergence of Internet-only banks, the development of fintech and the launch of full-service investment banks.

Against this backdrop, KDB has concentrated more of its competencies on future growth industries and industries associated with the 4<sup>th</sup> Industrial Revolution to ensure the stability and revitalization of the national economy as Korea's representative financial institution. In 2017, KDB also encouraged preemptive restructuring for corporate groups suffering from a temporary shortage in liquidity and took effective financial measures so that crises within specific companies would not spread throughout the economy.

Moreover, KDB focused its competencies on financing SMEs and MEs, promoting overseas advancement of Korean companies, and forming a start-up ecosystem, etc. In addition, KDB strived to secure growth fundamentals for the future by handling overseas PF financial arrangements of USD 1.5 billion, while establishing the Asia Regional Head Office in Singapore as the business hub in Southeast Asia in tandem with the government's New Southern Policy.

As a consequence of such efforts, KDB's prestige as a market leader and Korea's representative financial institution, together with its impressive capital adequacy, has been comprehensively evaluated by international credit rating agencies. In 2017, KDB maintained high credit ratings (Moody's Aa2, S&P AA, and Fitch AA-) and its BIS capital ratio also reached 15.26%, up 40bps from 2016.

# → 2018 Outlook

Notwithstanding the overall turnaround in the global economy in 2018, financial anxiety and capital mobility are likely to increase due to the high likelihood of more interest rate hikes in the U.S. and trade protectionism possibly leading to cross-national conflicts. According to the IMF, the global economy is forecast to continue its gradual recovery of 3.9%. The domestic economy is expected to show robust growth due to improvements in exports and private consumption as a result of an economic recovery in major trading partners. However, risks still prevail such as a worsening of the trade environment and an aggravation of financial conditions due to the normalization of monetary policies in major economies.

Risk factors are also rampant in the domestic financial sector, including higher non-performing loans due to higher interest rates, intensified regulation of household debts, and intensifying competition. In particular, the government's stronger regulations on LTV/DTI and introduction of new DTI/DSR regulations to stabilize the housing market are expected to have a significant impact on the asset/profit structure in the existing financial sector.

KDB plans to fulfill its role by transforming its fundamentals at a time when the domestic and international economic situation is gradually improving. KDB will spearhead the era of the 4th Industrial Revolution, reinvigorating the national economy as well as raising risk management capabilities to withstand risks while providing a market safety net.

In 2018, KDB will strive to carry out its role based on stable credit ratings, globally competitive financial expertise, and thorough risk management, in the face of a rapidly changing financial environment. Moreover, KDB will facilitate a rebound of the national economy by taking the lead in advancing the financial industry as well as backing the push for globalization.

# **INCOME ANALYSIS**

## **Summary Statement of Income**

				(Unit: KRW billion)
	2017	2017	Cha	nge
	2017	2016	Amount	(%)
Net operating revenue	3,534.6	1,456.0	2,078.6	142.8
Net interest income	2,254.3	2,043.7	210.6	10.3
Non-interest income	1,280.3	(587.7)	1,868.0	-
Provision for loan loss	977.0	2,684.4	(1,707.4)	(63.6)
G&A expenses	1,790.3	1,925.8	(135.5)	(7.0)
Operating income	767.3	(3,145.3)	3,921.6	-
Non-operating income	778.4	1,916.3	(1,137.9)	(59.4)
Income tax expense	982.3	1,118.4	(136.1)	(12.2)
Profit from discontinued operations	-	294.8	(294.8)	(100.0)
Net profit	563.4	(2,061.6)	2,625.0	-

In terms of net income, after recording a net loss of KRW 2,062 billion in 2016, KDB recorded a net profit of KRW 563 billion in 2017, up KRW 2,625 billion compared to the previous year. Mostly due to higher non-interest income and lower provision for loan loss, operating income went up approximately KRW 3,922 billion year on year to reach KRW 767 billion. Non-operating income hit KRW 778 billion, down KRW 1,138 billion year on year due to a drop in gains related to investments in associates.

# **Interest Income and NIM**

				(Unit: KRW billion)
			Change	
	2017 2016 -	Amount	(%)	
Interest-earning assets (Annual average balance)	161,041	167,033	(5,992)	(3.6)
Yield rate (%)	2.84	2.81		0.03%p
Interest-bearing liabilities (Annual average balance)	177,001	181,179	(4,178)	(2.3)
Cost rate (%)	1.94	2.01		(0.07)%p
NIM (%)	0.71	0.63		0.08%p

\* Non-consolidated basis

Interest-earning assets and interest-bearing liabilities dropped 3.6% and 2.3%, respectively, to KRW 161,041 billion and KRW 177,001 billion, while the yield rate increased by 0.03%p and borrowing rate decreased by 0.07%p, respectively, to 2.84% and 1.94%. Net interest margin amounted to 0.71%, up 0.08%p from 0.63% in the previous year.

# **FINANCIAL CONDITION**

# **Summary Statement of Financial Position**

				(Unit: KRW billion)	
	0017	001/	Cha	Change	
	2017	2016	Amount	(%)	
Assets	263,811.7	272,837.8	(9,026.1)	(3.3)	
Cash & due from banks	8,235.5	9,171.2	(935.7)	(10.2)	
Securities	75,713.8	79,531.6	(3,817.8)	(4.8)	
Loans	143,224.1	144,516.2	(1,292.1)	(0.9)	
Other assets	36,638.3	39,618.8	(2,980.5)	(7.5)	
Liabilities	230,240.9	241,818.4	(11,577.5)	(4.8)	
Deposits	34,300.1	39,398.1	(5,098.0)	(12.9)	
Borrowings	28,692.7	31,203.4	(2,510.7)	(8.0)	
Bonds	120,228.0	121,890.1	(1,662.1)	(1.4)	
Other liabilities	47,020.1	49,326.8	(2,306.7)	(4.7)	
Equity	33,570.8	31,019.4	2,551.4	8.2	
Issued capital	17,938.1	17,543.1	395.0	2.3	
Capital surplus	1,058.4	1,236.7	(178.3)	(14.4)	
Retained earnings	9,827.1	9,333.7	493.4	5.3	
Capital adjustments	324.6	215.2	109.4	50.8	
Accumulated other comprehensive income	694.5	582.5	112.0	19.2	
Non-controlling interest	3,728.1	2,108.2	1,619.9	76.8	

As of the end of 2017, KDB's assets amounted to KRW 263,812 billion, down 3.3% from the previous year. This is attributable to a reduction in available-for-sale financial assets and other assets, while the former dropped 9.6% year on year to KRW 39,594 billion, and the latter totaled KRW 36,638 billion, down 7.5% from the previous year.

KDB's liabilities reached KRW 230,241 billion, down 4.8% year on year, which is attributable to a reduction in deposits and borrowings. Deposits amounted to KRW 34,300 billion, down 12.9% from the previous year and borrowings topped KRW 28,693 billion, down 8.0% year on year.

KDB's issued capital went up with an increase of capital worth KRW 395 billion as KDB issued new shares to the Korean government in 2017. As a result, KDB's total equity stood at KRW 33,571 billion, up 8.2% from the previous year, due to aforementioned increase in issued capital, and increases in retained earnings and non-controlling interests.

# Loans

(Unit: KRW billion)

	2017	2016	Chai	nge	
	2017		Amount	(%)	
Corporate loans	121,040	125,551	(4,511)	(3.6)	
Large enterprises	95,224	98,724	(3,500)	(3.5)	
SMEs	25,816	26,827	(1,011)	(3.8)	
Household loans	1,537	2,486	(949)	(38.2)	
Public and others	1,173	1,079	94	8.7	
Total loans	123,750	129,116	(5,366)	(4.2)	

\* Non-consolidated basis

Loans recorded KRW 123,750 billion, down 4.2% from the previous year. Corporate loans made up the biggest portion of all loans recording KRW 121,040 billion, down 3.6% year on year because loans for large enterprises and SMEs dropped 3.5% and 3.8%, respectively, from the previous year.

# Funding

				(Unit: KRW billion)
			Change	
	2017	2016	Amount	(%)
Deposits	34,300	39,398	(5,098)	(12.9)
Borrowings	28,693	31,203	(2,510)	(8.0)
Bonds	120,228	121,890	(1,662)	(1.4)

Deposits, borrowings, and bonds dropped by 12.9%, 8.0%, and 1.4%, respectively, year on year. As a result, the proportion of bonds amongst all funding sources increased from 63.3% to 65.6%.

# ASSET QUALITY

			Cha	nae
	2017	2016	Amount	(%)
Total credit	123,751	129,116	(5,365)	(4.2)
Normal	111,063	116,116	(5,053)	(4.4)
Precautionary	8,368	8,402	(34)	(0.4)
Sub-standard	2,533	2,368	165	7.0
Doubtful	548	708	(160)	(22.6)
Estimated loss	1,239	1,522	(283)	(18.6)
Sub-standard and below loans (NPL)	4,320	4,598	(278)	(6.0)
NPL Ratio	3.49%	3.56%		(0.07)%p
Loan loss reserve	4,142	3,981	161	4.0
NPL coverage ratio	95.9%	86.6%		9.3%p

\* Non-consolidated basis

Total credit amounted to KRW 123,751 billion, down 4.2% from the previous year. NPL recorded KRW 4,320 billion, down 6.0% because of sell-offs and depreciation of NPLs, etc. As a result, the NPL ratio slightly dropped to 3.49% in 2017, down 0.07% pfrom the previous year.

Loan loss reserves increased 4.0% from the previous year to KRW 4,142 billion, which increased the NPL coverage ratio by 9.3%p to 95.9%.

# **CAPITAL ADEQUACY**

(Unit:%)

(Unit: KRW billion)

	2017	2016	Change (%p)
Capital adequacy ratio	15.26	14.86	0.40
Tier 1 ratio	13.18	12.78	0.40

The BIS capital adequacy ratio and Tier 1 ratio of KDB in accordance with Basel III as of the end of 2017 reached 15.26% and 13.18%, respectively, up 0.40%p for each from the previous year. The BIS capital amounted to KRW 34.1 trillion, up 2.5% from the previous year due to government's capital injection (KRW 0.4 trillion), etc. Risk-weighted assets stood at KRW 223.2 trillion, down 0.2% from the previous year. The BIS capital adequacy ratio of KDB is well maintained above the minimum requirement of 8%.

# <u>INDEPENDENT</u> AUDITORS' REPORT

# Based on a report originally issued in Korean

# The Board of Directors and Shareholders Korea Development Bank

We have audited the accompanying consolidated financial statements of Korea Development Bank (the "Bank") and its subsidiaries (collectively, the "Group"), which comprise the consolidated statement of financial position as at December 31, 2017, the consolidated statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

# Management's Responsibilities for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Korean International Financial Reporting Standards, 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.

# Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Group as at December 31, 2017, and its financial performance and its cash flows for the year then ended in accordance with Korean International Financial Reporting Standards.

#### **Other Matters**

We audited the consolidated financial statements for the year ended December 31, 2016, and expressed a qualified opinion on those financial statements on March 30, 2017 on the basis of scope limitation related to our testing for the ability of Deawoo Shipbuilding & Marine Engineering Co., Ltd. ("DSME"), which is a subsidiary, to continue as a going concern and our testing for appropriate cut-off of cost of sales of DSME.

Nexia Samduk Seoul, Korea March 28, 2018

Nexia Someticke

This report is effective as of March 28, 2018, 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 there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

# **CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**

As of December 31, 2017 and 2016

(In millions of won)	Notes		December 31, 2017	December 31, 2016
Assets				
Cash and due from banks	4,40,49,50,53	₩	8,235,486	9,171,203
Financial assets held for trading	5,49,50,53		1,904,649	2,420,832
Financial assets designated at fair value				
through profit or loss	6,49,50,53		120,019	341,303
Available-for-sale financial assets	7,40,49,50,53		39,593,926	43,810,626
Held-to-maturity financial assets	8,49,50,53		6,040,641	5,446,948
Loans	9,42,49,50,53		143,224,116	144,516,214
Derivative financial assets	10,49,50,51,53		6,382,579	6,461,126
Investments in associates	11,52		28,054,557	27,511,908
Property and equipment, net	12,52		6,026,911	6,577,983
Investment property, net	13,52		412,586	419,919
Intangible assets, net	14,52		1,292,426	1,961,882
Deferred tax assets	38		920,983	1,440,146
Current tax assets	1 - 10 - 0 - 0		74,516	79,664
Other assets	15,49,50,53		21,264,039	21,952,746
Assets held for sale	16		264,294	725,324
Total assets		₩	263,811,728	272,837,824
Liabilities				
Financial liabilities designated at fair value				
through profit or loss	17,49,50,53	₩	1,626,185	1,893,077
Deposits	18,49,50,53		34,300,089	39,398,070
Borrowings	19,49,50,53		28,692,715	31,203,363
Debentures	20,49,50,53		120,228,005	121,890,112
Derivative financial liabilities	10,49,50,51,53		5,823,991	6,782,554
Policy reserves	21		15,586,838	14,433,980
Defined benefit liabilities	22		403,092	420,597
Provisions	23		1,687,266	1,585,652
Deferred tax liabilities	38		3,512,909	3,611,809
Current tax liabilities			369,572	39,756
Other liabilities	24,49,50,53		17,991,308	20,444,294
Liabilities held for sale	16		18,954	115,090
Total liabilities		_	230,240,924	241,818,354
Equity				
Issued capital	25		17,938,099	17,543,099
Capital surplus	25		1,058,374	1,236,666
Capital adjustment	25		324,596	215,236
Accumulated other comprehensive income	25		694,547	582,540
Retained earnings	25		9,827,095	9,333,683
(Regulatory reserve for credit losses of ₩1,347,622 million and million as of December 31, 2017 and 2016, respectively)	₩1,419,756			
(Required provision for (reversal of) regulatory reserve for credi WS8,231 million and (-)W72,134 million as of December 31, 2 reversively)				
respectively) (Planned provision for (reversal of) regulatory reserve for credit W58,231 million and (-)W72,134 million as of December 31, 2 respectively)				
respectively) Total equity attributable to owners of the parent			29,842,711	28,911,224
Total equity attributable to owners of the parent Non-controlling interests			3,728,093	28,911,224 2,108,246
Non-controlling interests Total equity			33,570,804	31,019,470
		w		
Total liabilities and equity		₩_	263,811,728	272,837,824

# CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31, 2017 and 2016

(In millions of won, except earnings per share information)	Notes	2017	2016
Continuing operations:			
Interest income	26	₩ 5,753,821	5,777,667
Interest expense	26	(3,499,555)	(3,733,991)
Net interest income	52	2,254,266	2,043,676
Net fees and commission income	27	478,674	515,460
Dividend income	28	260,147	238,091
Net loss on financial assets held for trading	29	(27,311)	(29,832)
Net gain on financial instruments designated at fair value through profit or loss	30	73,452	74,753
Net gain (loss) on available-for-sale financial assets	31	(155,078)	357,150
Net gain on held-to-maturity financial assets	32	193	94
Net gain on derivatives	33	1,058,089	62,828
Net foreign currency transaction loss	34	(754,779)	(171,793)
Other operating income (expense), net	35	346,879	(1,634,500)
Non-interest income, net		1,280,266	(587,749)
		, ,	
Provision for loan losses	9	976,961	2,684,406
General and administrative expenses	36,52	1,790,269	1,925,843
Operating income (loss)	52	767,302	(3,154,322)
Gain related to investments in associates	11	273,350	2,698,359
Other non-operating income	37	1,749,961	224,388
Other non-operating expense	37	(1,244,920)	(1,006,430)
Non-operating income, net		778,391	1,916,317
Profit (loss) before income taxes		1,545,693	(1,238,005)
Income tax expenses	38	982,321	1,118,404
Profit (loss) from continuing operations		563,372	(2,356,409)
Discontinued operations:			
Profit from discontinued operations	16		294,764
<b>Profit (loss) for the year</b> (Profit (loss) for the year adjusted for regulatory reserve for credit losses:	25	563,372	(2,061,645)

(Profit (loss) for the year adjusted for regulatory reserve for credit losses: ₩505,141 million and (-)₩1,989,511 million as of December 31, 2017 and 2016, respectively)

# CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME, CONTINUED

(In millions of won, except earnings per share information)	Notes	2017	2016
Other comprehensive income (loss) for the year, net of tax	25		
Items that are or may be reclassified subsequently to profit or loss:			
Valuation gain (loss) on available-for-sale financial assets, net	₩	113,596	(399,932)
Share of other comprehensive income (loss) of associates		207,928	(62,771)
Exchange differences on translation of foreign operations		(289,413)	75,111
Valuation loss on cash flow hedge		7,737	4,897
Others	_	(88,713)	(139,424)
		(48,865)	(522,119)
Items that will not be reclassified subsequently to profit or loss:			
Remeasurements of defined benefit liabilities	_	12,257	44,942
	-	(36,608)	(477,177)
Total comprehensive income (loss) for the year	₩_	526,764	(2,538,822)
Profit (loss) attributable to:	25		
Owners of the parent	W	493,412	(12,478)
Non-controlling interests		69,960	(2,049,167)
Profit (loss) for the year	W	563,372	(2,061,645)
Total comprehensive income (loss) attributable to:			
Owners of the parent	W	605,419	(301,940)
Non-controlling interests		(78,655)	(2,236,882)
Total comprehensive income (loss) for the year	₩_	526,764	(2,538,822)
Earnings (loss) per share:	39		
Basic and diluted earnings (loss) per share (in won)	39 ₩	139	(4)
	39	139	(4)
Earnings (loss) per share - Continued operations	39 <u>w</u>	139	(110)
Basic and diluted earnings (loss) per share (in won)	<del>- **</del> =	139	(119)

# CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In millions of won)		Issued capital	Capital surplus	Capital adjustment	comprehensive income	Retained earnings	Total	controlling interests	Total equity
Balance at January 1, 2016	₩ 1′	7,235,399	1,579,236	225,537	872,002	9,346,161	29,258,335	4,855,429	34,113,764
Loss for the year Valuation loss on available-for-sale	<b>.</b>	-	-	-	-	(12,478)	(12,478)	(2,049,167)	(2,061,645)
financial assets Share of other comprehensive loss		-	-	-	(297,334)	-	(297,334)	(102,598)	(399,932)
of associates Exchange differences on		-	-	-	(65,578)	-	(65,578)	2,807	(62,771)
translation of foreign operations Valuation gain on cash flow hedge		-	-	-	46,308 4,897	-	46,308 4,897	28,803	75,111 4,897
Remeasurements of defined benefit liabilities		_	-	-	27,242	-	27,242	17,700	44,942
Others Total comprehensive loss for the		<u> </u>			(4,997)	-	(4,997)	(134,427)	(139,424)
year		-	-	-	(289,462)	(12,478)	(301,940)	(2,236,882)	(2,538,822)
Paid-in capital increase Acquisition on / disposal of interest in subsidiaries while		307,700	(1,492)	-	-	-	306,208	-	306,208
maintain control			(341,078)	(10,301)		-	(351,379)	(510,301)	(861,680)
Transaction with owners		307,700	(342,570)	(10,301)		-	(45,171)	(510,301)	(555,472)
Balance at December 31, 2016	₩ 1′	7,543,099	1,236,666	215,236	582,540	9,333,683	28,911,224	2,108,246	31,019,470
Balance at January 1, 2017	₩ 1′	7,543,099	1,236,666	215,236	582,540	9,333,683	28,911,224	2,108,246	31,019,470
Profit for the year Valuation gain (loss) on available-		-	-	-	-	493,412	493,412	69,960	563,372
for-sale financial assets Share of other comprehensive		-	-	-	122,203	-	122,203	(8,607)	113,596
income (loss) of associates Exchange differences on		-	-	-	209,903	-	209,903	(1,975)	207,928
translation of foreign operations Valuation gain on cash flow hedge Remeasurements of defined		-	-	-	(232,218) 7,737	-	(232,218) 7,737	(57,195)	(289,413) 7,737
benefit liabilities Others		-	-	-	(437) 4,819	-	(437) 4,819	12,694 (93,532)	12,257 (88,713)
Total comprehensive income (loss) for the year		<u> </u>			112,007	493,412	605,419	(78,655)	526,764
Paid-in capital increase Acquisition on / disposal of interest in subsidiaries while		395,000	(1,946)	-	-	-	393,054	-	393,054
maintain control		-	(176,346)	109,360	-	-	(66,986)	1,698,502	1,631,516
Transaction with owners	_	395,000	(178,292)	109,360		-	326,068	1,698,502	2,024,570
Balance at December 31, 2017	₩ 1	7,938,099	1,058,374	324,596	694,547	9,827,095	29,842,711	3,728,093	33,570,804

# CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions of won)	Notes	2017	2016
Cash flows from operating activities			
Profit (loss) for the period from continuing operations	₩	563,372	(2,356,409)
Adjustments for:		,	
Income tax expense	38	982,321	1,118,404
Interest income	26	(5,753,821)	(5,777,667)
Interest expense	26	3,499,555	3,733,991
Dividend income	28	(260,147)	(238,091)
Loss on valuation of financial assets held for trading	29	7,993	16,433
Gain on valuation of financial instruments designated at fair value	20	(70.275)	((0.127))
through profit or loss	30 31	(79,375)	(68,137)
Gain on disposal of available-for-sale financial assets Impairment loss on available-for-sale financial assets	31	(67,852) 222,930	(655,766) 298,616
Gain on disposal of held-to-maturity financial assets	32	(193)	(94)
Loss (gain) on valuation of derivatives	33	(178,417)	858,879
Net gain on fair value hedged items	33	(622,318)	(286,003)
Loss on foreign exchange translation	34	815,036	30,371
Loss (gain) on disposal of investments in associates	35	128,018	(1,438,218)
Impairment loss on investments in associates	11	27,379	26,455
Share of profit of associates	11	(300,729)	(2,724,814)
Provision for loan losses	9	976,961	2,684,406
Reversal of provision for payment guarantees	23	(10,312)	(43,437)
Increase (reversal) of provision for unused commitments	23	59,186	(45,714)
Increase (reversal) of financial guarantee provision	23	83,412	(82,202)
Increase of lawsuit provision	23	355,894	204,764
Reversal of restoration liability	23	(615)	(770)
Increase of other provisions	23	14,034	170,176
Provision for other losses		262,635	1,251,365
Defined benefit costs	22	161,430	197,243
Depreciation of property and equipment	12	266,617	183,875
Loss (gain) on disposal of property and equipment	37	(2,385)	7,899
Impairment loss on property and equipment	37	440,544	203,958
Depreciation of investment property	13 37	6,301	5,728
Gain on disposal of investment property Impairment loss on investment property	37	1,353	(309) 1,542
Amortization of intangible assets	14	218,737	276,165
Loss (gain) on disposal of intangible assets	37	(113)	668
Impairment loss on intangible assets	37	528,030	378,931
Gain on disposal of assets held for sale	37	(19,252)	(7,413)
(Reversal of) Impairment loss on assets held for sale	37	(3,047)	52,782
Loss (gain) on share capital repayable on demand	35	107,549	(105,450)
Loss (gain) on redemption of debentures	35	(122)	590
		1,867,217	229,156
Changes in operating assets and liabilities:			
Due from banks		(476,022)	709,944
Financial assets held for trading		934,917	(17,437)
Financial assets designated at fair value through profit or loss		223,078	117,047
Loans		250,234	(5,231,885)
Derivative financial assets		(691,673)	(712,568)
Other assets		752,505	1,258,509
Financial liabilities designated at fair value through profit or loss Deposits		(189,213) (5,071,831)	395,834 (2,452,276)
Policy reserves		1,152,859	1,603,975
Defined benefit liabilities		(111,891)	(213,904)
Provisions		(309,555)	(60,122)
Other liabilities		(3,258,427)	(2,146,369)
		(6,795,019)	(6,749,252)
Income taxes paid		(59,432)	(86,385)
Interest received		5,627,812	6,307,349
Interest paid		(3,699,746)	(4,047,123)
Dividends received		857,186	1,166,305
Net cash used in operating activities		(1,638,610)	(5,536,359)
ree cash asea in operating activities		(1,050,010)	(3,330,337)

# Korea Development Bank and Subsidiaries

# CONSOLIDATED STATEMENTS OF CASH FLOWS, CONTINUED

Notes20172016Cash flows from investing activities $7$ $21,741,259$ $41,851,143$ Acquisition of available-for-sale financial assets $7$ $21,794,038$ $(35,834,889)$ Redemption of held-to-maturity financial assets $8$ $7,996,038$ $(35,834,889)$ Redemption of held-to-maturity financial assets $8$ $87,249$ $(1,208,392)$ Disposal of property and equipment $12$ $32,188$ $246,238$ Acquisition of property and equipment $12$ $31,612$ Acquisition of investment property $13$ $ 3,612$ Acquisition of investment property $13$ $(460)$ $-$ Disposal of intangible assets $14$ $9,527$ $20,068$ Acquisition of investment property $13$ $(460)$ $-$ Disposal of intangible assets $11$ $471,495$ $1,332,689$ Acquisition of investments in associates $11$ $(1,449,906)$ $(606,957)$ Net cash flows by the change of subsidiaries $75,109$ $2,522,964$ $2,542,192$ Net cash flows from financing activities $93,353,713$ $75,139,901$ Repayment of borrowings $38,897,054$ $32,279,910$ Repayment of borrowings $(1,946), (1,492), (1,492), (1,492), (1,292), (31,796,127)$ Proceeds from changes in foreign currency exchange rate for cash and cash equivalents held $(616,256)$ $93,435$ Net cash used in financing activities $(2,273,613)$ $2,483,029$ Cash and cash equivalents held $(616,256)$ $93,435$ Ne				
Disposal of available-for-sale financial assets7W $21,741,259$ $41,851,143$ Acquisition of vallable-for-sale financial assets7(17,964,038)(55,834,889)Redemption of held-to-maturity financial assets876,090658,598Acquisition of property and equipment1232,188246,238Acquisition of investment property13-3,612Acquisition of investment property13-3,612Acquisition of investment property13-3,612Acquisition of investment property13(460)-Disposal of assets and liabilities held for sale587,752102,074Disposal of investment in associates11471,4951,332,689Acquisition of investments in associates1141,49,906(606,957)Net cash flows from financing activities2,542,1927,992,350Cash flows from financing activities93,53,71375,139,901Repayment of debentures99,353,71375,139,901Repayment of debentures(100,110,868)(75,996,289)Proceeds from issuance of debentures99,353,71375,139,901Repayment of debentures(100,110,868)(75,996,289)Paid-in capital increase(1,936,623)2,483,029Cash and cash equivalents held(616,256)93,435Net increase (increase) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents held(19,38,623)2,483,029	(In millions of won)	Notes	2017	2016
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Acquisition of investment property13(460)Disposal of intangible assets149,52720,068Acquisition of intangible assets14(92,547)(60,335)Disposal of assets and liabilities held for sale587,752102,074Disposal of investment in associates11471,4951,332,689Acquisition of investments in associates11(1,449,906)(606,957)Net cash flows by the change of subsidiaries705,1092,522,964Net cash provided by investing activities2,542,1927,992,350Proceeds from financing activities38,897,05432,279,910Proceeds from borrowings38,897,05432,279,910Repayment of borrowings99,353,71375,139,901Repayment of borrowings(40,508,902)(31,796,127)Proceeds from issuance of debentures99,353,71375,139,901Repayment of debentures(100,110,868)(75,996,289)Paid-in capital increase(100,110,868)(75,996,289)Ostock issuance costs(1,946)(1,492)Net cash used in financing activities(2,225,949)(66,397)Effects from changes in foreign currency exchange rate for cash and cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584			-	
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Disposal of assets and liabilities held for sale587,752102,074Disposal of investment in associates11471,4951,332,689Acquisition of investments in associates11(1,449,906)(606,957)Net cash flows by the change of subsidiaries705,1092,522,964Net cash provided by investing activities2,542,1927,992,350Cash flows from financing activities38,897,05432,279,910Proceeds from borrowings(40,508,902)(31,796,127)Proceeds from issuance of debentures99,353,71375,139,901Repayment of debentures(100,110,868)(75,996,289)Paid-in capital increase(100,110,868)(75,996,289)Paid-in capital increase(1,946)(1,492)Net cash used in financing activities(2,225,949)(66,397)Effects from changes in foreign currency exchange rate for cash and cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584		14	(92,547)	(60,335)
Disposal of investment in associates11471,4951,332,689Acquisition of investments in associates11(1,449,906)(606,957)Net cash flows by the change of subsidiaries705,1092,522,964Net cash provided by investing activities2,542,1927,992,350Cash flows from financing activities38,897,05432,279,910Proceeds from borrowings(40,508,902)(31,796,127)Proceeds from issuance of debentures99,353,71375,139,901Repayment of beentures99,353,71375,139,901Rition capital increase(100,110,868)(75,996,289)Net cash used in financing activities(1,946)(1,492)Net cash used in financing activities(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584				
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Net cash flows by the change of subsidiaries705,1092,522,964Net cash provided by investing activities2,542,1927,992,350Cash flows from financing activities38,897,05432,279,910Proceeds from borrowings38,897,05432,279,910Repayment of borrowings(40,508,902)(31,796,127)Proceeds from issuance of debentures99,353,71375,139,901Repayment of debentures(100,110,868)(75,996,289)Paid-in capital increase145,000307,700Stock issuance costs(1,946)(1,492)Net cash used in financing activities(616,256)93,435Effects from changes in foreign currency exchange rate for cash and cash equivalents held(1,938,623)2,483,029Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584	Acquisition of investments in associates	11	(1,449,906)	
Net cash provided by investing activities2,542,1927,992,350Cash flows from financing activities38,897,05432,279,910Proceeds from borrowings38,897,05432,279,910Repayment of borrowings(40,508,902)(31,796,127)Proceeds from issuance of debentures99,353,71375,139,901Repayment of debentures(100,110,868)(75,996,289)Paid-in capital increase145,000307,700Stock issuance costs(1,946)(1,492)Net cash used in financing activities(2,225,949)(66,397)Effects from changes in foreign currency exchange rate for cash and cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584	Net cash flows by the change of subsidiaries			2,522,964
Proceeds from borrowings       38,897,054       32,279,910         Repayment of borrowings       (40,508,902)       (31,796,127)         Proceeds from issuance of debentures       99,353,713       75,139,901         Repayment of debentures       (100,110,868)       (75,996,289)         Paid-in capital increase       145,000       307,700         Stock issuance costs       (1,946)       (1,492)         Net cash used in financing activities       (2,225,949)       (66,397)         Effects from changes in foreign currency exchange rate for cash and cash equivalents held       (616,256)       93,435         Net increase (decrease) in cash and cash equivalents       (1,938,623)       2,483,029         Cash and cash equivalents at beginning of the year       12,273,613       9,790,584	Net cash provided by investing activities		2,542,192	
Proceeds from borrowings       38,897,054       32,279,910         Repayment of borrowings       (40,508,902)       (31,796,127)         Proceeds from issuance of debentures       99,353,713       75,139,901         Repayment of debentures       (100,110,868)       (75,996,289)         Paid-in capital increase       145,000       307,700         Stock issuance costs       (1,946)       (1,492)         Net cash used in financing activities       (2,225,949)       (66,397)         Effects from changes in foreign currency exchange rate for cash and cash equivalents held       (616,256)       93,435         Net increase (decrease) in cash and cash equivalents       (1,938,623)       2,483,029         Cash and cash equivalents at beginning of the year       12,273,613       9,790,584	Cash flows from financing activities			
Repayment of borrowings(40,508,902)(31,796,127)Proceeds from issuance of debentures99,353,71375,139,901Repayment of debentures(100,110,868)(75,996,289)Paid-in capital increase145,000307,700Stock issuance costs(1,946)(1,492)Net cash used in financing activities(2,225,949)(66,397)Effects from changes in foreign currency exchange rate for cash and cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584			38,897,054	32.279.910
Proceeds from issuance of debentures99,353,71375,139,901Repayment of debentures(100,110,868)(75,996,289)Paid-in capital increase145,000307,700Stock issuance costs(1,946)(1,492)Net cash used in financing activities(2,225,949)(66,397)Effects from changes in foreign currency exchange rate for cash and cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584			, ,	, ,
Repayment of debentures(100,110,868)(75,996,289)Paid-in capital increase145,000307,700Stock issuance costs(1,946)(1,492)Net cash used in financing activities(2,225,949)(66,397)Effects from changes in foreign currency exchange rate for cash and cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584				
Paid-in capital increase145,000307,700Stock issuance costs(1,946)(1,492)Net cash used in financing activities(2,225,949)(66,397)Effects from changes in foreign currency exchange rate for cash and cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584	Repayment of debentures		, ,	
Stock issuance costs(1,946)(1,492)Net cash used in financing activities(2,225,949)(66,397)Effects from changes in foreign currency exchange rate for cash and cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584	1 5			
Net cash used in financing activities(2,225,949)(66,397)Effects from changes in foreign currency exchange rate for cash and cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584			(1,946)	· · · · · · · · · · · · · · · · · · ·
cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584	Net cash used in financing activities			
cash equivalents held(616,256)93,435Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584				
Net increase (decrease) in cash and cash equivalents(1,938,623)2,483,029Cash and cash equivalents at beginning of the year12,273,6139,790,584			(616.256)	93.435
Cash and cash equivalents at beginning of the year   12,273,613   9,790,584	······································		()	
	Net increase (decrease) in cash and cash equivalents		(1,938,623)	2,483,029
Cash and cash equivalents at end of the year $47 \times 10,334,990$ 12,273,613	Cash and cash equivalents at beginning of the year		12,273,613	9,790,584
	Cash and cash equivalents at end of the year	47 <del>V</del>	10,334,990	12,273,613

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

As of December 31, 2017 and 2016

#### 1. <u>Reporting Entity</u>

The accompanying consolidated financial statements comprise Korea Development Bank ("KDB" or the "Bank") and its subsidiaries (collectively the "Group"). General information of the Bank and its subsidiaries is stated below.

#### (1) Controlling company

KDB was established on April 1, 1954, in accordance with *the Korea Development Bank Act* to finance and manage major industrial projects, in order to expedite industrial development and enhance the national economy.

The Bank is engaged in the banking industry under *the Korea Development Bank Act* and other applicable statutes, and in the fiduciary in accordance with *the Financial Investment Services and Capital Markets Act*.

Korea Finance Corporation (KoFC), the former ultimate parent company, and KDB Financial Group Inc. (KDBFG), the former immediate parent company, were established by spin-offs of divisions of the Bank as of October 28, 2009. KoFC and KDBFG were merged into the Bank, effective as of December 31, 2014. Issued capital is w17,938,099 million with 3,587,619,768 shares of issued and outstanding as of December 31, 2017 and the government of the Republic of Korea owns 100% of the Bank's shares.

The Bank's head office is located in 14, Eunhaeng-ro, Yeouido-dong, Yeongdeungpo-gu, Seoul and its service network as of December 31, 2017, is as follows:

	Dom	estic				
					Representative	
	Head Office	Branches	Branches	Subsidiaries	offices	Total
KDB	1	74	9	5	8	97

#### (2) Consolidated subsidiaries

The Group's equity ownership in its consolidated direct and indirect subsidiaries as of December 31, 2017 and 2016 are summarized as follows:

				Fiscal	Ownersh	nip (%)
Investor	Investee	Country	Industry	year end	2017	2016
	Subsidiaries:					
KDB	KDB Asia (HK) Ltd.	Hong Kong	Finance	December	100.00	100.00
	KDB Ireland Ltd.	Ireland	Finance	December	100.00	100.00
	KDB Bank Uzbekistan Ltd.	Uzbekistan	Finance	December	86.34	86.34
	KDB Bank Europe Ltd.	Hungary	Finance	December	100.00	100.00
	Banco KDB Do Brazil S. A.	Brazil	Finance	December	100.00	100.00
	KDB Capital Corporation	Korea	Financial lease	December	99.92	99.92
	KDB Infrastructure Investment		Asset			
	Asset Management Co., Ltd.	Korea	management	December	84.16	84.16
	Daewoo Shipbuilding & Marine					
	Engineering Co., Ltd.	Korea	Manufacturing	December	56.01	79.04
	Shinhan Heavy Industries Co., Ltd.					
	(*1)(*5)	Korea	Manufacturing	December	89.22	-
	Samwoo Heavy Industry Co., Ltd.					
	(*1) (*5)	Korea	Manufacturing	December	100.00	-
	Daehan Shipbuilding Co., Ltd.					
	(*1) (*5)	Korea	Manufacturing	December	70.04	-
	Korea Infrastructure Fund		Financial			
		Korea	investment	December	85.00	85.00
	Korea Education Fund (*3)		Financial	Half-		
		Korea	investment	yearly	50.00	50.00
	Korea BTL Fund I (*3)		Financial	Half-		
		Korea	investment	yearly	41.67	41.67

				Fiscal	Owners	hip (%)
Investor	Investee	Country	Industry	year end	2017	2016
KDB	Korea Railroad Fund I (*3)		Financial	Half-		
		Korea	investment	yearly	50.00	50.00
	Principals and interests guaranteed		Financial	_		
	trusts (*4)	Korea	investment	December	-	-
	Principals guaranteed trusts (*4)	17	Financial	D 1		
		Korea	investment	December	-	-
	KDB Venture M&A Private Equity	IZ	Financial	D 1	57.56	57.56
	Fund KDB Turn Around Private Equity	Korea	investment	December	57.56	57.56
		Korea	Financial investment	December		97.59
	Fund (*6) KDB Consus Value Private Equity	Kolea	Financial	December	-	97.39
	Fund	Korea	investment	December	58.08	58.08
	Components & Materials M&A	Korea	Financial	Determoti	56.00	56.00
	Private Equity Fund	Korea	investment	December	83.33	83.33
	KDB Value Private Equity Fund	Rolea	Financial	Determoti	05.55	05.55
	VI	Korea	investment	December	99.84	99.84
	KDB Value Private Equity Fund	Korea	Financial	Determoti	JJ.04	JJ.0 <del>4</del>
	VII (*5)	Korea	investment	December	55.00	55.00
	KDB Sigma Private Equity Fund II	Rolea	Financial	Determoti	55.00	55.00
	(*5)	Korea	investment	December	73.33	73.33
	KDB Asia Private Equity Fund	Rolea	Financial	December	15.55	15.55
	(*5)	Korea	investment	December	65.00	65.00
	KoFC-KBIC Frontier Champ	norea	Financial	December	02.00	02.00
	2010-5 PEF (*2)	Korea	investment	December	50.00	50.00
	KTB Korea-Australia Global	110100	Financial	Determoti	00.00	00.00
	Cooperation Private Equity Fund	Korea	investment	December	95.00	95.00
	KDBC IP Investment Fund 2 (*5)		Financial			
		Korea	investment	December	66.66	66.66
	KoFC-KDBC Pioneer Champ					
	2010-4 venture investment fund		Financial			
	(*5)	Korea	investment	December	100.00	100.00
	NVESTOR 2016 Private Equity		Financial			
	Fund	Korea	investment	December	80.00	-
	KDB-IAP OBOR Private Equity		Financial			
	Fund (*2) (*5)	Korea	investment	December	44.69	-
	K-Five 5th Securitization Specialty		Financial			
	Co., Ltd. and 7 others (*7)	Korea	investment	December	-	-
	KIAMCO Road Investment Private					
	Fund Special Asset Trust 2 and 34		Financial			
	beneficiary certificates	Korea	investment	December	-	-
	Sub-subsidiaries:					
KDB Capital	Vietnam Int'l Leasing Co., Ltd.	Vietnam	Finance	December	81.65	81.65
Corporation	I-Cube Investment Fund 1 (*5)		Financial			
	(*8)	Korea	investment	December	18.70	18.70
	KDBC Biomedical New Growth		Financial			
	Investment Fund	Korea	investment	December	60.00	60.00
	KDBC Food Industry Investment		Financial			
	Fund 1 (*8)	Korea	investment	December	50.00	50.00
	Stock Collateral Loan MMT 3 (*6)	17	Financial	D 1		100.00
		Korea	investment	December	-	100.00
	Stock Collateral Loan MMT 4	Koraa	Financial	December	100.00	
	Special money trust of Apache	Korea	investment Financial	December	100.00	-
	Golf Bond with Warrant	Korea	investment	December	100.00	100.00
	Son Dona with Wallant	ixorea	myestment	Determot	100.00	100.00

# As of December 31, 2017 and 2016

				Fiscal	Owners	hip (%)
Investor	Investee	Country	Industry	year end	2017	2016
KDB Capital Corporation	Special money trust of Indochina Bank's Private Placement Bond No. 1 (*6) Capstone Professional Investors	Korea	Financial investment	December	-	100.00
	Private Placement Real Estate Investment Trust #9 (*8) Hanwha Investment & Securities	Korea	Financial investment Financial	December	50.00	-
	MMT (*6) Kyobo Securities MMT (*6)	Korea	investment Financial	December	-	100.00
	DB Financial Investment MMT	Korea	investment Financial	December	-	100.00
	Shinyoung Securities MMT	Korea	investment Financial	December	100.00	100.00
	KDB Capital the Fifth	Korea	investment	December	100.00	-
	Securitization Specialty Co., Ltd. (*6) KDB Capital the Sixth	Korea	Financial investment	December	-	-
	Securitization Specialty Co., Ltd. (*8) KDB Capital the Eighth	Korea	Financial investment	December	-	-
	Securitization Specialty Co., Ltd. (*8) DB curious Private Equity Fund L.	Korea	Financial investment Financial	December	-	-
Daewoo	P. DW Mangalia Heavy Industries S.	Korea	investment	December	98.74	98.74
Shipbuilding & Marine	A. DSEC Co., Ltd. (*6)	Rumania	Shipbuilding Service,	December	51.00	51.00
Engineering	, , , ,	Korea	Wholesale	December	-	70.07
Co., Ltd.	Welliv. Corp. (*6) DSME Construction Co., Ltd. (*6)	Korea	Service Civil	December	-	100.00
	DSME Shangdong Co., Ltd.	Korea	engineering, Construction Parts of watercraft	December	-	99.21
	Shinhan Heavy Industries Co., Ltd. (*1) (*5)	China	manufacturing Parts of watercraft	December	100.00	100.00
	DeWind Co. (*10)	Korea	manufacturing Wind power	December	-	89.22
	Samwoo Heavy Industry Co., Ltd. (*1) (*5)	USA	generation Parts of watercraft	December	100.00	100.00
	DK Maritime S. A.	Korea	manufacturing Shipping		-	100.00
	DSME Oman LLC	Panama	industry Real-estate	December	100.00	100.00
		Oman	developer	December	70.00	70.00
	DSME Far East LLC BIDC Co., Ltd. (*6)	Russia	Shipbuilding Warehousing, Packaging,	December	100.00	100.00
	DeWind Frisco LLC (*10)	Korea	Transport Wind power	December	-	51.04
	DeWind Novus III LLC (*10)	USA	generation Wind power	December	-	100.00
		USA	generation	December	-	100.00

As of December 31, 2017 and 2016

				Fiscal	Ownersl	nip (%)
Investor	Investee	Country	Industry	year end	2017	2016
Daewoo Shipbuilding	LITTLE PRINGLE 1 (*10)	USA	Wind power generation	December	-	100.00
& Marine Engineering	LITTLE PRINGLE 2 (*10)	USA	Wind power generation	December	-	100.00
Co., Ltd.	PT. DSME ENR CEPU	Indonesia	Mine lot investment	December	85.00	85.00
	DSME Information Consulting Co., Ltd.	Korea	Service	December	100.00	-
KDB Consus Value Private Equity Fund	KDB Life Insurance Co., Ltd. (*9)	Korea	Finance	December	85.05	85.05
KDB Value Private Equity Fund VI	Daewoo Engineering & Construction Co., Ltd. (*9)	Korea	Construction	December	51.34	51.34
KDBC IP Investment Fund 2	LEDIP Co., Ltd. (*6)	Korea	Service	December	-	99.99
I-Cube Investment Fund 1	IP-Cube Partners Co., Ltd.	Korea	Service	December	100.00	100.00

- (\*1) The Bank consolidates directly the investee which was a subsidiary of Daewoo Shipbuilding & Marine Engineering Co., Ltd., as it has control over the investee through the commencement of the administrative proceeding under the *Corporate Restructuring Promotion Act* for the year ended December 31, 2017.
- (\*2) Although the Group's shareholding in the investee is less than 50%, it controls the investee since it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.
- (\*3) The investees are financed by the Bank and managed by KDB Infrastructure Investment Asset Management Co., Ltd. They are included in the scope of consolidation even though the Bank holds less than half of the voting rights because the Bank is exposed to variable returns, and has the ability to affect those returns through its power over the investee.
- (\*4) The trusts are included in the scope of consolidation because the Bank has power over the trusts to control the financial and operating policies of the entity, and is exposed to variable returns through the contract for preservation of principal and interest or principal only.
- (\*5) Indirect ownership through subsidiaries is included.
- (\*6) The investees are excluded from the scope of consolidation as of December 31, 2017 due to liquidation.
- (\*7) The investees are established for the investor's business, or are structured entities that the investor has rights to obtain the majority of the benefits of the investee or retains the majority of the risks related to the investee. The investees are included in the scope of consolidation because the investor has power over the investees to control the financial and operating policies of the entity, exposure or rights to variable returns from its involvement with the investees and the ability to use its power over the investees to affect those returns.
- (\*8) Those entities have been consolidated even though the investor's ownership is not over 50%, because the investor, as an executive partner, has power over the investees to control the financial and operating policies of the entity, exposure or rights to variable returns from its involvement with the investees and the ability to use its power over the investees to affect those returns.
- (\*9) The parent company of the sub-subsidiary is a SPE, which is not separately disclosed in the consolidated financial statements.
- (\*10) The DeWind Co. and its subsidiaries expected to be sold within one year as of December 31, 2017 are transferred to assets and liabilities held for sale.

# 1. <u>Reporting Entity, Continued</u>

#### (3) Changes in subsidiaries

Subsidiaries that are newly included in the consolidated financial statements and those that are excluded from the consolidated financial statements as of December 31, 2017 are as follows:

(i) Subsidiaries newly included in scope of consolidation as of December 31, 2017

Reason	Subsidiaries
ABCP line of credit and	K-Five 6th Securitization Specialty Co., Ltd., U-BEST 4th Securitization
purchase commitment	Specialty Co., Ltd., KDB Mirae Seongjang ABCP 1st Inc.
New establishment and others	NVESTOR 2016 Private Equity Fund, KDB-IAP OBOR Private Equity Fund

(ii) Subsidiaries excluded from scope of consolidation as of December 31, 2017

Reason	Subsidiaries		
Liquidation	KDB Turn Around Private Equity Fund		
Disposal	Multi-Asset KDB Shipping Fund HJ-1, Multi-Asset KDB Shipping Fund		
	SNP-1, Multi-Asset KDB Shipping Fund SH-1		
Losing control	KDB Ocean Value-up Fund 7th, Multi-Asset KDB Ocean Value-up Fund 9th, Multi-Asset KDB Ocean Value-up Fund 9-1st		

As of December 31, 2017 and 2016

# 1. <u>Reporting Entity, Continued</u>

### (4) Financial information of subsidiaries

Financial information of subsidiaries included in the consolidated financial statements as of and for the years ended December 31, 2017 and 2016 are as follows:

	2017					
				017		Total
				Operating	Net profit	comprehensive
	Assets	Liabilities	Equity	revenue	(loss)	income (loss)
KDB Asia (HK) Ltd.	₩ 1,481,387	1,171,441	309,946	76,587	22,762	(16,026)
KDB Ireland Ltd.	399,436	320,670	78,766	21,616	7,606	(1,212)
KDB Bank Uzbekistan Ltd.	745,374	677,237	68,137	90,386	60,790	(42,187)
KDB Bank Europe Ltd.	873,868	793,699	80,169	46,576	6,096	6,917
Banco KDB Do Brazil S. A.	363,222	293,418	69,804	140,860	10,046	1,048
KDB Capital Corporation	5,078,188	4,281,709	796,479	429,661	115,107	93,859
KDB Infrastructure Investment	20.007	< <b>- 0</b> 0			10 110	12 100
Asset Management Co., Ltd.	38,805	6,729	32,076	25,456	13,418	13,480
Daewoo Shipbuilding & Marine	11 446 550	0.456.001	2 000 ((2	11 101 010	(21.402	505 100
Engineering Co., Ltd.	11,446,753	8,456,091	2,990,662	11,101,818	621,492	527,133
Shinhan Heavy Industries Co., Ltd.	315,526	286,621	28,905	46,853	3,165	2,378
Samwoo Heavy Industry Co., Ltd.	281,704	248,520	33,184	38,824	(3,361)	(3,457)
Daehan Shipbuilding Co., Ltd.	543,676	602,057	(58,381)	438,857	(6,352)	
Korea Infrastructure Fund	9,775	6	9,769	865	751	751
Korea Education Fund Korea BTL Fund I	128,391	7 321	128,384	5,011	4,668 17,072	4,668 17,072
Korea Railroad Fund I	469,776 309,417	12	469,455 309,405	18,526 13,879	17,072	13,040
Principals and interests guaranteed	509,417	12	309,403	15,879	13,040	13,040
trusts	252,947	246,337	6,610	16,434	(1,477)	(1,477)
Principals guaranteed trusts	272,342	266,339	6,003	5,559	176	176
KDB Venture M&A Private Equity	272,342	200,557	0,005	5,557	170	170
Fund	120	7,910	(7,790)	_	-	-
KDB Consus Value Private Equity	120	7,910	(1,190)			
Fund	17 331 649	17,089,983	241,666	4,515,023	49,595	(14,937)
Components & Materials M&A	17,551,015	17,009,905	211,000	1,010,020	17,575	(11,557)
Private Equity Fund	1,162	1,812	(650)	4	(2,251)	4,712
KDB Value Private Equity Fund VI		7,732,081		12,068,750	(458,596)	
KDB Value Private Equity Fund	- , ,		,,	,,	(;)	( , )
VII	214,051	62,087	151,964	15,766	10,027	(3,105)
KDB Sigma Private Equity Fund II	222,435	574	221,861	2	4,595	4,525
KoFC-KBIC Frontier Champ 2010-	,		,		,	,
5 PEF	15,017	3	15,014	2,131	(294)	18
KTB Korea-Australia Global						
Cooperation Private Equity Fund	1,286	5	1,281	2	1,861	1,861
KDB Asia Private Equity Fund	26,353	195	26,158	-	(2,619)	(4,466)
KDBC IP Investment Fund 2	9,398	3,000	6,398	2,167	2,162	1,776
KoFC-KDBC Pioneer Champ 2010-	-					
4 venture investment Fund	11,621	179	11,442	3,410	3,227	1,571
NVESTOR 2016 Private Equity						
Fund	62,384	25,886	36,498	13,717	96	96
KDB-IAP OBOR Private Equity						
Fund	140,592	47,894	92,698	-	(1,598)	(8,062)
K-Five 5th Securitization Specialty						
Co., Ltd. and 7 others	767,162	863,933	(96,771)	43,211	(10,939)	(10,949)
KIAMCO Road Investment Private						
Fund Special Asset Trust 2 and 34			0 0 (0 70 -	1 = 0 0 0 =	100 / 70	10
beneficiary certificates	2,370,818	7,313	2,363,505	150,995	120,659	105,610

	2016					
						Total
				Operating	Net profit	comprehensive
	Assets	Liabilities	Equity	Revenue	(loss)	income (loss)
KDB Asia (HK) Ltd.	₩ 1,569,053	1,243,081	325,972	98,026	42,615	51,402
KDB Ireland Ltd.	414,379	334,400	79,979	32,977	11,389	14,129
KDB Bank Uzbekistan Ltd.	1,119,482	1,009,157	110,325	43,963	19,777	7,289
KDB Bank Europe Ltd.	890,137	816,885	73,252	85,407	5,923	6,144
Banco KDB Do Brazil S.A	370,416	301,660	68,756	181,368	29,833	45,351
KDB Capital Corporation	5,028,667	4,290,574	738,093	521,862	115,953	73,952
KDB Infrastructure Investment						
Asset Management Co., Ltd.	31,833	5,258	26,575	20,518	9,978	9,945
Daewoo Shipbuilding & Marine						
Engineering Co., Ltd.	15,064,830	14,405,453	659,377	13,839,819	(2,734,139)	(2,709,492)
Korea Infrastructure Fund	11,702	5	11,697	1,043	911	911
Korea Education Fund	136,499	8	136,491	5,440	5,072	5,072
Korea BTL Fund I	499,048	342	498,706	21,173	19,624	19,624
Korea Railroad Fund I	351,810	14	351,796	15,018	14,122	14,122
Principals and interests						
guaranteed trusts	257,441	249,354	8,087	7,382	(6,754)	
Principals guaranteed trusts	273,946	268,119	5,827	5,795	57	57
KDB Venture M&A Private						
Equity Fund	120	7,910	(7,790)	-	-	-
KDB Turn Around Private						
Equity Fund	3,372	1	3,371	19	(280)	(280)
KDB Consus Value Private						
Equity Fund	16,849,641	16,590,305	259,336	4,475,638	(312,433)	(401,631)
Components & Materials M&A						
Private Equity Fund	1,964	5,208	(3,244)	13,225	12,532	12,631
KDB Value Private Equity Fund		0.154.045	0 445 551	11 401 540	(500 401)	(507.005)
VI	11,622,516	9,176,965	2,445,551	11,491,549	(523,491)	(507,095)
KDB Value Private Equity Fund		70.400	140 760	1 507	(0.0(0))	(0, 170)
VII KDD C: D: ( E : E )	211,195	70,426	140,769	1,507	(9,062)	(8,170)
KDB Sigma Private Equity Fund		200	107 225	2	1.054	1 502
	197,621	286	197,335	3	1,954	1,593
KDB Asia Private Equity Fund	23,489	1	23,488	-	(330)	1,056
KoFC-KBIC Frontier Champ 2010-5 PEF	50 212	2	50 211	1 000	2 001	4 221
	50,213	2	50,211	1,900	2,001	4,221
KTB Korea-Australia Global Cooperation Private Equity						
Fund	1,081	1 661	(580)		(18,349)	(18, 240)
KDBC IP Investment Fund 2	9,982	1,661 3,259	6,723	881	(18,349) (3,385)	
KoFC-KDBC Pioneer Champ	),)02	5,257	0,725	001	(3,303)	(4,575)
2010-4 venture investment						
Fund	17,909	238	17,671	5,877	5,452	(5,511)
K-Five 5th Securitization	17,909	250	17,071	5,077	5,452	(5,511)
Specialty Co., Ltd. and 4 others	816,817	902,648	(85,831)	38,233	(3,485)	(3,510)
KIAMCO Road Investment	510,017	202,010	(00,001)	50,255	(3,103)	(5,510)
Private Fund Special Asset						
Trust 2 and 40 beneficiary						
certificates	2,384,852	20,177	2,364,675	132,331	50,045	61,439
	_,_ 0 .,002	_0,177	_, ,, , , , , , ,		- 0,0 .0	51,.59

As of December 31, 2017 and 2016  $\,$ 

#### 2. Basis of Preparation

#### (1) Application of accounting standards

The consolidated financial statements have been prepared in accordance with Korean International Financial Reporting Standards ("K-IFRS") enacted by the *Act on External Audit of Stock Companies*.

#### (2) Changes and disclosures of accounting policies

#### (i) New and amended standards and interpretations adopted

The Group newly applied the following amended and enacted standards for the annual period beginning on January 1, 2017. Application of these amendment and improvements dose not have a material impact on its consolidated financial statements.

- Amendments to K-IFRS 1007 'Statement of Cash Flows'
- Amendments to K-IFRS 1012 'Income Taxes'
- Amendments to K-IFRS 1112 'Disclosure of Interests in Other Entities'

#### (ii) New and amended standards and interpretations issued but not effective

The following new standards, interpretations and amendments to existing standards have been published but not effective for annual periods beginning after January 1, 2017, and the Group has not early adopted them.

#### K-IFRS 1109 'Financial Instruments'

K-IFRS 1109 'Financial Instruments' replaces the existing guidance in K-IFRS 1039 'Financial Instruments: Recognition and Measurement'. The Group plans to adopt K-IFRS 1109 for the accounting periods beginning on or after January 1, 2018.

K-IFRS 1109 is retrospectively applied in principle, but there are some exceptions such as exemption of restatement of comparative information for classification, measurement, impairment of financial instruments. For hedge accounting, the requirements are generally applied prospectively, with some exceptions such as accounting for time value of options.

Major characteristics of K-IFRS 1109 are financial assets being classified and measured based on the holder's business model and instrument's contractual cash flow characteristics, impairment model of financial instruments based on expected credit losses (ECL), broader range of hedged items and hedging instruments that qualify for the application of hedge accounting or changes in evaluation of hedging effectiveness etc.

For smooth adoption of K-IFRS 1109, financial impact analysis, accounting policies establishment, accounting system establishment and stabilization need to take place. The impact of the standards on the financial statements in the period they are initially adopted may differ depending on the Group's decisions and judgments of accounting policies as well as economic environment and its financial instruments.

With the implementation of Korea IFRS 1109, the Bank completed modification of its internal managing processes or accounting system for financial instruments reporting and the Group is in the process of analyzing the financial impact of the new standard on the consolidated financial statements. The Bank performed an impact assessment to identify potential financial impacts of applying K-IFRS 1109. The assessment was performed based on available information as at December 31, 2017, and the results of the assessment are explained as below.

#### 2. Basis of Preparation, Continued

The general impacts on the consolidated financial statements are as follows:

#### Classification and measurement of financial assets

K-IFRS 1109 requires a financial asset to be classified and measured subsequently at amortized cost, fair value through other comprehensive income (FVOCI), or fair value through profit or loss (FVTPL) based on the holder's business model and instrument's contractual cash flow characteristics as shown below. If a hybrid contract contains a host that is a financial asset, an embedded derivative is not separated from the host and the entire hybrid contract is classified according to the requirement of K-IFRS 1109.

	Contractual cash flow characteristics			
	Composed solely of			
Business model	principal and interest	Other		
Objective of collecting contractual				
cash flows	Measured at amortized cost (*1)			
Objective of collecting contractual		Measured at FVTPL (*2)		
cash flows and selling financial		Measured at FV IFL (2)		
assets	Measured at FVOCI (*1)			
Objective of selling or others	Measured at FVTPL			

(\*1) Financial assets may be irrevocably designated as measured at FVTPL in order to eliminate or reduce accounting mismatch.

(\*2) Investment in equity instruments not held for trading may be irrevocably designated as measured at FVOCI.

The requirements of K-IFRS 1109 to classify financial assets as measured at amortized costs or FVOCI are more stringent than those of K-IFRS 1039, and thus, the proportion of financial assets measured at FVTPL may increase, which may lead to a rise in volatility of profit or loss because of the adoption of K-IFRS 1109.

As of December 31, 2017, the Bank holds ₩150,203,457 million of loans and receivables, ₩12,313 million of held-to-maturity financial assets, ₩32,062,921 million of available-for-sale financial assets and ₩926,737 million of financial assets at fair value through profit or loss excluding derivative financial assets.

According to K-IFRS 1109, a debt instrument may be measured at amortised cost if both of the conditions that the instrument is held within a business model whose objective is to hold instruments in order to collect contractual cash flows and that the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding are met. As of December 31, 2017, the Bank holds loans and receivables and held-to-maturity financial assets measured at amortised cost amounting to W150,203,457 million and W12,313 million, respectively.

According to K-IFRS 1109, a debt instrument may be measured at FVOCI if both of the conditions that the instrument is held within a business model whose objective is achieved by both collecting contractual cash flows and selling instruments and that the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding are met. As of December 31, 2017, the Bank holds debt instruments classified as available-for-sale financial assets amounting to W17,609,058 million.

According to K-IFRS 1109, an entity may make an irrevocable election at initial recognition to present in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument that is not held for trading and the gains or losses accumulated in other comprehensive income are not subsequently recycled to profit or loss. As of December 31, 2017, the Bank holds equity instruments classified as available-for-sale financial assets amounting to W14,453,863 million.

According to K-IFRS 1109, a debt instrument that is held for trading or whose contractual terms do not give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding and an equity instrument not designated as measured at FVOCI is measured at FVTPL. As of December 31, 2017, the Bank holds debt and equity instruments classified as financial assets at FVTPL amounting to W911,203 million and W15,534 million, respectively.

As of December 31, 2017 and 2016

# 2. Basis of Preparation, Continued

As of December 31, 2017, the following table summarizes the impacts on the classification and measurement of financial assets (excluding derivatives) held by the Bank.

	Classification based on K-IFRS 1039	Classification based on K-IFRS 1109	1	Amount based on K-IFRS 1039	Amount based on K-IFRS 1109
Due from banks	Loans and receivables	Financial assets at amortized cost	₩	6,545,780	6,545,780
Financial assets held for trading:					
Debt securities	Financial assets at FVTPL	Financial assets at FVTPL		911,203	911,203
Equity securities	п	11		15,534	15,534
Available-for-sale financial assets:				15,554	15,554
Debt securities	Available-for-sale financial assets	Financial assets at FVOCI Financial assets at		17,583,985	17,583,985
	"	amortized cost		25,073	25,000
Equity securities	п	Financial assets at		,	,
1 5		FVTPL		4,216,878	4,206,997
	п	Financial assets at			
		FVOCI		10,236,985	10,236,943
Held-to-maturity financial assets	Held-to-maturity financial assets	Financial assets at amortized cost		12,313	12,312
Loans	Loans and receivables	Financial assets at		707,816	881,957
	п	Financial assets at		,	
		amortized cost		135,571,506	135,540,768
Other financial assets:	и	Ш		7,378,355	7,380,764
			₩	183,205,428	183,341,243

#### 2. Basis of Preparation, Continued

When applying K-IFRS 1109, W707,816 million of loans and receivables and W4,216,878 million of availablefor-sale financial assets measured at amortised cost as of December 31, 2017 would be classified as financial assets at FVTPL. As a result, the proportion of financial assets measured at FVTPL of total financial assets (excluding derivatives) will increase from 0.51% to 3.28%, and the volatility of profit or loss resulting from changes in the fair value of financial assets will increase.

#### Classification and measurement of financial liabilities

K-IFRS 1109 requires that the amount of change in fair value of the financial liability designated as measured at FVTPL that is attributable to changes in the credit risk shall be presented in other comprehensive income and the amount shall not be reclassified as profit or loss. If the requirements create or enlarge an accounting mismatch in profit or loss, all gains or losses on that liability including the effects of changes in the credit risk shall be presented in profit or loss.

In K-IFRS 1039, the entire change in fair value of the financial liability designated as measured at FVTPL is presented in profit or loss. In K-IFRS 1109, the profit or loss related to the financial liability may be decreased because a portion of the change in fair value is presented in other comprehensive income

As of December 31, 2017, the Bank has designated W1,583,713 million of financial liabilities amounting to W181,566,313 million excluding derivatives as measured at FVTPL.

When applying K-IFRS 1109, the accumulated amount of change in fair value of the financial liabilities that is attributable to changes in the credit risk of that liability as of December 31, 2017 would be W13,131 million and profit or loss relating to valuation of the financial liability is expected to decrease slightly.

#### *Impairment: financial assets and contract assets*

In K-IFRS 1039, impairment is recognized only when there is objective evidence of impairment based on incurred loss model. In K-IFRS 1109, impairment of debt instruments measured at amortized costs or FVOCI, lease receivables, contract assets, loan commitments and financial guarantee contracts is recognized based on the expected credit loss (ECL) impairment model.

K-IFRS 1109 outlines a 'three-stage' model for impairment based on changes in credit risk since initial recognition. A loss allowance is measured based on the 12-month ECL or life-time ECL which allows early recognition of credit loss compared to the incurred loss model of K-IFRS 1039.

_	Classification	Loss allowance			
Stage 1 Assets with no significant increase in credit risk since initial recognition		12-month ECL: Expected credit losses that result from default events that are possible within 12 months after the reporting data			
Stage 2	Assets with significant increase in credit	reporting date. Lifetime ECL: Expected credit losses that result from all			
	risk since initial recognition	possible default events over the expected life of the			
Stage 3	Credit-impaired assets	financial instrument.			

In K-IFRS 1109, the cumulated changes in lifetime ECL since initial recognition are recognized as a loss allowance for originated credit-impaired financial assets.

As of December 31, 2017 and 2016

# 2. Basis of Preparation, Continued

As of December 31, 2017, the following table summarizes the impacts on the loss allowance of the Bank.

		Amount based on K-IFRS 1039	Amount based on K-IFRS 1039	Difference
Due from banks	₩	-	-	-
Available-for-sale financial assets (Debt securities)		-	119,331	119,331
Held-to-maturity financial assets		-	1	1
Loans and receivables		3,886,977	3,937,724	50,747
Guarantees		638,223	702,731	64,508
Commitments		445,946	482,534	36,588
	₩	4,971,146	5,242,321	271,175

#### Hedge accounting

K-IFRS 1109 maintains mechanics of hedge accounting (fair value hedge, cash flow hedge and a hedge of a net investment in a foreign operation) as set forth in K-IFRS 1039. However, unlike requirements in K-IFRS 1039 that are too complex and strict, K-IFRS 1109 is more practical, principle based and less strict and focuses on the entity's risk management activities. Also, K-IFRS 1109 allows broader range of hedged items and hedging instruments. Under K-IFRS 1039, a hedge is assessed to be highly effective only if the offset is in the range of 80-125 percentages by performing numerical test of effectiveness. In K-IFRS 1109, such requirements are alleviated.

Transactions not qualifying for hedge accounting requirements of K-IFRS 1039 may now qualify for hedge accounting under K-IFRS 1109, resulting in less volatility of profit or loss.

Pursuant to transitional provisions of hedge accounting, the Bank may choose as its accounting policy to continue to apply the hedge accounting requirements of K-IFRS 1039 at the date of initial application.

#### K-IFRS 1115 'Revenue from Contracts with Customers'

K-IFRS 1115 'Revenue from Contracts with Customers' replaces the existing guidance in K-IFRS 1011 'Construction Contracts', K-IFRS 1018 'Revenue', K-IFRS 2113 'Customer Loyalty Programmes', K-IFRS 2115 'Agreements for the Construction of Real Estate', K-IFRS 2118 'Transfers of Assets from Customers' and K-IFRS 2031 'Revenue - Barter Transactions Involving Advertising Services'.

The Group shall apply K-IFRS 1115 for annual reporting periods beginning on or after January 1, 2018, and recognized the cumulative effect of initially applying the standard as an adjustment to retained earnings as of January 1, 2018.

Current K-IFRSs provide revenue recognition standards for different types of transactions, such as sales of goods, provision of services, interest income, royalty income, dividend income and construction contracts. The K-IFRS 1115 introduces a five-step approach to revenue recognition and measurement for all types of transactions: 1) Identify the contract with a customer, 2) Identify the performance obligations in the contract, 3) Determine the transaction price, 4) Allocate the transaction price to the performance obligations in the contract and 5) Recognize revenue when (or as) the entity satisfies a performance obligation.

For the preparation of implementing K-IFRS 1115, the Group is in the process of analysing financial impact arising from applying the standard with an accounting firm which serves as an external advisor. The revenue of Daewoo Shipbuilding & Marine Engineering Co., Ltd. ("DSME") and Daewoo Engineering & Construction Co., Ltd. ("Daewoo E&C") of the Group's subsidiaries are expected to be affected in general.

DSME and Daewoo E&C have performed preliminary impact assessment for the financial statements for the year ended December 31, 2017 based on information available as at October 30, 2017 and December 31, 2017, respectively. The result of preliminary impact assessment may be changed based on additional information available subsequently.

#### 2. Basis of Preparation, Continued

The preliminary impact assessment for DSME is as follows:

(1) Identify the performance obligations in the contract The DSME operates divisions of the ships & offshore plant, special ships and others.

Under K-IFRS 1115, timing of revenue recognition would change depending on whether each of the performance obligations are satisfied at a point of time or over time.

As DSME has the performance obligation of the construction of a vessel, etc. ordered by customers, it would recognize revenue with transaction price over the service period. As a result of a preliminary impact assessment of the adoption of K-IFRS 1115, the DSME's revenue recognition can be affected.

#### <sup>(2)</sup> Measuring progress using the input method

Under K-IFRS 1115, a faithful depiction of an entity's performance might be to recognize revenue at an amount equal to the cost of goods used to satisfy a performance obligation if the entity expects at contract inception that 1) a good is not distinct, 2) a customer is expected to obtain control of the good significantly before receiving services related to the good, 3) the cost of the transferred good is significantly relative to the total expected costs to completely satisfy the performance obligation, and 4) the entity procures the good from a third party and is not significantly involved in designing and manufacturing the good. As a result of a preliminary impact assessment of the adoption of K-IFRS 1115, the DSME's revenue recognition can be affected.

#### ③ Variable consideration

The DSME's consideration received from customers can be variable due to the liquidated damages arising from delays, change order, etc.

Under K-IFRS 1115, the entity shall estimate an amount of variable consideration by using the expected value method the entity expects to better predict an amount of consideration to which it will be entitled and include the amount of variable consideration in the transaction price only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. As a result of a preliminary impact assessment of the adoption of K-IFRS 1115, the DSME's revenue recognition can be affected.

#### (4) Significant financing component in the contract

Currently, the heavy-tail payment method, in which a substantial portion of the payment is made at time of delivery, is diffusing in the shipbuilding industry.

Under K-IFRS 1115, in determining the transaction price, the entity shall adjust the promised amount of consideration for the efforts of the time value of money if the timing of payments agreed to by the parties to the contract provides the customer or the entity with a significant benefit of financing the transfer of goods or services to the customer.

DSME will not adjust the promised amount of consideration if it expects that the period between when it transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less. As a result of a preliminary impact assessment of the adoption of K-IFRS 1115, DSME's revenue may be varied due to significant financing component.

As of December 31, 2017 and 2016  $\,$ 

# 2. Basis of Preparation, Continued

## (5) Warranties

The DSME provides one-year extended warranties for certain projects, besides the standard warranties providing a customer with assurance that a product complies with the agreed-upon contract. Under K-IFSR 1115, the extended warranties are the distinct services.

Under K-IFRS 1115, if a warranty provides a customer with a service in addition to the assurance that the product complies with agreed-upon specifications, the promised service is a separate performance obligation and the related transaction price needs to be allocated to the product and the service.

As a result of a preliminary impact assessment of the adoption of K-IFRS 1115, the DSME's retained earnings is expected to decrease as some part of transaction price is allocated to the warranties and the allocated transaction price is recognized as revenue based on the allocated transaction price upon satisfying the performance obligation.

The preliminary impact assessment for Daewoo E&C is as follows:

#### 1 Performance obligation satisfied over time

The Daewoo E&C provides customers with roads, bridges, apartments, shopping malls, power generation and petrochemical plants through the process of design, procurement and construction and the process generally takes three to four years.

As a result of a preliminary impact assessment of the adoption of K-IFRS 1115, the revenue from most of construction contracts may be recognized based on percentage-of-completion accounting. The Daewoo E&C will recognize revenue over time based on percentage of completion considering the actual costs incurred.

Meanwhile, the Daewoo E&C continues to analyse the impact on the timing of revenue recognition of presale construction under K-IFRS 1115.

#### 2 Incremental costs of obtaining a contract

The Daewoo E&C recognizes as an asset the costs to obtain a construction contract with a customer and the costs includes those costs that it would not have incurred if the contract had not been obtained. In accordance with K-IFRS 1115, an entity shall recognize as an asset the incremental costs of obtaining a contract with a customer if the entity expects to recover those costs, and costs recognized as assets are amortized over the contract period. As a practical expedient, the entity can recognize those costs as expenses when incurred if the amortisation period of the asset that the entity otherwise would have recognized is one year or less. The Daewoo E&C is in the process of analysing the financial impact and the result will be reflected in the financial statements for the year ending December 31, 2018.

#### ③ Significant financing component in the contract

Under K-IFRS 1115, in determining the transaction price, an entity recognizes revenue at an amount that reflects the price that a customer would have paid in cash for the promised goods or services when they transfer to the customer if the timing of payments agreed to by the parties to the contract provides the customer or the entity with a significant benefit of financing the transfer of goods or services to the customer. The Daewoo E&C is in the process of analysing the financial impact and the result will be reflected in the financial statements for the year ending December 31, 2018.

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# 2. Basis of Preparation, Continued

#### K-IFRS 1116 'Leases'

K-IFRS 'Leases' 1116 replaces K-IFRS 1017 'Leases', K-IFRS 2104 'Determines whether an Arrangement contains a Lease', K-IFRS 2015 'Operating Leases-Incentives' and K-IFRS 2027 'Evaluating the Substance of Transactions Involving the Legal Form of a Lease'. K-IFRS 1116 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model similar to the accounting for finance leases under KIFRS 1017. The standard includes two recognition exemptions for lessees – leases of 'low-value' assets (e.g., personal computers) and short-term leases (i.e., leases with a lease term of 12 months or less). K-IFRS 1116 is effective for annual periods beginning on or after January 1, 2019 and early application is permitted. The Group is assessing the potential effect of the amendments on its consolidated financial statements.

# Amendments to Korean IFRS 1028 'Investments in Associates and Joint Ventures'

When an investment in an associate or a joint venture is held by, or it held indirectly through, an entity that is a venture capital organization, a mutual fund, etc., the entity may elect to measure that investment at fair value through profit or loss. The amendments clarify that an entity shall make this election separately for each associate of joint venture, at initial recognition of the associate or joint venture. The Group will apply these amendments retrospectively for annual periods beginning on or after January 1, 2018, and early adoption is permitted. The Group does not expect the amendments to have a significant impact on the consolidated financial statements.

#### K-IFRS 1102 'Share-based Payment'

Amendment to K-IFRS 1102 clarifies the accounting for a modification to the terms and conditions of a sharebased payment that changes the classification of the transaction from cash-settled to equity-settled and valuation method used to measure fair value of cash-settled share-based payment. The amendment to K-IFRS 1102 is effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group expects that the application of this amendment would not have a material impact on its consolidated financial statements.

#### Enactments to Interpretation 2122 'Foreign Currency Transactions and Advance Consideration'

According to these enactments, the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. If there are multiple payments or receipts in advance, the entity shall determine a date of the transaction for each payment or receipt of advance consideration. These enactments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the enactments to have a significant impact on the consolidated financial statements.

#### (3) 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:

- Derivative financial instruments measured at fair value
- Financial instruments measured at fair value through profit or loss
- Available-for-sale financial instruments measured at fair value
- Fair value hedged financial instruments with changes in fair value, due to hedged risks, recognized in profit or loss
- Liabilities for defined benefit plans, which are recognized as net of the total present value of defined benefit obligations less the fair value of plan assets

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#### 2. Basis of Preparation, Continued

#### (4) Functional and presentation currency

In preparing the Group's consolidated financial statements, transactions in foreign currencies are initially recorded by the Group entities at their respective functional currency rates prevailing at the date of the transaction. The Group's consolidated financial statements are presented in Korean won, which is also the Group's functional currency. The following entities of the Group have different functional currency from the presentation currency:

Functional currency	Subsidiaries
USD	KDB Asia Ltd.
	KDB Ireland Ltd.
	KDB Asia Private Equity Fund
	KDB-IAP OBOR Private Equity Fund
	Multi-Asset KDB Shipping Private Fund SPO-1
	Multi-Asset KDB Shipping Private Fund SNT-1
	Multi-Asset KDB Shipping Private Fund SNT-2
	Multi-Asset KDB Shipping Private Fund DA-3
	Multi-Asset KDB Shipping Private Fund KLC-1
	Multi-Asset KDB Ocean Value-up Private Fund 5th
	Multi-Asset KDB Ocean Value-up Private Fund 6th
UZS	KDB Bank Uzbekistan Ltd.
HUF	KDB Bank Europe Ltd.
BRL	Banco KDB Do Brazil S. A.

#### (5) 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. Management's estimates may differ from actual outcomes if management's estimates and assumptions based on management's best judgment at the reporting date are different from the actual environment.

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

The following are the key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

#### (i) Fair value of financial instruments

Financial instruments held-for-trading, financial instruments designated at fair value through profit or loss, available-for-sale financial assets and derivative instruments are recognized and measured at fair value. If the market for a financial instrument is not active, fair value is determined either by using a valuation technique or independent third-party valuation service. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, referencing to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models.

Financial instruments, which are not actively traded in the market and those with less transparent market prices, will have less objective fair values and require broad judgment on liquidity, concentration, uncertainty in market factors and assumptions in price determination and other risks.

Diverse valuation techniques are used to determine the fair value of financial instruments, from generally accepted market valuation models to internally developed valuation models that incorporate various types of assumptions and variables.

## 2. Basis of Preparation, Continued

# (ii) Provisions for credit losses (allowances for loan losses, provisions for payment guarantee, and unused commitments)

The Group first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant (individual assessment of impairment). Financial assets that are not individually significant assess objective evidence of impairment individually or collectively. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment (collective assessment of impairment).

Provisions for credit losses are measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate.

Individual assessment of impairment losses is calculated by discounting the expected future cash flows of a loan at its original effective interest rate and comparing the resultant present value with the loan's current carrying amount. This process normally encompasses management's best estimate, such as operating cash flow of the borrower and net realizable value of any collateral held.

A methodology based on historical loss experience is used to estimate inherent incurred loss on groups of assets for collective assessment of impairment. Such methodology incorporates factors such as type of collateral, product and borrowers, credit rating, loss emergence period, recovery period and applies probability of default on a group of assets and loss given default by type of recovery method. Also, consistent assumptions are applied to form a formula-based model in estimating inherent loss and to determine factors on the basis of historical loss experience and current condition. The methodology and assumptions used for collective assessment of impairment are reviewed regularly to reduce any differences between loss estimates and actual loss experience.

#### (iii) Deferred taxes

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date. Deferred income tax assets are recognized to the extent that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Actual income taxes in the future may not be identical to the recognized deferred tax assets and liabilities,

#### (iv) Defined benefit liabilities

The Group operates a defined benefit plan. Defined benefit liability is calculated by annual actuarial valuations as of the reporting date. In order to perform the actuarial valuations, assumptions for discount rates, future salary increases and others are required to be estimated. Defined benefit plans contain significant uncertainties in estimations due to its long-term nature.

#### (6) Approval date for the consolidated financial statements

The consolidated financial statements were authorized for issue by the Board of Directors on March 28, 2018, which will be submitted for approval to the shareholders' meeting to be held on March 29, 2018.

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#### 3. Significant Accounting Policies

The significant accounting policies applied by the Group in preparation of its consolidated financial statements are included below. The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements.

#### (1) Basis of consolidation

#### (i) Subsidiaries and business combinations

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has right to, variable returns from its involvement with the entity and has the ability to affect those returns through its power of the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which controls ceases.

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 its financial statements in preparing the consolidated financial statements.

For acquisitions meeting the definition of a business combination, the acquisition method of accounting is used. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. Any goodwill arising from initial consolidation is tested for impairment at least once a year and whenever events or changes in circumstances indicate the need for impairment. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date in fair value of the assets transferred, equity instruments issued and liabilities incurred or assumed and the amount of any non-controlling interests in the acquire. Costs related to acquisition are recognized as expenses when occurred.

The excess of the cost of acquisition over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If the cost of acquisition is less than the fair value of the Group's share of the net assets acquired, the difference is recognized directly in the consolidated statement of comprehensive income.

Intra-group balances, income and expenses, unrealized gain and loss and dividends resulting from intra-group transactions are fully eliminated

A change in the ownership interest of a subsidiary, without a change of control, is accounted for as an equity transaction. If the Group loses control over a subsidiary, it recognizes any investment retained at fair value and any surplus or deficit in profit or loss.

As of December 31, 2017 and 2016

#### 3. Significant Accounting Policies, Continued

#### (ii) Investments in associates

Associates are all entities over which the Group has significant influence but not control. Significant influence is presumed to exist when the Group holds between 20% and 50% of the voting power. Investments in associates are accounted for by the equity method of accounting and are initially recognized at cost. The Group's investment in associates includes goodwill (net of any accumulated impairment loss) identified on acquisition. When the investors' share on the fair value of the associates' identifiable assets and liabilities exceeds acquisition cost of the associates' interest, the excess portion is recognized as the current profit for the year of acquisition.

The Group's share of its associates' post-acquisition profits or loss is recognized in the statement of comprehensive income, and its share of post-acquisition movements in reserves is recognized in reserves. When the Group's share of loss in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognize further loss, unless it has incurred obligations or made payments on behalf of the associates. The carrying amount of equity method investments and the long-term interest that partially consists of investors' net investment are included in interest in the associate.

Unrealized gain and loss on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associate. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

#### (iii) Acquisitions from entities under common control

The assets and liabilities acquired are recognized at the carrying amounts recognized previously in the Group controlling shareholder's consolidated financial statements. The difference between cash paid and acquired net assets are recorded in equity.

#### (iv) Non-controlling Interests

Non-controlling interests in a subsidiary are accounted for separately from the parent's ownership interests in a subsidiary. Each component of net profit or loss and other comprehensive income is attributed to the owners of the parent and non-controlling interest holders, even when the allocation reduces the non-controlling interests balance below zero.

# (v) Changes in the parent company's ownership interest

Changes in the parent company's ownership interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions with owners in their capacity as owners. Adjustments to non-controlling interests are based on a proportionate amount of the net assets of the subsidiary. The difference between the consideration and the adjustments made to non-controlling interests is recognized directly in equity attributable to the owners of the parent company.

# (2) Operating segments

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Group's other components. Segment results that are reported to the chief operating decision maker include items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Unallocated items mainly comprise corporate assets (primarily the Group's headquarters), head office expenses, and income tax assets and liabilities. The Group recognizes the CEO as the chief operating decision maker.

As of December 31, 2017 and 2016  $\,$ 

#### 3. Significant Accounting Policies, Continued

# (3) Foreign exchange

# (i) Foreign currency transactions

Transactions in foreign currencies are translated to the functional currency of company entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to the functional currency at the exchange rate at that date. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are translated to the functional currency at the exchange rate at the date that the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

Foreign currency differences arising on translation are recognized in profit or loss, except for differences arising on the translation of available for sale equity instruments, 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. Exchange rate effect of the gain (or loss) from non-monetary item is categorized according to whether the gain (or loss) is recognized as other comprehensive income or as profit or loss.

#### (ii) 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 the exchange rates of the date of transaction. Foreign currency differences that arise from translation are recognized as other comprehensive income.

Any goodwill arising on the acquisition of a foreign operation, and any adjustments in fair value to the carrying amounts of assets and liabilities due to such acquisition, are treated as assets and liabilities of the foreign operation. Therefore, such are expressed in the functional currency of the foreign operations and, alongside other assets and liabilities of the foreign operation, translated at the closing exchange rate.

In the case of the disposal of a foreign operation, cumulative amounts of exchange difference regarding the foreign operation, recognized separately from other comprehensive income, are re-categorized from assets to profit or loss as of the moment the disposal profit or loss is recognized.

# (iii) Foreign exchange of net investment in foreign operations

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 comprehensive income or loss in the consolidated financial statement, and re-categorized to profit or loss as of the disposal of the related net investment.

As of December 31, 2017 and 2016

# 3. Significant Accounting Policies, Continued

# (4) Cash and cash equivalents

Cash and cash equivalents comprise balances with original maturities of or less than three months' maturity from the date of acquisition that are subject to an insignificant risk of changes in their fair value, including cash on hand, deposits held at call with banks and other highly liquid short-term investments with original maturities of three months or less.

## (5) Non-derivative financial assets

The Group recognizes and measures non-derivative financial assets by the following four categories: financial assets at fair value through profit or loss, held-to-maturity assets, loans and receivables and available for sale financial assets. Moreover, the Group recognizes financial assets in the statement of financial position as of the time the Group becomes a party to the contractual provisions of the instrument.

Non-derivative financial assets are measured at fair value upon initial recognition and, unless designated at fair value through profit or loss, transaction costs directly regarding acquisition and issuance of such assets are summed to the initial fair value.

# (i) Financial assets at fair value through profit or loss

Any financial asset classified as held for trading or designated at fair value through profit or loss at initial recognition is categorized under financial assets at fair value through profit or loss. Financial assets at fair value through profit or loss (FVTPL) are measured at fair value upon initial recognition, and changes therein are recognized as profit or loss. Furthermore, transaction costs regarding acquisition upon initial recognition are recognized as profit or loss as incurred.

#### (ii) Held-to-maturity financial assets

If a non-derivative financial asset has a fixed maturity with a fixed or determinable payment, and the Group has positive intent and ability to hold such an asset, it is classified as held-to-maturity financial assets. Subsequent to initial recognition, held-to-maturity financial assets are measured at amortized costs using the effective interest rate ("EIR") method.

# (iii) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest rate method. Furthermore, the effective interest rate method is applied to recognize interest incomes on financial investments, except short-term loans and receivables, in which case the impact of effective interest the method is immaterial.

#### (iv) Available-for-sale financial assets

Any non-derivative financial asset, not classified as financial assets at fair value through profit or loss, held-tomaturity financial assets, or loans and receivables, is classified as available-for-sale financial assets. Subsequent to initial recognition, such assets are measured at fair value. However, equity instruments that do not have a quoted market price in an active market and cannot be reliably measured, and any derivatives that are linked to these instruments and need to be settled upon the delivery of such equity instruments are measured at cost. Accumulated other comprehensive income, reflected in equity as fair value changes, is recognized as profit or loss as of the time the related available-for-sale asset is disposed of or the impairment loss is recognized. Furthermore, dividends earned whilst holding available-for-sale financial assets are recognized in the consolidated statement of comprehensive income upon the establishment of the right to receive the payment.

As of December 31, 2017 and 2016

# 3. Significant Accounting Policies, Continued

#### (v) De-recognition of financial assets

The Group de-recognizes a financial asset when the rights to receive cash flow from an asset expire, or when it transfers the rights to receive cash flow and substantially all the risks and rewards from the ownership of a financial asset. In the case that the Group has neither transferred nor retained substantially all the risks and rewards of an asset, the Group de-recognizes any assets if it does not have control, and recognizes any assets to the extent of the Group's continuing involvement if it does have control. In the latter case, any associated liabilities are recognized by the Group. In the case the Group retains substantially all the risks and rewards from the ownership of an asset it does not have control of, the Group continues to recognize the financial asset, and recognizes consideration received as financial liabilities.

#### (vi) Offsetting between financial assets and financial liabilities

Financial assets and liabilities are set-off only under the conditions that the Group has legal rights to set-off the recognized amounts, and the intention to settle on a net basis or to realize assets and settle liabilities at the same time.

#### (6) Impairment of financial assets

The Group assesses the possibility of objective evidence that may indicate any impairment of financial assets, except those designated at fair value through profit or loss, at each reporting date. A financial asset is defined as impaired if, as a result of one or more events after initial recognition, the estimated future cash flow of the asset has been affected. However, expected impairments from future events are not recognized, regardless of their likelihood.

Upon the finding of objective evidence to believe an asset is impaired, the impairment is measured and recognized in profit or loss as follows, according to the asset category:

# (i) Impairment of loans and receivables

The Group assesses, at each reporting date, whether objective evidence that indicate impairment of loans and receivables exist. If objective evidence shows that believe impairment has occurred, the amount of the loss is measured as the difference between the carrying amount of the asset and the present value of estimated future cash flows, discounted using the initial effective interest rate (EIR). Furthermore, the carrying amount of the asset is reduced through the use of an allowance account.

All individually significant loans and receivables are assessed for specific impairment. Those found not to be specifically impaired are then collectively assessed for any impairment that has been incurred but not yet identified. Loans and receivables that are not individually significant are collectively assessed for impairment by grouping together loans and receivables with similar risk characteristics.

In individual assessment, allowances on losses are computed using the discounted expected recoverable value, estimated by operating cash flows or collateral cash flow; in collective assessment, allowances on losses are computed using statistical methods based on obtainable historical loss experience.

The present value of estimated future cash flows is measured using the loan's initial EIR. If the loan has a floating interest rate, the Group uses the current EIR for the measurement. Future cash flows from collateral are estimated at net cash flow from disposal of collateral (deducting transaction cost).

For the purpose of a collective assessment of impairment, assets are analysed on the basis of the Group's internal credit rating system that considers credit risk characteristics such as asset type, industry, geographical location, collateral type, past-due status and other relevant factors.

Future cash flows of the assets collectively assessed are estimated on the basis of historical loss experience for loans with similar credit risk characteristics. Historical loss experience is adjusted on the basis of current observable data to reflect the effects of current conditions on which the historical loss experience is based and to remove the effects of conditions in the historical period that no longer exist. Estimates of changes in future cash flows reflect, and are directionally consistent with, changes in related observable data from year to year (such as changes in unemployment rates, property prices, commodity prices, payment status, or other factors that are indicative of incurred loss in the Group and their magnitude). The methodology and assumptions used for estimating future cash flows are reviewed regularly to reduce any differences between loss estimates and actual loss experience.

#### 3. Significant Accounting Policies, Continued

#### (ii) Impairment of available-for-sale financial assets

The Group assesses, at each reporting date, whether objective evidence that indicate impairment of available-forsale assets exist. If such objective evidence exists, the amount of the loss is measured as the difference between the acquisition cost and the current fair value.

An available-for-sale financial asset is considered to be impaired if there is a significant or prolonged decline in fair value of the asset below the acquisition cost. The Group considers a 30% to be significant and a period of six months to be prolonged.

Impairment loss on equity securities are not reversed through profit or loss. If, in a subsequent period, the fair value of a debt instrument increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in, the impairment loss is reversed through the statement of comprehensive income. Moreover, the impairment loss is directly reduced from the carrying amount of the financial assets available-for-sale financial assets.

#### (iii) Impairment of held-to-maturity financial assets

The Group assesses individually, at each reporting date, whether there is objective evidence that a held-to-maturity financial asset is impaired. If any such evidence exists, the amount of loss is measured as the difference between the carrying amount and the present value of estimated future cash flows, which is discounted using the initial EIR, and recognized in the statement of comprehensive income. If, in a subsequent period, the fair value of a financial asset held-to-maturity increases and the increase can be objectively related to an event occurring after the impairment was recognized, the impairment loss is reversed through the statement of comprehensive income. Moreover, the impairment loss is directly reduced from the carrying amount of the financial asset held-to-maturity financial assets.

#### (iv) Loss events of financial assets

Objective evidences that a financial asset is impaired include the following loss events:

- Significant financial difficulty of the issuer or obligor
- A breach of contract, such as a default or delinquency in interest or principal payments
- The granting of a concession to the borrower, for economic or legal reasons, that the lender would not otherwise consider
- A state with high probability that the borrower will enter bankruptcy or other financial reorganization
- The disappearance of an active market for that financial asset due to financial difficulties
- The presence of observable data indicating a measurable decrease in the estimated future cash flows of a group of financial assets since the initial recognition of the group, although the decrease cannot yet be identified with the individual financial asset within the group

As of December 31, 2017 and 2016

## 3. Significant Accounting Policies, Continued

#### (7) Derivative financial instruments including hedge accounting

Derivative instruments are initially recognized at the fair value upon agreement of the contract, and re-estimated at fair value subsequently. The recognition of profit or loss due to changes in fair value of derivative instruments is as stated below:

#### (i) Hedge accounting

Derivative instruments are accounted differently depending on whether or not hedge accounting is applied, and therefore, are classified into trading purpose derivatives and hedging purpose derivatives.

Upon the transaction of hedging purpose derivatives, two different hedge accounting are applied; a fair value hedge, and a cash flow hedge. 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 forecast transaction and (ii) could affect profit or loss. For trading purpose derivatives transaction, changes in the fair value of derivatives are recognized in net income.

At inception of the hedge relationship, the Group formally documents the relationship between the hedged item and the hedging instrument, including the nature of the risk, the objective and strategy for undertaking the hedge and the method that will be used to assess the effectiveness of the hedging relationship. Also, at the inception of the hedge relationship, a formal assessment is undertaken to ensure the hedging instrument is expected to be highly effective in offsetting the designated risk in the hedged item and actual result was so.

#### Fair value hedge

For designated and qualifying fair value hedges, the change in the fair value of a hedging derivative is recognized in profit or loss in the statement of comprehensive income. Meanwhile, the change in the fair value of the hedged item attributable to the risk hedged is recorded as part of the carrying value of the hedged item and is also recognized in profit or loss in the statement of comprehensive income. When the hedge no longer meets the criteria for hedge accounting, the hedge relationship is terminated. For hedged item recorded at amortized cost, the difference between the carrying value of the hedged item on termination and the face value is amortized over the remaining term of the original hedge using the EIR.

#### Cash flow hedge

For designated and qualifying cash flow hedges, the effective portion of gain or loss on the hedging instruments is initially recognized directly in equity. The ineffective portion of the gain or loss on the hedging instrument is recognized immediately in the statement of comprehensive income. When the hedged cash flow affects the profit or loss in statement of comprehensive income, the gain or loss on the hedging instrument is recorded in the corresponding income or expense line in profit or loss in the statement of comprehensive income. When a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognized when the hedged forecasted transaction is ultimately recognized in the statement of comprehensive income. When a forecasted transaction is no longer expected to occur, the cumulative gain and loss that was reported in equity is immediately transferred to profit or loss in the consolidated statement of comprehensive income.

#### (ii) Embedded derivative instruments

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives. The Group records embedded derivative instruments at fair value if their economic characteristics and risks are not clearly and closely related to those of the host contract. If the embedded derivative cannot be measured separately from the host contract, the Group aggregately designates the host contract and embedded derivative as a financial instrument at fair value through profit or loss. Changes due to the fair value assessment of embedded derivative instruments are recognized in profit or loss.

## (iii) 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.

As of December 31, 2017 and 2016

## 3. Significant Accounting Policies, Continued

#### (8) Fair value of financial instruments

The fair value of financial instruments that are traded in active markets is determined by referencing quoted market prices at each reporting date. For financial instruments not traded in an active market, the fair value is determined using appropriate valuation techniques. Such techniques may include discounted cash flow analysis or other valuation methods.

The Group's policies for measuring fair value of financial instruments at amortized costs are as follows:

- Cash and due from banks: Fair value of cash is considered equivalent to the carrying amount. In the case of due from banks on demand, which do not have a set maturity and can be realized instantly, the carrying amount is considered to be a close estimate of the fair value and is assumed so. In the case of other ordinary due from banks, the cash flow discount method is used to estimate the fair value.
- Loans: The fair value of loans is the expected future cash flows, reflecting premature redemption ratio, discounted by the market interest rate, adjusted by a spread sheet considering the probability of default. Exceptions to this method include loans with credit line facilities, loans with a maturity of three months or less left and impaired loans, which the Group assumes the carrying amount as the fair value.
- Held-to-maturity financial assets: The fair value of held-to-maturity financial assets is computed by widely accepted appraisal agencies upon request.
- Deposits: The fair value of deposits is computed using the discounted cash flow method. However, for deposits, whose cash flows cannot be estimated reasonably, the Group assumes the carrying amount as the fair value.
- Borrowings: For borrowings in Korean won, the fair value is computed using the discounted cash flow method.
   For borrowings in foreign currency, the fair value is computed by widely accepted appraisal agencies upon request.
- Debentures: The fair value of industrial financial debentures in Korean won, except structured debentures in Korean won, is computed using the discounted cash flow method. For structured industrial financial debentures in Korean won and industrial financial debentures in foreign currency, the fair value is computed by widely accepted appraisal agencies upon request.
- Other financial assets and liabilities: The fair value of other financial assets and liabilities is computed using the discounted cash flow method. However, in cases cash flow cannot be estimated reasonably, the Group assumes the carrying amount as the fair value.

#### (9) Day one profit or loss recognition

For financial instruments classified as level 3 on the fair value level hierarchy measured using assess variables not observable in the market, the difference between the fair value at initial recognition and the transaction price, which is equivalent to Day one profit or loss, is amortized by using the straight line method over time.

As of December 31, 2017 and 2016

#### 3. Significant Accounting Policies, Continued

#### (10) Lease

The classification of leases is based on the extent to which risks and rewards incidental to ownership of a leased asset lie with the lessor and the lessee.

#### (i) Finance lease

Leases of assets where the Group has substantially all the risks and rewards of ownership are classified as finance leases, and the Group presents them as a receivable at an amount equal to the net investment in the lease. Also, initial direct cost that includes directly and additionally incurred commission fee, legal expenses, and internal accrued costs are included in finance lease receivables. The Group accounts for lease payment by apportioning into finance lease receivables and interest revenue, and interest revenue is recognized using the EIR method on uncollected finance lease net investment.

#### (ii) Operating lease

A lease is classified as operating lease if it does not transfer substantially all the risks and rewards incidental to ownership, and the related asset is presented as acquisition cost less accumulated depreciation. Moreover, the minimum lease payment excluding guaranteed residual value is recognized as revenue on a straight line basis over the lease term. Initial direct costs incurred by lessors in negotiating and arranging an operating lease shall be added to the carrying amount of the leased asset and recognized as an expense over the lease term, and the depreciation policy for depreciable leased assets shall be consistent with the lessors' normal depreciation policy for similar assets.

#### (11) Property and equipment

The Group's property and equipment is recognized at the carrying amount as historical costs less accumulated depreciation and accumulated impairment in value. Historical costs include the expenditures directly related to the acquisition of assets.

Subsequent costs are recognized in the carrying amount of assets or, if appropriate, as separate assets if the probabilities future economic benefits associated with the assets will flow into the Group and the costs can be measured reliably; the carrying amount of the replaced part is derecognized. Furthermore, any other repairs or maintenances are charged to profit or loss as incurred.

Land is not depreciated. Depreciation on other assets is calculated using the straight line method to the amount of residual value less acquisition cost over the following estimated useful lives:

Туре	Useful lives (years)
Buildings	$12 \sim 60$
Structure	$10 \sim 51$
Leasehold improvements	4
Vehicles	4
Equipment	$4 \sim 8$
Other properties	$2 \sim 40$

Property and equipment are 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 non-operating income (expense) in the consolidated statement of comprehensive income.

As of December 31, 2017 and 2016

# 3. Significant Accounting Policies, Continued

#### (12) Investment property

The Group classifies property held for the purpose of rental income or benefits from capital appreciation as investment property. Investment property is measured initially at cost, including transaction costs. Subsequent to initial recognition, the cost model is applied. Subsequent to initial recognition, an item of investment property is carried at its cost less any accumulated depreciation and any accumulated impairment loss.

Investment properties are derecognized either when they have been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in the statement of comprehensive income in the period of de-recognition. Reclassification to or from other account is made if there is a change in use of corresponding investment property.

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

Туре	Useful lives (years)
Buildings	$20 \sim 50$
Structure	$10 \sim 40$

#### (13) Intangible assets

An intangible asset is recognized only when its cost can be measured reliably, and the probabilities future economic benefits from the asset will flow into the Group are high. Separately acquired intangible assets are recognized at the acquisition cost, and subsequently, the cost less accumulated depreciation and accumulated impairment is recognized as the carrying amount.

Intangible assets with finite lives are amortized over the 4-year to 30-year period of useful economic lives using the straight line method. At the end of each reporting period, the Group reviews intangible assets for any evidence that indicate impairment, and upon the presence of such evidence, the Group estimates the amount recoverable and recognizes the loss accordingly. Intangible assets are derecognized either when they have been disposed of or when the intangible assets are permanently withdrawn from use and no future economic benefit is expected from its disposal.

Intangible assets with indefinite useful lives are not amortized, but are tested for impairment annually. Furthermore, the Group reviews such intangible assets to determine whether it is appropriate to consider these assets to have indefinite useful lives. If in the case the Group concludes an asset is not qualified to be classified as non-finite, prospective measures are taken to consider such an asset as finite.

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 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.

As of December 31, 2017 and 2016

# 3. Significant Accounting Policies, Continued

#### (14) Impairment of non-financial assets

The Group tests for any evidence of impairment in assets and reviews whether the impairment has taken place by estimating the recoverable amount, at the end of each reporting period. The Group estimates the recoverable amount of each asset or a whole cash-generating unit unless it is possible to estimate the amount of the asset in that unit. The recoverable amount is the higher of the fair value less cost and value in use, of an asset. The Group recognizes the difference between the carrying amount and the recoverable amount of the asset as an impairment loss if the carrying amount exceeds the recoverable amount.

Any goodwill arising on the acquisition of a business is allocated to each cash-generating unit that is expected to gain the benefits of the synergy effect. Impairment on cash-generating unit deducts other assets in proportion to their carrying amounts after deducting the carrying amount of goodwill allocated in that unit. Impairment loss on goodwill cannot be reversed once it is recognized.

Except for impairment losses in respect of goodwill that are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceeds the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years.

#### (15) Assets held for sale

Non-current assets (or disposal groups) that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. In order to be classified as held for sale, the asset (or disposal groups) must be available for immediate sale in its present condition and its sale must be highly probable. The assets (or disposal groups) that are classified as assets held for sale are measured at the lower of their carrying amount and fair value less cost to sell.

The Group recognizes an impairment loss for any initial or subsequent write-down of an asset (or disposal groups) to fair value less costs to sell, and a gain for any subsequent increase in fair value less costs to sell, up to the cumulative impairment loss previously recognized.

Non-current assets that are classified as held for sale or part of a disposal group classified as held for sale are not depreciated (or amortized).

#### (16) Non-derivative financial liabilities

The Group classifies non-derivative financial liabilities into financial liabilities at fair value through profit or loss or other financial liabilities in accordance with the substance of the contractual arrangement and the definitions of financial liability. The Group recognizes these financial liabilities in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the financial liability.

#### (i) Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss in the current year include financial liabilities held for trading and financial liabilities designated at FVTPL upon initial recognition. Financial liabilities and derivatives are classified as financial instruments held for trading if they are acquired for the purpose of repurchasing in the near future. Financial liabilities are classified as financial liabilities at FVTPL upon initial recognition, if the profit or loss from the liabilities indicates to be more purpose-appropriate to be recognized as profit or loss. Financial liabilities at FVTPL are designated at fair value in subsequent measurements, and any related un-realized profit or loss is recognized as profit or loss.

## 3. Significant Accounting Policies, Continued

#### (ii) Financial liabilities measured at amortized cost

Financial liabilities measured at amortized cost are recognized at fair value less cost less transaction cost upon initial recognition, and subsequently at amortized costs. The difference between the proceeds (net of transaction cost) and the redemption value is recognized in the statement of comprehensive income over the periods of the liabilities using the EIR.

Fees paid on the establishment of a loan facility are recognized as transaction costs of the loan, if the probability that some or all of the facility will be drawn down is high. The amount is deferred until the financial liability would be withdrawn. If, however, there is not enough evidence to conclude a draw-down of some or all of the facility will occur, the fee is capitalized as a prepayment for liquidity services and amortized over the period of the facility to which it relates.

#### (iii) De-recognition of financial liabilities

A financial liability is de-recognized when the obligation under the liability is discharged, 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 de-recognition 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.

# (17) Employee benefits

#### (i) Short-term employee benefits

Short-term employee benefits are employee benefits that are due to be settled wholly before 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.

#### (ii) Retirement benefits: defined contribution plans

A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate fund. The Group is no longer responsible for any foreseeable future liability after a certain amount or percentage of money is set aside for defined contribution plans. If the pension plan allows for early retirement, payments are recognized as employee benefits. 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 to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

## (iii) Retirement benefits: defined benefit plans

The Group classifies all the pensions as defined benefit plans except defined contribution plans. The Group's net obligation in respect of defined benefit plans is calculated 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. The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and have terms to maturity similar to the terms of the related pension liability.

Remeasurements of the net defined benefit liabilities (assets), which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income.

As of December 31, 2017 and 2016

#### 3. Significant Accounting Policies, Continued

# (18) 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.

#### (19) Financial guarantees

Financial guarantee contracts are contracts that require the issuer (the Bank) to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due, in accordance with the original or changed terms of a debt instrument. Financial guarantees are initially recognized in the financial statements at fair value on the date the guarantee was given, and amortized over the period of the guarantee. Subsequent to initial recognition, the Group's liabilities under such guarantees are measured at the higher of:

- The amount determined in accordance with K-IFRS 1037 'Provisions, Contingent Liabilities and Contingent Assets' and
- The initial amount less amortization of fees recognized in accordance with K-IFRS 1018 'Revenue'.

#### (20) Securities under resale or repurchase agreements

Securities purchased under agreements to resell are recorded as other loans and receivables and the related interest from these securities is recorded as interest income; Securities sold under agreements to repurchase are recorded as borrowings, and the related interest from these securities is recorded as interest expense.

#### (21) Policy reserves for insurance contracts

In accordance with the *Insurance Business Act* and related insurance standards, the Group is required to maintain policy reserves, which consist of premium reserve, unearned premium reserve, reserve for outstanding claims, reserve for participating policyholders' dividends, excess participating policyholders' dividend reserve and reserve for loss on participating insurance policies, as a liability which is measured in accordance with the *Manual for Calculation of Premium and Policy Reserves* as approved by the Financial Supervisory Commission. Details are as follows:

#### (i) Premium reserve

Premium reserve represents an amount calculated based on a net premium valuation, which is the greater of an amount calculated by using the standard interest rate and standard risk rate issued by the Financial Supervisory Service (FSS), and an amount calculated using an internally generated rate derived by the Group. If the reserve is at zero or less, the amount is to be recorded at nil.

#### (ii) Unearned premium reserve

Unearned premium reserve represents an amount allocated for certain premiums whose initial payment date falls within the current reporting period and future payments, if any, fall subsequent to the end of the reporting period.

# (iii) Guaranteed benefit reserve

Guaranteed benefit reserve guarantees a certain level of the insurance claims considering expected loss in the future. The Group's guaranteed benefit reserve consists of the following:

- Guaranteed minimum accumulation benefit: reserves that guarantee financial resources for the pension benefit amount that equals to the predetermined value in the contract.
- Guaranteed minimum death benefit: reserves that guarantee death benefit amount that equals to the predetermined value in the contract.
- Guaranteed minimum withdrawal benefit: reserves that guarantee the interim withdrawals amount that equals to the predetermined value in the contract during the period for interim withdrawals.
- Guaranteed lifetime withdrawal benefit: reserves that guarantee the interim withdrawals amount that equals to the predetermined value in the contract during lifetime.
- Other guaranteed benefits: guaranteed benefit reserves other than those listed above for a guarantee of insurance proceeds in excess of a certain level.

# 3. Significant Accounting Policies, Continued

## (iv) Reserve for outstanding claims

Reserve for outstanding claims represents a reserve based on estimate of loss for insured events that have occurred prior to the reporting date but have not yet been settled or determined, including:

- Outstanding losses: losses that have been reported to the insurer but are still in the process of settlement (in cases where a claim is partially paid, the remnant is reported).
- Incurred but not reported (IBNR): an estimate of the amount based on historical information of an insurer's liability for claim-generating events that have taken place but have not yet been reported to the insurer.
- Reserve for lapsed insurance contracts: reserve for insurance cancellation refund for lapsed insurance contracts due to non-payment of insurance premium that still can be revived or deferred within a certain period.
- Outstanding claims: legitimate claims, such as compensation, refund, dividend that an insurer has not yet paid to policy holder.

#### (v) Reserve for participating policyholders' dividends

The reserve for participating policyholders' dividends is classified into interest dividend reserve, mortality dividend reserve, interest rate difference guarantee reserve and long-term duration dividend reserve.

# (vi) Excess participating policyholders' dividend reserve

Pursuant to relevant laws and contracts, the Group may provide an excess participating policyholder dividend reserve based on the operating results of related insurance products. The reserve may be used to pay participating policyholder dividends or additional dividends.

#### (22) Equity

Ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of ordinary shares and share options are recognized as a deduction from equity, net of any tax effects.

When the Group repurchases its share capital, the amount of the consideration paid is recognized as a deduction from equity and classified as treasury shares. The profits or loss from the purchase, disposal, reissue, or retirement of treasury shares are not recognized as current profit or loss. If the Group acquires and retains treasury shares, the consideration paid or received is directly recognized in equity.

Non-controlling interests refer to equity in a subsidiary not attributable, directly or indirectly, to a parent. Noncontrolling interests consist of the minority interest net income calculated under K-IFRS 1103 'Business Combinations' at the date of the initial combination, and minority interest of changes in equity after the business combination.

# (23) Government subsidy

Government subsidy without repayment obligation, which is used for the acquisition of certain assets, is accounted for as a deduction from the acquisition cost of the acquired assets. Such subsidy amount is offset against the depreciation or amortization of the acquired assets during such assets' useful life.

#### (24) Interest income and expense

Interest income and expense are recognized in profit or loss using the effective interest method. The effective interest method measures the amortized costs of financial instruments and allocates the interest income or expense during the related period.

Upon the calculation of the effective interest rate, the Group estimates future cash flows by taking into consideration all contractual terms of the financial instrument, but not future credit loss. The calculation also reflects any fees or points paid or received, transaction costs and any related premiums or discounts. In the case that the cash flow and expected duration of a financial instrument cannot be estimated reliably, the effective interest rate is calculated by the contractual cash flow during the contract period.

Once an impairment loss has been recognized on a financial asset or a group of similar assets, subsequent interest income is recognized on the interest rate that was used to discount future cash flow for the purpose of measuring the impairment loss.

As of December 31, 2017 and 2016

#### 3. Significant Accounting Policies, Continued

#### (25) Fees and commission income

Fees and commission income and expense are classified as follows according to related regulations:

# (i) Fees and commission from financial instruments

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. It includes those related to evaluation of the borrowers' financial status, guarantee, collateral, other agreements and related evaluation as well as business transaction, rewards for activities, such as document preparation and recording and setup fees incurred during issuance of financial liabilities. However, when financial instruments are classified as financial instruments at fair value through profit or loss, fees and commission are recognized as revenue upon initial recognition.

#### (ii) Fees and commission from services

Fees and commission income charged in exchange for services to be performed during a certain period of time such as asset management fees, consignment fees and assurance service fees are recognized as the related services are performed. When a loan commitment is not expected to result in the draw-down of a loan and K-IFRS 1039 *'Financial Instrument: Recognition and Measurement'* is not applied for the commitment, the related loan commitment fees are recognized as revenue proportionally to time over the commitment period.

#### (iii) Fees and commission from significant transaction

Fees and commission from significant transactions, such as trading stocks and other securities, negotiation and mediation activities for third parties, for instance business transfer and takeover, are recognized when transactions are completed.

# (26) Dividend income

Dividend income is recognized upon the establishment of the Group's right to receive the payment.

#### (27) Income tax expense

Income tax expense comprises current and deferred income tax. Current income tax and deferred income tax are recognized in profit or loss except to the extent that the tax arises from a transaction or event, which is recognized in other comprehensive income or directly in equity, or a business combination.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the reporting period when the assets are realized or the liabilities settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred income tax assets and liabilities reflects the income tax effects that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Subsidiaries calculate income tax based on their tax laws and report the amount as current income tax liability.

The Group recognizes deferred income 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 income tax assets for all deductible temporary differences arising from investments in 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 income tax asset is reviewed at the end of each reporting period and reduced 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 income tax asset to be utilized.

Deferred income tax assets and liabilities are offset only if the Group has a legally enforceable right to offset the related current income tax assets and liabilities, and the assets and liabilities relate to income tax levied by the same tax authority and are intended to be settled on a net basis.

# 3. Significant Accounting Policies, Continued

# (28) Accounting for trust accounts

The Group, for the purpose of financial reporting, differentiates trust assets from identifiable assets according to the *Financial Investment Services and Capital Markets Act*. Furthermore, the Group receives trust fees from the application, management and disposal of trust assets, and appropriates such amounts for fees from trust accounts.

Meanwhile, in the case the fee from an unspecified principal or interests guaranteed money in trust does not meet the principal or interest amount, even after appropriating deficit with trust fees and special reserve, the Group fills in the remaining deficit in the trust account and appropriates such amounts for losses on trust accounts.

#### (29) Regulatory reserve for credit losses

When the total sum of allowance for possible credit losses under K-IFRS is lower than the amount prescribed in Article 29(1) of the *Regulations on supervision of Banking Business*, the Group records the difference as a regulatory reserve for credit losses at the end of each reporting period.

In the case that the existing regulatory reserve for credit losses exceeds the amount needed to be set aside at the reporting date, the surplus may be reversed. Furthermore, in the case that undisposed deficit exists, a regulatory reserve for credit losses is saved from the time the undisposed deficit is disposed.

#### (30) Earnings per share

The Group represents its diluted and basic earnings per common share in the consolidated statement of comprehensive income. Basic earnings per share (EPS) is calculated by dividing net profit attributable to shareholders of the Group by the weighted average number of common shares outstanding during the reporting period. Diluted earnings per share is calculated by adjusting net profit attributable to common shareholders of the Group, considering dilution effects from all potential common shares, and the weighted average number of common shares outstanding.

# (31) Correction of errors

Prior period errors shall be corrected by retrospective restatement in the first set of financial statements authorised for issue after their discovery except to the extent that it is impracticable to determine either the period-specific effects or the cumulative effect of the error.

As of December 31, 2017 and 2016  $\,$ 

# 4. Cash and Due from Banks

(1) Cash and due from banks as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Cash	W	516,380	804,988
Due from banks in Korean won:			
Due from Bank of Korea		2,136,005	1,793,111
Other due from banks in Korean won		2,340,959	1,320,649
		4,476,964	3,113,760
Due from banks in foreign currencies / off-	_	· · · · · · · · · · · · · · · · · · ·	
shores		3,242,142	5,252,455
	₩	8,235,486	9,171,203

(2) Restricted due from banks as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Reserve deposit	₩	1,248,969	1,100,838
Reserve for payment of principal and interest			
on behalf of SPC		79,906	141,532
Others		344,347	750,330
	₩	1,673,222	1,992,700

# 5. Financial Assets Held for Trading

(1) Financial assets held for trading as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Financial assets held for trading denominated in			
Korean won:			
Equity securities:			
Stocks and equity investments	₩	100,631	188,070
Beneficiary certificates		509,055	148,772
-		609,686	336,842
Debt securities:		· · · · ·	
Government and public bonds		604,538	1,166,518
Financial bonds		54,301	454,061
Corporate bonds		196,515	203,027
Commercial paper		_	15,911
		855,354	1,839,517
		1,465,040	2,176,359
Financial assets held for trading denominated in			
foreign currencies / off shores:			
Equity securities		15,534	20,543
Debt securities		424,075	223,930
		439,609	244,473
	₩	1,904,649	2,420,832

# 5. Financial Assets Held for Trading, Continued

(2) Details of debt securities in financial assets held for trading as of December 31, 2017 and 2016 are as follows:

		December 31, 2017		
				Fair value (Carrying
		Face value	Acquisition cost	amounts)
Government and public bonds in Korean won	₩	611,399	605,030	604,538
Financial bonds in Korean won		55,041	54,558	54,301
Corporate bonds in Korean won		199,343	198,715	196,515
Debt securities in foreign currencies		425,236	425,637	424,075
	₩	1,291,019	1,283,940	1,279,429

	_	]	December 31, 2016	
				Fair value
		Face value	Acquisition cost	(Carrying amounts)
Government and public bonds in Korean won	₩	1,161,199	1,170,704	1,166,518
Financial bonds in Korean won		455,041	454,589	454,061
Corporate bonds in Korean won		206,243	205,713	203,027
Commercial paper in Korean won		16,000	15,913	15,911
Debt securities in foreign currencies		223,025	223,746	223,930
	₩	2,061,508	2,070,665	2,063,447

# 6. Financial Assets Designated at Fair Value Through Profit or Loss

The financial assets designated at fair value through profit or loss as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Securities designated at FVTPL denominated in Korean won Securities designated at FVTPL denominated	₩	100,117	319,010
in foreign currencies		19,902	22,293
	₩	120,019	341,303

The above financial assets designated at fair value through profit or loss consist of equity-index-linked securities, and others. Through designating embedded derivatives and host contracts as FVTPL items, changes in fair value of complex financial products are recognized in profit or loss.

As of December 31, 2017 and 2016  $\,$ 

# 7. Available-for-Sale Financial Assets

(1) Available-for-sale financial assets as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Available-for-sale financial assets			
denominated in Korean won:			
Equity securities:			
Stocks and equity investments	₩	12,579,035	12,486,503
Beneficiary certificates		2,380,828	5,840,314
Others		377,339	374,575
		15,337,202	18,701,392
Debt securities:			
Government and public bonds		3,746,731	4,584,739
Financial bonds		4,827,814	2,714,995
Corporate bonds		9,240,628	10,862,210
		17,815,173	18,161,944
		33,152,375	36,863,336
Available-for-sale financial assets			
denominated in foreign currencies /			
off shores:			
Equity securities		347,999	457,910
Debt securities		6,093,552	6,489,380
		6,441,551	6,947,290
	W	39,593,926	43,810,626

Equity securities with no quoted market prices in active markets and for which the fair value cannot be measured reliably are recorded at cost in the amount of W10,062,034 million and W8,191,860 million as of December 31, 2017 and 2016, respectively.

# 7. Available-for-Sale Financial Assets, Continued

(2) Changes in available-for-sale financial assets for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Beginning balance	₩	43,810,626	52,495,740
Acquisition		18,214,038	35,834,889
Disposal		(21,695,219)	(41,195,377)
Change due to amortization		(46,260)	(43,484)
Change in fair value		162,531	622,762
Impairment loss		(225,227)	(312,006)
Reversal of impairment loss		2,297	13,390
Reclassification		(11,118)	(3,914,346)
Foreign exchange differences		(698,621)	241,152
Others (*1)		80,879	67,906
Ending balance	₩	39,593,926	43,810,626

(\*1) For the year ended December 31, 2017, others represent the increase in available-for-sale equity securities including shares of STX Heavy Industries Co., Ltd. acquired in accordance with the rehabilitation plan under the *Debtor Rehabilitation and Bankruptcy Act*, shares of Chinhung International Inc. acquired pursuant to debt-to-equity swap decision of the Council of Financial Creditors under the *Corporate Restructuring Promotion Act*, and shares of Phoenix Materials Co., Ltd. and others acquired through exercise of conversion rights of the convertible bonds. For the year ended December 31, 2016, others represent the increase in available-for-sale equity securities including shares of Hojeon Limited, Phoenix Materials Co., Ltd., Great New Wave Coming Co., Ltd., IS Dongseo Co., Ltd., i-Components Co., Ltd. and others acquired through exercise of conversion rights of the convertible bonds.

# 7. Available-for-Sale Financial Assets, Continued

(3) Equity securities with disposal restrictions in available-for-sale financial assets as of December 31, 2017 and 2016 are as follows:

	December 31, 2017						
	Number of	Carrying					
Company	shares	amount	Restricted period				
Kumho Tire Co., Inc.	21,339,320 ₩	94,426	Undecided				
Taihan Electric Wire Co., Ltd. (*1)	16,476,369	18,536	Undecided				
Ajin P & P Co., Ltd.	516,270	5,321	Undecided				
National Happiness Fund	34,066	56,710	Undecided				
Jaeyoung Solutec Co., Ltd.	1,962,000	3,532	Until May 18, 2018				
Chinhung International Inc. (*2)	11,118,952	21,293	Until December 31, 2018				
Hanjin Heavy Industries & Construction							
Co., Ltd.	1,208,588	4,000	Until December 31, 2018				
CREA IN Co., Ltd.	14,383	46	Until December 21, 2021				
	52,669,948 ₩	203,864					

(\*1) For the year ended December 31, 2017, some shares have been disposed of in accordance with the decision of the council consisted of major shareholders, etc.

(\*2) The number of shares has changed after the decision of capital reduction and debt-to-equity swap for the year ended December 31, 2017.

	December 31, 2016						
	Number of	Carrying					
Company	shares	amount	Restricted period				
Kumho Tire Co., Inc.	21,339,320 ₩	180,957	Undecided				
Taihan Electric Wire Co., Ltd.	18,061,894	33,505	Undecided				
Ajin P & P Co., Ltd.	516,270	5,282	Undecided				
Samho International Co., Ltd.	183,000	3,093	Undecided				
Hyundai Cement Co., Ltd. (*1)	2,636,655	72,772	Until December 31, 2017				
Jaeyoung Solutec Co., Ltd.	1,962,000	5,415	Until December 31, 2017				
Chinhung International Inc.	13,113,200	27,407	Until December 31, 2018				
Hanjin Heavy Industries & Construction							
Co., Ltd.	1,208,588	4,067	Until December 31, 2018				
CREA IN Co., Ltd.	14,383	46	Until December 21, 2021				
	59,035,310 ₩	332,544					

(\*1) The number of shares has changed after the decision of debt-to-equity swap and dissolution of disposal restriction for the year ended December 31, 2016.

# 7. Available-for-Sale Financial Assets, Continued

(4) Details of debt securities in available-for-sale financial assets as of December 31, 2017 and 2016 are as follows:

		]	December 31, 2017	
				Fair value
		Face Value	Acquisition cost	(Carrying amounts)
Government and public bonds in Korean won	₩	3,789,401	3,847,479	3,746,731
Financial bonds in Korean won		4,838,000	4,834,248	4,827,814
Corporate bonds in Korean won		9,419,047	9,442,867	9,240,628
Debt securities denominated in foreign				
currencies / off shores		6,221,072	7,265,949	6,093,552
	₩	24,267,520	25,390,543	23,908,725
			December 31, 2016	
				Fair value
		Face Value	Acquisition cost	(Carrying amounts)
Government and public bonds in Korean won	₩	4,527,723	4,628,874	4,584,739
Financial bonds in Korean won		2,717,280	2,720,658	2,714,995
Corporate bonds in Korean won		11,097,280	11,091,602	10,862,210
Debt securities denominated in foreign				
currencies / off shores	_	6,176,994	7,420,465	6,489,380
	₩	24,519,277	25,861,599	24,651,324

# 8. Held-to-Maturity Financial Assets

(1) Held-to-maturity financial assets as of December 31, 2017 and 2016 are as follows:

		December	31, 2017	December 31, 2016		
		Amortized cost	Fair value	Amortized cost	Fair value	
Held-to-maturity financial assets in						
Korean won:						
Government and public bonds	₩	2,701,517	2,525,474	2,697,831	2,576,624	
Corporate bonds		1,979,046	1,903,232	1,365,966	1,326,389	
Others		103	103	102	102	
		4,680,666	4,428,809	4,063,899	3,903,115	
Held-to-maturity financial assets in						
foreign currencies / off-shores:						
Debt Securities		1,359,975	1,323,970	1,383,049	1,291,026	
	₩	6,040,641	5,752,779	5,446,948	5,194,141	

(2) Changes in held-to-maturity financial assets for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Beginning balance	₩	5,446,948	58,966
Acquisition		857,249	1,208,392
Redemption		(76,713)	(58,505)
Change due to amortization		(25,641)	(9,675)
Reclassification		(561)	4,171,298
Foreign exchange differences		(160,641)	76,472
Ending balance	₩	6,040,641	5,446,948

# 9. Loans and Allowance for Loan Losses

(1) Loans and allowance for loan losses as of December 31, 2017 and 2016 are as follows:

		December 31, 2017		December 31, 2016		
	-	Amortized cost	Fair value	Amortized cost	Fair value	
Loans in Korean won:	-					
Loans for working capital	₩	48,286,948	47,122,419	46,007,017	44,936,431	
Loans for facility development		51,511,474	51,077,636	52,887,706	52,754,501	
Loans for households		2,788,599	2,790,563	3,683,614	3,714,611	
Inter-bank loans		2,133,208	1,922,782	1,858,881	1,701,366	
Others	_	46,344	44,600	53,400	53,400	
	_	104,766,573	102,958,000	104,490,618	103,160,309	
Loans in foreign currencies:						
Loans		13,606,255	14,012,041	15,733,488	16,285,963	
Inter-bank loans		1,343,701	1,345,326	943,731	944,007	
Loans from foreign borrowings		154,063	158,332	194,165	199,922	
Off-shore loans	_	10,760,842	11,166,776	10,588,310	10,923,111	
		25,864,861	26,682,475	27,459,694	28,353,003	
Other loans:						
Bills bought in foreign currency		2,303,336	2,241,469	1,709,887	1,662,401	
Advances for customers on						
acceptances and guarantees		113,412	33,272	185,534	98,547	
Privately placed corporate bonds		3,063,881	2,607,572	3,471,827	2,908,602	
Credit card loans		100,872	100,052	111,532	110,463	
Others	_	10,235,953	10,132,122	10,426,364	10,182,607	
	_	15,817,454	15,114,487	15,905,144	14,962,619	
	_	146,448,888	144,754,962	147,855,456	146,475,932	
Less:						
Allowance for loan losses		(3,006,128)		(3,063,671)		
Present value discount		(215,857)		(269,248)		
Deferred loan origination costs						
and fees	-	(2,787)		(6,323)		
	₩	143,224,116		144,516,214		

# 9. Loans and Allowance for Loan Losses, Continued

(2) Changes in allowance for loan losses for the years ended December 31, 2017 and 2016 are as follows:

					2017			
		Loa	ans in Korean w	/on		Other	loans	
		Loans for working capital	Loans for facility development	Others	Loans in foreign currencies	Privately placed corporate bonds	Others	Total
Beginning balance	₩	1,002,761	543,495	154,562	464,849	529,527	368,477	3,063,671
Provision for loan								
losses		523,213	252,312	62	(6,317)	36,472	171,219	976,961
Write-offs		(49,090)	(47,074)	(2,471)	(19,926)	-	(2,919)	(121,480)
Foreign exchange								
differences		-	-	-	(70,332)	(23)	(38,482)	(108,837)
Others		(319,512)	(226,592)	(18)	(26,853)	(67,635)	(163,577)	(804,187)
Ending balance	₩	1,157,372	522,141	152,135	341,421	498,341	334,718	3,006,128

2017

		2016							
		Lo	ans in Korean w	on	Other loans				
						Privately			
		Loans for	Loans for		Loans in	placed			
		working	facility		foreign	corporate			
		capital	development	Others	currencies	bonds	Others	Total	
Beginning balance	₩	1,956,776	613,708	156,971	566,841	642,340	613,605	4,550,241	
Provision for loan									
losses		1,630,638	371,849	(390)	190,580	408,609	83,120	2,684,406	
Write-offs		(658,851)	(151,573)	(2,263)	(224,859)	(332,574)	(134,579)	(1,504,699)	
Foreign exchange									
differences		-	-	-	42,648	6	12,031	54,685	
Others		(1,925,802)	(290,489)	244	(110,361)	(188,854)	(205,700)	(2,720,962)	
Ending balance	₩	1,002,761	543,495	154,562	464,849	529,527	368,477	3,063,671	

(3) Losses related to loans for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Provision for loan losses	W	(976,961)	(2,684,406)
Losses on disposal of loan		(83,011)	(80,132)
	W	(1,059,972)	(2,764,538)

(4) Changes in deferred loan origination costs and fees for the years ended December 31, 2017 and 2016 are as follows:

	2017		2016	
Beginning balance	W	(6,323)	(4,039)	
New deferrals		13,284	3,640	
Amortization		(9,748)	(5,924)	
Ending balance	W	(2,787)	(6,323)	

As of December 31, 2017 and 2016  $\,$ 

#### 10. Derivative Financial Instruments

The Group's derivative financial instruments consist of trading derivatives and hedging derivatives, depending on the nature of each transaction. The Group enters into hedging derivative transactions mainly for the purpose of hedging risk related to changes in fair values of the underlying assets and liabilities and future cash flows.

The Group enters into trading derivative transactions such as futures, forwards, swaps and options for arbitrage transactions by speculating on the future value of the underlying asset. Trading derivative transactions include contracts with the Group's clients and its liquidation position.

For the purpose of hedging the exposure to the variability of fair values and future cash flows of funds in Korean won by changes in interest rate, the Group mainly uses interest swaps or currency swaps. The main counterparties are foreign financial institutions and local banks. In addition, to hedge the exposure to the variability of fair values of bonds in foreign currencies by changes in interest rate or foreign exchange rate, the Group mainly uses interest swaps or currency swaps.

The notional amounts outstanding for derivative contracts and the carrying amounts of the derivative financial instruments as of December 31, 2017 and 2016 are as follows:

		December 31, 2017				
	_	Notional a	mounts	Carrying a	mounts	
	_	Buy	Sell	Asset	Liability	
Trading purpose derivative financial instruments:	_					
Interest rate	₩	263,055,552	269,217,941	1,091,959	1,049,139	
Currency		90,936,025	94,628,525	4,415,882	4,185,092	
Stock		788,851	1,782,106	11,482	3,058	
Commodities		1,232	1,232	375	375	
Embedded derivatives Allowance and other		663,564	250,000	145,091	4,503	
adjustments		-	-	(6,313)	(570)	
5	_	355,445,224	365,879,804	5,658,476	5,241,597	
Hedging purpose derivative financial instruments:	_					
Interest rate (*1)		17,494,445	17,512,016	506,903	209,428	
Currency		7,651,056	9,780,795	217,588	378,547	
Allowance and other						
adjustments		-	-	(388)	(5,581)	
		25,145,501	27,292,811	724,103	582,394	
	₩	380,590,725	393,172,615	6,382,579	5,823,991	

(\*1) The expected maximum period for which derivative contracts, applied the cash flow hedge accounting, are exposed to risk of cash flow fluctuation is until September 11, 2020.

# 10. Derivative Financial Instruments, Continued

		December 31, 2016				
	_	Notional a	mounts	Carrying amounts		
		Buy	Sell	Asset	Liability	
Trading purpose derivative						
financial instruments:						
Interest rate	₩	288,371,232	293,240,576	1,766,464	1,627,038	
Currency		73,525,875	78,283,957	3,447,173	3,735,210	
Stock		321,289	1,053,958	25,671	9,096	
Commodities		20,847	20,847	3,061	3,061	
Embedded derivatives		713,027	322,510	146,911	6,799	
Allowance and other						
adjustments		-	-	(25,133)	46,993	
-		362,952,270	372,921,848	5,364,147	5,428,197	
Hedging purpose derivative						
financial instruments:						
Interest rate (*1)		22,725,963	22,747,957	586,498	172,898	
Currency		7,475,605	5,765,927	510,975	1,181,590	
Allowance and other						
adjustments	_	-		(494)	(131)	
		30,201,568	28,513,884	1,096,979	1,354,357	
	₩	393,153,838	401,435,732	6,461,126	6,782,554	

(\*1) The expected maximum period for which derivative contracts, applied the cash flow hedge accounting, are exposed to risk of cash flow fluctuation is until September 11, 2020.

# 11. Investments in Associates

(1) Investments in associates as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Korea Electric Power Co., Ltd.	₩	23,586,443	23,600,344
Korea Tourism Organization		340,605	333,029
Korea Infrastructure Fund II		234,167	233,676
Hyundai Merchant Marine Co., Ltd. (*1)		117,532	138,047
Others		3,775,810	3,206,812
	₩	28,054,557	27,511,908

- (\*1) Hyundai Merchant Marine Co., Ltd. entered into a voluntary agreement for debt restructuring with the Council of Financial Creditors and the Group has obtained significant influence as a principal creditor bank for the year ended December 31, 2016.
- (2) The market value of marketable investments in associates as of December 31, 2017 and 2016 are as follows:

	Market	value	Carrying	amounts
	December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
Korea Electric Power Co., Ltd.	8,058,625	9,304,913	23,586,443	23,600,344
Hyundai Merchant Marine Co., Ltd.	206,820	171,957	117,532	138,047
Dongbu Steel Co., Ltd.	69,229	138,399	60,698	47,035
STX Engine Co., Ltd. (*1)	-	63,848	-	45,718
Oriental Precision & Engineering				
Co., Ltd. (*2)	-	23,867	-	23,867
STX corporation (*1)	-	19,638	-	-

(\*1) For the year ended December 31, 2017, reclassified as assets held for sale due to losing significant influence.

(\*2) The Group has lost significant influence over it due to the disposal of some of its shares based on the resolution of the Council of Financial Creditors for the year ended December 31, 2017.

# 11. Investments in Associates, Continued

(3) Changes in investments in associates for the years ended December 31, 2017 and 2016 are as follows:

						2017				
		January	Acquisition	Disposal/	profit	Impairment	sive income			December
		1, 2017	/ transfer	transfer	(loss)	loss	(loss)	Dividends	Others	31, 2017
Korea Electric										
Power Co., Ltd.	₩	23,600,344	-	-	427,338	-	(22,993)	(418,246)	-	23,586,443
Korea Tourism										
Organization		333,029	-	-	9,124	-	(1,548)	-	-	340,605
Hyundai Merchant										
Marine Co., Ltd.		138,047	78,809	-	(169,319)	-	68,110	-	1,885	117,532
Korea Infrastructure	;									
Fund II		233,676	1,632	(861)	12,166	-	-	(12,446)	-	234,167
Others (*1)		3,206,812	1,369,465	(654,168)	21,420	(27,379)	84,551	(166,347)	(58,544)	3,775,810
	₩	27,511,908	1,449,906	(655,029)	300,729	(27,379)	128,120	(597,039)	(56,659)	28,054,557

(\*1) The Group recognized W27,379 million as impairment losses considering the decrease in fair values of cashgenerating units due to the decline in expected cash flows as objective evidence of impairment for Troika Resources Investment PEF and 10 others for the year ended December 31, 2017. The recoverable amount was the value in use of W155,732 million as of December 31, 2017.

						2016				
							Shares of			
					Share of		other comprehen-			
		January	Acquisition/	Disposal/	profit	Imnairment	sive income			December
		1, 2016	transfer	transfer	(loss)	loss	(loss)	Dividends	Others	31, 2016
Korea Electric			·					·		
Power Co., Ltd.	₩	21,925,758	-	-	2,319,302	-	10,113	(654,829)	-	23,600,344
Korea Tourism										
Organization		329,815	-	-	1,241	-	1,973	-	-	333,029
Hyundai Merchant			25		115,798		22.224			128 047
Marine Co., Ltd. Korea Aerospace		-	23	-	115,798	-	22,224	-	-	138,047
Industries Co.,										
Ltd. (*1)		309,531	-	(273,830)	46,609	-	4	(10,298)	(72,016)	-
GM Korea										
Company		68,115	-	-	(69,995)	-	1,880	-	-	-
Korea Infrastructur	e									
Fund II		221,782	18,142	(852)	13,511	-	-	(18,907)	-	233,676
Others (*2)		3,752,052	663,906	(973,169)	298,348	(26,455)	(126,934)	(244,180)	(136,756)	3,206,812
	₩	26,607,053	682,073	(1,247,851)	2,724,814	(26,455)	(90,740)	(928,214)	(208,772)	27,511,908

(\*1) For the year ended December 31, 2016, reclassified as available-for-sale financial assets due to losing significant influence.

(\*2) The Group recognized W26,455 million as impairment losses considering the decrease in the value in use of cash-generating units due to the decline in expected cash flows as objective evidence of impairment for New Growth Green Future PEF and 14 others for the year ended December 31, 2016. The recoverable amount was the value in use of W57,657 million as of December 31, 2016.

As of December 31, 2017 and 2016

## 11. Investments in Associates, Continued

(4) The key financial information of associates invested and ownership ratios as of December 31, 2017 and 2016 are as follows:

					December 31,	2017				
	Country	Fiscal vear end	Industry	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the period	Total compre- hensive income (loss)	Owner- ship (%)
Korea Electric	Country	year ena	Electricity	165065	Liuointies	Equity	Tevenue	period	(1055)	(70)
Power Co., Ltd. Korea Tourism	Korea	December	Generation Culture and	₩ 181,788,915	108,824,274	72,964,641	59,814,862	1,298,720	1,230,194	32.90
Organization	Korea	December	Tourism administration	1,402,083	359,898	1,042,185	732,967	20,934	17,383	43.58
Hyundai Merchant Marine Co., Ltd.										
(*1)	Korea	December	Shipping	3,602,418	2,705,498	896,920	5,028,016	(1,218,503)	(1,325,963)	13.13
GM Korea										
Company (*2) Korea Infrastructure	Korea	December	Manufacturing Financial	6,452,969	6,969,968	(516,999)	11,820,760	(588,131)	(587,798)	17.02
Fund II	Korea	December	investment	829,503	9,885	819,618	29,627	43,704	43,704	26.67
					December 31,	2016				
									Total	

	Country	Fiscal year end	Industry	Assets	Liabilities	Equity	Operating revenue	Profit (loss) for the year	compre- hensive income (loss)	Owner- ship (%)
Korea Electric			Electricity							
Power Co., Ltd.	Korea	December	Generation	₩ 177,837,042	104,786,497	73,050,545	60,190,384	7,048,581	7,041,557	32.90
Korea Tourism			Culture and							
Organization	Korea	December	Tourism							
			administration	1,386,501	368,230	1,018,271	779,874	8,481	7,375	43.58
Hyundai Merchant										
Marine Co., Ltd.	IZ.	D 1	C1 · ·	4 200 000	2 410 277	070.001	4 50 4 010	(495 (04)	(412,170)	14.15
(*1) CM Kanaa	Korea	December	Shipping	4,398,098	3,419,277	978,821	4,584,810	(485,604)	(413,178)	14.15
GM Korea	Varaa	December	Manufacturing	7,058,016	6,990,776	67.240	11.915.647	(835,801)	(827,675)	17.02
Company (*2) Korea Infrastructure	Korea	December	0	/,058,010	0,990,770	67,240	11,915,047	(835,801)	(827,075)	17.02
Fund II	Korea	December	Financial investment	816,600	160	816.440	56,134	49,367	49,367	26.67
i ulu li	norea	December	in vestment	010,000	100	010,110	50,151	19,507	17,507	20.07

(\*1) Although the Group's shareholding in Hyundai Merchant Marine Co., Ltd. is less than 20%, the equity method is applied as the Group is considered to have significant influence over Hyundai Merchant Marine Co., Ltd. as a principal creditor bank of Council of Financial Creditors.

(\*2) Equity method is applied to GM Korea Company, even though the Group's shareholding is less than 20%, because the Group is considered to have significant influence over GM Korea Company by exercising rights to elect board of directors. The Group used the financial statements of GM Korea Company as of September 30, 2017 and 2016 in applying the equity method since the Group was not able to obtain the financial statements as of December 31, 2017 and 2016. The Group made adjustments for the effects of any significant events or transactions occurred between the date of the investee's financial statements and the date of the Group's consolidated financial statements.

# 12. Property and Equipment

Changes in property and equipment for the years ended December 31, 2017 and 2016 are as follows:

6 1 1 5			5		,			
	_				2017			
	_					Foreign		
		January 1,	Acquisition/		Reclassifi-	exchange		December 31,
	_	2017	depreciation	Disposal	cation	differences	Others	2017
Acquisition cost:								
Land	₩	2,611,240	99,046	(3,973)	828	(21)	(103,251)	2,603,869
Buildings and structures		3,486,528	202,150	(986)	(1,461)	(11,741)	(7,584)	3,666,906
Leasehold improvements		46,412	2,676	(2,912)	-	(1,272)	(261)	44,643
Vehicles		375,429	8,630	(1,089)	-	(5,308)	(21,526)	356,136
Equipment		806,399	50,454	(5,911)	934	(5,402)	(24,478)	821,996
Construction in progress		671,815	170,453	(17,734)	(2,493)	(8,673)	(191,974)	621,394
Others	_	2,170,876	184,435	(4,913)	(5,867)	(25,202)	(78,714)	2,240,615
	_	10,168,699	717,844	(37,518)	(8,059)	(57,619)	(427,788)	10,355,559
Accumulated	-							
depreciation: (*1)								
Buildings and structures		1,140,183	66,365	(198)	(987)	(2,708)	55,916	1,258,571
Leasehold improvements		33,995	4,893	(2,398)	_	(1,026)	298	35,762
Vehicles		240,144	16,686	(526)	-	(291)	(12,551)	243,462
Equipment		599,693	(4,091)	(4,266)	-	(2,561)	18,400	607,175
Construction in progress		-	2,810	-	-	-	-	2,810
Others		1,254,646	179,954	(254)	(2,416)	(146)	(42,506)	1,389,278
	-	3,268,661	266,617	(7,642)	(3,403)	(6,732)	19,557	3,537,058
Accumulated impairment	-							
losses:								
Land		3,191	95,069	-	(158)	-	9	98,111
Buildings and structures		182,514	63,355	(44)	(21)	-	44,142	289,946
Leasehold improvements		298	-	-	-	-	(298)	-
Vehicles		15,485	22,875	-	-	-	308	38,668
Equipment		3,608	146,234	(15)	-	-	3,598	153,425
Construction in progress		83,002	(66,583)	-	-	-	8,343	24,762
Others		33,957	179,594	(14)	(2,290)	-	(24,569)	186,678
	-	322,055	440,544	(73)	(2,469)	-	31,533	791,590
	₩	6,577,983	10,683	(29,803)	(2,187)	(50,887)	(478,878)	6,026,911
		, ,						1 - 1

As of December 31, 2017 and 2016

# 12. Property and Equipment, Continued

				2016			
		Acquisition/		Reclassifi-	Foreign exchange		December 31,
	January 1, 2016	depreciation	Disposal	cation	differences	Others	2016
Acquisition cost:							
Land <del>W</del>	2,819,293	1,174	(25,153)	(8,344)	16	(175,746)	2,611,240
Buildings and structures Leasehold	3,648,189	12,286	(101,970)	13,046	137	(85,160)	3,486,528
improvements	46,878	3,165	(3,384)	24	(271)	-	46,412
Vehicles	386,993	14,031	(1,301)	-	(18,821)	(5,473)	375,429
Equipment	789,863	43,596	(8,705)	2,347	(14,428)	(6,274)	806,399
Construction in							
progress	976,325	272,569	(114,346)	(368,846)	(43,930)	(49,957)	671,815
Others	2,162,865	87,642	(18,248)	53,018	(54,232)	(60,169)	2,170,876
	10,830,406	434,463	(273,107)	(308,755)	(131,529)	(382,779)	10,168,699
Accumulated							
depreciation: (*1)							
Buildings and structures	1,142,094	18	(675)	(331)	236	(1,159)	1,140,183
Leasehold							
improvements	31,340	6,016	(2,982)	-	(379)	-	33,995
Vehicles	235,103	23,457	(83)	-	(18,333)	-	240,144
Equipment	573,227	45,839	(4,120)	(42)	(15,211)	-	599,693
Others	1,205,516	108,545	(11,110)		(48,305)	-	1,254,646
	3,187,280	183,875	(18,970)	(373)	(81,992)	(1,159)	3,268,661
Accumulated impairment							
losses:							
Land	3,086	9	-	96	-	-	3,191
Buildings and structures	118,864	68,756	-	(2,722)	-	(2,384)	182,514
Leasehold							298
improvements	298	-	-	-	-	-	
Vehicles	15,468	322	-	(305)	-	-	15,485
Equipment	2,263	1,985	-	(547)	-	(93)	3,608
Construction in							83,002
progress	51,652	82,816	-	(51,466)	-	-	
Others	27,642	5,009	-	(1,171)		2,477	33,957
	219,273	158,897	-	(56,115)		-	322,055
₩	7,423,853	91,691	(254,137)	(252,267)	(49,537)	(381,620)	6,577,983

(\*1) The amounts include government grants.

### 13. Investment Property

Changes in investment property for the years ended December 31, 2017 and 2016 are as follows:

				2017		
			Acquisition/			
		January 1, 2017	depreciation/ impairment	Reclassifi- cation	Others	December 31, 2017
Acquisition cost:						
Land	₩	279,455	-	(820)	-	278,635
Buildings and structures		234,532	460	2,677	(813)	236,856
		513,987	460	1,857	(813)	515,491
Accumulated depreciation: Buildings and structures		89,440	6,301	976	91	96,808
Accumulated impairment losses:						
Land		2,808	-	158	-	2,966
Buildings and structures		1,820	1,353	(42)	-	3,131
		4,628	1,353	116	-	6,097
	₩	419,919	(7,194)	765	(904)	412,586

	_	2016						
			Acquisition/					
		January	depreciation/		Reclassifi-		December	
	_	1, 2016	impairment	Disposal	cation	Others	31, 2016	
Acquisition cost:	_							
Land	₩	170,911	-	(1,724)	110,268	-	279,455	
Buildings and structures	_	219,212		(1,580)	16,900	-	234,532	
		390,123	-	(3,304)	127,168	-	513,987	
Accumulated depreciation: Buildings and structures	_	82,093	5,728	1,159	331	129	89,440	
Accumulated impairment losses:								
Land		3,024	344	-	(560)	-	2,808	
Buildings and structures	_	1,820	1,198	-	-	(1,198)	1,820	
		4,844	1,542	-	(560)	(1,198)	4,628	
	₩	303,186	(7,270)	(4,463)	127,396	1,069	419,919	

The fair value of the Group's investment property, as determined on the basis of valuation by an independent appraiser, amounts to \#435,669 million and \#427,668 million as of December 31, 2017 and 2016, respectively. Additionally, fair value of investment in property is classified as level 3 according to the fair value hierarchy in Note 49.

### 14. Intangible Assets

Changes in intangible assets for the years ended December 31, 2017 and 2016 are as follows:

						2017				
								Foreign		
		January 1,			Reclassifi-	Amortiza-	Impairment	exchange		December 31,
		2017	Acquisition	Disposal	cation	tion	loss	differences	Others	2017
Goodwill	₩	584,870	28,469	-	-	-	(498,296)	(28)	(7,654)	107,361
Customers										
related		389,701	-	-	-	(61,501)	-	-	-	328,200
Membership		40,901	1,124	(2,617)	138	(1,697)	(318)	(10)	140	37,661
Others		946,410	62,954	(6,797)	(1,148)	(155,539)	(29,416)	(883)	3,623	819,204
	₩	1,961,882	92,547	(9,414)	(1,010)	(218,737)	(528,030)	(921)	(3,891)	1,292,426
	_					2016				
								Foreign		
		January 1,			Reclassifi-		Impairment	exchange		December 31,
		2016	Acquisition	Disposal	cation	Amortization	loss	differences	Others	2016
Goodwill	₩	609,395	-	-	-	-	(23,464)	(1,061)	-	584,870
Customers										
related		504,053	-	-	-	(63,377)	(27,841)	-	(23,134)	389,701
Membership		76,038	68	(250)	(22,443)	(742)	(11,770)	-	-	40,901
Others		1,937,007	60,267	(20,486)	3,872	(212,046)	(315,856)	(223)	(506,125)	946,410
	₩	3,126,493	60,335	(20,736)	(18,571)	(276,165)	(378,931)	(1,284)	(529,259)	1,961,882

#### 15. Other Assets

Other assets as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Accounts receivable	₩	6,438,011	6,123,925
Domestic exchange receivables		2,144,474	1,311,253
Accrued income		713,022	713,645
Guarantee deposits		494,707	463,114
Trade accounts receivables		9,524,417	9,669,408
Inventories		1,493,496	2,310,386
Prepaid expenses		464,478	490,221
Advance payments		1,305,758	1,375,620
Deferred acquisition cost		559,491	597,076
Separate account assets		784,526	1,164,529
Financial guarantee asset		23,371	32,713
Others		181,575	233,417
		24,127,326	24,485,307
Allowance for credit losses		(2,860,413)	(2,528,828)
Present value discount		(2,874)	(3,733)
	W	21,264,039	21,952,746

The carrying amounts of financial assets included in other assets above amounted to \$19,338,002 million and \$18,314,057 million as of December 31, 2017 and 2016, respectively, and their fair value amounted to \$19,117,731 million and \$18,117,139 million as of December 31, 2017 and 2016, respectively.

### 16. Assets and Liabilities Held for Sale and Discontinued Operation

(1) Assets and liabilities held for sale as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Assets held for sale			
Assets for disposal group (*1)	W	2,606	247,994
Property and equipment		184,489	400,930
Others		77,199	76,400
		264,294	725,324
Liabilities held for sale			
Liabilities for disposal group (*1)	W	18,954	115,090

(\*1) The assets and liabilities are held by subsidiaries of Daewoo Shipbuilding & Marine Engineering Co., Ltd. and are expected to be sold soon.

(i) The contents of discontinued operations

The Group issued the public notice for the block sale of Mirae Asset Daewoo Co., Ltd. and Multi Asset Global Investments Co., Ltd. on October 8, 2015. The Group entered into the stock purchase agreement contract with Mirae Asset Securities Co., Ltd. on March 18, 2016 and completed sale procedures on April 7, 2016. Accordingly, the Group reclassified the profit or loss from Mirae Asset Daewoo Co., Ltd. and Multi Asset Global Investments Co., Ltd. as profit from discontinued operations.

(ii) Profit from discontinued operations for the year ended December 31, 2016 are as follows:

		2016
Profit from discontinued operations:		
Profit before income tax from discontinued operations	₩	397,443
Income tax expense		102,679
	W	294 764

<sup>(2)</sup> Discontinued operations

#### 17. Financial Liabilities Designated at Fair Value Through Profit or Loss

(1) Financial liabilities designated at fair value through profit or loss as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Borrowings (*1)	₩	42,472	-
Debentures (*2)		1,583,713	1,893,077
	₩	1,626,185	1,893,077

- (\*1) Daewoo Shipbuilding & Marine Engineering Co., Ltd. has designated W51,252 million as the financial liability at fair value through profit or loss as of December 31, 2017, which is expected to change the terms of the debt guarantee for the subsidiaries and affiliated companies.
- (\*2) Changes in fair value of structured debentures which hedge accounting are applied, are recognized in profit or loss, but structured debentures with no hedge accounting applied to, are measured at amortized costs. Therefore, such structured debentures, not applied to hedge accounting, have been designated at FVTPL in order to eliminate mismatch in measurements of accounting profit and loss.
- (2) The difference between the carrying amount and contractual cash flow amount of financial liabilities designated at fair value through profit or loss as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Carrying amount	W	1,626,185	1,893,077
Contractual cash flow amount		1,583,494	1,741,000
Difference	₩	42,691	152,077

#### 18. Deposits

Deposits as of December 31, 2017 and 2016 are as follows:

		December	31, 2017	December 31, 2016			
		Amortized cost	Fair value	Amortized cost	Fair value		
Deposits in Korean won:							
Demand deposits	₩	88,750	88,750	83,430	83,430		
Time and savings deposits		24,536,856	24,522,865	29,833,930	29,860,350		
Certificates of deposit		1,510,344	1,510,198	2,198,966	2,199,012		
-		26,135,950	26,121,813	32,116,326	32,142,792		
Deposits in foreign currencies:							
Demand deposits		2,164,426	2,164,426	2,011,234	2,010,972		
Time and savings deposits		2,762,094	2,762,127	1,515,835	1,503,630		
Certificates of deposit		2,857,274	2,857,056	3,296,554	3,298,858		
		7,783,794	7,783,609	6,823,623	6,813,460		
Off-shore deposits in foreign currencies:							
Demand deposits		380,345	380,345	458,121	458,121		
-	₩	34,300,089	34,285,767	39,398,070	39,414,373		

# 19. Borrowings

(1) Borrowings as of December 31, 2017 and 2016 are as follows:

	December 31, 2017						
	Minimum	Maximum					
	interest rate (%)	interest rate (%)		Amortized cost	Fair value		
Borrowings in Korean won	-	3.28	₩	9,205,358	9,204,510		
Borrowings in foreign currencies	0.05	5.50		11,971,452	11,997,609		
Off-shore borrowings in foreign							
currencies	0.69	4.32		1,353,241	1,355,070		
Share capital repayable on demand	-	-		1,679,986	1,679,986		
Others	0.01	5.30		4,556,273	4,556,108		
				28,766,310	28,793,283		
Present value discount				(72,297)			
Deferred borrowing costs				(1,298)			
-			₩	28,692,715			

	December 31, 2016						
	Minimum	Maximum					
	interest rate (%)	interest rate (%)	_	Amortized cost	Fair value		
Borrowings in Korean won	-	3.65	₩	7,224,531	7,232,050		
Borrowings in foreign currencies	-	7.05		14,410,698	14,522,087		
Off-shore borrowings in foreign							
currencies	0.19	4.32		1,996,352	2,001,034		
Share capital repayable on demand	-	-		1,673,842	1,673,842		
Others	0.25	6.55	_	5,901,878	5,906,970		
				31,207,301	31,335,983		
Present value discount				(1,399)			
Deferred borrowing costs				(2,539)			
-			₩	31,203,363			

As of December 31, 2017 and 2016

# 19. Borrowings, Continued

(2) Borrowings in Korean won before adjusting for deferred borrowing costs as of December 31, 2017 and 2016 are as follows:

Lender	Classification	Annual interest rate (%)	December 31, 2017	December 31, 2016
The Bank of Korea	Borrowings from Bank of			
	Korea	0.50 ~ 0.75 ₩	871,314	915,418
Ministry of Strategy and	Borrowings from	0.05 1.45	248 820	222.021
Finance	government fund (*1)	0.95 ~ 1.45	248,829	322,021
Industrial Bank of Korea	Borrowings from IT	$0.60 \sim 1.00$	3,183	3,807
Small & Medium	industry promotion fund Borrowings from small	0.00~1.00	5,105	5,807
Business Corp.	and medium enterprise promotion fund	0.70~3.24	104,161	132,852
Ministry of Culture and Tourism	Borrowings from tourism promotion fund	$0.05 \sim 2.50$	2,563,235	2,246,926
Korea Energy				, ,
Management Corporation	Borrowings from fund for rational use of energy	0.25 ~ 3.10	648,512	781,837
Local governments	Borrowings from local small and medium			
	enterprise promotion fund	0.20 ~ 3.28	64,056	69,685
Others	Borrowings from petroleum enterprise			
	fund	$0.00 \sim 3.15$	4,702,068	2,751,985
		W	9,205,358	7,224,531

(\*1) Borrowings from government fund are subordinated borrowings.

## 19. Borrowings, Continued

(3) Borrowings and off-shore borrowings in foreign currencies before adjusting for deferred borrowing costs as of December 31, 2017 and 2016 are as follows:

Lender	Classification	Annual interest rate (%)	December 31, 2017	December 31, 2016
Japan Bank for International				
Cooperation (JBIC)	Borrowings from JBIC	$1.73 \sim 2.16  \Psi$	154,063	194,165
Mizuho and others	Bank loans from foreign	$3M \text{ Libor+0.25} \sim$	154,005	194,105
Witzuno and others	funds	3M Libor+0.78	1,285,680	1,377,690
Ministry of Strategy and	Exchange equalization	51VI E1001 + 0.76	1,205,000	1,577,070
Finance	fund borrowings in	3M Libor+0.22 ~		
1	foreign currencies	3M Libor+0.74	1,809,558	2,902,757
Central Bank of the			-,,	_,,,,
Republic Uzbekistan	Off-shore short term			
and others	borrowings	0.69~1.66	1,069,868	1,383,257
		-	-	36,255
			1,069,868	1,419,512
HSBC and others	Off-shore	3M Libor+0.35 ~		
	long term borrowings	3M Libor+0.62	214,280	483,400
JBIC	Off-shore borrowings			
	from JBIC	$4.27 \sim 4.32$	18,364	27,619
Others	Short term borrowings in			
	foreign currencies	$0.05 \sim 5.50$	7,173,705	8,219,191
	Long term borrowings in			1 = 0 = 1 (
	foreign currencies	0.12 ~ 4.30	1,599,175	1,782,716
		₩	13,324,693	16,407,050

## 20. <u>Debentures</u>

Debentures as of December 31, 2017 and 2016 are as follows:

	December 31, 2017					
	Minimum	Maximum				
	interest rate (%)	interest rate (%)	A	mortized cost	Fair value	
Debentures in Korean won: Debentures Discount on debentures Premium on debentures	1.29	6.90	₩	97,802,120 (259,028) 203	97,711,691	
Valuation adjustment for fair value hedges			_	(227,991) 97,315,304		
Debentures in foreign currencies:						
Debentures Discount on debentures Valuation adjustment for	0.16	8.20		12,997,100 (34,155)	12,663,817	
fair value hedges			_	(345,603) 12,617,342		
Off-shore debentures: Debentures Discount on debentures Valuation adjustment for	-	7.73		10,628,444 (24,660)	10,331,998	
fair value hedges				(308,425) 10,295,359		
			₩	120,228,005	120,707,506	
			21 201	6		
	Minimum	December Maximum	31, 201	0		
	interest rate (%)	interest rate (%)	۸	mortized cost	Fair value	
Debentures in Korean won:	Interest fate (70)					
Debentures Discount on debentures Valuation adjustment for	1.27	7.16	₩	96,843,958 (59,543)	97,728,110	
fair value hedges			_	(26,507) 96,757,908		
Debentures in foreign currencies:						
Debentures	0.04	8.20		15,084,899	14,902,677	
Discount on debentures Valuation adjustment for		0.20		(42,675)	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
fair value hedges			_	$\frac{(166,884)}{14,875,340}$		

			_	14,875,340	
Off-shore debentures:					
Debentures	0.04	7.73		10,466,035	10,307,645
Discount on debentures				(23,165)	
Valuation adjustment for					
fair value hedges				(186,006)	
				10,256,864	
			₩	121,890,112	122,938,432

## 21. Policy Reserves

Details of policy reserves categorized by insurance type as of December 31, 2017 and 2016 are as follows:

	Classification	December 31, 2017	December 31, 2016
Premium reserve	Pure endowment	₩ 4,892,633	4,566,124
	Death	5,146,633	4,633,008
	Endowment	4,613,106	4,402,421
	Group	32,371	32,158
		14,684,743	13,633,711
Unearned premium reserve	Pure endowment	1	2
	Death	221	237
	Group	1,870	2,804
		2,092	3,043
Reserve for outstanding claims	Pure endowment	101,816	94,239
	Death	293,714	300,350
	Endowment	406,593	321,448
	Group	6,530	6,007
		808,653	722,044
Reserve for participating			
policyholders' dividends	Pure endowment	32,758	26,858
	Death	4,220	4,750
	Endowment	2,115	2,202
	Group	15	26
		39,108	33,836
Excess participating			
policyholders' dividend reserve		20,082	13,047
Guaranteed benefit reserve		32,160	28,299
		₩ 15,586,838	14,433,980

## 22. Defined Benefit Liabilities

(1) Details of defined benefit liabilities as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Present value of defined benefit obligation	₩	1,229,449	1,201,376
Fair value of plan assets (*1)		(853,367)	(812,823)
Net defined benefit liabilities		376,082	388,553
Liabilities for other long-term employment			
benefits		27,010	32,044
	₩	403,092	420,597

(\*1) The plan assets are in trusts with Kookmin Bank, Samsung Life Insurance Co., Ltd., etc.

# 22. Defined Benefit Liabilities, Continued

(2) Changes in defined benefit liabilities for the years ended December 31, 2017 and 2016 are as follows:

		2017				
		Present value of defined benefit obligation	Fair value of plan assets	Net defined benefit liabilities	Liabilities for other long-term employment benefits	
Beginning balance	₩	1,201,376	(812,823)	388,553	32,044	
Current service costs		148,343	-	148,343	-	
Past service costs		14	-	14	-	
Interest expense (income) Remeasurements of defined benefit liabilities:		24,441	(11,368)	13,073	-	
Demographic assumption		650	-	650	-	
Financial assumption		(23,710)	-	(23,710)	-	
Return on plan assets			10,706	10,706		
		(23,060)	10,706	(12,354)		
Payments from the plan		(91,462)	27,273	(64,189)	-	
Contributions to the plan		-	(47,702)	(47,702)	-	
Others		(30,203)	(19,453)	(49,656)	(5,034)	
Ending balance	₩	1,229,449	(853,367)	376,082	27,010	
			20	16		
			20	16	Liabilities for	
		Present value of			other long-term	
		defined benefit	Fair value of	Net defined	other long-term employment	
Designing balance		defined benefit obligation	Fair value of plan assets	Net defined benefit liabilities	other long-term employment benefits	
Beginning balance	₩	defined benefit obligation 1,274,144	Fair value of	Net defined benefit liabilities 430,470	other long-term employment	
Current service costs	₩	defined benefit obligation 1,274,144 174,308	Fair value of plan assets	Net defined benefit liabilities 430,470 174,308	other long-term employment benefits	
Current service costs Past service costs	₩	defined benefit obligation 1,274,144 174,308 300	Fair value of plan assets (843,674)	Net defined benefit liabilities 430,470 174,308 300	other long-term employment benefits	
Current service costs Past service costs Interest expense (income) Remeasurements of defined benefit	₩	defined benefit obligation 1,274,144 174,308	Fair value of plan assets	Net defined benefit liabilities 430,470 174,308	other long-term employment benefits	
Current service costs Past service costs Interest expense (income) Remeasurements of defined benefit liabilities:	₩	defined benefit obligation 1,274,144 174,308 300 32,648	Fair value of plan assets (843,674)	Net defined benefit liabilities 430,470 174,308 300 22,635	other long-term employment benefits	
Current service costs Past service costs Interest expense (income) Remeasurements of defined benefit liabilities: Demographic assumption	₩	defined benefit obligation 1,274,144 174,308 300 32,648 5,568	Fair value of plan assets (843,674)	Net defined benefit liabilities 430,470 174,308 300 22,635 5,568	other long-term employment benefits	
Current service costs Past service costs Interest expense (income) Remeasurements of defined benefit liabilities: Demographic assumption Financial assumption	₩	defined benefit obligation 1,274,144 174,308 300 32,648	Fair value of plan assets (843,674) - (10,013) -	Net defined benefit liabilities 430,470 174,308 300 22,635 5,568 (44,573)	other long-term employment benefits	
Current service costs Past service costs Interest expense (income) Remeasurements of defined benefit liabilities: Demographic assumption	₩	defined benefit obligation 1,274,144 174,308 300 32,648 5,568 (44,573)	Fair value of plan assets (843,674) - (10,013)	Net defined benefit liabilities 430,470 174,308 300 22,635 5,568 (44,573) (14,463)	other long-term employment benefits	
Current service costs Past service costs Interest expense (income) Remeasurements of defined benefit liabilities: Demographic assumption Financial assumption Return on plan assets	₩	defined benefit obligation 1,274,144 174,308 300 32,648 5,568 (44,573) - (39,005)	Fair value of plan assets (843,674) - (10,013) - (14,463) (14,463)	Net defined benefit liabilities 430,470 174,308 300 22,635 5,568 (44,573) (14,463) (53,468)	other long-term employment benefits	
Current service costs Past service costs Interest expense (income) Remeasurements of defined benefit liabilities: Demographic assumption Financial assumption Return on plan assets Payments from the plan	₩	defined benefit obligation 1,274,144 174,308 300 32,648 5,568 (44,573)	Fair value of plan assets (843,674) - (10,013) - (14,463) (14,463) 19,884	Net defined benefit liabilities 430,470 174,308 300 22,635 5,568 (44,573) (14,463) (53,468) (152,361)	other long-term employment benefits	
Current service costs Past service costs Interest expense (income) Remeasurements of defined benefit liabilities: Demographic assumption Financial assumption Return on plan assets	₩	defined benefit obligation 1,274,144 174,308 300 32,648 5,568 (44,573) - (39,005) (172,245)	Fair value of plan assets (843,674) - (10,013) - (14,463) (14,463) 19,884 (61,543)	Net defined benefit liabilities 430,470 174,308 300 22,635 5,568 (44,573) (14,463) (53,468) (152,361) (61,543)	other long-term employment benefits 41,627 - - - - - - - - - - - - - - - - - - -	
Current service costs Past service costs Interest expense (income) Remeasurements of defined benefit liabilities: Demographic assumption Financial assumption Return on plan assets Payments from the plan Contributions to the plan	₩	defined benefit obligation 1,274,144 174,308 300 32,648 5,568 (44,573) - (39,005)	Fair value of plan assets (843,674) - (10,013) - (14,463) (14,463) 19,884	Net defined benefit liabilities 430,470 174,308 300 22,635 5,568 (44,573) (14,463) (53,468) (152,361)	other long-term employment benefits	

### 22. Defined Benefit Liabilities, Continued

(3) Fair value of plan assets for each type as of December 31, 2017 and 2016 are as follows:

		December	31, 2017	December 31, 2016		
		Quoted market prices	Unquoted market prices	Quoted market prices	Unquoted market Prices	
Equity securities	W	4,511	-	2,562	-	
Debt securities		6,229	-	14,593	-	
Due from banks		518,904	321,910	480,298	284,420	
Others		1,813	-	30,950	-	
	₩	531,457	321,910	528,403	284,420	

(4) Defined benefit costs recognized in profit or loss for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Current service costs	₩	148,343	174,308
Past service costs		14	300
Interest expense, net		13,073	22,635
	₩	161,430	197,243

(5) The principal actuarial assumptions used as of December 31, 2017 and 2016 are as follows:

	December 31, 2017	December 31, 2016
Discount rate (%)	1.70 ~ 3.25	$2.40 \sim 2.94$
Future salary increasing rate (%)	$1.90 \sim 6.50$	1.10 ~ 6.26

(6) The present value sensitivity of defined benefit liabilities as changes in principal actuarial assumptions as of December 31, 2017 is as follows:

	Sens	itivity	
	1% increase in assumption	1% decrease in assumption	
Discount rate	9.44% decrease	11.20% increase	
Future salary increasing rate	10.72% increase	9.25% decrease	

#### 23. Provisions

(1) Changes in provisions for the years ended December 31, 2017 and 2016 are as follows:

	_				2017			
	_	Provision	Provision for	Financial				
	t	for payment	unused	guarantee	Lawsuit	Restoration	Other	
	_	guarantees	commitments	provision	provision	liability	provision	Total
Beginning balance	₩	510,090	20,409	125,607	293,161	3,728	632,657	1,585,652
Increase (reversal)								
of provision		(10,312)	59,186	83,412	355,894	(615)	14,034	501,599
Utilization								
for the year		-	-	-	(26,115)	(1,242)	(141,156)	(168,513)
Capitalized								
restoration								
expenses		-	-	-	-	466	-	466
Foreign exchange								
differences		(79,767)	(17,175)	6,526	(4)	-	(10)	(90,430)
Others	_	-		(78,753)	22,377	(264)	(84,868)	(141,508)
Ending balance	₩	420,011	62,420	136,792	645,313	2,073	420,657	1,687,266
	_							

					2016			
	_	Provision	Provision for	Financial				
		for payment	unused	guarantee	Lawsuit	Restoration	Other	<b>T</b> 1
	_	guarantees	commitments	provision	provision	liability	provision	Total
Beginning balance	₩	515,275	56,521	225,677	92,271	3,969	457,500	1,351,213
Increase (reversal)								
of provision		(43,437)	(45,714)	(82,202)	204,764	(770)	170,176	202,817
Utilization								
for the year		-	-	-	(17,861)	(95)	(166,631)	(184,587)
Capitalized restoration								
expenses		-	-	-	-	624	-	624
Foreign exchange								
differences		38,121	9,604	(175)	13,979	-	393	61,922
Others	_	131	(2)	(17,693)	8		171,219	153,663
Ending balance	₩	510,090	20,409	125,607	293,161	3,728	632,657	1,585,652

(2) Provision for payment guarantees and financial guarantee provision

Confirmed acceptances and guarantees, unconfirmed acceptances and guarantees and bills endorsed are not recognized on the consolidated statement of financial position, but are disclosed as off-statement of financial position items in the notes to the consolidated financial statements. The Group provides a provision for such off-statement of financial position items, applying a Credit Conversion Factor (CCF) and provision rates, and records the provision as a reserve for possible losses on acceptances and guarantees.

In the case of financial guarantee contracts, when the amount calculated using the same method as above is greater than the initial amount less amortization of fees recognized, the difference is recorded as a financial guarantee provision.

### (3) Provision for unused commitments

The Group records a provision for a certain portion of unused credit lines which is calculated using a CCF as provision for unused commitments applying provision rates.

As of December 31, 2017 and 2016

### 23. Provisions, Continued

(4) Provision for possible losses from lawsuits

As of December 31, 2017, the Group is involved in 286 lawsuits as a plaintiff and 394 lawsuits as a defendant. The aggregate amounts of claims as a plaintiff and a defendant amounted to W1,519,756 million and W1,500,004 million, respectively. The Group provided a provision against contingent loss from pending lawsuits as of December 31, 2017 and additional losses may be incurred depending on the final result of pending lawsuits.

Some investors who bought the DSME's shares, corporate bonds and commercial papers sued the DSME, certain accounting firm and others for damage claims asserting that they had misled by false audit report, business report, registration of securities, prospectus, etc. and these lawsuits are included in the Group's lawsuits as a defendant.

Major lawsuits in progress as of December 31, 2017 and 2016 are as follows:

	December 31, 2017					
	Contents		Amounts	Status of lawsuit		
Plaintiff:						
Korea Trade Insurance Corporation and one other	Guarantee insurance	₩	136,538	1 <sup>st</sup> trial in progress		
Korea Credit Guarantee Fund.	Claim for damages		60,100	1 <sup>st</sup> trial ruled against the Group; 2 <sup>nd</sup> trial in progress		
Korea Trade Insurance Corporation	Short-term export credit insurance		34,209	1 <sup>st</sup> trial ruled against the Group; 2 <sup>nd</sup> trial in progress		
Hyundai Engineering & Construction Co., Ltd. and two others	Claim for refund of special agreement settlement		27,180	1 <sup>st</sup> trial ruled in favor of the Group; 2 <sup>nd</sup> trial in progress		
Gyeonggi Urban Innovation Corp.	Claim for refund of investments		19,100	1 <sup>st</sup> and 2 <sup>nd</sup> trial ruled partially in favor of the Group; 3 <sup>rd</sup> trial in progress		
Gyeongsangnam-do Hadong-gun	Claim for refund of presale price		123,284	1 <sup>st</sup> trial ruled partially in favor of the Group; 2 <sup>nd</sup> trial in progress		
Defense Acquisition Program Administration	Claim for debt absence		100,708	1 <sup>st</sup> trial ruled partially in favor of the Group; 2 <sup>nd</sup> trial in progress		
Defendant:						
Hanhwa Chemical Co., Ltd.	Performance guarantee		322,593	Retrial in progress after quashing (*1)		
Shinhan Bank and one other	Claim for damages		58,474	1 <sup>st</sup> trial in progress		
Defense Acquisition Program Administration	Claim for guaranteed debt		56,977	1 <sup>st</sup> trial in progress		
Dongbu Corporation	Claim for nullity of table of rehabilitation creditors		33,997	1 <sup>st</sup> trial in progress		
KAMCO 8th JV Securitization Specialty Co., Ltd.	Claim for refund of impairment sale payment		13,898	1 <sup>st</sup> trial ruled partially against the Group; 2 <sup>nd</sup> trial in progress		

As of December 31, 2017 and 2016  $\,$ 

#### 23. Provisions, Continued

(\*1) For the sale of the shares of Daewoo Shipbuilding & Marine Engineering Co., Ltd. that the Bank and Korea Asset Management Corp. (KAMCO) had held, the Bank, KAMCO and Hanhwa Chemical Co., Ltd. (Hanhwa Chemical), which was on behalf of the Hanhwa Consortium, entered into the memorandum of understanding on November 14, 2008, but the memorandum was revoked as reasons attributable to Hanhwa Chemical. Accordingly, the Bank and KAMCO took ¥195 billion and ¥120 billion, respectively, provided by Hanhwa Chemical as the performance guarantee. Relating to the performance guarantee, Hanhwa Chemical brought a law suit but the first and the second trial ruled in favor of the Bank because the courts of the first and the second trial regarded the performance guarantee as a penalty for the breach of the memorandum. On July 14, 2016, the Supreme Court judged unlike the first and the second trial that the performance guarantee was provided in order to compensate damages and the Bank's taking all the performance guarantee was unfair, and remanded the case to the original court. After the reporting period, the case was terminated on January 11, 2018 and decided partially in favour of Hanhwa Chemical. In accordance with the ruling, the Bank recognized the amount to be paid to Hanhwa Chemical as a lawsuit provision as of December 31, 2017.

	December 31, 2016				
	Contents		Amounts	Status of lawsuit	
Plaintiff:					
Korea Land & Housing Corp.	Claim for debt absence	₩	67,891	1 <sup>st</sup> trial ruled in favor of the Group; 2 <sup>nd</sup> trial in progress	
Korea Trade Insurance Corporation	Short-term export credit insurance		46,394	1 <sup>st</sup> trial in progress	
Hyundai Engineering & Construction Co., Ltd. and two others	Claim for refund of special agreement settlement		30,000	1 <sup>st</sup> trial in progress	
Gyeonggi Urban Innovation Corp.	Claim for refund of investments		19,100	1 <sup>st</sup> trial ruled partially in favor of the Group; 2 <sup>nd</sup> trial in progress	
KB Capital Co., Ltd.	Claim for damages		17,795	Supplementary participation	
Defendant:					
Hanhwa Chemical Co., Ltd.	Performance guarantee		322,593	Retrial in progress after quashing	
Shinhan Bank and one other	Claim for damages		58,474	1 <sup>st</sup> trial in progress	
Korea Land & Housing Corp.	Delivery of stocks and stock transfer, etc.		52,030	1 <sup>st</sup> trial in progress	
KAMCO 8th JV	,		36,333	1 <sup>st</sup> trial in progress	
Securitization Specialty Co., Ltd.	Claim for refund of impairment sale payment				
Gyeonggi Urban Innovation Corp.	Delivery of stocks and stock transfer, etc.		53,660	1 <sup>st</sup> trial ruled against the Group; 2 <sup>nd</sup> trial in progress	
Dong E&P A/S	Arbitration for the loss from delivery delays		USD 920 million	Claim statements submitted	

(5) Other provision

The Group recognized other provision as a reserve for other miscellaneous purpose.

## 24. Other Liabilities

Other liabilities as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Accounts payable	W	5,794,177	6,252,669
Accrued expense		2,570,418	2,506,164
Domestic exchange payable		238,958	293,303
Borrowing from trust accounts		1,022,130	715,433
Advance receipts		4,377,996	6,862,405
Guarantee money received		900,128	560,102
Trade payable		1,228,370	1,144,605
Unearned income		324,195	298,320
Deposits withholding tax		51,720	50,486
Foreign exchanges payable		77,245	15,311
Separate account liabilities		832,518	1,265,656
Financial guarantee liability		57,705	69,542
Contractor equity adjustments		45,230	62,222
Others		491,031	366,151
		18,011,821	20,462,369
Present value discount		(20,513)	(18,075)
	₩	17,991,308	20,444,294

The carrying amount of financial liabilities included in other liabilities above amounted to \$11,930,654 million and \$11,565,808 million as of December 31, 2017 and 2016, respectively, and their fair value amounted to \$11,927,048 million and \$11,534,054 million as of December 31, 2017 and 2016, respectively.

As of December 31, 2017 and 2016

## 25. <u>Equity</u>

#### (1) Issued capital

The Group is authorized to issue up to 6,000 million shares of common stock and has 3,587,619,768 shares issued and 3,508,619,768 shares issued as of December 31, 2017 and 2016, respectively, and outstanding with a total par value of  $\frac{1}{1}$  value of  $\frac{1}{$ 

### (2) Capital surplus

Capital surplus as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Paid-in capital in excess of par value	₩	63,133	65,079
Surplus from capital reduction		47,973	47,973
Share of capital surplus of associates		121,146	121,146
Other capital surplus		826,122	1,002,468
	₩	1,058,374	1,236,666

### (3) Capital adjustments

Capital adjustments as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Share of capital adjustment of associates	₩	220,605	220,606
Other capital adjustment		103,991	(5,370)
	₩	324,596	215,236

# 25. Equity, Continued

(4) Accumulated other comprehensive income(i) Accumulated other comprehensive income as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Valuation gain on available-for-sale financial			
assets:			
Valuation gain on available-for-sale			
financial assets (before tax)	₩	567,735	401,604
Income tax effect	_	(146,794)	(102,866)
		420,941	298,738
Share of other comprehensive income of associates:			
Share of other comprehensive income of			
associates (before tax)		607,597	479,477
Income tax effect	_	15,266	(66,517)
		622,863	412,960
Exchange differences on translation of foreign operations:			
Exchange differences on translation of			
foreign operations (before tax)		(521,115)	(216,318)
Income tax effect		165,639	93,060
		(355,476)	(123,258)
Valuation loss on cash flow hedge			
Valuation loss on cash flow hedge (before			
tax)		(5,496)	(15,424)
Income tax effect		1,287	3,478
		(4,209)	(11,946)
Remeasurements of defined benefit liabilities:			
Remeasurements of defined benefit			
liabilities (before tax)		8,894	9,239
Income tax effect	_	(2,068)	(1,976)
	_	6,826	7,263
Others:			
Others (before tax)		1,288	(5,509)
Income tax effect	_	2,314	4,292
		3,602	(1,217)
	₩	694,547	582,540

412,960

(123,258)

(11,946)

7,263

(1,217)

582,540

22,717

(13,841)

(1,715)

(8,528)

2,481

120,111

127

income of associates

benefit liabilities

Others

Exchange differences on

Remeasurements of defined

translation of foreign operations

Valuation loss on cash flow hedge

## 25. Equity, Continued

(ii) Changes in accumulated other comprehensive income for the years ended December 31, 2017 and 2016 are as follows:

			201	17	
		January 1, 2017	Increase (Decrease)	Tax Effect	December 31, 2017
Valuation gain on available-for- sale financial assets	₩	298,738	166,131	(43,928)	420,941
Share of other comprehensive income of associates		412,960	128,120	81,783	622,863
Exchange differences on		,	,	2	
translation of foreign operations		(123,258)	(304,797)	72,579	(355,476)
Valuation loss on cash flow hedge		(11,946)	9,928	(2,191)	(4,209)
Remeasurements of defined benefit liabilities		7,263	(345)	(92)	6,826
Others		(1,217)	6,797	(1,978)	3,602
	₩	582,540	5,834	106,173	694,547
			201	6	
	_	January 1, 2016	Increase (Decrease)	Tax Effect	December 31, 2016
Valuation gain on available-for- sale financial assets Share of other comprehensive	₩	596,072	(416,331)	118,997	298,738

478,538

(169,566)

(16,843)

(19,979)

872,002

₩

3,780

(88,295)

60,149

35,770

(409,573)

(7,478)

6,612

As of December 31, 2017 and 2016

### 25. Equity, Continued

#### (5) Retained earnings

In accordance with the *Korea Development Bank Act*, the Group is required to appropriate at least 40% of net income as a legal reserve. This reserve can be transferred to paid-in capital or offset an accumulated deficit.

In accordance with the *Korea Development Bank Act*, the Group offsets an accumulated deficit with reserves. If the reserve is insufficient to offset the accumulated deficit, the Korean government is responsible for the deficit.

(i) Retained earnings as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Legal reserve	₩	-	3,578,770
Voluntary reserve			
Regulatory reserve for credit losses (*1)		1,308,500	1,370,828
Unappropriated retained earnings		8,518,595	4,384,085
	W	9,827,095	9,333,683

(\*1) This amount is regulatory reserve for credit losses recognized by the Bank, controlling company, in the separate financial statements according to the Article 29(1) and (2) of the *Regulation on Supervision of Banking Business*.

(ii) Changes in legal reserve for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Beginning balance	W	3,578,770	5,473,906
Coverage of deficits		(3,578,770)	(1,895,136)
Ending balance	₩	-	3,578,770

(iii) Changes in unappropriated retained earnings for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Beginning balance	W	4,384,085	2,501,427
Profit (loss) for the period		493,412	(12,478)
Transfer from (contribution to) legal reserve		3,578,770	1,895,136
Transfer from (contribution to) regulatory			
reserve for credit losses		72,134	(13,258)
Others		(9,806)	13,258
Ending balance	₩	8,518,595	4,384,085

As of December 31, 2017 and 2016  $\,$ 

### 25. Equity, Continued

(6) Regulatory reserve for credit losses

The Group is required to provide regulatory reserve for credit losses in accordance with *Regulation on Supervision* of *Banking Business 29(1) and (2)*. The details of regulatory reserve for credit losses are as follows:

(i) Regulatory reserve for credit losses as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Beginning balance	₩	1,347,622	1,419,756
Planned provision for (reversal of) regulatory			
reserve for credit losses		58,231	(72,134)
Ending balance	₩	1,405,853	1,347,622

(ii) Required reversal of (provision for) regulatory reserve for loan losses and profit (loss) after adjusting regulatory reserve for loan losses for the years ended December 31, 2017 and 2016 are as follows:

	_	2017	2016
Profit (loss) for the year	₩	563,372	(2,061,645)
Required reversal of (provision for) regulatory			
reserve for credit losses	_	(58,231)	72,134
Profit (loss) after adjusting regulatory reserve			
for credit losses	₩	505,141	(1,989,511)
Earnings (loss) per share after adjusting	-		
regulatory reserve for credit losses (in won)	₩	143	(574)
	-		

## 26. <u>Net Interest Income</u>

Net interest income for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Interest income:			
Due from banks	₩	78,220	77,875
Financial assets held for trading		62,602	65,939
Financial assets designated at fair value			
through profit or loss		15,251	8,412
Available-for-sale financial assets		600,827	822,700
Held-to-maturity financial assets		151,892	56,153
Loans		4,845,029	4,746,588
		5,753,821	5,777,667
Interest expense:			
Financial liabilities designated at fair value			
through profit or loss		(68,190)	(73,259)
Deposits		(486,849)	(583,965)
Borrowings		(339,885)	(339,250)
Debentures		(2,604,631)	(2,737,517)
		(3,499,555)	(3,733,991)
	₩	2,254,266	2,043,676

## 27. <u>Net Fees and Commission Income</u>

Net fees and commission income for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Fees and commission income:			
Loan commissions	W	152,002	176,032
Underwriting and investment consulting			
commissions		144,734	146,092
Brokerage and agency commissions		7,340	7,906
Trust and retirement pension plan			
commissions		26,105	23,097
Fees on asset management		2,326	2,332
Other fees		190,719	209,147
		523,226	564,606
Fees and commission expenses:			
Brokerage and agency fees		(12,982)	(14,446)
Other fees		(31,570)	(34,700)
		(44,552)	(49,146)
	₩	478,674	515,460

As of December 31, 2017 and 2016

### 28. Dividend Income

Dividend income for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Financial assets held for trading	₩	7,343	2,256
Available-for-sale financial assets		252,804	235,835
	W	260,147	238,091

### 29. Net Loss on Financial Assets Held for Trading

Net loss related to financial instruments held for trading for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Gains on financial assets held for trading:			
Gains on redemption	W	1	3
Gains on sale		22,700	24,136
Gains on valuation		2,781	1,590
		25,482	25,729
Losses on financial assets held for trading:			
Losses on redemption		(326)	(197)
Losses on sale		(41,446)	(37,177)
Losses on valuation		(10,774)	(18,023)
Purchase related expenses		(247)	(164)
		(52,793)	(55,561)
	₩	(27,311)	(29,832)

### 30. <u>Net Gain on Financial Instruments Designated at Fair Value Through Profit or Loss</u>

Net gain related to financial instruments designated at fair value through profit or loss ("FVTPL") for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Gains on financial instruments designated at			
FVTPL:			
Gains on redemption	₩	2,714	6,051
Gains on sale		-	1,268
Gains on valuation		80,431	70,834
		83,145	78,153
Losses on financial instruments designated at			
FVTPL:			
Losses on redemption		(353)	(370)
Losses on sale		(8,284)	(333)
Losses on valuation		(1,056)	(2,697)
		(9,693)	(3,400)
	₩	73,452	74,753

## 31. <u>Net Gain (Loss) on Available-for-Sale Financial Assets</u>

Net gain (loss) on available-for-sale financial assets for the years ended December 31, 2017 and 2016 are as follows:

		2017	2015
Gains on available-for-sale financial assets:			
Gains on redemption	₩	9,650	39,724
Gains on sale		124,958	736,472
Reversal of impairment losses		2,297	13,390
		136,905	789,586
Losses on available-for-sale financial assets:			
Losses on redemption		(211)	(423)
Losses on sale		(66,545)	(120,007)
Impairment losses		(225,227)	(312,006)
		(291,983)	(432,436)
	₩	(155,078)	357,150

## 32. <u>Net Gain on Held-to-Maturity Financial Assets</u>

Net gain on held-to-maturity financial assets for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Gains on held-to-maturity financial assets:			
Gains on redemption	₩	235	-
Gains on sale		36	100
		271	100
Losses on held-to-maturity financial assets:			
Losses on sale		(78)	(6)
	₩	193	94

## 33. <u>Net Gain (Loss) on Derivatives</u>

Net gain (loss) on derivatives for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Net gain on trading purpose derivatives:			
Gains on trading purpose derivatives:			
Interest rate	₩	2,153,676	2,254,583
Currency		11,230,209	8,218,199
Stock		35,211	30,640
Commodities		6,774	48,627
Embedded derivatives		51,288	32,319
Gains on adjustment of derivatives		46,774	(33,636)
		13,523,932	10,550,732
Losses on trading purpose derivatives:			
Interest rate		(2,156,725)	(2,281,245)
Currency		(10,933,361)	(7,917,747)
Stock		(34,437)	(24,497)
Commodities		(6,774)	(48,525)
Embedded derivatives		(45,794)	(163,812)
Losses on adjustment of derivatives		(11,027)	(35,073)
		(13,188,118)	(10,470,899)
		335,814	79,833
Net gain (loss) on hedging purpose derivatives: Gains on hedging purpose derivatives:			
Interest rate		28,374	53,266
Currency		1,120,100	1,007,347
Gains on adjustment of derivatives		5,671	884
		1,154,145	1,061,497
Losses on hedging purpose derivatives:			-,,,
Interest rate		(290,350)	(334,224)
Currency		(763,466)	(1,029,948)
Losses on adjustment of derivatives		(372)	(333)
		(1,054,188)	(1,364,505)
		99,957	(303,008)
Net gain on fair value hedged items:			(2003,000)
Gains on fair value hedged items:			
Gains on valuation		618,299	488,529
Gains on redemption		171,505	41,373
Suns on reachphon		789,804	529,902
Losses on fair value hedged items:			• - , ,, •
Losses on valuation		(26,521)	(181,464)
Losses on redemption		(140,965)	(62,435)
		(167,486)	(243,899)
		622,318	286,003
	₩	1,058,089	62,828
			,

Related with cash flow hedge, the Group recognized W172 million of loss and W12 million of gain in the consolidated statement of comprehensive income as the ineffective portion for the years ended December 31, 2017 and 2016, respectively.

## 34. <u>Net Foreign Currency Transaction Loss</u>

Net foreign currency transaction loss for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Net gain (loss) on foreign exchange transactions:			
Gains on foreign exchange transactions	₩	1,158,787	1,245,203
Losses on foreign exchange transactions		(1,098,530)	(1,386,625)
		60,257	(141,422)
Net loss on foreign exchange translations:			
Gains on foreign exchange translations		3,753,162	1,994,429
Losses on foreign exchange translations		(4,568,198)	(2,024,800)
		(815,036)	(30,371)
	₩	(754,779)	(171,793)

### 35. Other Operating Income (Expense), net

Other operating income (expense) for the years ended December 31, 2017 and 2016 are as follows:

	_	2017	2016
Other operating income:			
Insurance gains	₩	3,264,990	3,453,549
Gains on sale of investments in associates		42,252	1,643,209
Gains on sale of loans		177,001	115,244
Gains on demand equity redemption		16,484	11,680
Reversal of provisions		519,641	282,052
Gains on bargain purchase		219	103
Income on construction business		11,794,957	11,353,277
Gains on redemption of debentures		260	76
Others		11,205,726	12,603,148
		27,021,530	29,462,338
Other operating expenses:			
Insurance losses		(3,929,972)	(4,110,791)
Losses on sale of investments in associates		(170,270)	(204,991)
Losses on sale of loans		(260,012)	(195,376)
Losses on demand equity redemption		(124,033)	93,770
Provision for other losses		(1,284,492)	(1,733,148)
Costs of construction business		(10,960,589)	(11,373,475)
Losses on redemption of debentures		(138)	(666)
Others		(9,945,145)	(13,572,161)
		(26,674,651)	(31,096,838)
	₩	346,879	(1,634,500)

# 36. General and Administrative Expenses

General and administrative expenses for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Payroll costs:			
Short-term employee benefits	W	607,172	645,320
Defined benefit costs		67,241	80,379
Defined contribution costs		3,804	3,831
		678,217	729,530
Depreciation and amortization:			
Depreciation of property and equipment		44,567	48,445
Amortization of intangible assets		216,619	264,632
		261,186	313,077
Other:			
Employee welfare benefits		86,104	85,807
Rent expenses		71,960	69,882
Taxes and dues		110,290	53,848
Advertising expenses		26,128	27,445
Others		556,384	646,254
		850,866	883,236
	₩	1,790,269	1,925,843

### 37. Other Non-Operating Income and Expense

Other non-operating income and expense for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Other non-operating income:			
Gain on exemption of debt (*1)	₩	1,425,562	-
Interest income of non-financial business		32,296	24,930
Gains on disposal of assets held for sale		24,771	11,932
Gains on disposal of property and equipment		5,189	29,749
Reversal of impairment losses of property and	l		
equipment		69,403	-
Gains on disposal of investment property		-	403
Rental income on investment property		4,805	6,053
Gains on disposal of intangible assets		197	-
Reversal of impairment losses of intangible			
property		245	-
Others		187,493	151,321
		1,749,961	224,388
Other non-operating expenses:		· · · · · · · · · · · · · · · · · · ·	· · · · ·
Interest expense of non-financial			
business		(91,832)	(93,134)
Losses on disposal of assets held for sale		(2,472)	(57,301)
Losses on disposal of property and			
equipment		(2,804)	(37,648)
Impairment losses of property and			
equipment		(509,947)	(203,958)
Losses on disposal of investment property		-	(94)
Impairment losses of investment property		(1,353)	(1,542)
Depreciation of investment property		(3,650)	(3,262)
Losses on disposal of intangible property		(84)	(668)
Impairment losses of intangible property		(528,275)	(378,931)
Donations		(6,838)	(12,750)
Others		(97,665)	(217,142)
		(1,244,920)	(1,006,430)
	₩	505,041	(782,042)

(\*1) The DSME, the Group's subsidiary, agreed to the debt restructuring that includes the debt-for-equity swap, maturity extension and interest rate changes for unsecured bonds held by financial institutions, unsecured and bearer bonds (4-2, 5-2, 6-1, 6-2 and 7th) and commercial paper (CP). This debt restructuring agreement was made based on mutual consent of creditor financial institutions, resolution of the bondholders' meeting and amended CP contract. Accordingly, the Group recognized W1,422,602 million of gain on exemption of debts in other non-operating income and expense for the year ended December 31, 2017 due to the debt-for-equity swap and debt restructuring of the DSME, the Group's subsidiary.

As of December 31, 2017 and 2016

## 38. Income Tax Expense

(1) Income tax expenses for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Current income tax	₩	459,815	400,462
Changes in deferred income taxes on temporary differences		420,263	696,580
Deferred income tax recognized directly to equity		102,243	124,041
Income tax expense:	₩	982,321	1,221,083
Income tax expenses from continuing operations Income tax expenses from discontinued	₩	982,321	1,118,404
operations		-	102,679

(2) Profit (loss) before income taxes and income tax expenses for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Profit (loss) before income taxes	W	1,545,693	(1,238,005)
Income taxes calculated using			
enacted tax rates		374,059	(299,596)
Adjustments:			
Non-deductible losses and tax free gains		(40,179)	(70,315)
Non-recognition effect of deferred income			
taxes		344,558	1,989,197
Net adjustments for prior years		(50,019)	4,132
Consolidation adjustments		63,387	862,138
Others		290,515	(1,367,152)
		608,262	1,418,000
Income tax expenses	₩	982,321	1,118,404
Effective tax rate (%)		63.55	-

## 38. Income Tax Expense, Continued

(3) Changes in deferred income taxes recognized directly to equity for the years ended December 31, 2017 and 2016 are as follows:

		2017					
		December	December 31, 2017		January 1, 2017		
	_		Deferred tax		Deferred tax	deferred tax	
			assets		assets	assets	
		Before tax	(liabilities)	Before tax	(liabilities)	(liabilities)	
Gains on available-for-sale	-						
financial assets	₩	567,735	(146,794)	399,336	(100,598)	(46,196)	
Shares of other comprehensive							
income of associates		607,597	15,266	479,477	(66,517)	81,783	
Exchange differences on							
translation of foreign							
operations		(521,115)	165,639	(220,248)	96,990	68,649	
Losses on valuation of cash flow							
hedge		(5,496)	1,287	(15,424)	3,478	(2,191)	
Remeasurements of defined							
benefit liabilities		8,894	(2,068)	9,239	(1,976)	(92)	
Others	_	1,288	2,314	(3,241)	2,024	290	
	₩	658,903	35,644	649,139	(66,599)	102,243	

	_	2016				
		December 31, 2016		January	Changes in	
	-	Deferred tax			Deferred tax	
			assets		assets	assets
	_	Before tax	(liabilities)	Before tax	(liabilities)	(liabilities)
Gains on available-for-sale						
financial assets	₩	399,336	(100,598)	817,935	(221,863)	121,265
Shares of other comprehensive						
income of associates		479,477	(66,517)	567,772	(89,235)	22,718
Exchange differences on						
translation of foreign						
operations		(220,248)	96,990	(276,467)	106,901	(9,911)
Losses on valuation of cash flow						
hedge		(15,424)	3,478	(22,036)	5,193	(1,715)
Remeasurements of defined						
benefit liabilities		9,239	(1,976)	(26,531)	6,552	(8,528)
Others	_	(3,241)	2,024	1,969	1,811	213
	₩	649,139	(66,599)	1,062,642	(190,641)	124,042

As of December 31, 2017 and 2016

## 38. Income Tax Expense, Continued

(4) Changes in temporary differences and deferred tax assets (liabilities) for the years ended December 31, 2017 and 2016 are as follows:

			201	7	
	_	January 1, 2017	Increase/ decrease	December 31, 2017	Deferred tax assets (liabilities)
Temporary differences from recognized deferred tax assets and liabilities:					
Derivatives	₩	242,305	(356,251)	(113,946)	(31,335)
Investments in associates Available-for-sale financial		(8,179,959)	1,887,733	(6,292,226)	
assets Impairment losses on debt		(192,736)	33,790	(158,946)	(3,275)
securities Impairment losses on equity		284,615	(32,792)	251,823	69,251
securities		803,178	(215,735)	587,443	157,144
Others		1,349,083	(1,268,224)	80,859	(434,488)
	_	(5,693,514)	48,521	(5,644,993)	(2,682,921)
Temporary differences from unrecognized deferred tax assets and liabilities:					
Investments in associates		3,441,383	830,273	4,271,656	-
Undisposed accumulated deficit by deferred corporate taxes:					
Undisposed accumulated deficit		153,492	472,168	625,660	90,995
	₩	(2,098,639)	1,350,962	(747,677)	(2,591,926)
			201	6	
		January 1, 2016	Increase/ decrease	December 31, 2016	Deferred tax assets (liabilities)
Temporary differences from recognized deferred tax assets and liabilities:	_				
Derivatives	₩	464,907	(222,602)	242,305	58,638
Investments in associates		(11510272)			
Available-for-sale financial		(11,518,273)	3,338,314	(8,179,959)	
Available-for-sale financial assets Impairment losses on debt		(11,518,275) (133,521)	3,338,314 (59,215)	(8,179,959) (192,736)	(2,579,495) (11,059)
assets Impairment losses on debt securities					
assets Impairment losses on debt securities Impairment losses on equity		(133,521) 611,089	(59,215) (326,474)	(192,736) 284,615	(11,059) 68,877
assets Impairment losses on debt securities		(133,521) 611,089 951,296	(59,215) (326,474) (148,118)	(192,736) 284,615 803,178	(11,059) 68,877 176,072
assets Impairment losses on debt securities Impairment losses on equity securities	_	(133,521) 611,089 951,296 3,135,886	(59,215) (326,474) (148,118) (1,786,803)	(192,736) 284,615 803,178 1,349,083	(11,059) 68,877 176,072 78,160
assets Impairment losses on debt securities Impairment losses on equity securities	_	(133,521) 611,089 951,296	(59,215) (326,474) (148,118)	(192,736) 284,615 803,178	(11,059) 68,877 176,072
assets Impairment losses on debt securities Impairment losses on equity securities Others Temporary differences from unrecognized deferred tax assets		(133,521) 611,089 951,296 3,135,886	(59,215) (326,474) (148,118) (1,786,803)	(192,736) 284,615 803,178 1,349,083	(11,059) 68,877 176,072 78,160
assets Impairment losses on debt securities Impairment losses on equity securities Others Temporary differences from unrecognized deferred tax assets and liabilities:		(133,521) 611,089 951,296 3,135,886 (6,488,616)	(59,215) (326,474) (148,118) (1,786,803) 795,102	(192,736) 284,615 803,178 1,349,083 (5,693,514)	(11,059) 68,877 176,072 78,160
assets Impairment losses on debt securities Impairment losses on equity securities Others Temporary differences from unrecognized deferred tax assets and liabilities: Investments in associates Undisposed accumulated deficit		(133,521) 611,089 951,296 3,135,886 (6,488,616) 564,390	(59,215) (326,474) (148,118) (1,786,803) 795,102 2,876,993 153,492	(192,736) 284,615 803,178 1,349,083 (5,693,514) 3,441,383 153,492	(11,059) 68,877 176,072 78,160 (2,208,808)
assets Impairment losses on debt securities Impairment losses on equity securities Others Temporary differences from unrecognized deferred tax assets and liabilities: Investments in associates Undisposed accumulated deficit by deferred corporate taxes:		(133,521) 611,089 951,296 3,135,886 (6,488,616)	(59,215) (326,474) (148,118) (1,786,803) 795,102 2,876,993	(192,736) 284,615 803,178 1,349,083 (5,693,514) 3,441,383	(11,059) 68,877 176,072 78,160 (2,208,808)

Deferred income tax assets related to discontinued operation decreased by <del>W</del>96,133 million during 2016.

### 38. Income Tax Expense, Continued

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

### 39. Earnings (loss) per Share

(1) Basic earnings per share

The Group's basic earnings (loss) per share for the years ended December 31, 2017 and 2016 are computed as follows:

### (i) Basic earnings (loss) per share

		2017	2016
Profit (loss) for the year (in won)	₩	563,372,196,477	(2,061,645,488,249)
Profit (loss) attributable to non-controlling interests ( won)	(in	69,959,746,922	(2,049,167,087,859)
Profit (loss) attributable to ordinary shareholders of the Parent (A) (in won)		493,412,449,555	(12,478,400,390)
Profit (loss) from continuing operations (in won) Profit from discontinued operations (in won)		493,412,449,555	(413,482,368,940) 401,003,968,550
Weighted average number of ordinary shares outstanding (B)		3,543,630,727	3,464,257,965
Basic earnings (loss) per share (A/B) (in won)	₩	139	(4)
Continuing operations: Basic and diluted earnings (loss) per share (in won)	₩	139	(119)
Discontinued operations: Basic and diluted earnings per share (in won)	₩	<u> </u>	116

(ii) Weighted average number of ordinary shares outstanding

		2017	
	Number of ordinary shares	Days	Cumulative shares
Number of ordinary shares outstanding at			
beginning of the year (A)	3,508,619,768	365	1,280,646,215,320
Increased paid-in capital (B)	50,000,000	222	11,100,000,000
Increased paid-in capital (C)	16,000,000	96	1,536,000,000
Increased paid-in capital (D)	13,000,000	11	143,000,000
Cumulative shares (E=A+B+C+D)			1,293,425,215,320
Weighted average number of ordinary shares outstanding (E/365)			3,543,630,727
		2016	
	Number of ordinary shares	Days	Cumulative shares
Number of ordinary shares outstanding at			
beginning of the year (A)	3,447,079,768	366	1,261,631,195,088
Increased paid-in capital (B)	10,000,000	156	1,560,000,000
Increased paid-in capital (C)	49,540,000	93	4,607,220,000
Increased paid-in capital (D)	2,000,000	60	120,000,000
Cumulative shares (E=A+B+C+D)			1,267,918,415,088
Weighted-average number of ordinary shares outstanding (E/366)			3,464,257,965

(2) Diluted earnings per share

Diluted and basic earnings (loss) per share for the years ended December 31, 2017 and 2016 are equal because there is no potential dilutive instrument.

As of December 31, 2017 and 2016  $\,$ 

## 40. Pledged Assets

Assets pledged by the Group as collateral as of December 31, 2017 and 2016 are as follows:

		Decembe	r 31, 2017	December 31, 2016		
			Related		Related	
		Pledged assets	liabilities	Pledged assets	liabilities	
Cash and due from banks (*1) Available-for-sale financial	₩	97,194	95,524	229,759	228,691	
assets (*2)		9,793,642	9,659,978	7,404,574	7,097,121	
Others (*3)		6,229,335	3,985,507	6,850,292	3,414,403	
	₩	16,120,171	13,741,009	14,484,625	10,740,215	

(\*1) Pledged as collateral for bidding deposits and others.

(\*2) Pledged as collateral for bonds sold under repurchase agreements, BOK loans and back overdrafts.

(\*3) Property and equipment, etc. are pledged as collateral for borrowings and new business.

### 41. Guarantees and Commitments

Guarantees and commitments as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Confirmed acceptances and guarantees:			
Acceptances in foreign currency	W	413,812	662,686
Guarantees for bond issuance		1,817,983	1,727,380
Guarantees for loans		664,148	899,924
Acceptances for foreign loans		-	200
Letter of guarantee		37,105	46,430
Guarantees for on-lending debt		28,272	46,719
Others		4,316,920	5,744,515
		7,278,240	9,127,854
Unconfirmed acceptances and guarantees:			
Letter of credit		1,981,439	2,202,525
Others		598,746	754,385
		2,580,185	2,956,910
Commitments:			
Commitments on loans		4,457,877	4,892,786
Commitments on purchase of securities		2,121,277	2,038,545
Others		160,197	169,171
	_	6,739,351	7,100,502
Bills endorsed:		<i></i>	<i>i i i</i>
With recourse		3,028	1,475
	₩	16,600,804	19,186,741

## 42. Leases

(1) Finance lease

Details of finance lease receivables of the Group as lessor as of December 31, 2017 and 2016 are as follows:

			December 31, 2017	
		Finance lease	Finance lease	
		receivables in Korean	receivables in foreign	
		won	currency	Total
Within 1 year	₩	395,292	35,104	430,396
Over 1 year through 5 years		691,444	49,822	741,266
Gross investment in the lease		1,086,736	84,926	1,171,662
Unearned finance income		(119,432)	(100)	(119,532)
Net investment in the lease				
(*1)	₩	967,304	84,826	1,052,130
Allowance for credit losses	₩	(11,436)	(659)	(12,095)
Contingent rent recognized in	₩		<u>,                                </u>	· · · · ·
the current profit or loss	₩-	207		207
			December 31, 2016	
		Finance lease	Finance lease	
		Finance lease receivables in Korean		
		receivables in Korean won	Finance lease	Total
Within 1 year	₩	receivables in Korean won 354,504	Finance lease receivables in foreign currency 38,363	392,867
Over 1 year through 5 years	₩	receivables in Korean won 354,504 621,071	Finance lease receivables in foreign currency 38,363 63,395	392,867 684,466
Over 1 year through 5 years Gross investment in the lease	₩	receivables in Korean won 354,504	Finance lease receivables in foreign currency 38,363	392,867
Over 1 year through 5 years Gross investment in the lease Unearned finance income	₩	receivables in Korean won 354,504 621,071	Finance lease receivables in foreign currency 38,363 63,395	392,867 684,466
Over 1 year through 5 years Gross investment in the lease Unearned finance income Net investment in the lease		receivables in Korean won 354,504 621,071 975,575 (110,231)	Finance lease receivables in foreign currency 38,363 63,395 101,758 (609)	392,867 684,466 1,077,333 (110,840)
Over 1 year through 5 years Gross investment in the lease Unearned finance income	₩	receivables in Korean won 354,504 621,071 975,575	Finance lease receivables in foreign currency 38,363 63,395 101,758	392,867 684,466 1,077,333
Over 1 year through 5 years Gross investment in the lease Unearned finance income Net investment in the lease		receivables in Korean won 354,504 621,071 975,575 (110,231)	Finance lease receivables in foreign currency 38,363 63,395 101,758 (609)	392,867 684,466 1,077,333 (110,840)
Over 1 year through 5 years Gross investment in the lease Unearned finance income Net investment in the lease (*1)	₩	receivables in Korean won 354,504 621,071 975,575 (110,231) 865,344	Finance lease receivables in foreign currency 38,363 63,395 101,758 (609) 101,149	392,867 684,466 1,077,333 (110,840) 966,493

(\*1) Finance lease receivables are included in loans on the consolidated statements of financial position.

As of December 31, 2017 and 2016  $\,$ 

### 42. Leases, Continued

(2) Operating lease

Future minimum lease payments under non-cancellable operating leases as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Within 1 year	₩	17,365	61,612
Over 1 year through 5 years		7,153	38,732
	W	24,518	100,344
Contingent rent recognized in the current			
profit (loss)	₩_	(95)	(96)

(3) Cancellable lease

Cancellable lease as of December 31, 2017 and 2016 are as follows:

		· . ·	
Aca	1119	S11101	n cost

(4) Advanced payment for leased assets

The amount of capital paid for a new lease that the Group enters into before the commencement of lease term as of December 31, 2017 and 2016 are as follows:

₩

December 31, 2017

3,009

December 31, 2016

3,333

		December 31, 2017	December 31, 2016
Advanced payment for leased assets	₩	12,774	9,394
Allowance for credit losses		(96)	(29)
	W	12,678	9,365

(5) Leasehold deposits

The Group withholds collateral money received from the lessees as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Leasehold deposits	₩	276,044	285,220

### As of December 31, 2017 and 2016

## 43. Day One Profit or Loss

Changes in deferred day one profit or loss for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Beginning balance	W	1,155	2,560
New deferrals		5,796	124
Amortization		(259)	1,891
Others (end of transaction, etc.)		(1,154)	(3,420)
Ending balance	<del>W</del>	5,538	1,155

The deferred day one profit or loss arose from derivative financial instruments at level 3 on the fair value hierarchy.

#### 44. Trust Accounts

(1) Trust accounts as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Accrued trust fees	₩	9,023	6,112
Deposits		13,625	44,702
Borrowings from trust accounts		981,648	592,089
Accrued interest on deposits		1,383	3,075

(2) Transactions with trust accounts for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Trust fees	W	25,229	23,538
Interest expenses on deposits		984	5,435
Interest expenses on borrowings from			
Trust accounts		12,787	11,962

As of December 31, 2017 and 2016

## 45. <u>Related Party Transactions</u>

(1) The Group's related parties as of December 31, 2017 are as follows:

Classification	Corporate name
Associates	Korea Electric Power Co., Ltd., Korea Tourism Organization, Korea Appraisal
	Board, Korea Maritime Guarantee Insurance Co., Ltd., GM Korea Company,
	Hyundai Merchant Marine Co., Ltd. and 68 others, Korea Infrastructure Fund
	II, Troika Resources Investment PEF and 70 others, KoFC-KVIC Job Creation
	Fund II and 89 others
Others	Key management personnel

(2) Significant outstanding balances with related parties as of December 31, 2017 and 2016 are as follows:

	Account	_	December 31, 2017	December 31, 2016
Associates:				
Korea Electric Power Co., Ltd.	Securities	₩	59,643	171,575
	Loans		134,792	125,666
	Allowances for loan losses		(27)	(42)
	Derivative financial assets		39,790	2,856
	Other assets		122	288
	Deposits		497,312	137,016
	Borrowings		15,129	55,899
	Derivative financial liabilities		290	23,595
	Other liabilities		282	687
	Other provisions		8	8
Dongbu Steel Co., Ltd.	Loans		1,046,630	1,107,516
	Allowances for loan losses		(229,291)	(149,986)
	Other assets		-	5
	Deposits		43,035	31,174
	Other liabilities		62	189
	Other provisions		12,183	16,001
Hyundai Merchant Marine Co.,				
Ltd.	Loans		584,021	571,037
	Allowances for loan losses		(175,062)	(210,948)
	Deposits		200,000	412,510
	Other liabilities		144	164
Others	Securities		186	4,813
	Loans		1,185,523	1,633,822
	Allowances for loan losses		(746,685)	(280,151)
	Derivative financial assets		-	7,857
	Other assets		150,011	10,965
	Deposits		721,013	837,914
	Derivative financial liabilities		-	13,051
	Other liabilities		2,222	1,767
	Other provisions		123,661	81,251

## 45. <u>Related Party Transactions, Continued</u>

(3) Significant profit or loss from transactions with related parties for the years ended December 31, 2017 and 2016 are as follows:

	Account		2017	2016
Associates:				
Korea Electric Power Co., Ltd.	Interest income	₩	4,476	8,403
	Reversal of allowance for loan			
	losses		14	-
	Fees and commission income,			
	other income		56,944	5,958
	Interest expenses		(2,002)	(1,820)
	Provision for loan losses		-	(8)
	Other operating expenses		(6,672)	(13,745)
Korea Aerospace Industries				
Co., Ltd. (*1)	Interest income		-	1,857
	Fees and commission income,			
	other income		-	421,394
	Interest expenses		-	(22)
	Other operating expenses		-	(625)
Dongbu Steel Co., Ltd.	Interest income		77,899	85,291
	Fees and commission income,			
	other income		7,327	4,013
	Interest expenses		(155)	(177)
	Provision for loan losses		(79,254)	(69,689)
	Other operating expenses		-	(7,361)
Hyundai Merchant Marine Co.,				
Ltd.	Interest income		111,431	25,299
	Reversal of allowance for loan			
	losses		35,886	-
	Fees and commission income,			
	other income		29,467	6,870
	Interest expenses		(3,277)	(1,781)
	Provision for loan losses		-	(72,924)
	Other operating expenses		(23,790)	(136,163)
Others	Interest income		23,738	61,720
	Fees and commission income,		,	
	other income		169,112	92,860
	Interest expenses		(4,812)	(5,715)
	Provision for loan losses		(29,471)	(40,869)
	Other operating expenses		-	(23,669)
		₩	366,861	339,097

(\*1) Korea Aerospace Industries Co., Ltd. was excluded from the Group's related parties due to losing significant influence for the year ended December 31, 2016.

As of December 31, 2017 and 2016

## 45. <u>Related Party Transactions, Continued</u>

(4) Details of guarantees and commitments to the related parties as of December 31, 2017 and 2016 are as follows:

	Account		December 31, 2017	December 31, 2016
Associates:				
Dongbu Steel Co.,Ltd.	Confirmed acceptances and guarantees	₩	140,759	166,664
	Unconfirmed acceptances and guarantees		24,696	50,965
Others	Confirmed acceptances and guarantees		176,062	361,259
	Unconfirmed acceptances and			
	guarantees		90,741	129,077
	Loan commitments		8,243	258,519
		₩	440,501	966,484

(5) Details of compensation to key management personnel for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Short-term employee benefits	W	4,014	5,229
Post-employment benefits		416	417
	₩	4,430	5,646

### 46. Disclosure of Interests in Other Entities

(1) Commitment to financial support for consolidated structured entities The Group made a commitment on loans for consolidated structured entities as follows:

	_	December 31, 2017	December 31, 2016
Associates:			
U-BEST 3rd Securitization Specialty Co., Ltd. (*1)	₩	-	95,900
U-BEST 4th Securitization Specialty Co., Ltd. (*1)		80,000	-
K-Five 4th Securitization Specialty Co., Ltd. (*1)		-	200,000
K-Five 5th Securitization Specialty Co., Ltd. (*1)		100,000	100,000
K-Five 6th Securitization Specialty Co., Ltd. (*1)		40,000	-
Sinoker SF 1st Co., Ltd. (*1)		43,400	43,400
KDB Mirae Seongjang ABCP 1st Inc. (*1)		52,100	-
KoFC-KDBC Pioneer Champ 2010-4 Venture			
Investment Fund (*2)		-	2,500
KDBC IP Investment Fund 2 (*2)		3,000	3,000
KDBC Food Industry Investment Fund 1 (*2)	_	1,280	1,280
	₩	319,780	446,080

(\*1) The Group made a commitment on loans for consolidated structured entities. According to the commitment, the Group guarantees loan to a subsidiary when the subsidiary has insufficient working capital.

(\*2) KDB Capital Corporation made a loss compensation commitment for some funds as their general partner.

(2) Nature and scope of interests in unconsolidated structured entities Details of unconsolidated structured entities as of December 31, 2017 and 2016 are as follows:

Туре	Characteristics and objective	Financing method		
Investment funds and investment		Equity investment and fund		
trusts (*1)	Investment and distribution	operations, etc.		
Real estate finance (*2)	Real estate development and infrastructure investment, etc.	Equity investment and credit reinforcement, etc.		
Asset-backed securitization	Securitization of underlying assets	Issuance of ABL and ABCP, etc.		
Shipping and acquisition finance	Providing funds for acquisition of corporate or ships	Equity investment and fund operations, etc.		

(\*1) PEF, investment association, beneficiary certificate, etc. (\*2) SPC, PF, SOC, etc.

## 46. Disclosure of Interests in Other Entities, Continued

### (3) Nature of related risks

The carrying amount of and maximum exposure to loss from interests in unconsolidated structured entities as of December 31, 2017 and 2016 are as follows:

			December 31, 2017								
		Investment									
		funds and			Shipping and						
		investment	Real estate	Asset-backed	acquisition						
		trusts	finance	securitization	finance	Others	Total				
Assets:											
Securities	₩	4,424,689	20,637	51,576	4,660	314,932	4,816,494				
Loans		813,619	4,352,301	1,489,258	3,983,990	4,423,958	15,063,126				
Derivatives		-	-	-	14,113	13,502	27,615				
Others		6,817	4,539	5,357	14,397	16,185	47,295				
		5,245,125	4,377,477	1,546,191	4,017,160	4,768,577	19,954,530				
Liabilities:											
Provisions		-	19	623	621	68	1,331				
Financial guarantees		-	-	19,431	1,401	-	20,832				
Derivatives		-	47	10,942	1,200	-	12,189				
Others		991	48			-	1,039				
		991	114	30,996	3,222	68	35,391				
Granting of credit and											
other commitments		201,837	311,179	2,024,291	1,101,648	92,638	3,731,593				
Maximum exposure to											
loss (*1)	₩	5,446,962	4,688,656	3,570,482	5,118,808	4,861,215	23,686,123				

	_		December 31, 2016							
		investment Real estate Asset-backed acquisi			Shipping and acquisition finance	Others	Total			
Assets:										
Securities	₩	7,619,615	359,672	48,614	-	7,000	8,034,901			
Loans		861,650	7,786,668	1,556,757	3,578,849	2,503,717	16,287,641			
Derivatives		-	9,726	17,205	10,331	17,542	54,804			
Others		7,024	66,532	6,517	5,563	8,286	93,922			
		8,488,289	8,222,598	1,629,093	3,594,743	2,536,545	24,471,268			
Liabilities:										
Provisions		-	95	2,136	12	3	2,246			
Financial guarantees		-	-	20,533	-	1,605	22,138			
Derivatives		-	2,665	-	5,570	-	8,235			
Others		1,299	71	-	-	-	1,370			
		1,299	2,831	22,669	5,582	1,608	33,989			
Granting of credit and other commitments		_	98,502	2,423,899	3,904	1,284,726	3,811,031			
Maximum exposure to loss (*1)	₩	8,488,289	8,321,100	4,052,992	3,598,647	3,821,271	28,282,299			

(\*1) Maximum exposure to loss is calculated by summarizing related assets (after adjusting impairment loss on securities, allowance for loan losses, etc.), granting of credit and other commitments.

## 46. Disclosure of Interests in Other Entities, Continued

(4) Significant non-controlling interests Details of significant non-controlling interests and summary of financial information as of December 31, 2017 and 2016 are as follows:

- Non-controlling interests:

	December 31, 2017						
	Non- controlling interests ownership (%)		Profit (loss) on non- controlling interests	Non- controlling interests	Dividend to non- controlling interests		
Daewoo Engineering & Construction Co., Ltd. Daewoo Shipbuilding & Marine	48.66	₩	69,264	1,459,461	-		
Engineering Co., Ltd.	43.99		(28,584)	2,222,369	15,007		
			December	31, 2016			
	Non- controlling interests ownership (%)		Loss on non- controlling interests	Non- controlling interests	Dividend to non- controlling interests		
Daewoo Engineering & Construction Co., Ltd. Daewoo Shipbuilding & Marine	48.66	₩	(457,708)	1,415,306	-		
Engineering Co., Ltd.	20.96		(1,439,784)	191,215	-		

# 46. Disclosure of Interests in Other Entities, Continued

- Summary of financial information:

	December 31, 2017							
					Total comprehen-	Cash flows from	Cash flows from	Cash flows from
	Assets	Liabilities	Operating revenue	Profit for the year	sive	operating activities	investing activities	financing activities
Desaure	Assels	Liabilities	Tevenue	for the year	meome	activities	activities	activities
Daewoo Engineering & Construction Co., Ltd. <del>W</del> Daewoo Shipbuilding & Marine	8,776,332	6,498,263	11,766,840	258,937	210,982	337,413	84,899	(721,127)
Engineering Co., Ltd.	11,446,753	8,456,091	11,101,818	621,492	527,133	(1,019,899)	22,724	987,889

(\*) In case that the Group's subsidiary prepares the consolidated financial statements, the summary of financial information is extracted from the consolidated financial statements.

	December 31, 2016							
	Assets	Liabilities	Operating revenue	Loss for the year	Total comprehen- sive loss	Cash flows from operating activities	Cash flows from investing activities	Cash flows from financing activities
Daewoo Engineering & Construction Co., Ltd. <del>W</del> Daewoo Shipbuilding & Marine Engineering	9,970,246	7,900,336	11,105,930	(735,846)	(703,921)	358,834	(261,757)	174,459
Co., Ltd.	15,064,830	14,405,452	13,839,819	(2,734,139)	(2,709,492)	(531,007)	(282,684)	(200,882)

# 47. Statements of Cash Flows

(1) Cash and cash equivalents in the consolidated statements of cash flows as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Cash and due from banks:			
Cash and foreign currencies	₩	516,380	804,988
Due from banks in Korean won Due from banks in foreign currencies / off-		4,476,964	3,113,760
shores		3,242,142	5,252,455
		8,235,486	9,171,203
Less: Restricted due from banks, others Add: Financial instruments reaching maturity within three months from date of acquisition		(2,583,506)	(2,045,535)
Financial assets held for trading:			
Government and public bonds		444,643	20,083
Loans:			
Call loans		4,087,060	4,772,401
Inter-bank loans		151,307	355,461
		4,238,367	5,127,862
		4,683,010	5,147,945
Cash and cash equivalents	₩	10,334,990	12,273,613

(2) Significant transactions not involving cash flows for the years ended December 31, 2017 and 2016 are as follows:

		2017	2016
Decrease in loans due to write-offs	₩	121,480	1,504,699
Increase in available-for-sale financial assets			
due to debt-to-equity swap		80,879	67,907
Increase (decrease) in accumulated other			
comprehensive income due to securities			
valuation		(166,131)	554,321
Reclassification of available-for-sale financial			
assets to investments in associates		18,318	-
Reclassification of available-for-sale financial			
assets to held-to-maturity financial assets		-	4,171,297
Reclassification of investments in associates to			
available-for-sale financial assets		6,638	241,027
Increase in available-for-sale financial assets			
due to contribution in kind		250,000	-
Transfer from investments in associates to			
assets held for sale		113,796	-
Increase in non-controlling interests due to			
debt-to equity swap of borrowings and			
debentures		527,621	-
Increase in non-controlling interests due to			
converting borrowings into hybrid bonds		1,284,775	-

As of December 31, 2017 and 2016

# 48. <u>Transfers of Financial Instruments</u>

Details of financial assets and liabilities related to repurchase agreements that do not qualify for derecognition as of December 31, 2017 and 2016 are as follows:

	_	December	31, 2017	December 31, 2016		
		Carrying amounts for	Carrying amounts for	Carrying amounts for	Carrying amounts for	
		transferred	related	transferred	related	
Characteristics of transactions		assets	liabilities	assets	liabilities	
Repurchase agreements	₩	4,662,825	3,522,261	2,718,730	1,505,263	

### 49. Fair Value of Financial Assets and Liabilities

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

- Level 1: Financial instruments measured at quoted prices from active markets are classified as 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.
- (1) Fair value hierarchy of financial instruments measured at fair value
- (i) The fair value hierarchy of financial instruments measured at fair value as of December 31, 2017 and 2016 are as follows:

			December	31, 2017	
		Level 1	Level 2	Level 3	Total
Financial assets:					
Financial assets held for trading	₩	605,540	1,299,109	-	1,904,649
Financial assets designated at					
FVTPL		-	-	120,019	120,019
Available-for-sale financial					
assets		4,311,470	20,140,294	15,142,162	39,593,926
Derivative financial assets		372	6,224,595	157,612	6,382,579
	₩_	4,917,382	27,663,998	15,419,793	48,001,173
Financial liabilities:					
Financial liabilities designated at FVTPL	117		1 592 712	12 172	1 (2( 195
FVIPL Derivative financial liabilities	₩	-	1,583,713	42,472	1,626,185
Derivative infancial fiabilities	₩-	<u>1,497</u> 1.497	5,808,766	<u>13,728</u> 56,200	5,823,991
	₩-	1,497	/,392,479	56,200	7,450,176
			December	31, 2016	
		Level 1	Level 2	Level 3	Total
Financial assets:					
Financial assets held for trading	₩	1,115,354	1,305,478	-	2,420,832
Financial assets designated at					
FVTPL		-	-	341,303	341,303
Available-for-sale financial					
assets		6,231,205	24,600,192	12,979,229	43,810,626
Derivative financial assets	_	104	6,286,836	174,186	6,461,126
	₩_	7,346,663	32,192,506	13,494,718	53,033,887
Financial liabilities:					
Financial liabilities designated at			1 002 077		1 000 077
FVTPL	₩	-	1,893,077	-	1,893,077
Derivative financial liabilities		1,265	6,714,313	66,976	6,782,554
	₩ -	1,265	8,607,390	66,976	8,675,631

## 49. Fair Value of Financial Assets and Liabilities, Continued

(ii) Changes in the fair value of level 3 financial instruments for the years ended December 31, 2017 and 2016 are as follows:

						20	17				
Financial assets:	-	January 1, 2017		Other comprehen sive incom		isition sue	Sale Settlen	e/	Acquisitic or dispose of subsidiar	al	December 31, 2017
Available-for-	₩	341,303	(516)	-	10	0,000	(318	,231)		- (2,537)	120,019
sale financial assets Derivatives		12,979,229	(95,864)	179,105	2,67	0,470	(487	,140)	(72,90	7) (30,731)	15,142,162
financial assets	-	174,186	(10,902)			8,544		,771)		- (445)	157,612
	₩.	13,494,718	(107,282)	179,105	2,79	9,014	(839	,142)	(72,90	7) (33,713)	15,419,793
Derivatives	₩	-	42,472	-		-		-			42,472
financial liabilities		66,976	(16,420)	_	(1)	5,489)	(5	,329)		- (15,010)	13,728
nuomnes	-	66,976	26,052			5,489)		,329)		- (15,010)	
						20	)16				
		January 1, 2016	Profit c loss	or comp	ther orehen- e loss		isition		ale/ ement	Others	December 31, 2016
Financial assets: Financial assets designated at											<u> </u>
FVTPL Available-for-sale	H	430,007	10,4	-/4	-	18	85,000	(2	84,853)	675	341,303
financial assets Derivatives		12,167,958	(162,3	59) (:	50,394)	1,91	13,987	(9	19,438)	29,475	12,979,229
financial assets		117,160	(143,4	65)	-	28	36,743	(	50,479)	(35,773)	174,186
	Ħ	12,715,125	(295,3	50) (3	50,394)	2,38	35,730	(1,2	54,770)	(5,623)	13,494,718
Financial liabilities Financial liabilities designated at FVTPL Derivatives		4 3,179		-					(3,179)	-	_
financial											
liabilities		111,997		172			31,942		$\frac{(4,363)}{(7,542)}$	(116,772)	66,976
	Ħ	4 115,176	44,	172	-		31,942		(7,542)	(116,772)	66,976

## 49. Fair Value of Financial Assets and Liabilities, Continued

(iii) Details of valuation technique and inputs used in the fair value measurement categorized within level 2 of the fair value hierarchy of financial instruments measured at fair value as of December 31, 2017 and 2016 are as follows:

	Valuation technique	Input
Financial assets held for trading: Equity securities Debt securities	Net asset value approach Discounted cash flow method	Underlying asset price Discount rate
Available-for-sale financial assets: Equity securities Debt securities	Net asset value approach Discounted cash flow method	Underlying asset price Discount rate
Derivative financial instruments: Interest rate swaps Currency forwards and swaps Currency options Commodities options	Discounted cash flow method, Black-Scholes model, Modified Black model, Formula model	Discount rate, exchange rate, volatility, commodity index, etc.
Financial liabilities designated at FVTPL: Debentures	Discounted cash flow method	Discount rate

## 49. Fair Value of Financial Assets and Liabilities, Continued

(iv) Details of valuation technique and quantitative information about unobservable inputs used in the fair value measurement categorized within level 3 of the fair value hierarchy of financial instruments measured at fair value as of December 31, 2017 and 2016 are as follows:

	Valuation technique	Unobservable input
Financial assets designated at FVTPL:		
Derivatives linked securities	Black-Scholes model, Monte Carlo Simulation, Tree Method, Hull and White model	Volatility, correlation coefficient, discount rate, exchange rate volatility
Available-for-sale financial assets:		
Equity securities	Discounted cash flow method, Risk-adjusted discount rate method, Relative value approach	Discount rate, growth rate, rate of increase in liquidation value, discount rate of rent cash flow, rate of increase in property disposal price, volatility
Derivative financial instruments:		
Interest rate swaps	Discounted cash flow method	Volatility, correlation coefficient
Interest rate options	Modified Black model	Volatility
Stock index options	Black-Scholes model	Volatility
Equity options	Finite difference method	Volatility, correlation coefficient
Financial liabilities designated at FVTPL:		
Borrowings	Discounted cash flow method	Discount rate

## 49. Fair Value of Financial Assets and Liabilities, Continued

(2) Fair value hierarchy of financial instruments disclosed by fair value

(i) The fair value hierarchy of financial instruments disclosed by fair value as of December 31, 2017 and 2016 are as follows:

		December 31, 2017							
		Level 1	Level 2	Level 3	Total				
Financial assets:									
Cash and due from banks (*1)	₩	5,651,980	2,583,506	-	8,235,486				
Held-to-maturity financial assets		2,525,474	3,227,305	-	5,752,779				
Loans (*1)		-	4,087,061	140,667,901	144,754,962				
Other financial assets (*1)	_	-	6,632,670	12,485,061	19,117,731				
	₩	8,177,454	16,530,542	153,152,962	177,860,958				
Financial liabilities:									
Deposits (*1)	₩	-	2,633,521	31,652,246	34,285,767				
Borrowings (*1)		-	795,973	27,997,310	28,793,283				
Debentures		-	120,707,506	-	120,707,506				
Other financial liabilities (*1)	_	-	4,726,695	7,200,353	11,927,048				
	₩	-	128,863,695	66,849,909	195,713,604				
			December	31, 2016					
	_	Level 1	Level 2	Level 3	Total				
Financial assets:	_								
Cash and due from banks (*1)	₩	7,125,668	2,045,535	-	9,171,203				
Held-to-maturity financial assets		2,576,624	2,617,517	-	5,194,141				
Loans (*1)		-	4,724,061	141,751,871	146,475,932				
Other financial assets (*1)	_		5,498,670	12,618,469	18,117,139				
	₩	9,702,292	14,885,783	154,370,340	178,958,415				
Financial liabilities:									
Deposits (*1)	₩	-	2,011,234	37,403,139	39,414,373				
Borrowings (*1)		-	4,050,754	27,285,229	31,335,983				
Debentures		-	122,938,432	-	122,938,432				
Other financial liabilities (*1)			1 107 201	7.046.660	11 524 054				
	₩ -	-	4,487,386	7,046,668	11,534,054 205,222,842				

(\*1) For financial instruments categorized as level 2, the carrying amount is considered a reasonable approximation of the fair value and is thus, disclosed by fair value.

## 49. Fair Value of Financial Assets and Liabilities, Continued

(ii) Details of valuation technique and inputs used in the fair value measurement categorized within level 2 and 3 of the fair value hierarchy of financial instruments disclosed by fair value as of December 31, 2017 and 2016 are as follows:

	Valuation technique	Input
Level 2		
Financial assets:		
Held-to-maturity financial assets	Discounted cash flow method	Discount rate
Financial liabilities:		
Debentures	Discounted cash flow method	Discount rate
Level 3		
Financial assets:		
Loans	Discounted cash flow method	Credit spread, other spread, prepayment rate
Other financial assets	Discounted cash flow method	Other spread
Financial liabilities:		
Deposits	Discounted cash flow method	Other spread, prepayment rate
Borrowings	Discounted cash flow method	Other spread
Other financial liabilities	Discounted cash flow method	Other spread

## 50. Categories of Financial Assets and Liabilities

Categories of financial assets and liabilities as of December 31, 2017 and 2016 are as follows:

					Dec	ember 31, 20	17			
<b>T</b>	-	Cash and cash equivalents	Financial instruments held for trading	Financial instruments designated at FVTPL	Available- for-sale financial instruments	Held-to- maturity financial instruments	Loans and receivables	Financial liabilities measured at amortized cost	Hedging purpose derivative instruments	Total
Financial assets: Cash and due from banks	₩	5,651,980	-	-	-	-	2,583,506	-	-	8,235,486
Financial assets held for trading Financial assets		444,643	1,460,006	-	-	-	-	-	-	1,904,649
designated at FVTPL Available-for-		-	-	120,019	-	-	-	-	-	120,019
sale financial assets Held-to-maturity		-	-	-	39,593,926	-	-	-	-	39,593,926
financial assets Loans Derivative		- 4,238,367	-	-	-	6,040,641 -	- 138,985,749	-	-	6,040,641 143,224,116
financial assets Other financial		-	5,658,476	-	-	-	-	-	724,103	6,382,579
assets	w	10.334.990	7,118,482	120.019	39.593.926	6.040.641	<u>19,338,002</u> 160,907,257		724,103	<u>19,338,002</u> 224,839,418
Financial liabilities: Financial liabilities designated at	•••	,,	,,10,102			0,010,011			,2 ,,105	
FVTPL	₩	-	-	1,626,185	-	-	-		-	1,626,185
Deposits Borrowings		-	-	-	-	-	-	34,300,089 28,692,715	-	34,300,089 28,692,715
Debentures Derivative financial		-	-	-	-	-	-	28,692,715	-	28,692,715
liabilities Other financial		-	5,241,597	-	-	-	-	-	582,394	5,823,991
liabilities		-	-				-	11,930,654		11,930,654
	₩	-	5,241,597	1,626,185		-	-	195,151,463	582,394	202,601,639

# 50. Categories of Financial Assets and Liabilities, Continued

					Dec	ember 31, 20	16			
		Cash and cash equivalents	Financial instruments held for trading	Financial instruments designated at FVTPL	Available- for-sale financial instruments	Held-to- maturity financial instruments	Loans and receivables	Financial liabilities measured at amortized cost	Hedging purpose derivative instruments	Total
Financial assets:	•									
Cash and due from banks Financial assets	₩	7,125,668	-	-	-	-	2,045,535	-	-	9,171,203
held for trading Financial assets		20,083	2,400,749	-	-	-	-	-	-	2,420,832
designated at FVTPL Available-for- sale		-	-	341,303	-	-	-	-	-	341,303
financial assets		-	-	-	43,810,626	-	-	-	-	43,810,626
Held-to-maturity financial assets Loans		5,127,862	-	-	-	5,446,948	139,388,352	-	-	5,446,948 144,516,214
Derivative financial assets Other financial		-	5,364,147	-	-	-	-	-	1,096,979	6,461,126
assets		-	-	-	-	-	18,314,057		-	18,314,057
	₩.	12,273,613	7,764,896	341,303	43,810,626	5,446,948	159,747,944		1,096,979	230,482,309
Financial liabilities: Financial liabilities designated at										
FVTPL	₩	-	-	1,893,077	-	-	-	-	-	1,893,077
Deposits		-	-	-	-	-	-	39,398,070	-	39,398,070
Borrowings		-	-	-	-	-	-	31,203,363	-	31,203,363
Debentures Derivative financial		-	-	-	-	-	-	121,890,112	-	121,890,112
liabilities Other financial		-	5,428,197	-	-	-	-	-	1,354,357	6,782,554
liabilities		-						11,565,808		11,565,808
	₩	-	5,428,197	1,893,077	-	-	-	204,057,353	1,354,357	212,732,984

## 51. Offsetting of Financial Assets and Liabilities

Details of financial instruments subject to offsetting, enforceable master netting agreements or similar agreements as of December 31, 2017 and 2016 are as follows:

			December	31, 2017		
	Gross amounts	Gross amounts of recognized financial liabilities set off in the statement	Net amounts of financial assets presented in the	Related amounts r statement of fina		
	of recognized	of financial	statement of	Financial	Cash collateral	
	financial asset	position	financial position	instruments	received	Net amounts
Derivative financial assets (*1) W Unsettled spot	6,382,579	-	6,382,579	3,869,802	271,589	2,241,188
exchange receivables (*1) Unsettled domestic exchange	4,488,196	-	4,488,196	4,485,735	-	2,461
receivables Security pledged as collateral for repurchase	3,658,339	1,513,865	2,144,474	-	-	2,144,474
agreements Reverse repurchase	4,662,825	-	4,662,825	3,522,261	-	1,140,564
agreements Receivables from securities	1,586,855	-	1,586,855	1,586,855	-	-
transaction Reinsurance	16,721	-	16,721	16,721	-	-
receivables	31,098	-	31,098	18,782	-	12,316
₩	20,826,613	1,513,865	19,312,748	13,500,156	271,589	5,541,003

			December	31, 2017		
		Gross amounts of recognized	Net amounts of financial			
	Gross amounts of recognized	financial assets set off in the	liabilities presented in the	Related amounts r statement of fina		
	financial	statement of	statement of	Financial	Cash collateral	
	liabilities	financial position	financial position	instruments	pledged	Net amounts
Derivative financial liabilities (*1) ₩	5,823,991	-	5,823,991	3,694,166	-	2,129,825
Unsettled spot exchange payables						
(*1)	4,487,737	-	4,487,737	4,485,735	-	2,002
Unsettled domestic exchange payables	1,752,823	1,513,865	238,958	-	-	238,958
Repurchase agreements	3,522,261	-	3,522,261	3,522,261	-	-
Payables from securities						
transaction	18,254	-	18,254	18,254	-	-
Reinsurance	22.020		22.020	10 702		12 220
payables	32,020	1 512 0(5	32,020	18,782		13,238
₩	15,637,086	1,513,865	14,123,221	11,739,198	-	2,384,023

## 51. Offsetting of Financial Assets and Liabilities, Continued

	December 31, 2016								
	Gross amounts of recognized financial asset	Gross amounts of recognized financial liabilities set off in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts r statement of fina Financial instruments		Net amounts			
Derivative financial assets (*1) ₩	6,461,126	-	6,461,126	3,395,440	-	3,065,686			
Unsettled spot exchange receivables (*1) Unsettled domestic	4,187,417	-	4,187,417	4,186,354		1,063			
exchange receivables Security pledged as collateral for repurchase	2,593,428	1,282,175	1,311,253	-	-	1,311,253			
agreements	2,663,139	-	2,663,139	1,505,263	-	1,157,876			
Reverse repurchase agreements Receivables from	715,634	-	715,634	715,634	-	-			
securities transaction Reinsurance	17,038	-	17,038	17,038	-	-			
receivables	83,846	-	83,846	82,216	-	1,630			
₩	16,721,628	1,282,175	15,439,453	9,901,945	-	5,537,508			

			December	31, 2016		
	Gross amounts of recognized	Gross amounts of recognized financial assets set off in the	Net amounts of financial liabilities presented in the	Related amounts r statement of fina	ancial position	
	financial liabilities	statement of financial position	statement of financial position	Financial instruments	Cash collateral pledged	Net amounts
Derivative financial	indofinities			instruments	pieugeu	Net amounts
liabilities (*1) $\Psi$	6,782,554	-	6,782,554	3,773,640	-	3,008,914
Unsettled spot exchange payables						
(*1)	4,194,083	-	4,194,083	4,186,354	-	7,729
Unsettled domestic exchange payables	1,575,478	1,282,175	293,303			293,303
Repurchase	1,575,478	1,202,175	295,505	-	-	295,505
agreements	1,505,263	-	1,505,263	1,505,263	-	-
Payables from securities						
transaction	6,345	-	6,345	6,345	-	-
Reinsurance						
payables	82,916	-	82,916	82,216		700
₩	14,146,639	1,282,175	12,864,464	9,553,818	-	3,310,646

(\*1) For the derivatives covered by the ISDA derivative contracts, all contracts are settled and the net amount of derivative contracts is measured and paid based on the liquidation value if the counterparty files for bankruptcy or has any credit issues.

## 52. **Operating Segments**

(1) The Group has seven reportable segments, as described below, which are the Group's strategic business units. They are managed separately because each business requires different technology and marketing strategies. The following summary describes general information about each of the Group's reportable segments:

	Segments	General information
Bank	Corporate finance	Provides trading services and loans to corporate customers
industry	Investment finance	Provides consulting services to corporate such as capital finance, restructuring, etc.
-	Asset management	Provides asset management services to individual and corporate customers
	Others	Any other segment not mentioned above
Insurance		Subsidiaries that conduct insurance business (KDB Life Insurance Co., Ltd.)
Overseas		Subsidiaries located in foreign countries
Other subs	sidiaries	Subsidiaries except for overseas subsidiaries and subsidiaries conducting insurance business

(2) Operating income (loss) from external customers and among operating segments for the years ended December 31, 2017 and 2016 are as follows:

	_					2017				
			Bank in	dustry						
		Corporate	Investment	Asset				Other		
	-	finance	finance	management	Others	Insurance	Overseas	subsidiaries	Adjustments	Total
Operating income (loss) from external customers Operating income (loss) from intersegment	₩	(617,123)	(56,987)	34,930	486,582	257,596	102,542	559,762	-	767,302
transactions		1,481,713	118,403	-	27,232	(159,628)	18,592	82,217	(1,568,529)	-
	₩	864,590	61,416	34,930	513,814	97,968	121,134	641,979	(1,568,529)	767,302
2016 Bank industry										
	-	Corporate	Investment	Asset				Other		
		finance	finance	management	Others	Insurance	Overseas	subsidiaries	Adjustments	Total
Operating income (loss) from external customers Operating income (loss) from intersegment	₩	1,886,633	(1,553,975)		(617,729)	(329,867)	119,331	(2,690,403)	-	(3,154,322)
transactions		(1,387,896)	(186,200)		557,006	(59,539)	8,157	100,961	967,511	-
	₩	498,737	(1,740,175)	31,688	(60,723)	(389,406)	127,488	(2,589,442)	967,511	(3,154,322)

## 52. Operating Segments, Continued

(3) Details of segment results for the Group's reportable segments for the years ended December 31, 2017 and 2016 are as follows:

						2017				
	-		Bank in	dustry						
		Corporate	Investment	Asset				Other		
		finance	finance	management	Others	Insurance	Overseas	subsidiaries	Adjustment	Total
Net interest income (expense) Non-interest income (expense)	₩	1,584,329	(397,111)	19,451	279,701	436,175	86,386	260,804	(15,469)	2,254,266
Income (expense) Income (expense) related to securities (*1) Other non- interest income		13,068	788,838	-	61,003	42,437	8,365	(12,548)	(1,083,359)	(182,196)
(expense)		220,479	902,685	25,406	172,505	(544,927)	66,408	2,195,744	(769,022)	2,269,278
(	-	233,547	1,691,523	25,406	233,508	(502,490)	74,773	2,183,196	(1,852,381)	2,087,082
Provision for loan losses and others (*2) General and	-	(406,467)	(1,132,006)		4,165	174,288	10,679	(733,757)	299,321	(1,783,777)
administrative expenses Operating income	-	(546,819)	(100,990)	(9,927)	(3,560)	(10,005)	(50,704)	(1,068,264)		(1,790,269)
(loss)	₩	864,590	61,416	34,930	513,814	97,968	121,134	641,979	(1,568,529)	767,302
	_					2016				
			Bank in	dustry						
		Corporate	Investment	Asset				Other		
		finance	finance	management	Others	Insurance	Overseas	subsidiaries	Adjustment	Total
Net interest income (expense) Non-interest income (expense)	₩	1,624,666	(254,968)	14,355	40,327	383,635	90,730	183,919	(38,988)	2,043,676
Income (expense) related to securities (*1) Other non- interest income		170,431	30,681	-	26,009	113,672	50,193	(96,148)	32,574	327,412
(expense)		295,186	1,520,384	26,849	(108,329)	(474,201)	33,830	(597,823)	(11,671)	684,225
(expense)	e	465,617	1,551,065	26,849	(82,320)	(360,529)	84.023	(693,971)	20.903	1,011,637
Provision for loan losses and others (*2) General and	-	(1,033,129)	(2,931,615)		(9,419)	(401,534)	3,927	(937,267)	1,025,245	(4,283,792)
administrative expenses	-	(558,417)	(104,657)	(9,516)	(9,311)	(10,978)	(51,192)	(1,142,123)	(39,649)	(1,925,843)
Operating income (loss)	₩	498,737	(1,740,175)	31,688	(60,723)	(389,406)	127,488	(2,589,442)	967,511	(3,154,322)

(\*1) Income related to securities is composed of net gain (loss) on financial instruments held for trading, availablefor-sale financial assets and held-to-maturity financial assets.

(\*2) Provision for loan losses and others comprises provision for loan losses, provision for derivative credit risks, gains (losses) on sales of loans, and provision for other losses.

## 52. Operating Segments, Continued

(4) Geographical revenue information for the years ended December 31, 2017 and 2016 and the geographical noncurrent asset information as of December 31, 2017 and 2016 are as follows:

		Revenue	s (*1)	Non-current assets (*2)		
		2017	2016	December 31, 2017	December 31, 2016	
Domestic	W	52,183,877	54,483,300	35,770,155	36,438,491	
Overseas	_	1,023,517	1,040,851	16,325	33,201	
	₩	53,207,394	55,524,151	35,786,480	36,471,692	

(\*1) Revenues consist of interest income, fees and commission income, dividend income, income related to securities, foreign currency transaction gain, gain on derivative, other operating income and provision for loan losses.

(\*2) Non-current assets consist of investments in associates, property and equipment, investment properties and intangible assets.

As of December 31, 2017 and 2016  $\,$ 

### 53. Risk Management

### (1) Introduction

### (i) Objectives and principles

The Group's risk management aims to maintain financial soundness and effectively manage various risks pertinent to the nature of the Group's business. The Group has set up and fulfilled policies to manage risks timely and effectively. Pursuant to the policies, the Group's risks shall be

- managed comprehensively and independently,

- recognized timely, evaluated exactly and managed effectively,
- maintained to the extent that the risks balance with profit,
- diversified appropriately to avoid concentration on specific segments,
- managed to prevent excessive exposure by the setting up and managing of tolerance limits and guidelines.

#### (ii) Risk management strategy and process

The Group's risk management business is separated into two different stages; the 'metrification stage,' in which risks are estimated and monitored, and the 'integration stage,' in which information gained during the risk management process is integrated and used in management strategies. Risk management is recognized as a key component of the Group's management, and seeks to change from its previously adaptive and limited role to more leading and comprehensive role.

Furthermore, the Group focuses on consistent communication among different departments in order to establish a progressive consensus on risk management.

#### (iii) Risk management governance

### Risk Management Committee

The Group's Risk Management Committee (the "Committee") is composed of the President of the committee (an outside director), and five other commissioners including the CEO of the Bank. The Committee functions to establish policies of risk management, evaluate the capital adequacy of the Group, discuss material issues relating to risk management, and present preliminary decisions on such matters.

#### The CEO of the Bank and the head of Risk Management Segment

The CEO of the Bank, according to the policies of risk management, performs his or her role to manage and direct risk management in order to sustain efficiency and internal control. The head of the Risk Management Segment is responsible for supervising the overall administration of the Group's risk management business and providing risk-related information to members of the board of directors and the Group's management.

#### Risk Management Policy Committee and Risk Management Practice Committee

The Group's Risk Management Policy Committee is composed of the leaders of all business segments, and exercises its role to decide important matters relating to the Group's portfolio including allocating internal capital limits by segment and setting exposure limits by industry within the scope that Risk Management Committee regulated.

The Group's Risk Management Practice Committee is composed of the planning department's leaders of main business segments. The Risk Management Practice Committee decides the guidelines of review and approval on retail loan and exercises its role to preliminarily review matters for main decision of the Risk Management Committee.

### 53. Risk Management, Continued

#### (iv) Performance of risk management committee

The Risk Management Committee performs comprehensive reviews of all the affairs related to risk management and deliberates the decisions of the board of directors. For the year ended December 31, 2017, the key activities of the Risk Management Committee are as follows:

#### - Major decision

- · Risk management plan for 2017
- Submission of application for approval of changes due to redevelopment of Corporate Credit Rating System to Financial Supervisory Service

#### - Major reporting

- · Result of preliminary verification of suitability for the redeveloped Corporate Credit Rating System
- · The plan for improvement of industrial portfolio management
- · The result of internal capital allocation in 2017
- · The result of assessment of suitability for internal capital in 2016
- $\cdot$  The plan for large exposures management
- · Integrated crisis analysis in the first half of 2017
- · The result of the verification on BIS capital adequacy ratio for 2016
- · The result of the simulation of the Business Continuity Plan for 2017
- · Resolution of Credit Committee on a quarterly basis

### (v) Improvement of risk management system

For the continuous improvement of risk management, financial soundness and capital adequacy, the Group performs the following:

- Continuous improvement of Basel

- Improvements in the internal capital adequacy assessment system, in line with the guidelines set by the Financial Supervisory Service (FSS) in 2008, to manage capital adequacy more effectively
- · Improvements in the credit assessment system on Low Default Portfolio (LDP)
- · Elaboration of risk measuring criteria including credit risk parameters and measurement logics
- · Establishment of system for timely calculation of LCR and NSFR
- Redevelopment and application of Corporate Credit Rating System (approved by Financial Supervisory Service on October 26, 2017)

- Expansion of risk management infrastructure to the global IB level

- Establishment of the RAPM system in order to reflect risks to the Bank's business and support decision-making upon management, and application of performance assessment at the branch level since 2010
- Enforcement of risk management related to irregular compound derivatives and validation of the derivative pricing model developed by the Bank's Front Office
- Establishment of IFRS 9 accounting system to calculate a loan loss allowances under IFRS 9 in March 2017 and, since then, parallel run of IFRS 9 accounting system with the current IAS 39 accounting system for mandatory implementation of IFRS 9 in January 2018

### 53. Risk Management, Continued

#### (vi) Risk management reporting and measuring system

The Group endeavours consistently to objectively and rationally measure and manage all significant risks considering the characteristics of operational areas, assets and risks. In relation to reporting and measurement, the Group has developed application systems as follows:

Application system	Approach	Completion date	Major function
Corporate Credit Rating System	Logit Model	Jun. 2004 Mar. 2008 Mar. 2010	Calculate corporate credit rating
		Mar. 2012	Corporate credit rating system build- up based on K-IFRS
		Oct. 2017	Rebuilding the Corporate Credit Rating System
Credit Risk Measurement	Credit Risk+	Jul. 2003	Summarize exposures, manage
System	Credit Metrics	Nov. 2007	exposure limits and calculate Credit VaR
Market Risk Management System	Risk Watch	Jun. 2002	Summarize position, manage exposure limits and calculate Market VaR
	RS Model	Sep. 2012	Calculate regulatory capital (SA)
	Murex M/O	Apr. 2013	Supplement Risk Watch in calculating VaR
Interest/Liquidity Risk Management System	OFSA	Feb. 2006	Calculate repricing gap, duration gap, VaR and EaR
	Fermat	Mar. 2014	Improve system, Establish responding system for Basel III liquidity regulatory
Operational Risk Management System	Standardized Approach	May. 2006	Manage process and calculate CSA, KRI and OPVaR
	AMA	May. 2009	Pre-operate the AMA
BIS Capital Ratio	Fermat	Sep. 2006	Calculate equity and credit risk-
Calculation System	RaY	Dec. 2013	weighted assets
Loan Loss Allowance	IAS 39	Jan. 2011	Incurred loss model
Calculation System	IFRS 9	Mar. 2017	Expected credit loss model (Implemented in 2018)

### (vii) Response to Basel

The Korean financial authorities have implemented Basel II since January 2008, and adopted the Standardized Approach and the Foundation Internal Ratings-Based Approach.

In conformity with the implementation roadmap of Basel II, the Group obtained the approval to use the Foundation Internal Ratings-Based Approach on credit risk from the FSS in July 2008 and has applied the approach since late June 2008. The Group applies the Standardized Approach on market risks and operational risks.

The Group completed the Basel III standard risk management system in preparation of the adoption of the Basel III regulations announced on December 1, 2013. Starting from 2013 year-end, the BIS capital adequacy ratio has been measured in accordance to the Basel III regulations.

Responding to the requirement of the financial authorities, the Group recognizes interest rate risk, liquidity risk, credit bias risk and reputational risk as well as Pillar I risks (credit risk, market risk and operational risk). Since 2015, the Group has responded to Pillar II regulations including additional capital requirements based on comprehensive assessment on bank risk management level. Since the end of 2015, the Group has applied the uniform standards for the public announcement of financial business for Basel compliance.

Furthermore, the Group is in the process of preparing revised standards such as capital requirements for banks' investments in funds, which will take effect in 2017, and the Standardised Approach for measuring counterparty credit risk (SA-CCR), which will take effect in 2018.

### 53. Risk Management, Continued

#### (viii) Internal capital adequacy assessment process

Internal capital adequacy assessment process is defined as the process that the Group aggregates significant risks, calculates its internal capital, compares the internal capital with the available capital and assesses its internal capital adequacy.

#### - Internal capital adequacy assessment

For the purpose of the internal capital adequacy assessment, the Group calculates its aggregated internal capital by evaluating all significant risks and available capital taking into account the quality and components of capital, and then assesses the internal capital adequacy by comparing the aggregated internal capital with the available capital. In addition, the Group conducts periodic stress tests more than once every six months to assess potential weakness in crisis situations and uses its results to assess the internal capital adequacy. The Group assumes the macroeconomic situation as four stages of 'normal-aggravation-pessimistic-serious' and is preparing countermeasures such as checking the adequacy of capital by each stage.

#### - Goal setting of internal capital management

The Group sets up and manages an internal capital limit on an annual basis, through the approval of the Risk Management Committee, in order to maintain internal capital adequacy by managing internal capital (integrated risks) within the extent of available capital.

The prior year's internal capital, analysis of domestic and foreign environment changes in the current year, and the direction and size of operations are all reflected in the goal setting of internal capital management to calculate the integrated internal capital scale. Moreover, Bank for International Settlements("BIS") capital adequacy ratio and risk appetite are taken into consideration in the goal setting of internal capital management

### - Allocation of internal capital

The Group's entire internal capital is allocated to each segment and department, according to the extent of possible risk faced and size of operations, after the Risk Management Committee's deliberation and the board of directors' approval. The allocated internal capital is monitored regularly and managed using various management methods. The results of monitoring and managing the allocated internal capital are reported to the Risk Management Committee. In case of any material changes in the Group's business plan or risk operation strategy, the Group adjusts the allocations elastically.

#### - Composition of internal capital

Internal capital comprises all the significant risks of the Group and is composed of quantifiable and nonquantifiable risks. Quantifiable risks are composed of credit risk, market risk, interest rate risk, operational risk and credit concentration risk, foreign currency settlement risk, and are risks measured quantitatively by applying reasonable methodology using objective data. Non-quantifiable risks are composed of strategy risk, reputation risk, residual risk on asset securitization and furthermore. Non-quantifiable risks are those risks that cannot be measured quantitatively because of lack of data or the absence of appropriate measuring methodologies.

As of December 31, 2017 and 2016  $\,$ 

### 53. Risk Management, Continued

#### (2) Credit Risk

#### (i) Concept

Credit risk can be defined as potential loss resulting from the refusal to perform obligations or default of counterparties. More generally, it is used to refer to the possibility of loss from engaged bonds that cannot be redeemed properly or from substitute payments.

#### (ii) Approach to credit risk management

#### Summary of credit risk management

The Group regards credit risk as the most significant risk area in its business operations, and accordingly, closely monitors its credit risk exposure. The Group manages both credit risks at portfolio level and at individual credit level. At portfolio level, the Group reduces credit concentration and restructures the portfolio in such a way to maximize profitability considering the risk level. To avoid credit concentration on a particular sector, the Group manages credit limits by client, group, and industry. The Group also resets exposure management directives for each industry by conducting an industry credit evaluation twice a year.

At the individual credit level, the relationship manager (RM), the credit officer (CO) and the Credit Review Committee manage each borrower's credit risk.

#### Post management and insolvent borrower management

The Group monitors the borrower's credit rating from the date of the loan to the date of the final collection of debt consistently, and inspects the borrower's status regularly and frequently in order to prevent the generation of new bad debts and to stabilize the number of debt recoveries.

In addition, an early warning system is operated to spot borrowers that are highly likely to be insolvent. The early warning system provides financial information, financial transaction information, public information and market information of the borrower, and such information is used by the RM and the CO to monitor and manage changes in the borrower's credit rating.

Under the early warning system, a borrower that is highly likely to be insolvent is classified as an early warning borrower or a precautionary borrower. The Group sets up a specific and applicable stabilization plan for such a borrower considering the borrower's characteristics. Furthermore, sub-standard borrowers are classified as insolvent borrowers, and are managed intensively by the Group, which takes legal proceedings, disposals or corporate turnaround measures if necessary.

#### Classification of asset soundness and provision of allowance for loss

Classification of asset soundness is fulfilled by the analysis and assessment of credit risk. The classification is used in order to provision an appropriate allowance, prevent further occurrences of insolvent assets and promote the normalization of existing insolvent assets to enhance the stabilization of asset operations.

Based on the Financial Supervisory Regulations of the Republic of Korea, the Group has established standards and guidelines on the classification of asset soundness, according to the Forward Looking Criteria (FLC), which reflects not only the borrower's past records of repayment but also their future debt repayment capability.

In conformity with these standards, the Group classifies the soundness of its assets as "normal", "precautionary", "substandard", "doubtful", or "estimated loss" and differentiates the coverage ratio by the level of classification.

# 53. <u>Risk Management, Continued</u>

Details of loans as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Neither past due nor impaired	₩	140,126,306	141,816,564
Past due but not impaired		98,607	128,068
Impaired		6,223,975	5,910,824
		146,448,888	147,855,456
Allowance for loan losses		(3,006,128)	(3,063,671)
Present value discount		(215,857)	(269,248)
Deferred loan origination costs and fees		(2,787)	(6,323)
Net value	₩	143,224,116	144,516,214
Ratio of allowance for loan losses to total loans		2.05%	2.07%

Loans that are neither past due nor impaired as of December 31, 2017 and 2016 are as follows:

		December 31, 2017									
	Lo	ans in Korean w	on								
					Privately						
	Loans for	Loans for		Loans in	placed						
	working	facility		foreign	corporate						
	capital	development	Others	currencies	bonds	Others	Total				
$AAA \sim B-$	₩ 43,754,524	48,998,878	4,944,916	23,649,450	2,132,220	12,009,054	135,489,042				
CCC	1,925,945	119,860	1,785	1,369,865	122,498	149,679	3,689,632				
CC	378,016	164,281	-	200,848	-	204,487	947,632				
С	-	-	-	-	-	-	-				
D	-	-	-	-	-	-	-				
	₩ 46,058,485	49,283,019	4,946,701	25,220,163	2,254,718	12,363,220	140,126,306				

		December 31, 2016									
	Lo	ans in Korean w	on		Other	Other loans					
					Privately						
	Loans for	Loans for		Loans in	placed						
	working	facility		foreign	corporate						
	capital	development	Others	currencies	bonds	Others	Total				
$AAA \sim B-$	₩ 42,084,808	51,418,748	5,578,284	24,955,409	2,539,893	11,224,659	137,801,801				
$CCC \sim CC$	1,364,922	230,874	1,202	1,161,028	506,130	470,585	3,734,741				
CC	17,550	375	-	262,097	-	-	280,022				
С	-	-	-	-	-	-	-				
D											
	₩ 43,467,280	51,649,997	5,579,486	26,378,534	3,046,023	11,695,244	141,816,564				

## 53. Risk Management, Continued

Loans that are past due but not impaired as of December 31, 2017 and 2016 are as follows:

		December 31, 2017								
		Loans in Korean won				Other	loans			
		Loans for working	Loans for facility		Loans in foreign	Privately placed corporate				
	-	capital	development	Others	currencies	bonds	Others	Total		
Within 30 days	₩	12,918	22,267	10,230	19,172	1,000	22,322	87,909		
30 ~ 60 days		62	1,242	1,250	-	-	1,082	3,636		
60 ~ 90 days		511	5,849	56	-	-	646	7,062		
	₩	13,491	29,358	11,536	19,172	1,000	24,050	98,607		

				De	ecember 31, 20	16		
		Lo	ans in Korean w	on		Other l	oans	
		Loans for working capital	Loans for facility development	Others	Loans in foreign currencies	Privately placed corporate bonds	Others	Total
Within 30 days	₩	19,149	38,938	7,690	20,905	2,100	8,347	97,129
30 ~ 60 days		3,049	6,224	347	-	10,310	1,325	21,255
60 ~ 90 days		397	8,111	56		-	1,120	9,684
	₩	22,595	53,273	8,093	20,905	12,410	10,792	128,068

Impaired loans as of December 31, 2017 and 2016 are as follows:

				D	ecember 31, 20	17		
		Lo	ans in Korean w	on		Other l	oans	
Individual		Loans for working capital	Loans for facility development	Others	Loans in foreign currencies	Privately placed corporate bonds	Others	Total
assessment Collective	₩	, .,	2,147,827	1,868	562,122	790,686	352,567	5,984,447
assessment		85,596	51,270	8,045	63,404	17,477	13,736	239,528
	₩	2,214,973	2,199,097	9,913	625,526	808,163	366,303	6,223,975

		December 31, 2016										
		Lo	ans in Korean w	on		Other						
		Loans for working capital	Loans for facility development	Others	Loans in foreign currencies	Privately placed corporate bonds	Others	Total				
Individual assessment Collective	₩	2,367,523	1,123,001	90	994,448	408,473	696,573	5,590,108				
assessment	W	149,618 2,517,141	<u>61,434</u> 1,184,435	8,227 8,317	<u>65,807</u> 1,060,255	4,921 413,394	30,709 727,282	<u>320,716</u> 5,910,824				

### 53. Risk Management, Continued

### (iii) Measurement methodology of credit risk

Pursuant to Basel II, the Group selects the measurement methodology of credit risk considering the complexity of measurement, measurement factors, estimating methods and others. Measurement approaches are divided into Standardized Approach and Internal Ratings-Based Approach.

### Standardized Approach (SA)

In the case of the Standardized Approach, the risk weights are applied according to the credit rating assessed by External Credit Assessment Institution (ECAI). Risk weights in each credit rating are as follows:

Credit rating	Corporate	Country	Bank	Asset securitization
AAA ~ AA-	20.00%	0.00%	20.00%	20.00%
$A+ \sim A-$	50.00%	20.00%	50.00%	50.00%
$BBB+ \sim BBB-$	100.00%	50.00%	100.00%	100.00%
$BB+ \sim BB$ -	100.00%	100.00%	100.00%	350.00%
$B^+ \sim B^-$	150.00%	100.00%	100.00%	Deducted from Equity
				(1,250%)
Below B-	150.00%	150.00%	150.00%	II.
Unrated	100.00%	100.00%	100.00%	11

The OECD, S&P, Moody's and Fitch are designated as foreign ECAI and Korea Investors Service Co., Ltd., NICE Investors Services Co., Ltd. and the Korea Ratings Co., Ltd. are designated as domestic ECAI.

The Group applies the credit rating based on the corresponding loan and same borrower's unsecured senior loans. In the case the borrower's risk weight is higher than the unrated exposure's risk weight (100%), the higher weight is applied. In the case the borrower has more than one rating, the higher weight of the two lowest weights (second best criteria) is applied.

As of December 31, 2017 and 2016  $\,$ 

## 53. Risk Management, Continued

#### Internal Ratings-Based Approach (IRB)

To use the Internal Ratings-Based Approach, a bank must be approved by the FSS and should also meet the requirement pre-set by the FSS.

In relation to Basel II that has been adopted domestically as of January 2008, the Group gained approval from the FSS to use the Foundation Internal Ratings-Based Approach in July 2008. The Group has calculated credit risk-weighted assets using the approach since late June 2008.

### Measurement method of credit risk-weighted asset

The Group calculates credit risk-weighted assets of corporate exposures and asset securitization exposures using the Foundation Internal Ratings-Based Approach as of December 31, 2017.

The Standardized Approach is applied to country exposures, public institution exposures and bank exposures according to the interpretation of the FSS permanently, and applied to overseas subsidiary and the Bank's branch pursuant to prior consultation with the FSS.

The Standard Approach is applied to special finance, non-residents, non-banking financial institutions currently, and will be replaced by the Internal Ratings-Based Approach in the future.

<Approved measurement method>

Measuremen	t method	Exposure			
Standardized Approach	Permanent SA	- Countries, public institutions and banks			
	SA(*1)	<ul> <li>Overseas subsidiaries and branches, other assets, retail, residential property, commercial real estate, overdue</li> </ul>			
		loans (limited in loans for households)			
Foundation Internal Rati	ngs-Based Approach	<ul> <li>Corporate, small and medium enterprises, asset securitization (at each credit level) and equity</li> </ul>			
Application of I	RB by phase	<ul> <li>Special lending, non-residence, non-bank financial institutions</li> </ul>			

(\*1) The Standardized Approach is applied, pursuant to prior consultation with the FSS, in the case the credit risk-weighted assets of a specific business segment are less than 15% of the entire credit risk-weighted assets.

The mitigated effect of credit risks reflects the related policies which consider eligible collateral and guarantees. The Group calculates the credit risk-weighted assets using the capital adequacy ratio.

Upon the calculation of credit risk-weighted assets for derivatives, the Group takes into consideration the set-off effects of transactions under legally enforceable rights to set-off to calculate exposures.

## 53. <u>Risk Management, Continued</u>

Exposure after credit risk mitigation by asset type as of December 31, 2017 and 2016 are as follows:

		]	December 31, 2017	
	_	Exposure	Credit risk mitigation	Exposure after credit risk mitigation
Government	W	15,492,552	-	15,492,552
Bank		19,519,149	-	19,519,149
Corporate		129,607,364	(298,540)	129,308,824
Stock		29,785,368	-	29,785,368
Indirect investments		7,672,509	(1,645,991)	6,026,518
Asset securitization		4,366,731	-	4,366,731
Over-the-counter derivatives		11,620,076	(5,036,913)	6,583,163
Retail assets		1,525,960	(26,260)	1,499,700
Others		46,602,601	(460,376)	46,142,225
	W	266,192,310	(7,468,080)	258,724,230

			December 31, 2016	
		Exposure	Credit risk mitigation	Exposure after credit risk mitigation
Government	W	14,368,761	-	14,368,761
Bank		19,094,357	-	19,094,357
Corporate		134,968,173	(373,757)	134,594,416
Stock		31,017,838	-	31,017,838
Indirect investments		4,997,605	-	4,997,605
Asset securitization		5,485,028	-	5,485,028
Over-the-counter derivatives		11,149,751	(5,693,790)	5,455,961
Retail assets		2,475,355	(7,186)	2,468,169
Others		45,113,990	(601,491)	44,512,499
	W	268,670,858	(6,676,224)	261,994,634

As of December 31, 2017 and 2016  $\,$ 

### 53. Risk Management, Continued

#### Credit rating model

The results of credit rating are presented as grades through an assessment of the debt repayment capacity that the principal and interest of debt securities or loans are redeemed while complying with contractual redemption schedule.

Using the Group's internal credit rating model, the Group classifies debtors' credit rating into 10 grades (AAA $\sim$ D). Plus sign (+) and minus sign (-) are attached to the grades (AA $\sim$ B) to distinguish the difference between credits in the same grade. As a result, the Group's credit rating model uses 20 grades.

The Group's regular credit rating process is carried out once a year and in the case of the change of debtor's credit condition, the credit rating is frequently adjusted as necessary to retain the adequacy of credit rating.

The results of credit rating are applied to various areas such as discrimination of loan processes, loan limit, loan interest rate, post loan management standard process, credit risk measurement, and allowance for loan losses assessment.

### Credit process control structure

According to the Principle of Checks and Balances, the Group has established the credit process control structure by which the credit rating system operates appropriately.

- Independent assessment of credit rating: The Group's business segment (RM) and credit rating assessment segment (CO) are independently operated.
- Independent control of credit rating system: The control of credit rating system including the development of credit rating model is independently implemented by the Group's Risk Management Department.
- Independent verification of credit rating system: Credit rating system is independently verified by the validation team of the Consulting Service Department.
- Independent audit of credit rating process: Credit rating process is audited by the Group's internal audit department.
- Role of the Board of Directors and the Group's management: Major issues relating to credit process are approved by the Board of Directors and are regularly monitored by the Group's top management.

The Group reviews debt serviceability based on a credit analysis when handling loans. Depending on the results, credit loan preservation is adjusted as necessary using such methods as interest rate preservation due to credit risk.

The Group evaluates the value of the collateral, performing ability and legal validity of the guarantee at the initial acquisition. The Group re-evaluates the provided collateral and guarantees regularly for them to be reasonably preserved.

For guarantees, the Group demands a corresponding written guarantee according to loan handling standards and the guarantor's credit rating is independently calculated when in conformance with the credit rating endowment method.

## 53. <u>Risk Management, Continued</u>

## (iv) Credit exposure

Geographical information of credit exposure as of December 31, 2017 and 2016 are as follows:

	December 31, 2017									
	Korea	Hong Kong	Ireland	Uzbekistan	Brazil	Hungary	UK	US	Others	Total
Due from banks (excluding due from BOK) <del>W</del> Financial assets designated at FVTPL:	3,894,261	44,135	117	18,241	2	104,032	105,686	266,275	915,280	5,348,029
Bonds (excluding government bonds) Available-for- sale financial assets: Bonds	118,970	-	-	-	-	-	-		-	118,970
(excluding government bonds) Held-to-maturity financial assets: Bonds (excluding	12,181,230	34,984	-	-	-	100,014	688,195	608,602	708,512	14,321,537
government bonds)	3,183,155	-	-	-	1,164	-	-	-	10,726	3,195,045
Loans Derivative	136,168,144	30,654	22,476	48,018	154,313	183,920	829,683	746,788	5,335,402	143,519,398
financial assets Other financial	706,678	-	-	-	-	-	4,912	452	3,244	715,286
assets	12,412,428	472	109	816	719	6,684	22,707	17,556	66,750	12,528,241
	168,664,866	110,245	22,702	67,075	156,198	394,650	1,651,183	1,639,673	7,039,914	179,746,506
Guarantees Commitments	11,016,765 5,954,942	72	-	27,599 5,298	10,351	14,451 30,863	59,319	130,885 73,412	136,130 555,934	11,325,902 6,690,119
117	16,971,707	110 217		32,897	10,351	45,314	59,319	204,297	692,064	18,016,021
₩	185,636,573	110,317	22,702	99,972	166,549	439,964	1,710,502	1,843,970	7,731,978	197,762,527

As of December 31, 2017 and 2016

## 53. <u>Risk Management, Continued</u>

	December 31, 2016									
	Korea	Hong Kong	Ireland	Uzbekistan	Brazil	Hungary	UK	US	Others	Total
Due from banks (excluding due from BOK) ₩	5,207,903	19,003	1,186	37,540	82	89,804	184,124	457,756	980,459	6,977,857
Financial assets designated at FVTPL: Bonds (excluding government bonds)	340,114									340,114
Available-for- sale financial assets: Bonds (excluding government		-	-	-	-	-	-	-	-	
bonds) Held-to-maturity financial assets: Bonds (excluding government	15,204,445	61,408	-	-	-	58,823	727,171	691,752	579,068	17,322,667
bonds)	2,574,635	-	-	-	-	-	-	-	12,135	2,586,770
Loans Derivative	139,835,831	26,611	35,471	65,229	142,725	133,314	834,806	850,389	5,524,999	147,449,375
financial assets Other financial	630,272	-	-	-	-	-	6,894	734	1,960	639,860
assets	11,411,532	1,315	104	1,519	1,659	7,709	15,912	34,584	112,981	11,587,315
	175,204,732	108,337	36,761	104,288	144,466	289,650	1,768,907	2,035,215	7,211,602	186,903,958
Guarantees	14,274,421	-	-	19,979	14,760	43,215	-	239,042	311,015	14,902,432
Commitments	6,698,388	4,416	-	14,589		6,292	49,998	160,787	400,251	7,334,721
	20,972,809	4,416	-	34,568	14,760	49,507	49,998	399,829	711,266	22,237,153
₩	196,177,541	112,753	36,761	138,856	159,226	339,157	1,818,905	2,435,044	7,922,868	209,141,111

## 53. <u>Risk Management, Continued</u>

Industry information of credit exposure as of December 31, 2017 and 2016 are as follows:

	-		D	ecember 31, 2017	7	
				Loans for		
		Manufacturing	Service	households	Others	Total
Due from banks (excluding due from BOK)	₩	24,352	4,056,180	-	1,267,497	5,348,029
Financial assets designated at FVTPL:						
Bonds (excluding government bonds) Available-for-sale financial		-	118,970	-	-	118,970
assets: Bonds (excluding						
government bonds) Held-to-maturity financial		2,894,922	9,101,868	-	2,324,747	14,321,537
assets: Bonds (excluding						
government bonds)		23,321	2,741,035	-	430,689	3,195,045
Loans		63,928,166	65,399,208	1,314,512	12,877,512	143,519,398
Derivative financial assets		-	712,432	-	2,854	715,286
Other financial assets		185,384	197,867	-	12,144,990	12,528,241
		67,056,145	82,327,560	1,314,512	29,048,289	179,746,506
Guarantees		8,934,178	1,835,233	-	556,491	11,325,902
Commitments	-	239,035	5,943,254		507,830	6,690,119
		9,173,213	7,778,487		1,064,321	18,016,021
	₩	76,229,358	90,106,047	1,314,512	30,112,610	197,762,527

## 53. Risk Management, Continued

			D	ecember 31, 2010	6	
				Loans for		
		Manufacturing	Service	households	Others	Total
Due from banks (excluding						
due from BOK)	₩	9,017	5,074,867	-	1,893,973	6,977,857
Financial assets designated						
at FVTPL:						
Bonds (excluding						
government bonds)		-	340,114	-	-	340,114
Available-for-sale financial						
assets:						
Bonds (excluding						
government bonds)		3,508,421	11,288,913	-	2,525,333	17,322,667
Held-to-maturity financial						
assets:						
Bonds (excluding						
government bonds)		23,710	2,201,769	-	361,291	2,586,770
Loans		65,511,529	66,679,913	1,302,418	13,955,515	147,449,375
Derivative financial assets		24,550	613,942	-	1,368	639,860
Other financial assets		143,546	196,882	-	11,246,887	11,587,315
		69,220,773	86,396,400	1,302,418	29,984,367	186,903,958
Guarantees		11,959,065	2,006,997	-	936,370	14,902,432
Commitments		544,102	6,574,202	-	216,417	7,334,721
		12,503,167	8,581,199	-	1,152,787	22,237,153
	₩	81,723,940	94,977,599	1,302,418	31,137,154	209,141,111

Credit exposures of due from banks and debt securities by credit rating as of December 31, 2017 and 2016 are as follows:

			Т	December 31, 201	7	
			Financial assets designated at	Available-for- sale financial	Held-to-maturity	
		Due from banks	FVTPL	assets	financial assets	Total
AAA~AA-	₩	1,181,554	99,067	4,806,912	3,090,689	9,178,222
$A^+ \sim A^-$		1,744,818	-	4,141,821	52,565	5,939,204
$BBB+ \sim BB\text{-}$		874,734	-	4,023,413	11,395	4,909,542
Below BB-		23,049	-	83,089	495	106,633
Unrated		1,523,874	19,903	1,266,302	39,901	2,849,980
	₩	5,348,029	118,970	14,321,537	3,195,045	22,983,581
			T	December 31, 201	6	
			Financial assets	Available-for-	0	
			designated at	sale financial	Held-to-maturity	
		Due from banks	FVTPL	assets	financial assets	Total
$AAA \sim AA-$	₩	2,614,838	255,634	5,366,853	2,521,497	10,758,822
$A^+ \sim A^-$		2,787,565	62,187	4,131,799	43,442	<b>T</b> 00 1 000
		=,, 0,,000	02,187	4,131,/99	45,442	7,024,993
$BBB+ \sim BB-$		1,088,603		5,933,951	-	7,024,993 7,022,554
BBB+~BB- Below BB-				, ,		, ,
		1,088,603	22,293	5,933,951	21,831	7,022,554

## 53. Risk Management, Continued

#### (3) Capital management activities

#### (i) Capital adequacy

The FSS approved the Group's use of the Foundation Internal Ratings-Based Approach in July 2008. The Group has been using the same approach when calculating credit risk-weighted assets since the end of June 2008. The equity capital ratio and equity capital according to the standards of the Bank for International Settlements are calculated for the purpose of such disclosure. The equity capital ratio and equity capital are calculated on a consolidated basis. In conformity with the Banking Act, which is based on the implementation of Basel III on December 1, 2013, the regulatory capital is divided into the following two categories.

#### *Tier 1 capital (Common Equity Tier 1 + Additional Tier 1 capital)*

#### - Common Equity Tier 1

Regulatory capital that represents the most subordinated claim in liquidation of the Group, takes the first and proportionately greatest share of any losses as they occur, and which principal is never repaid outside of liquidation meets the criteria for classification as common equity, including capital stock, capital surplus, retained earnings, qualifying non-controlling interests in subsidiaries, and accumulated other comprehensive income as common equity Tier 1.

#### - Additional Tier 1 capital

Capital stock and capital surplus related to issuance of capital securities that are subordinated, have non-cumulative and conditional dividends or interests, and have no maturity or step-up conditions.

## Tier 2 capital (Supplementary Tier 2 capital)

Regulatory capital that fulfils supplementary capital adequacy requirements, and includes subordinated debt with maturities over 5 years and allowance for loan losses in conformity with external regulatory standards and internal standards.

## 53. Risk Management, Continued

The BIS capital adequacy ratio and capital in accordance to Basel III standards as of December 31, 2017 and 2016 are as follows:

BIS capital adequacy ratio

		December 31, 2017	December 31, 2016
Equity capital based on BIS (A):			
Tier 1 capital:			
Common Equity Tier 1	₩	29,412,410	28,569,965
Additional Tier 1 capital		4,327	9,021
		29,416,737	28,578,986
Tier 2 capital		4,638,109	4,648,003
	_	34,054,846	33,226,989
Risk-weighted assets (B):			
Credit risk-weighted assets		216,003,011	216,315,301
Market risk-weighted assets		2,413,057	2,685,966
Operational risk-weighted assets		4,801,430	4,659,937
	₩	223,217,498	223,661,204
BIS capital adequacy ratio (A/B):		15.26%	14.86%
Tier 1 capital ratio:		13.18%	12.78%
Common Equity Tier 1 ratio		13.18%	12.77%
Additional Tier 1 capital ratio		-	0.01%
Tier 2 capital ratio		2.08%	2.08%
Equity capital based on BIS			
		December 31, 2017	December 31, 2016
Tier 1 capital (A=C+D):	_	December 31, 2017	December 31, 2016
Tier 1 capital (A=C+D): Common Equity Tier 1 (C)	_	December 31, 2017	December 31, 2016
	₩	<b>December 31, 2017</b>	<b>December 31, 2016</b> 17,543,099
Common Equity Tier 1 (C)	₩		
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings	₩	17,938,099	17,543,099
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests	₩	17,938,099 1,548,609 9,023,996 2,639	17,543,099 1,546,046 8,751,785 3,536
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income	₩	17,938,099 1,548,609 9,023,996 2,639 1,048,942	17,543,099 1,546,046 8,751,785 3,536 838,808
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests	₩	$17,938,099 \\ 1,548,609 \\ 9,023,996 \\ 2,639 \\ 1,048,942 \\ (149,875)$	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309)
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles	₩	17,938,099 1,548,609 9,023,996 2,639 1,048,942	17,543,099 1,546,046 8,751,785 3,536 838,808
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles Additional Tier 1 capital (D)	₩	17,938,099 1,548,609 9,023,996 2,639 1,048,942 (149,875) 29,412,410	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309) 28,569,965
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles	₩	17,938,099 1,548,609 9,023,996 2,639 1,048,942 (149,875) 29,412,410 4,327	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309) 28,569,965 9,021
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles Additional Tier 1 capital (D) Non-controlling interests	₩	17,938,099 1,548,609 9,023,996 2,639 1,048,942 (149,875) 29,412,410	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309) 28,569,965
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles Additional Tier 1 capital (D) Non-controlling interests Tier 2 capital (B):	 ₩  	17,938,099 1,548,609 9,023,996 2,639 1,048,942 (149,875) 29,412,410 4,327 29,416,737	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309) 28,569,965 <u>9,021</u> 28,578,986
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles Additional Tier 1 capital (D) Non-controlling interests Tier 2 capital (B): Allowance for doubtful accounts, etc.	 ₩  	17,938,099 1,548,609 9,023,996 2,639 1,048,942 (149,875) 29,412,410 4,327 29,416,737 447,445	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309) 28,569,965 <u>9,021</u> 28,578,986 699,600
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles Additional Tier 1 capital (D) Non-controlling interests Tier 2 capital (B): Allowance for doubtful accounts, etc. Qualified capital securities	₩ ₩	17,938,099 1,548,609 9,023,996 2,639 1,048,942 (149,875) 29,412,410 4,327 29,416,737 447,445 2,900,000	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309) 28,569,965 <u>9,021</u> 28,578,986 699,600 2,400,000
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles Additional Tier 1 capital (D) Non-controlling interests Tier 2 capital (B): Allowance for doubtful accounts, etc. Qualified capital securities Non-qualified capital securities	₩ ₩	17,938,099 1,548,609 9,023,996 2,639 1,048,942 (149,875) 29,412,410 <u>4,327</u> 29,416,737 <u>447,445</u> 2,900,000 1,290,298	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309) 28,569,965 <u>9,021</u> 28,578,986 699,600 2,400,000 1,548,358
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles Additional Tier 1 capital (D) Non-controlling interests Tier 2 capital (B): Allowance for doubtful accounts, etc. Qualified capital securities	+++ 	17,938,099 1,548,609 9,023,996 2,639 1,048,942 (149,875) 29,412,410 <u>4,327</u> 29,416,737 <u>447,445</u> 2,900,000 1,290,298 <u>366</u>	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309) 28,569,965 <u>9,021</u> 28,578,986 699,600 2,400,000 1,548,358 45
Common Equity Tier 1 (C) Capital stock Capital surplus Retained earnings Non-controlling interests Accumulated other comprehensive income Common stock deductibles Additional Tier 1 capital (D) Non-controlling interests Tier 2 capital (B): Allowance for doubtful accounts, etc. Qualified capital securities Non-qualified capital securities		17,938,099 1,548,609 9,023,996 2,639 1,048,942 (149,875) 29,412,410 <u>4,327</u> 29,416,737 <u>447,445</u> 2,900,000 1,290,298	17,543,099 1,546,046 8,751,785 3,536 838,808 (113,309) 28,569,965 <u>9,021</u> 28,578,986 699,600 2,400,000 1,548,358

#### 53. Risk Management, Continued

#### (4) Market risk

#### (i) Concept

Market risk is defined as the possibility of potential loss on a trading position resulting from fluctuations in interest rates, foreign exchange rates and the price of stocks and derivatives. Trading position is exposed to risks, such as interest rate, stock price, and foreign exchange rate, etc. Non-trading position is mostly exposed to interest rates. Accordingly, the Group classifies market risks into those exposed from trading position or those exposed from non-trading position.

#### (ii) Market risks of trading positions

## Management method on market risks arising from trading positions

Trading position includes securities, foreign exchange position, and derivatives which are traded for short-term profits.

Market risk is managed using VaR limit and loss limit. VaR limit is calculated in the view of entire Group and the calculated VaR limit is distributed into each department and each type (stock price, interest rate, foreign exchange rate and option). The trading department regulates and operates terms of stop loss and investment limits.

Using the Standardized Approach and internal model of VaR, the Group's VaR is measured daily and the measured VaR is used for risk monitoring and limit management. In the estimation of VaR, the historical simulation and two other supplemental procedures are used: variance-covariance matrix and Monte Carlo simulation. Through the stress test and back test, the estimation of VaR is validated daily.

In estimating market risk, the Standardized Approach and the internal model are used. The Standardized Approach is used in order to calculate the required capital from market risk and the internal model is used in order to manage risks internally.

Since July 2007, the Group has measured one-day VaR through the historical simulation method using the time series data of past 250 days under a 99% confidence level. The calculated VaR is monitored on a daily basis.

The Group sets total limit of market risk based on annual business plan, risk appetite and others and monitors VaR limit of each department on a daily basis.

## 53. Risk Management, Continued

## Market risk required equity

The Bank's Market risk required equity as of December 31, 2017 and 2016 are as follows:

		December 31, 2017	December 31, 2016
Interest rate	W	59,546	67,173
Stock price		50,139	48,831
Foreign exchange rate		22,469	38,432
Derivatives		-	243
Option	_	60,891	60,198
	W	193,045	214,877

#### (iii) Market risks of non-trading positions

Management method on market risks arising from non-trading positions

The most critical market risk that arises in non-trading position is the interest rate risk. Interest rate risk is defined as the likely loss resulting from the unfavorable fluctuation of interest rate in the Group's financial condition and is measured by interest rate VaR and interest rate EaR.

Interest rate VaR is the maximum amount of decrease in net asset value resulting from the unfavorable fluctuation of interest rate. Interest rate EaR is the maximum amount of decrease in net interest income resulting from the unfavorable fluctuation of interest rate for a year.

The Group's interest rate VaR and interest rate EaR are measured through the simulation of conclusive interest rate scenario with the FERMAT and are reported on a monthly basis to the Risk Management Committee. The Management's target of interest rate VaR and interest rate EaR are approved at the beginning of the year. Additionally, the interest rate VaR and interest rate EaR on consolidated basis are calculated using the Standardized Approach in order to retain the consistency in the methods used by the Bank and its subsidiaries.

## VaR/EaR of non-trading positions

The Group's interest rate VaR and EaR of non-trading positions as of December 31, 2017 and 2016 are as follows:

	Dec	cember 31, 2017	
Interest rate shock		Interest rate VaR	Interest rate EaR
2.00%	₩	928,317	14,858
	Dec	cember 31, 2016	
Interest rate shock		Interest rate VaR	Interest rate EaR
2.00%	W	547,889	186,937

## 53. Risk Management, Continued

## (iv) Foreign currency risk

Outstanding balances by currency with significant exposure as of December 31, 2017 and 2016 are as follows:

			December 3	31, 2017		
	USD	EUR	JPY	GBP	Others	Total
Financial assets:						
Cash and due from banks $\Psi$	3,058,619	50,024	24,145	7,990	567,633	3,708,411
Financial assets held for						
trading	387,062	37,013	-	-	15,534	439,609
Financial assets						
designated at FVTPL	19,902	-	-	-	-	19,902
Available-for-sale						
financial assets	5,982,219	492	130,433	-	328,407	6,441,551
Held-to-maturity						
financial assets	1,358,811	-	-	-	1,164	1,359,975
Loans	32,382,201	1,476,959	1,101,157	167,344	673,683	35,801,344
Derivative financial						
assets	849,932	13,200	3,939	2,103	7,940	877,114
Other financial assets	4,894,874	221,986	86,214	26,184	342,679	5,571,937
	48,933,620	1,799,674	1,345,888	203,621	1,937,040	54,219,843
Financial liabilities:						
Financial liabilities						
designated at FVTPL	191,618	-	_	_	_	191,618
Deposits	7,413,734	153,802	266,509	1.196	328,898	8,164,139
Borrowings	13,106,953	247,732	742,993	-	233,904	14,331,582
Debentures	14,861,728	1,624,425	367,484	805,053	5,254,011	22,912,701
Derivative financial	- ,,,	-,	,	,	•,• .,•	,,,,
liabilities	794,943	12,254	2,690	2,459	3,952	816,298
Other financial liabilities	3,781,426	392,410	55,512	24,648	309,487	4,563,483
	40,150,402	2,430,623	1,435,188	833,356	6,130,252	50,979,821
	· · · ·			· · · · · ·		<i>, , , .</i>
Net financial position W	8,783,218	(630,949)	(89,300)	(629,735)	(4,193,212)	3,240,022
-						

As of December 31, 2017 and 2016

## 53. <u>Risk Management, Continued</u>

	December 31, 2016					
-	USD	EUR	JPY	GBP	Others	Total
Financial assets:						
Cash and due from banks $\Psi$	4,703,944	57,478	116,754	42,492	1,086,171	6,006,839
Financial assets held for						
trading	220,122	3,808	-	-	20,544	244,474
Financial assets						
designated at FVTPL	22,293	-	-	-	-	22,293
Available-for-sale						
financial assets	6,442,061	24,780	149,234	31,069	300,146	6,947,290
Held-to-maturity						
financial assets	1,383,049	-	-	-	-	1,383,049
Loans	33,886,737	1,384,285	1,414,307	81,407	552,893	37,319,629
Derivative financial						
assets	1,347,039	14,930	6,665	5,251	11,424	1,385,309
Other financial assets	7,243,011	98,871	404,596	5,930	495,011	8,247,419
-	55,248,256	1,584,152	2,091,556	166,149	2,466,189	61,556,302
Financial liabilities:						
Deposits	6,033,444	202,792	256,125	3,553	785,829	7,281,743
Borrowings	17,373,905	111,332	965,973	- ,	244,829	18,696,039
Debentures	17,249,700	1,625,166	773,468	435,384	5,048,486	25,132,204
Derivative financial	- , - ,	,,	,	)	- , ,	- , - , -
liabilities	1,626,855	21,560	4,596	2,435	4,995	1,660,441
Other financial liabilities	3,668,536	147,679	495,254	2,464	527,690	4,841,623
-	45,952,440	2,108,529	2,495,416	443,836	6,611,829	57,612,050
Net financial position W	9,295,816	(524,377)	(403,860)	(277,687)	(4,145,640)	3,944,252

#### 53. Risk Management, Continued

## (5) Liquidity risk management

#### (i) Concept

Liquidity risk is defined as the possibility of potential loss due to a temporary shortage in funds caused by a maturity mismatch or an unexpected capital outlay. Liquidity risk soars when funding rates rise, assets are sold below a normal price, or a good investment opportunity is missed.

#### (ii) Approach to liquidity risk management

The Group manages its liquidity risks as follows:

### Allowable limit for liquidity risk

- The allowable limit for liquidity risk sets LCR, foreign currency liquidity ratio, and remaining maturity gap
- The management standards with regards to the allowable limit for liquidity risk should be set using separate and stringent set ratios in accordance with the FSS guidelines.

#### <Measurement Methodology>

- LCR: (High quality liquid assets / Total net cash outflows over the next 30 calendar days) X 100
- Foreign currency liquidity ratio: (Maturing liquidity asset in the interval / Maturing liquidity liability in the interval) X 100
- Remaining maturity gap: (Maturing liquidity asset in the interval Maturing liquidity liability in the interval) / total assets X 100

#### Early warning indicator

In order to identify prematurely and cope with worsening liquidity risk trends, the Group has set up 16 indexes such as the "Foreign Exchange Stabilization Bond CDS Premium," and measures the trend monthly, weekly and daily as a means for establishing the allowable liquidity risk limit complementary measures.

#### Stress-Test analysis and contingency plan

- The Group evaluates the effects on the liquidity risk and identifies the inherent flaws. In the case where an unpredictable and significant liquidity crisis occurs, the Group executes risk situation analysis quarterly based on crisis specific to the Group, market risk and complex emergency, and reports to the Risk Management Committee for the purpose of the Group's solvency securitization.
- The Group established detailed contingency plan to manage the liquidity risks at every risk situations.

## 53. Risk Management, Continued

## (iii) Analysis on remaining contractual maturity of financial instruments

Remaining contractual maturity analysis for non-derivative financial instruments as of December 31, 2017 and 2016 are as follows:

				Decembe	r 31, 2017		
	_	Within 1	1~3	3~12	1~5	Over 5	
		month	months	months	years	years	Total
Financial assets:	_						
Cash and due from							
banks	₩	6,684,343	756,636	874,659	339,257	13,878	8,668,773
Financial assets held for							
trading		1,550,583	51,110	79,459	167,034	85,408	1,933,594
Financial assets							
designated at FVTPL		1,049	-	29,940	59,520	29,510	120,019
Available-for-sale							
financial assets		1,152,661	1,579,571	7,155,465	10,911,997	20,757,262	41,556,956
Held-to-maturity		50 550	15.000	210.054	0.00.000		6.040.464
financial assets		52,578	15,032	319,074	868,029	4,785,751	6,040,464
Loans		13,003,298	14,867,956	51,077,689	59,075,297	18,299,853	156,324,093
Other financial assets	_	7,763,081	14,174	4,462,567	2,994,700	752,503	15,987,025
	₩	30,207,593	17,284,479	63,998,853	74,415,834	44,724,165	230,630,924
Financial liabilities:							
Financial liabilities							
designated at FVTPL	₩	69,284	263,040	587,957	416,340	662,446	1,999,067
Deposits		15,056,529	6,492,575	10,164,575	3,294,983	597,931	35,606,593
Borrowings		3,888,181	4,764,313	10,434,621	5,698,849	1,503,127	26,289,091
Debentures		6,474,218	11,045,197	45,069,217	47,883,013	16,858,859	127,330,504
Other financial liabilities	_	6,267,394	1,841,621	3,707,730	2,316,489	518,819	14,652,053
	₩	31,755,606	24,406,746	69,964,100	59,609,674	20,141,182	205,877,308

				Decembe	r 31, 2016		
	_	Within 1	1~3	3~12	1~5	Over 5	
	_	month	months	months	years	years	Total
Financial assets:							
Cash and due from							
banks	₩	7,029,746	1,290,752	878,091	521,726	18,494	9,738,809
Financial assets held for							
trading		2,103,279	-	-	24,334	3,975	2,131,588
Financial assets							
designated at FVTPL		-	30,555	81,645	195,906	32,008	340,114
Available-for-sale							
financial assets		730,748	1,542,700	9,403,338	14,791,328	19,593,092	46,061,206
Held-to-maturity							
financial assets		3,926	-	28,825	1,092,965	4,321,362	5,447,078
Loans		10,856,842	14,464,805	48,541,425	63,722,583	18,380,594	155,966,249
Other financial assets		5,517,492	20,792	5,191,913	3,018,892	713,710	14,462,799
	₩	26,242,033	17,349,604	64,125,237	83,367,734	43,063,235	234,147,843
Financial liabilities:							
Financial liabilities							
designated at FVTPL	₩	30,592	269,205	1,047,972	51,145	1,148,658	2,547,572
Deposits		17,432,621	6,987,701	12,825,032	2,510,314	461,150	40,216,818
Borrowings		6,610,251	4,097,833	8,890,975	6,314,914	1,571,701	27,485,674
Debentures		5,378,757	10,244,819	45,809,435	47,663,891	19,910,532	129,007,434
Other financial liabilities		5,320,328	1,738,877	4,070,431	3,089,584	39,366	14,258,586
	₩	34,772,549	23,338,435	72,643,845	59,629,848	23,131,407	213,516,084

## 53. <u>Risk Management, Continued</u>

Remaining contractual maturity analysis for derivative financial instruments as of December 31, 2017 and 2016 are as follows:

Net settlement of derivative financial instruments

				December	31, 2017		
	_	Within 1	1~3	3~12	1~5		
		month	months	months	years	Over 5 years	Total
Trading purpose derivatives:		(000)	500	(152.21.0)			
Currency	₩	(889)	529	(153,316)	-	-	(153,676)
Interest rate		(3,242)	(2,160)	(123,336)	(111,304)	(40,428)	(280,470)
Stock		134	-	-	-	-	134
Hedging purpose derivatives:							
Interest rate	_	20,569	19,412	134,694	1,127,275	2,480,383	3,782,333
	₩	16,572	17,781	(141,958)	1,015,971	2,439,955	3,348,321
	_	Within 1	1~3	December 3~12	<b>31,2016</b>		
					vears	Over 5 years	Total
Trading purpose derivatives:	_	month	months	months	years	Over 5 years	Total
	₩				years	Over 5 years	Total
derivatives:	₩	month	months	months	years (52,813)	Over 5 years	
derivatives: Currency	₩	month	<u>months</u> 2,123	(330)	-	-	2,187
derivatives: Currency Interest rate	₩	month 394 13,818	2,123 28,718	(330)	-	-	2,187 (267,954)
derivatives: Currency Interest rate Stock Hedging purpose	₩	month 394 13,818	2,123 28,718	(330)	-	-	2,187 (267,954)

## 54. Risk Management, Continued

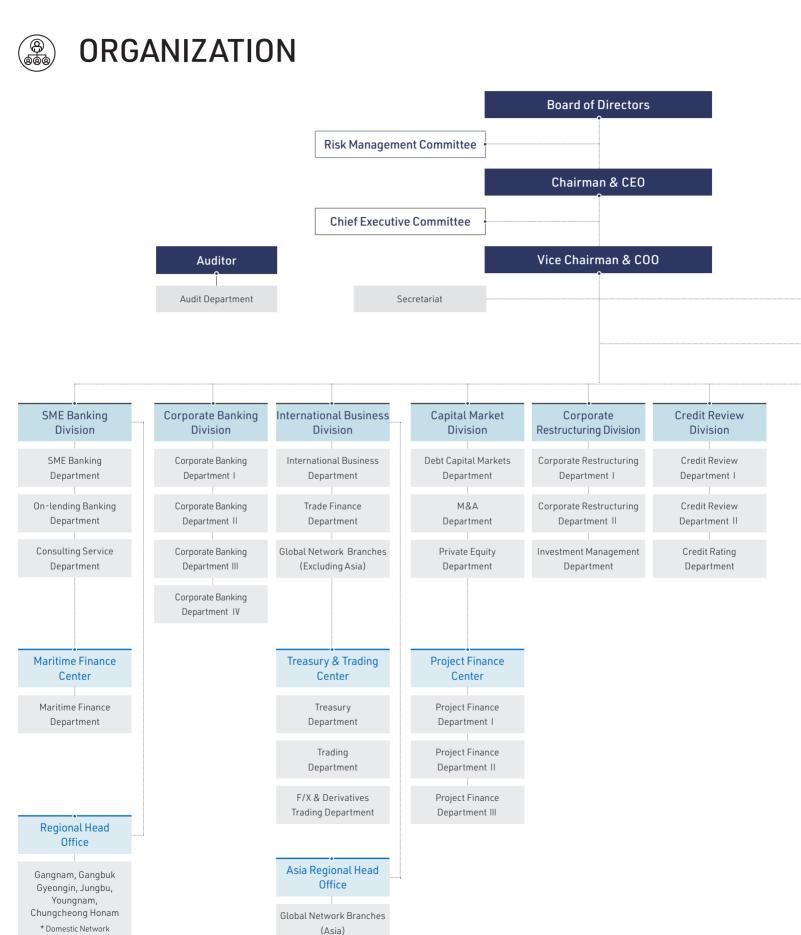
Gross settlement of derivative instruments

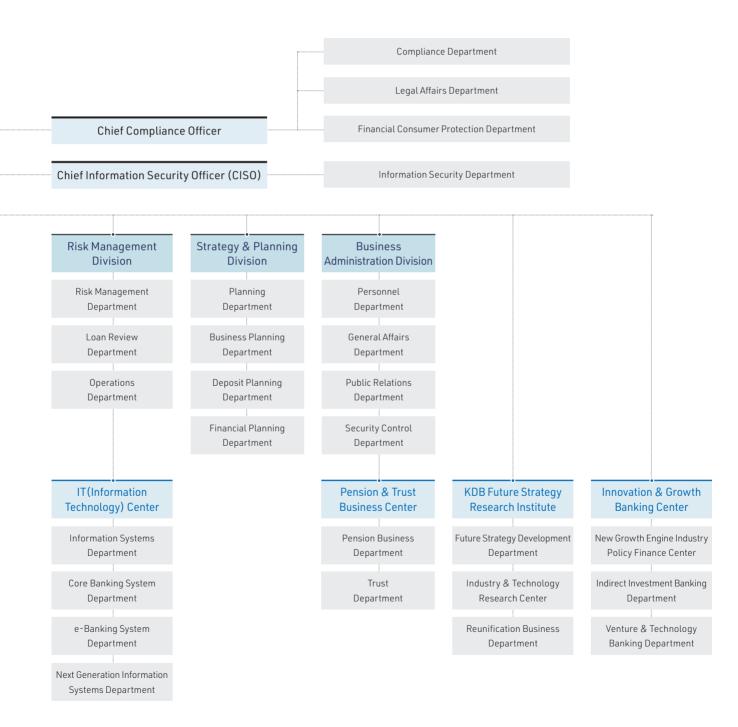
			December	r 31, 2017		
	Within 1	1~3	3~12	1~5		
	month	months	months	years	Over 5 years	Total
Trading purpose						
derivatives:						
Currency						
Inflow	₩ 39,330,141	35,677,096	67,286,988	51,321,999	5,411,727	199,027,951
Outflow	39,437,703	35,890,367	67,746,614	51,188,768	5,491,575	199,755,027
Hedging purpose						
derivatives:						
Currency	52.265	2 40 000	11.041.640	0 500 110	1 464 554	<b>22</b> 207 (05
Inflow	53,365	349,999	11,941,649	8,588,118	1,464,554	22,397,685
Outflow	34,608	359,082	11,987,081	8,453,956	1,439,125	22,273,852
Total inflow	₩ 39,383,506	36,027,095	79,228,637	59,910,117	6,876,281	221,425,636
Total outflow	₩ 39,472,311	36,249,449	79,733,695	59,642,724	6,930,700	222,028,879
			December			
	Within 1	1~3	3~12	1~5		
	month	months	months	vears	Over 5 years	Total
Trading purpose	montin	montilis	months	years	Over 5 years	10ta1
derivatives:						
Currency						
Inflow	₩ 24,466,869	27,324,235	65,806,263	38,704,222	3,678,791	159,980,380
Outflow	24,304,483	27,297,050	65,337,264	38,589,615	3,710,967	159,239,379
Hedging purpose						
derivatives:						
Currency						
Inflow	34,820	241,600	3,567,771	18,149,439	1,185,221	23,178,851
Outflow	34,248	290,272	3,777,627	18,671,340	1,168,538	23,942,025
T ( 1 C						100 1 50 001
Total inflow	₩ <u>24,501,689</u>	27,565,835	69,374,034	56,853,661	4,864,012	183,159,231

Remaining contractual maturity analysis for guarantees and commitments as of December 31, 2017 and 2016 are as follows:

				December	· 31, 2017		
	_	Within 1	1~3	3~12	1~5	Over 5	
	_	month	months	months	years	years	Total
Guarantees	₩	1,480,681	1,229,717	2,891,225	2,696,205	1,563,625	9,861,453
Commitments	_	289,639	134,852	1,595,006	2,244,278	2,475,576	6,739,351
	₩	1,770,320	1,364,569	4,486,231	4,940,483	4,039,201	16,600,804
	_						
	_			December	31, 2016		
	_	Within 1	1~3	3~12	1~5	Over 5	
	_	month	months	months	years	years	Total
Guarantees	₩	1,353,463	1,712,613	4,255,960	3,041,765	1,722,437	12,086,238
Commitments	_	6,230	143,324	964,281	3,414,566	2,572,101	7,100,502
	₩	1,359,693	1,855,937	5,220,241	6,456,331	4,294,538	19,186,740











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- Headquarters
- Branch
- Subsidiary
- Representative Office

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