KT Corporation Separate Financial Statements

December 31, 2017 and 2016

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Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of KT Corporation

We have audited the accompanying separate financial statements of KT Corporation (the Company), which comprise the separate statements of financial position as of December 31, 2017 and 2016, and the separate statements of profit or loss, separate statements of comprehensive income, separate statements of changes in equity and separate statements of cash flows for the years then ended, and notes to the separate financial statements, including a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of the separate financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS), and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on the separate 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 separate financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the separate financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the separate financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the separate 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 Company'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 separate financial statements.

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



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Opinion

In our opinion, the accompanying separate financial statements present fairly, in all material respects, the separate financial position of KT Corporation as of December 31, 2017 and 2016, and its separate financial performance and its separate cash flows for the years then ended in accordance with Korean IFRS.

Auditing standards and their application in practice vary among countries. The procedures and practices used in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries.

Seoul,Korea March 2, 2018

This report is effective as of March 2, 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 separate 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.

KT Corporation Separate Statements of Financial Position December 31, 2017 and 2016

| (in millions of Korean won) | Notes | | 2017 | 2016 |
|----------------------------------|--------|---|---------------|--------------|
| Assets | | | | |
| Current assets | | | | |
| Cash and cash equivalents | 4, 5 | W | 1,166,402 | ₩ 1,602,397 |
| Trade and other receivables, net | 4, 6 | | 2,740,314 | 2,590,161 |
| Other financial assets | 4, 7 | | 54,774 | 289,613 |
| Inventories, net | 8 | | 232,246 | 178,096 |
| Current income tax asset | 29 | | 7,847 | - |
| Current assets held for sale | 13 | | 2,772 | - |
| Other current assets | 9 | | 175,213 | 190,812 |
| Total current assets | | | 4,379,568 | 4,851,079 |
| | | | | |
| Non-current assets | | | | |
| Trade and other receivables, net | 4, 6 | | 735,671 | 622,045 |
| Other financial assets | 4, 7 | | 75,896 | 198,777 |
| Property and equipment, net | 10, 20 | | 11,375,047 | 11,961,193 |
| Investment properties, net | 11 | | 633,851 | 662,985 |
| Intangible assets, net | 12 | | 2,100,215 | 2,337,549 |
| Investments in subsidiaries, | 13 | | 2 5 9 4 0 7 9 | 2 620 956 |
| associates and joint ventures | 13 | | 3,584,978 | 3,638,856 |
| Deferred income tax assets | 29 | | 421,745 | 401,346 |
| Other non-current assets | 9 | | 27,952 | 26,507 |
| Total non-current assets | | | 18,955,355 | 19,849,258 |
| Total assets | | ₩ | 23,334,923 | ₩ 24,700,337 |

KT Corporation Separate Statements of Financial Position December 31, 2017 and 2016

| (in millions of Korean won) | Notes | 2017 | | 2016 |
|--|-------|------|-------------|--------------|
| Liabilities | | | | |
| Current liabilities | | | | |
| Trade and other payables | 4, 14 | ₩ | 4,109,524 | ₩ 4,181,092 |
| Borrowings | 4, 15 | | 1,298,534 | 1,608,064 |
| Other financial liabilities | 4, 7 | | 33,106 | - |
| Current income tax liabilities | 29 | | - | 22,551 |
| Provisions | 16 | | 67,480 | 92,007 |
| Deferred income | | | 11,295 | 29,298 |
| Other current liabilities | 9 | | 76,728 | 94,659 |
| Total current liabilities | | | 5,596,667 | 6,027,671 |
| Non-current liabilities | | | | |
| Trade and other payables | 4, 14 | | 958,189 | 1,135,738 |
| Borrowings | 4, 15 | | 4,914,400 | 5,960,983 |
| Other financial liabilities | 4, 7 | | 53,145 | 13,386 |
| Net defined benefit liabilities | 17 | | 302,319 | 284,931 |
| Provisions | 16 | | 93,920 | 92,388 |
| Deferred income | | | 85,713 | 79,416 |
| Other non-current liabilities | 9 | | 19,492 | 21,305 |
| Total non-current liabilities | | | 6,427,178 | 7,588,147 |
| Total liabilities | | | 12,023,845 | 13,615,818 |
| Equity | | | | |
| Share capital | 21 | | 1,564,499 | 1,564,499 |
| Share premium | | | 1,440,258 | 1,440,258 |
| Retained earnings | 22 | | 9,344,506 | 9,156,204 |
| Accumulated other comprehensive income | 23 | | (1,502) | (32,091) |
| Other components of equity | 23 | | (1,036,683) | (1,044,351) |
| Total equity | | | 11,311,078 | 11,084,519 |
| Total liabilities and equity | | ₩ | 23,334,923 | ₩ 24,700,337 |

The above separate financial statements of financial position should be read in conjunction with the accompanying notes.

KT Corporation Separate Statements of Profit of Loss Years Ended December 31, 2017 and 2016

(in millions of Korean won, except per share amounts)

| | Notes | | 2017 | | 2016 |
|----------------------------|-------|---|------------|---|------------|
| Operating revenue | 25 | ₩ | 17,341,316 | ₩ | 17,028,868 |
| Operating expenses | 26 | | 16,389,155 | | 15,969,277 |
| Operating profit | | | 952,161 | | 1,059,591 |
| Other income | 27 | | 390,253 | | 513,927 |
| Other expenses | 27 | | 505,973 | | 325,448 |
| Finance income | 28 | | 351,624 | | 257,016 |
| Finance costs | 28 | | 575,673 | | 470,490 |
| Profit before income tax | | | 612,392 | | 1,034,596 |
| Income tax expense | 29 | | 149,124 | | 225,266 |
| Profit for the year | | ₩ | 463,268 | ₩ | 809,330 |
| Earnings per share | | | | | |
| Basic earnings per share | 30 | ₩ | 1,891 | ₩ | 3,305 |
| Diluted earnings per share | 30 | | 1,890 | | 3,304 |

The above separate statements of profit or loss should be read in conjunction with the accompanying notes.

KT Corporation Separate Statements of Comprehensive Income Years Ended December 31, 2017 and 2016

(in millions of Korean won)

| | Notes | 2017 | | 2016 | |
|--|-------|------|-----------|------|----------|
| Profit for the year | | ₩ | 463,268 | ₩ | 809,330 |
| Other comprehensive income | | | | | |
| Items that will not be reclassified to profit or loss: | | | | | |
| Remeasurements of the net defined benefit liability | 17 | | (76,677) | | 22,399 |
| Items that may be subsequently reclassified to profit or loss: | | | | | |
| Changes in value of available-for-sale financial assets | 4, 7 | | (5) | | (164) |
| Other comprehensive income from available-for sale financial assets reclassified to loss | 4 | | - | | (2,941) |
| Net gain(loss) on cash flow hedges | 4, 7 | | (111,335) | | 64,155 |
| Other comprehensive income from cash flow hedges reclassified to gain(loss) | 4 | | 141,929 | | (75,871) |
| Total other comprehensive income(loss) | | ₩ | (46,088) | ₩ | 7,578 |
| Total comprehensive income for the year | | ₩ | 417,180 | ₩ | 816,908 |

The above separate statements of comprehensive income should be read in conjunction with the accompanying notes.

KT Corporation Separate Statements of Changes in Equity Years Ended December 31, 2017 and 2016

(in millions of Korean won)

| | Notes | Sh | are capital | I | Share premium | | Retained earnings | com | cumulated other prehensive income | CO | Other mponents of equity | | Total |
|--|-------|----|-------------|---|------------------|---|----------------------|-----|--|----|--------------------------------|---|------------|
| Balance as of January 1, 2016 | | ₩ | 1,564,499 | ₩ | 1,440,258 | ₩ | 8,446,950 | ₩ | (17,270) | ₩ | (1,050,481) | ₩ | 10,383,956 |
| Comprehensive income | | | | | | | | | | | | | |
| Profit for the year | | | - | | - | | 809,330 | | - | | - | | 809,330 |
| Changes in value of available-for-sale financial asset | : 4 | | - | | - | | - | | (3,105) | | - | | (3,105) |
| Remeasurement of the net defined benefit liability | 17 | | - | | - | | 22,399 | | - | | - | | 22,399 |
| Valuation loss on cash flow hedge | 4 | | - | | - | | - | | (11,716) | | - | | (11,716) |
| Total Comprehensive income for the year | | | - | | - | | 831,729 | | (14,821) | | - | | 816,908 |
| Transactions with equity holders | | | | | | | | | | | | | |
| Dividends | | | - | | - | | (122,425) | | - | | - | | (122,425) |
| Appropriation of loss on disposal of treasury stock | | | - | | - | | (50) | | - | | 50 | | - |
| Others | | | - | | - | | - | | - | | 6,080 | | 6,080 |
| Balance as of December 31, 2016 | | ₩ | 1,564,499 | ₩ | 1,440,258 | ₩ | 9,156,204 | ₩ | (32,091) | ₩ | (1,044,351) | ₩ | 11,084,519 |
| Balance as of January 1, 2017 | | ₩ | 1,564,499 | ₩ | 1,440,258 | ₩ | 9,156,204 | ₩ | (32,091) | ₩ | (1,044,351) | ₩ | 11,084,519 |
| Comprehensive income | | | | | | | <u> </u> | | | | | | |
| Profit for the year | | | - | | - | | 463,268 | | - | | - | | 463,268 |
| Changes in value of available-for-sale financial asset | : 4 | | - | | - | | - | | (5) | | - | | (5) |
| Remeasurement of the net defined benefit liability | 17 | | - | | - | | (76,677) | | - | | - | | (76,677) |
| Valuation gain on cash flow hedge | 4 | | - | | - | | - | | 30,594 | | - | | 30,594 |
| Total Comprehensive income for the year | | | - | | - | | 386,591 | | 30,589 | _ | - | | 417,180 |
| Transactions with equity holders | | | | | | | | | | _ | | | |
| Dividends | 31 | | - | | - | | (195,977) | | - | | - | | (195,977) |
| Appropriation of loss on disposal of treasury stock | 22 | | - | | - | | (2,312) | | - | | 2,312 | | - |
| Others | | | - | | - | | - | | - | | 5,356 | | 5,356 |
| Balance as of December 31, 2017 | | ₩ | 1,564,499 | ₩ | 1,440,258 | ₩ | 9,344,506 | ₩ | (1,502) | ₩ | (1,036,683) | ₩ | 11,311,078 |

The above separate statements of changes in equity should be read in conjunction with the accompanying notes.

(in millions of Korean won)

| | Notes | 2017 | 2016 |
|---|---------------|-------------|-------------|
| Cash flows from operating activities | | | |
| Cash generated from operations | 32 | ₩ 3,700,944 | ₩ 4,577,190 |
| Interest paid | | (242,098) | (362,636) |
| Interest received | | 63,147 | 77,306 |
| Dividends received | | 139,448 | 172,962 |
| Income tax paid | | (182,800) | (46,174) |
| Net cash inflow from operating activities | | 3,478,641 | 4,418,648 |
| Cash flows from investing activities | | | |
| Collection of loans | | 52,317 | 43,131 |
| Disposal of financial instruments | | 160,001 | 1,050 |
| Disposal of available-for-sale financial assets | | 9,411 | 28,127 |
| Disposal of Investments in subsidiaries, associates and join | t ventures | 60,168 | 9,538 |
| Disposal of property and equipment | | 23,574 | 44,074 |
| Disposal of intangible assets | | 17,626 | 10,381 |
| Loans granted | | (51,468) | (55,284) |
| Acquisition of current financial instruments | | (50,000) | (160,000) |
| Acquisition of available-for-sale financial assets | | (3,776) | (41,757) |
| Acquisition of Investments in subsidiaries, associates and jo | oint ventures | (80,145) | (147,540) |
| Acquisition of property and equipment | | (2,211,867) | (2,392,924) |
| Acquisition of intangible assets | | (537,340) | (383,076) |
| Net cash outflow from in investing activities | | (2,611,499) | (3,044,280) |
| Cash flows from financing activities | 33 | | |
| Proceeds from borrowings and bonds | | 444,348 | 846,730 |
| Settlement of derivatives assets and liabilities, net | | 71,370 | (33,193) |
| Repayments of borrowings and deventures | | (1,551,268) | (1,512,700) |
| Dividend paid | | (195,977) | (122,425) |
| Decrease in finance leases liabilities | _ | (71,575) | (75,439) |
| Net cash outflow from financing activities | | (1,303,102) | (897,027) |
| Effect of exchange rate chage on cash and cash equivalent | s | (35) | (1,935) |
| Net increase (decrease) in cash and cash equivalents | | (435,995) | 475,406 |
| Cash and cash equivalents | | | |
| Beginning of the year | 5 | 1,602,397 | 1,126,991 |
| End of the year | 5 | ₩ 1,166,402 | ₩ 1,602,397 |

The above separate financial statements of cash flow should be read in conjunction with the accompanying notes.

1. General information

KT Corporation (the "Company") commenced operations on January 1, 1982, when it spun off from the Korea Communications Commission (formerly the Korean Ministry of Information and Communications) to provide telephone services and to engage in the development of advanced communications services under the Act of Telecommunications of Korea. The address of the Company's registered office is 90, Buljeong-ro, Bundang-gu, Seongnam City, Gyeonggi Province, Korea.

On October 1, 1997, upon the announcement of the Act on the Management of Government-Invested Institutions and the Privatization Law, the Company became a government-funded institution under the Commercial Code of Korea.

On December 23, 1998, the Company's shares were listed on the Korea Exchange.

On May 29, 1999, the Company issued 24,282,195 additional shares and issued American Depository Shares (ADS), representing new shares and 20,813,311 government-owned shares, at the New York Stock Exchange. On July 2, 2001, the additional ADS representing 55,502,161 government-shares were issued at the New York Stock Exchange.

In 2002, the Company acquired the entire government-owned shares in accordance with the Korean government's privatization plan. At the end of reporting period, the Korean government does not own any share in the Company.

2. Significant Accounting Policies

The following is a summary of significant accounting policies followed by the Company in the preparation of its financial statements. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Basis of Preparation

The Company maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS). The accompanying separate financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

Certain information attached to the Korean language financial statements, but not required for a fair presentation of the Company's financial position, financial performance or cash flows, is not presented in the accompanying separate financial statements.

The separate financial statements of the Company have been prepared in accordance with Korean IFRS. These are the standards and related interpretations issued by the International Accounting Standards Board (IASB) that have been adopted by the Republic of Korea.

The preparation of the separate financial statements requires the use of certain critical accounting estimates. It also requires management to exercise judgment in the process of applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the separate financial statements are disclosed in Note 3.

2.2 Changes in Accounting Policy and Disclosures

(1) New standards and amendments adopted by the Company

The Company has applied the following standards and amendments for the first time for their annual reporting period commencing January 1, 2017. The adoption of these amendments did not have any material impact on the separate financial statements.

- Amendments to Korean IFRS 1007 Statement of Cash Flows

Amendments to Korean IFRS 1007 Statement of Cash flows require to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash flows (Note 33).

- Amendments to Korean IFRS 1012 Income Tax

Amendments to Korean IFRS 1012 clarify how to account for deferred tax assets related to debt instruments measured at fair value. Korean IFRS 1012 provides requirements on the recognition and measurement of current or deferred tax liabilities or assets. The amendments issued clarify the requirements on recognition of deferred tax assets for unrealized losses, to address diversity in practice.

- Amendments to Korean IFRS 1112 Disclosures of Interests in Other Entities

Amendments to Korean IFRS 1112 clarify when an entity's interest in a subsidiary, a joint venture or an associate is classified as held for sales in accordance with Korean IFRS 1105, the entity is required to disclose other information except for summarized financial information in accordance with Korean IFRS 1112.

(2) New standards, amendments and interpretations not yet adopted

Certain new accounting standards and interpretations that have been published that are not mandatory for annual reporting period commencing January 1, 2017 and have not been early adopted by the Company are set out below.

- Amendment to Korean IFRS 1040 Transfers of Investment Property

Paragraph 57 of Korean IFRS 1040 clarifies that a transfer to, or from, investment property, including property under construction, can only be made if there has been a change in use that is supported by evidence, and provides a list of circumstances as examples. The amendment will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Company does not expect the amendment to have a significant impact on the financial statements.

- Amendments to Korean IFRS 1102 Share-based Payment

Amendments to Korean IFRS 1102 clarify accounting for a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. Amendments also clarify that the measurement approach should treat the terms and conditions of a cash-settled award in the same way as for an equity-settled award. The amendments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Company does not expect the amendments to have a significant impact on the financial statements

- Enactments to Interpretation 2122 Foreign Currency Transaction 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 Company does not expect the enactments to have a significant impact on the financial statements.

- Enactment of Korean IFRS 1116 Leases

Korean IFRS 1116 Leases issued on May 22, 2017 is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. This standard will replace Korean IFRS 1017 Leases, Interpretation 2104 Determining whether an Arrangement contains a Lease, Interpretation 2015 Operating Leases-Incentives, and Interpretation 2027 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

At inception of a contract, the entity shall assess whether the contract is, or contains, a lease. Also, at the date of initial application, the entity shall assess whether the contract is, or contains, a lease in accordance with the standard. However, the entity will not need to reassess all contracts with applying the practical expedient because the entity elected to apply the practical expedient only to contracts entered before the date of initial application.

For a contract that is, or contains, a lease, the entity shall account for each lease component within the contract as a lease separately from non-lease components of the contract. A lessee is required to recognize a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. The lessee may elect not to apply the requirements to short-term lease (a lease term of 12 months or less at the commencement date) and low value assets (e.g. underlying assets below \$ 5,000). In addition, as a practical expedient, the lessee may elect, by class of underlying asset, not to separate non-lease components from lease components, and instead account for each lease component and any associated non-lease components as a single lease component.

(a) Lessee accounting

A lessee shall apply this standard to its leases either:

- retrospectively to each prior reporting period presented applying Korean IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors (Full retrospective application); or
- retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial application.

The Company has not yet elected the application method.

The Company performed an impact assessment to identify potential financial effects of applying Korean IFRS 1116. The assessment was performed based on available information as at December 31, 2017 to identify effects on 2017 financial statements. The Company is analyzing the effects on the financial statements; however, it is difficult to provide reasonable estimates of financial effects until the analyses is complete.

(b) Lessor accounting

The Company expects the effect on the financial statements applying the new standard will not be significant as accounting for the Company, as a lessor, will not significantly change.

- Korean IFRS 1109 Financial Instruments

The new standard for financial instruments issued on September 25, 2015 are effective for annual periods beginning on or after January 1, 2018 with early application permitted. This standard will replace Korean IFRS 1039 *Financial Instruments: Recognition and Measurement*. The Company will apply the standards for annual periods beginning on or after January 1, 2018.

The standard requires retrospective application with some exceptions. For example, an entity is not required to restate prior period in relation to classification and measurement (including impairment) of financial instruments. The standard requires prospective application of its hedge accounting requirements for all hedging relationships except the accounting for time value of options and other exceptions.

Korean IFRS 1109 *Financial Instruments* requires all financial assets to be classified and measured on the basis of the entity's business model for managing financial assets and the contractual cash flow characteristics of the financial assets. A new impairment model, an expected credit loss model, is introduced and any subsequent changes in expected credit losses will be recognized in profit or loss. Also, hedge accounting rules amended to extend the hedging relationship, which consists only of eligible hedging instruments and hedged items, qualifies for hedge accounting.

An effective implementation of Korean IFRS 1109 requires preparation processes including financial impact assessment, accounting policy establishment, accounting system development and the system stabilization. The impact on the Company's financial statements due to the application of the standard is dependent on judgements made in applying the standard, financial instruments held by the Company and macroeconomic variables. The following areas are likely to be affected in general with the implementation of Korean IFRS 1109. The Company is in preparation for analyzing the effects to the separate financial statement.

(a) Classification and Measurement of Financial Assets

When implementing Korean IFRS 1109, the classification of financial assets will be driven by the Company's business model for managing the financial assets and contractual terms of cash flow. The following table shows the classification of financial assets measured subsequently at amortized cost, at fair value through other comprehensive income and at fair value through profit or loss. For hybrid (combined) instruments, if the Company is unable to measure an embedded derivative separately from its host contract, financial assets with embedded derivatives are classified in their entirety.

| Business model for the contractual cash flows characteristics | Solely represent payments of principal and interest | All other |
|--|--|--|
| Hold the financial asset for the collection of the contractual cash flows | Measured at amortized cost ¹ | |
| Hold the financial asset for the collection of the contractual cash flows and sale | Recognized at fair value through other comprehensive income ¹ | Recognized at fair value through profit or loss ² |
| Hold for sale | Recognized at fair value through profit or loss | |

¹ A designation at fair value through profit or loss is allowed only if such designation mitigates an accounting mismatch (irrevocable).

² Equity investments not held for trading can be recorded in other comprehensive income (irrevocable).

With the implementation of Korean IFRS 1109, the criteria to classify the financial assets at amortized cost or at fair value through other comprehensive income are more strictly applied than the criteria applied with Korean IFRS 1039. Accordingly, the financial assets at fair value through profit or loss may increase by implementing Korean IFRS 1109 and may result an extended fluctuation in profit or loss.

As of December 31, 2017, the Company owns loan and trade receivables of $\forall 4,700,752$ million, financial assets available-for-sales of $\forall 64,916$ million.

According to Korean IFRS 1109, equity instruments that are not held for trading, the Company can make an irrevocable election at initial recognition to classify the instruments as assets measured at fair value through other comprehensive income, which all subsequent changes in fair value being recognized in other comprehensive income and not recycled to profit or loss. As at December 31, 2017, the Company holds equity instruments of \forall 60,016 million classified as financial assets available-for-sale.

According to Korean IFRS 1109, debt instruments those contractual cash flows do not represent solely payments of principal and interest and held for trading, and equity instruments that are not designated as instruments measured at fair value through other comprehensive income are measured at fair value through profit or loss.

(b) Impairment: Financial Assets and Contract Assets

Korean IFRS 1109 sets out a new forward looking 'expected loss' impairment model which replaces the incurred loss model under Korean IFRS 1039 and applies to:

- · Financial assets measured at amortized cost
- · Debt investments measured at fair value through other comprehensive income, and
- · Certain loan commitments and financial guaranteed contracts.

And the Company could recognize credit losses early in accordance with Korean IFRS 1039. The Company holds debt instrument of $\forall 4,700,752$ million (Loan and trade receivables of $\forall 4,700,752$ million). For this assets, the Company provides loss allowance of $\forall 449,920$ million.

(c) Hedge Accounting

Hedge accounting mechanics (fair value hedges, cash flow hedges and hedge of net investments in a foreign operations) required by Korean IFRS 1039 remains unchanged in Korean IFRS 1109, however, the new hedge accounting rules will align the accounting for hedging instruments more closely with the Company's risk management practices. As a general rule, more hedge relationships might be eligible for hedge accounting, as the standard introduces a more principles-based approach. Korean IFRS 1109 allows more hedging instruments and hedged items to qualify for hedge accounting, and relaxes the hedge accounting requirement by removing two hedge effectiveness tests that are a prospective test to ensure that the hedging relationship is expected to be highly effective and a quantitative retrospective test (within range of 80-125 %) to ensure that the hedging relationship has been highly effective throughout the reporting period. As of December 31, 2017, the Company applies the hedge accounting to its assets, liabilities that amount to \forall 7,389 million, \forall 81,200 million respectively.

- Korean IFRS 1115 Revenue from Contracts with Customers

The Company will apply Korean IFRS 1115 *Revenue from Contracts with Customers* issued on November 6, 2015 for annual reporting periods beginning on or after January 1, 2018, and earlier application is permitted. This standard replaces Korean IFRS 1018 *Revenue*, Korean IFRS 1011 *Construction Contracts*, Interpretation 2031 *Revenue-Barter Transactions Involving Advertising Services*, Interpretation 2113 *Customer Loyalty Programs*, Interpretation 2115 *Agreements for the Construction of Real Estate* and Interpretation 2118 *Transfers of assets from customers*. The Company must apply Korean IFRS 1115 *Revenue from Contracts with Customers* within annual reporting periods beginning on or after January 1, 2018, and will elect the modified retrospective approach which will recognize the cumulative impact of initially applying the revenue standard as an adjustment to retained earnings as at January 1 2018, the period of initial application.

The new standard is based on the principle that revenue is recognized when control of a good or service transfers to a customer so the notion of control replaces the existing notion of risks and rewards. A new five-step process must be applied before revenue from contract with customer can be recognized:

- · Identify contracts with customers
- · Identify the separate performance obligation
- · Determine the transaction price of the contract
- · Allocate the transaction price to each of the separate performance obligations, and
- · Recognize the revenue as each performance obligation is satisfied.

The Company formed a task force team since fourth quarter of 2014 for preparation of implementing Korean IFRS 1115 *Revenue from Contracts with Customers*. Also the Company develops the internal control system and implements accounting process system by analyzing the Company's revenue structure with accounting experts and IT specialists. Korean IFRS 1115 will affect not only accounting treatments but also the general business practice including sales strategy and operational structures. Therefore, the Company accomplished an orientation program for both Company's directors and employees, and periodically reported to the managements about implementation plan and progress.

As at the December 31, 2017, the Company is analyzing the effects on the financial statement with the implementation of Korean IFRS 1115. The Company plans to perform detailed analysis on financial effects of applying the standard until March 31, 2018 and will disclose the result of the analysis in the notes on the consolidated financial statement as of March 31, 2018. The Company identified the following areas are likely to be affected in general.

(a) Identifying performance obligations

The Company provides telecommunication services and sells handsets as their main business. With the implementation of Korean IFRS 1115, the Company identifies performance obligations with a customer such as providing telecommunication services, selling handsets and other. The timing of revenue recognition depends on a performance obligation is satisfied at a point in time or over time. Where a performance obligation is satisfied over time, the related revenue is also recognized over time

(b) Allocation the transaction price and Revenue recognition

With the implementation of Korean IFRS 1115, the Company allocates the transaction price to each performance obligation identified in the contract based on a relative stand-alone selling prices of the goods or services being provided to the customer. To allocate the transaction price to each performance obligation on a relative stand-alone price basis, the Company determines the stand-alone selling price at contract inception of the distinct good or service underlying each performance obligation in the contract and allocate the transaction price in proportion to those stand-alone selling price. The stand-alone selling price is the price at which the Company would sell a promised good or service separately to the customer. The best evidence of a stand-alone selling price is the observable price of a good or service when the Company sells that good or service separately in similar circumstances and to similar customers. The Company recognizes the allocated amount as contract assets or contract liabilities, and amortizes it through the remaining period which is adjusted in operating income.

(c) Incremental contract acquisition costs

The Company pays the commission fees when new customer subscribe for telecommunication services. The incremental contract acquisition costs are those commission fess that the Company incurs to acquire a contract with a customer that it would not have incurred if the contract had not been acquired.

According to Korean IFRS 1115, the Company recognizes as an asset the incremental contract acquisition costs and amortize it over the expected period of benefit. However, as a practical expedient, the Company may recognize the incremental contract acquisition costs as an expense when incurred if the amortization period of the asset is one year or less.

With implementation of Korean IFRS 1115, the Company's operating income and expenses are expected to be decreased.

2.3 Subsidiaries, Associates and Joint ventures

The financial statements of the Company are the separate financial statements based on Korean IFRS 1027 Separate Financial Statements. Investments in subsidiaries, joint ventures, and associates are recognized at cost under the direct equity method. Management applied the carrying amounts under the previous K-GAAP at the time of first adoption of the Korean IFRS as deemed cost of investments. The Company recognizes dividend income from subsidiaries, jointly controlled entities or associates in profit or loss when its right to receive dividend is established.

2.4 Foreign Currency Translation

(1) Functional and presentation currency

Items included in the financial statements of the Company are measured using the currency of the primary economic environment in which the Company operates (the 'functional currency'). The separate financial statements are presented in Korean won, which is the Company's functional and presentation currency.

(2) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognized in profit or loss.

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary assets and liabilities such as equities held at fair value through profit or loss are recognized in profit or loss as part of the fair value gain or loss and translation differences on non-monetary assets such as equities classified as available-for-sale financial assets are recognized in other comprehensive income.

2.5 Cash and Cash Equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks, and other short-term highly liquid investments with original maturities of less than three months.

2.6 Financial Assets

(1) Classification and measurement

The Company classifies its financial assets in the following categories: financial assets at fair value through profit or loss, available-for-sale financial assets, loans and receivables, and held-to-maturity financial assets. Regular way purchases and sales of financial assets are recognized on trade-date, the date on which the Company commits to purchase or sell the asset.

The Company may designate the entire hybrid (combined) contract as a financial asset at fair value through profit or loss for a contract that contains one or more embedded derivatives.

At initial recognition, the Company measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss. Available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. And, loans and receivables and held-to-maturity investments are subsequently carried at amortized cost using the effective interest method.

Gains or losses arising from changes in the fair value of financial assets at fair value through profit or loss are recognized in profit or loss within other income or other expenses. Gains or losses arising from changes in the available-for-sale financial assets are recognized in other comprehensive income, and amounts are reclassified to profit or loss when the associated assets are sold or impaired.

(2) Impairment

The Company assesses at the end of each reporting period whether there is objective evidence that a financial asset or a Company of financial assets is impaired. A financial asset or a Company of financial assets is impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or a Company of financial assets that can be reliably estimated.

Impairment of loans and receivables is presented as a deduction in an allowance account. Impairment of other financial assets is directly deducted from their carrying amount. The Company writes off financial assets when the assets are determined to be no longer recoverable.

The criteria that the Company uses to determine that there is objective evidence of an impairment loss include:

- · Significant financial difficulty of the issuer or obligor;
- A breach of contract, such as a default or delinquency in interest or principal payments;
- For economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider;
- It becomes probable that the borrower will enter bankruptcy or other financial reorganization;
- The disappearance of an active market for that financial asset because of financial difficulties;
 or
- Observable data indicating that there is a measurable decrease in the estimated future cash flows from a portfolio of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the portfolio.

(3) Derecognition

If the Company transfers a financial asset and the transfer does not result in derecognition because the Company has retained substantially of all risks and rewards of ownership of the transferred asset due to a recourse in the event the debtor defaults, the Company continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received. The related financial liability is classified as 'borrowings' in the statement of financial position.

(4) Offsetting of financial instruments

Financial assets and liabilities are offset and the net amount reported in the statements of financial position where there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the assets and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterparty.

2.7 Derivative Instruments

Derivatives are initially recognized at fair value on the date when a derivative contract is entered into and are subsequently remeasured at their fair value. Changes in the fair value of the derivatives that are not qualified for hedge accounting are recognized in the statement of profit or loss within 'other income (expenses)' and 'finance income (expenses)' according to the nature of transactions.

If the Company uses a valuation technique that incorporates data not obtained from observable markets for the fair value at initial recognition of the financial instrument, there may be a difference between the transaction price and the amount determined using that valuation technique (Day 1 profit and loss). In these circumstances, the fair value of the financial instrument is recognized as the transaction price and the difference is amortized by using the straight-line method over the life of the financial instrument. If the fair value of the financial instrument is subsequently determined using observable market inputs, the remaining deferred amount is recognized in profit or loss in the statement of profit or loss.

The Company applies cash flow hedge accounting to hedge the risks of foreign exchange and interest rates of the variable rate foreign currency bonds. The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately as finance income (expenses) in the statement of profit or loss. Amounts of changes in fair value of effective hedging instruments accumulated in other comprehensive income are recognized as 'finance income (expenses)' for the periods when the corresponding transactions affect profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that is reported in other comprehensive income is recognized as 'finance income (expenses)'.

2.8 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the moving average method, except for inventories in-transit which is determined using the specific identification method.

2.9 Non-current Assets (or Disposal Group) Held-for-sale

Non-current assets (or disposal group) are classified as assets held-for-sale when their carrying amount is to be recovered principally through a sale transaction and a sale is considered highly probable. The assets are measured at the lower amount between their carrying amount and the fair value less costs to sell.

2.10 Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. Historical cost includes expenditures that is directly attributable to the acquisition of the items.

Depreciation of all property, plant and equipment, except for land, is calculated using the straight-line method to allocate their cost, net of their residual values, over their estimated useful lives, as follows:

| | | Estimated Useful Life |
|--------------|------------------|-----------------------|
| Buildings | | 10 – 40 years |
| Structures | | 10 – 40 years |
| Telecommunic | ations equipment | 2 – 40 years |
| | Vehicles | 4 years |
| Others | Tools | 4 years |
| | Office equipment | 2 – 4 years |

The depreciation method, residual values and useful lives of property and equipment are reviewed at the end of each reporting period and, if appropriate, accounted for as changes in accounting estimates.

2.11 Investment Property

Investment property is a property held to earn rentals or for capital appreciation or both. An investment property is measured initially at its cost. After recognition as an asset, investment property is carried at cost less accumulated depreciation and impairment losses. Investment property, except for land, is depreciated using the straight-line method over their useful lives from 10 to 40 years.

2.12 Intangible Assets

(1) Goodwill

Goodwill represents the excess of the aggregate of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition date fair value of the Company's previously held equity interest in the acquiree over the net acquired identifiable assets at the date of acquisition. Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the CGUs, or group of CGUs, that is expected to benefit from the synergies of the combination. Goodwill is monitored at the operating segment level.

Goodwill impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment. The carrying amount of goodwill is compared to the recoverable amount, which is the higher of value in use and the fair value less costs to sell. Any impairment is recognized immediately as an expense and is not subsequently reversed.

(2) Intangible assets, except for goodwill

Intangible assets, except for goodwill, are initially recognized at its historical cost, and carried at cost less accumulated amortization and accumulated impairment losses. Membership rights (condominium membership and golf membership) and broadcast rights that have an indefinite useful life are not subject to amortization because there is no foreseeable limit to the period over which the assets are expected to be utilized. The Company amortizes intangible assets with a limited useful life using the straight-line method over the following periods:

| | Estimated Useful Life |
|----------------------------|------------------------|
| Development costs | 6 years |
| Goodwill | indefinite useful life |
| Software | 6 years |
| Industrial property rights | 5 – 50 years |
| Frequency usage rights | 5 – 10 years |
| Others ¹ | 2 – 50 years |

¹ Membership rights (condominium membership and golf membership) included in others are classified as intangible assets with indefinite useful life.

2.13 Borrowing Costs

General and specific borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalized during the period of time that is required to complete and prepare the asset for its intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. Other borrowing costs are expensed in the period in which they are incurred.

2.14 Government Grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Company will comply with all attached conditions. Government grants related to assets are presented in the statement of financial position by setting up the grant as deferred income that is recognized in profit or loss on a systematic basis over the useful life of the asset. Grants related to income are presented as a credit in the statement of profit or loss within 'other income'.

2.15 Impairment of Non-financial Assets

Goodwill and intangible assets that have an indefinite useful life are not subject to amortization and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. Non-financial assets, other than goodwill, that suffered impairment are reviewed for possible reversal of the impairment at the end of reporting period.

2.16 Financial Liabilities

(1) Classification and measurement

Financial liabilities at fair value through profit or loss are financial instruments held for trading. Financial liabilities are classified in this category if incurred principally for the purpose of repurchasing them in the near term. Derivatives that are not designated as hedges or bifurcated from financial instruments containing embedded derivatives are also categorized as held-for-trading.

The Company classifies non-derivative financial liabilities, except for financial liabilities at fair value through profit or loss, financial guarantee contracts and financial liabilities that arise when a transfer of financial assets does not qualify for derecognition, as financial liabilities carried at amortized cost and presented as 'trade and other payables', 'borrowings', and 'other financial liabilities' in the statement of financial position.

(2) Derecognition

Financial liabilities are removed from the statement of financial position when it is extinguished, for example, when the obligation specified in the contract is discharged or cancelled or expired or when the terms of an existing financial liability are substantially modified.

2.17 Employee Benefits

(1) Post-employment benefits

The Company operates both defined benefit and defined contribution plans.

A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate entity. The contributions are recognized as employee benefit expenses when an employee has rendered service.

A defined benefit plan is a pension plan that is not a defined contribution plan. Generally, postemployment benefits are payable after the completion of employment, and the benefit amount depended on the employee's age, periods of service or salary levels. The liability recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries 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 that have terms approximating to the terms of the related obligation. Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in the period in which they occur, directly in other comprehensive income.

Changes in the present value of the defined benefit obligation resulting from plan amendments or curtailments are recognized immediately in profit or loss as past service costs.

(2) Termination benefits

Termination benefits are payable when employment is terminated by the Company before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Company recognizes termination benefits at the earlier of the following dates: when the entity can no longer withdraw the offer of those benefits or when the entity recognizes costs for a restructuring.

2.18 Share-based Payments

Equity-settled share-based payment is recognized at fair value of equity instruments on grant date, and employee benefit expense is recognized over the vesting period. At the end of each period, the Company revises its estimates of the number of options that are expected to vest based on the nonmarket vesting and service conditions. It recognizes the impact of the revision to original estimates, if any, in profit or loss, with a corresponding adjustment to equity.

2.19 Provisions

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation, and the increase in the provision due to passage of time is recognized as interest expense.

2.20 Leases

A lease is an agreement, whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. Leases where all the risks and rewards of ownership are not transferred to the Company are classified as operating leases. Lease payments under operating leases are recognized as expenses on a straight-line basis over the lease term.

Leases where the Company has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalized as lease assets and liabilities at the lease's inception at the fair value of the leased property or, if lower, the present value of the minimum lease payments.

2.21 Share Capital

The Company classifies ordinary shares as equity.

Where the Company purchases its own shares, the consideration paid including any directly attributable incremental costs is deducted from equity attributable to the equity holders of the Company until the share are cancelled or reissued. When these treasury shares are reissued, any consideration received is including in equity attributable to the equity holders of the Company.

2.22 Revenue Recognition

Revenue is measured at the fair value of the consideration received or receivable for the sale of goods or rendering of services arising from the normal activities of the Company. Amounts disclosed as revenue are net of value added taxes, returns, rebates and discounts and after elimination of intracompany transactions.

The Company recognizes revenue when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the Company; and when specific criteria have been met for each of the Company's activities, as described below. The Company bases its estimate on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

(1) Rendering services

When providing interconnection or telecommunications service to a customer based on service plans, the related revenue is recognized at the time service is provided. If the customer uses the telecommunications equipment according to the service plans, the related revenue is recognized on straight-line basis over the contract period. Revenue related to the other telecommunications services is recognized when the service is provided to the customer.

For other services, when the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with such a transaction is recognized by reference to the stage of performance of the services. When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognized only to the extent of the expenses recognized that are recoverable.

Total consideration for combined services is allocated to each service in proportion to its fair value and the allocated amount is recognized as revenue according to revenue recognition policy for the service.

(2) Sales of goods

The Company sells a range of handsets. Revenue from the sale of goods is recognized when products are delivered to the purchaser.

(3) Interest income

Interest income is recognized using the effective interest method according to the time passed. When a loan and receivable is impaired, the Company reduces the carrying amount to its recoverable amount and continues unwinding the discount as interest income. Interest income on impaired loans and receivables is recognized using the original effective interest rate.

(4) Royalty income

Royalty income is recognized on an accrual basis in accordance with the substance of the relevant agreements.

(5) Dividend income

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

(6) Customer loyalty program

The Company operates a customer loyalty program where customers accumulate points for purchases made which entitle them to discounts on future purchases. The reward points are recognized as a separately identifiable component of the initial sale transaction. The fair value of the consideration received or receivable in respect of the initial sale is allocated between the reward points and the other components of the sale. The fair value of the reward points is measured by taking into account the proportion of the reward points that are not expected to be redeemed by customers. Revenue from the reward points is recognized when the points are redeemed.

2.23 Current and Deferred Income Tax

The tax expense for the period consists of current and deferred tax. Tax is recognized on the profit for the period in the statement of profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively. The tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period.

Management periodically evaluates tax policies that are applied in tax returns in which applicable tax regulation is subject to interpretation. The Company recognizes current income tax on the basis of the amount expected to be paid to the tax authorities.

Deferred tax is recognized for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts as expected tax consequences at the recovery or settlement of the carrying amounts of the assets and liabilities. However, deferred tax assets and liabilities are not recognized if they arise from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

Deferred tax assets are recognized only if it is probable that future taxable amount will be available to utilize those temporary differences and losses.

Deferred tax liability is recognized for taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint ventures, except to the extent that the Company 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. In addition, deferred tax asset is recognized for deductible temporary differences arising from such investments to the extent that it is probable the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

The Company adopts the consolidated corporate tax return and calculates income tax expenses and income tax liabilities of the Company and its subsidiaries based on systematic and reasonable methods.

2.24 Dividend

Dividend distribution to the Company's shareholders is recognized as a liability in the financial statements in the period in which the dividends are approved by the Company's shareholders.

2.25 Approval of Issuance of the Financial Statements

The issuance of the December 31, 2017 separate financial statements of the Company was approved by the Board of Directors on February 6, 2018, which is subject to change with approval at the annual shareholders' meeting.

3. Critical Accounting Estimates and Assumptions

The Company makes estimates and assumptions concerning the future. The estimates and assumptions are continuously evaluated with consideration to factors such as events reasonably predictable in the foreseeable future within the present circumstance according to historical experience. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

3.1 Impairment of Goodwill

The Company tests whether goodwill has suffered any impairment on an annual basis. The recoverable amounts of cash-generating units (CGUs) is determined based on value-in-use calculations (Note 12).

3.2 Income Taxes

The Company is operating in numerous countries and the income generated from these operations is subject to income taxes based on tax laws and interpretations of tax authorities in numerous jurisdictions. There are many transactions and calculations for which the ultimate tax determination is uncertain.

If certain portion of the taxable income is not used for investments or increase in wages or dividends in accordance with the Tax System For Recirculation of Corporate Income, the Company is liable to pay additional income tax calculated based on the tax laws. The new tax system is effective for three years from 2015. Accordingly, the measurement of current and deferred income tax is affected by the tax effects from the new system. As the Company's income tax is dependent on the investments, increase in wages and dividends, there is an uncertainty in measuring the final tax effects.

3.3 Fair Value of Derivatives and Other Financial Instruments

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Company uses its judgment to select a variety of methods and makes assumptions that are mainly based on market conditions existing at the end of each reporting period (Note 36).

3.4 Provision for Impairment

The Company recognizes provisions for accounting of estimated loss in customers' insolvency. When the provision for impairment is estimated, it is based on the aging analysis of trade receivables balances, incurred loss experience, customers' credit rates and changes of payment terms. If the customer's financial position becomes worse, the actual loss amount will be increased more than the estimated.

3.5 Net defined benefit liability

The present value of net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate (Note 17).

3.6 Deferred Revenue

Service installation fees and initial subscription fees related to activation of service are deferred and recognized as revenue over the expected periods of customer relationships. The estimate of the expected terms of customer relationship is based on the historical data. If management's estimate changes, it may cause significant differences in the timing of revenue recognition and amounts recognized.

3.7 Provisions

As described in Note 16, the Company records provisions for litigation and assets retirement obligations at the end of the reporting period. The provisions are estimated based on the factors such as the historical experiences.

3.8 Useful Lives of Property and Equipment and Investment Property

The property and equipment, intangible assets, and investment properties, excluding land, goodwill, condominium memberships and golf club memberships, are depreciated using the straight-line method over their useful lives. The estimated useful lives are determined based on expected usage of the assets and the estimates can be materially affected by technical changes and other factors. The Company will increase depreciation expenses if the useful lives are considered shorter than the previously estimated useful lives.

4. Financial Instruments by Category

Financial instruments by category as of December 31, 2017 and 2016, are as follows:

| | Leen | | | | | | | | | | | | | |
|-----------------------------|--------------------------|---------------|-------------------------------|------------------------|----------|---------------|---|-----------|-------|--|----------|-------------|---|------|
| Financial assets | Loans and receivables | | Derivatives used for hedge | | | | | | Avail | | Availabl | e -for-sale | Т | otal |
| Cash and cash equivalents | ₩ | 1,166,402 | ₩ | - | ₩ | - | ₩ | 1,166,402 | | | | | | |
| Trade and other receivables | | 3,475,985 | | - | | - | | 3,475,985 | | | | | | |
| Other financial assets | | 58,365 | | 7,389 | | 64,916 | | 130,670 | | | | | | |
| (in millions of Korean won) | | | De | ecember 3 [°] | I, 2017 | | | | | | | | | |
| | Liabilities a | at fair value | Derivatives | used for | Financia | I liabilities | | | | | | | | |
| Financial liabilities | through pro | ofit and loss | hedg | ge | at amor | tized cost | Т | otal | | | | | | |
| Trade and other payables | ₩ | - | ₩ | - | ₩ | 5,067,713 | ₩ | 5,067,713 | | | | | | |
| Borrowings | | - | | - | | 6,212,934 | | 6,212,934 | | | | | | |
| Other financial liabilities | | 5,051 | | 81,200 | | - | | 86,251 | | | | | | |
| (in millions of Korean won) | | | De | cember 31 | l, 2016 | | | | | | | | | |
| | Loan | s and | Derivatives | used for | | | | | | | | | | |
| Financial assets | receiv | ables | hed | ge | Availabl | e -for-sale | Т | otal | | | | | | |
| Cash and cash equivalents | ₩ | 1,602,397 | ₩ | - | ₩ | - | ₩ | 1,602,397 | | | | | | |
| Trade and other receivables | | 3,212,206 | | - | | - | | 3,212,206 | | | | | | |
| Other financial assets | | 168,366 | | 214,648 | | 105,376 | | 488,390 | | | | | | |
| (in millions of Korean won) | December 31, 2016 | | | | | | | | | | | | | |
| | Liabilities a | t fair value | Derivatives | used for | Financia | I liabilities | | | | | | | | |
| Financial liabilities | through pro | fit and loss | hedg | ge | at amor | tized cost | Т | otal | | | | | | |
| Trade and other payables | ₩ | - | ₩ | - | ₩ | 5,316,830 | ₩ | 5,316,830 | | | | | | |
| Borrowings | | - | | - | | 7,569,047 | | 7,569,047 | | | | | | |
| Other financial liabilities | | 1,973 | | 11,413 | | - | | 13,386 | | | | | | |

Gains and losses arising from financial instruments by category for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | 2016 |
|---------------------------------------|----------|----------|
| Loans and receivables | | |
| Interest income | ₩ 72,384 | ₩ 98,170 |
| Loss on valuation | (32,728) | (81,059) |
| Gain on foreign currency transactions | (1,424) | 4,532 |
| Gain on foreign currency translation | (11,751) | 9,271 |
| Loss on disposal | (19,389) | (15,838) |
| Derivative used for hedge | | |
| Loss on transactions | (58,569) | - |
| Gain on valuation | (63,640) | 92,752 |

| Other comprehensive income for the year ¹ | (44,429) | | 60,391 |
|---|-------------|---|-----------|
| Reclassified to profit of loss from other comprehensive income for the year ^{1,2} | 50,231 | | (71,915) |
| Available -for-sale | | | |
| Interest income | 272 | | 90 |
| Dividend income | 2 | | 198 |
| Gain on disposal | 4,690 | | 22,326 |
| Impairment loss | (9) | | - |
| Other comprehensive income for the year ¹ | (5) | | (164) |
| Reclassified to profit or loss from other comprehensive income for the year ¹ | - | | (2,941) |
| Financial liability at fair value through profit or loss | | | |
| Gain (loss) on valuation | (3,078) | | 33 |
| Derivatives used for hedging | | | |
| Gain (loss) on transactions | - | | 8,329 |
| Gain on valuation | (123,828) | | 4,406 |
| Other comprehensive income for the year ¹ | (66,906) | | 3,764 |
| Reclassified to profit or loss from other comprehensive income for the year ^{1, 2} | 91,698 | | (3,956) |
| Financial liabilities at amortized cost | | | |
| Interest expense ³ | (282,243) | | (318,926) |
| Loss on foreign currency transactions | 58,713 | | (6,302) |
| Loss on foreign currency translation | 200,833 | | (112,076) |
| Total | ₩ (229,176) | ₩ | (308,915) |
| | | | |

¹ The amounts directly reflected in equity after adjustments of deferred income tax.

² During the current and previous year, certain derivatives of the Company were settled and the related gain or loss on valuation of cash flow hedge in other comprehensive income was reclassified to profit or loss for the year.

³ The amounts reflected as interest expense arising from derivatives.

5. Cash and Cash Equivalents

Restricted cash and cash equivalents as of December 31, 2017 and 2016, are as follows:

| | Decer | nber 31, | Decen | nber 31, | | |
|-----------------------------|-------|----------|-------|----------|---|--|
| (in millions of Korean won) | 2 | 017 | 2016 | | Description | |
| Bank deposits | ₩ | 16.182 | ₩ | 19.809 | Deposit restricted for government project | |
| Dank deposits | •• | 10,102 | •• | 10,000 | and other. | |

Cash and cash equivalents in the statement of financial position equal to cash and cash equivalents in the statement of cash flows.

6. Trade and Other Receivables

Trade and other receivables as of December 31, 2017 and 2016, are as follows:

| | December 31, 2017 | | | | | |
|--|-------------------|-----------------------------|---------------------------|--------------------|--|--|
| (in millions of Korean won) Current assets | Total amounts | Provision for impairment | Present value discount | Carrying amount | | |
| Trade receivables | ₩ 2,875,629 | ₩ (403,512) | ₩ (7,265) | ₩ 2,464,852 | | |
| Other receivables | 321,683 | (46,089) | (132) | 275,462 | | |
| Total | ₩ 3,197,312 | ₩ (449,601) | ₩ (7,397) | ₩ 2,740,314 | | |
| Non-current assets | | | | | | |
| Trade receivables | ₩ 345,485 | ₩ (296) | ₩ (11,483) | ₩ 333,706 | | |
| Other receivables | 427,393 | (23) | (25,405) | 401,965 | | |
| Total | ₩ 772,878 | ₩ (319) | ₩ (36,888) | ₩ 735,671 | | |

| | December 31, 2016 | | | | | | |
|--|-------------------|-----------------------------|---------------------------|--------------------|--|--|--|
| <i>(in millions of Korean won)</i> Current assets | Total amounts | Provision for impairment | Present value discount | Carrying amount | | | |
| Trade receivables | ₩ 2,734,325 | ₩ (433,072) | ₩ (4,640) | ₩ 2,296,613 | | | |
| Other receivables | 396,281 | (102,504) | (229) | 293,548 | | | |
| Total | ₩ 3,130,606 | ₩ (535,576) | ₩ (4,869) | ₩ 2,590,161 | | | |
| Non-current assets | | | | | | | |
| Trade receivables | ₩ 225,712 | ₩ (296) | ₩ (10,874) | ₩ 214,542 | | | |
| Other receivables | 433,376 | (23) | (25,850) | 407,503 | | | |
| Total | ₩ 659,088 | ₩ (319) | ₩ (36,724) | ₩ 622,045 | | | |

The fair values of trade and other receivables with original maturities less than one year equal to their carrying amount because the discounting effect is immaterial. The fair value of trade and other receivables with original maturities longer than one year, which are mainly from sales of goods, is determined discounting the expected future cash flow at the weighted average interest rate.

Details of changes in provision for impairment for the years ended December 31, 2017 and 2016, are as follows:

| <u>-</u> | 201 | 7 | 2016 | | | |
|-----------------------------|-------------|-------------|-------------|-------------|--|--|
| (in millions of Korean won) | Trade | Other | Trade | Other | | |
| | receivables | receivables | receivables | receivables | | |
| Beginning | ₩ 433,368 | ₩ 102,527 | ₩ 428,775 | ₩ 200,790 | | |
| Provision | 32,631 | 97 | 74,891 | 6,168 | | |
| Reversal or write-off | (62,191) | (56,512) | (70,298) | (104,431) | | |
| Ending | ₩ 403,808 | ₩ 46,112 | ₩ 433,368 | ₩ 102,527 | | |

Provision for impairment on trade and other receivables is recognized as operating expenses, other expenses and finance costs.

Details of aging analysis of trade receivables as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|--------------------------------|-------------------|-------------------|
| Neither past due nor impaired | ₩ 2,504,670 | ₩ 2,169,427 |
| Past due and impaired | | |
| Up to 6 months | 466,920 | 476,765 |
| 6 months to 12 months | 58,456 | 69,908 |
| Over 12 months | 172,320 | 228,423 |
| | 697,696 | 775,096 |
| Less: Provision for impairment | (403,808) | (433,368) |
| Total | ₩ 2,798,558 | ₩ 2,511,155 |

Details of other receivables as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|--------------------------------|-------------------|-------------------|
| Loans | ₩ 73,080 | ₩ 73,682 |
| Receivables | 297,632 | 367,947 |
| Accrued income | 2,492 | 3,421 |
| Refundable deposits | 349,922 | 358,131 |
| Others | 413 | 397 |
| Less: Provision for impairment | (46,112) | (102,527) |
| Total | ₩ 677,427 | ₩ 701,051 |

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|--------------------------------|-------------------|-------------------|
| Neither past due nor impaired | ₩ 603,114 | ₩ 648,659 |
| Past due and impaired | | |
| Up to 6 months | 61,956 | 59,282 |
| 6 months to 12 months | 14,092 | 6,473 |
| Over 12 months | 44,377 | 89,164 |
| | 120,425 | 154,919 |
| Less: Provision for impairment | (46,112) | (102,527) |
| Total | ₩ 677,427 | ₩ 701,051 |

Details of aging analysis of other receivables as of December 31, 2017 and 2016, are as follows:

The maximum exposure of trade and other receivables to credit risk is the carrying amount of each class of receivables mentioned above as of December 31, 2017.

7. Other Financial Assets and Liabilities

Details of other financial assets and liabilities as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|---|-------------------|-------------------|
| Other financial assets | | |
| Derivatives used for hedge | ₩ 7,389 | ₩ 214,648 |
| Financial instruments ¹ | 58,365 | 168,366 |
| Available-for-sale financial assets | 64,916 | 105,376 |
| Less: Non-current | (75,896) | (198,777) |
| Current | ₩ 54,774 | ₩ 289,613 |
| Other financial liabilities | | |
| Financial liabilities at fair value through profit and loss | ₩ 5,051 | ₩ 1,973 |
| Derivatives used for hedge | 81,200 | 11,413 |
| Less: Non-current | (53,145) | ₩ (13,386) |
| Current | ₩ 33,106 | ₩ - |

¹ As of December 31, 2017, the Company's financial instruments amounting to $\forall 8,365$ million (December 31, 2016: $\forall 8,366$ million), which consist of certain proceeds from the disposal of Ustream Inc. deposited in an escrow account, checking account deposits, and deposits for Win-win Growth Cooperative loans, are subject to withdrawal restrictions.

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

| <i>(in millions of Korean won)</i> Financial liabilities held for trading | December 31, 2017 | December 31, 2016 |
|--|-------------------|-------------------|
| Other derivatives | ₩ 5,051 | ₩ 1,973 |
| Total | ₩ 5,051 | ₩ 1,973 |

The valuation gains and losses on financial liabilities at fair value through profit or loss for the years ended December 31, 2017 and 2016, are as follows:

| | 2017 | | | 2016 | | | | |
|-------------------------------|-------------|------|----------|----------|-----------|-------|-------------|-------|
| (in millions of Korean won) | Valuation g | ains | Valuatio | n losses | Valuation | gains | Valuation I | osses |
| Other derivatives liabilities | ₩ | - | ₩ | 3,078 | ₩ | 33 | ₩ | - |
| Total | ₩ | - | ₩ | 3,078 | ₩ | 33 | ₩ | - |

Derivatives used for hedge as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | | | | December 31, 2016 | | | |
|-----------------------------|-------------------|---------|------|----------|-------------------|----------|------|----------|
| | Ass | ets | Liab | ilities | A | ssets | Liab | ilities |
| Currency swap ¹ | ₩ | 7,389 | ₩ | 81,200 | ₩ | 214,648 | ₩ | 11,413 |
| Less: Non-current | | (4,675) | | (48,094) | | (87,095) | | (11,413) |
| Current | ₩ | 2,714 | ₩ | 33,106 | ₩ | 127,553 | ₩ | - |

¹ The currency swap contract is entered to hedge debentures cash flow fluctuation risk arising from fluctuation of interest rate and exchange rate, and the maximum expected period exposed to cash flow fluctuation risk due to the forecast transactions subject to hedge is September 7, 2034.

The full fair value of a hedging derivative is classified as a non-current asset or liability if the remaining maturity of the hedged item is more than 12 months and, as a current asset or liability, if the maturity of the hedged item is less than 12 months.

The valuation gains and losses on the derivatives contracts for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of | | | | | | |
|---------------------|-----------|-----------|---------------------|----------|-----------|---------------------|
| Korean won) | 2017 | | | | 2016 | |
| | Valuation | Valuation | | | Valuation | Other |
| | gain | loss | | | loss | comprehensive |
| Type of Transaction | | | income ¹ | | | income ¹ |
| Currency swap | ₩ - | ₩ 187,468 | ₩ (146,881) | ₩ 97,158 | ₩ - | ₩ 84,636 |

¹ Before adjustment of deferred income tax directly reflected in equity.

The Company recognized valuation loss of $\forall 2,018$ million (2016: valuation gain $\forall 1,432$ million) for the year ended December 31, 2017, as the ineffective portion of cash flow hedge in the statement of profit or loss.

Details of available-for-sale financial assets as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|----------------------------------|-------------------|-------------------|
| Marketable equity securities | ₩ | 35 ₩ 93 |
| Non-marketable equity securities | 59,9 | 31 98,083 |
| Debt securities | 4,9 | 7,200 |
| Less : Non-current | (64,91 | 6) (105,376) |
| Current | ₩ | - \ \ - |

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

| (in millions of Korean won) | 2017 | 2016 |
|-----------------------------|-----------|-----------|
| Beginning | ₩ 105,376 | ₩ 75,170 |
| Acquisition | 3,776 | 41,757 |
| Disposal | (4,721) | (11,741) |
| Valuation ¹ | (6) | (215) |
| Impairment | (9) | - |
| Reclassification | (39,500) | 405 |
| Ending | ₩ 64,916 | ₩ 105,376 |

¹ Before adjustment of deferred income tax directly reflected in equity.

The maximum exposure of debt securities of available-for-sale financial assets to credit risk is the carrying amount as of December 31, 2017.

Available-for-sale financial assets are measured at fair value. However, non-marketable equity securities that do not have quoted market prices in an active market and the fair value of which cannot be reliably measured are recognized at cost. When the reasonably estimated recoverable amounts of non-marketable securities are less than the carrying amounts, impairment loss is recognized.

Investment in Korea Software Financial Cooperative amounting to $\forall 1,000$ million is provided as collateral for payment guarantees provided by Korea Software Financial Cooperative (Note 19).

8. Inventories

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

| | | De | ecem | cember 31, 2017 | | | | December 31, 2016 | | | | |
|-----------------|-----|-----------|------|-----------------|---|---------|-----|-------------------|----|----------|---|---------|
| (in millions of | Aco | quisition | Va | aluation | | Book | Ace | quisition | V | aluation | I | Book |
| Korean won) | | cost | al | lowance | а | mount | | cost | al | lowance | a | mount |
| Merchandise | ₩ | 284,090 | ₩ | (51,844) | ₩ | 232,246 | ₩ | 219,535 | ₩ | (41,439) | ₩ | 178,096 |

Cost of inventories recognized as expenses for the years ended December 31, 2017 and 2016 amount to $\forall 3,363,690$ million and $\forall 3,074,569$ million, respectively. Additionally, valuation loss on inventory amounts to $\forall 10,405$ million for the years ended December 31, 2017 and reversal of valuation loss on inventory amounts to $\forall 18,466$ million for the years ended December 31, 2016.

9. Other Assets and Liabilities

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

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 | | |
|-----------------------------|-------------------|-------------------|--|--|
| Other assets | | | | |
| Advance payments | ₩ 55,242 | ₩ 59,170 | | |
| Prepaid expenses | 147,923 | 158,149 | | |
| Less: Non-current | (27,952) | (26,507) | | |
| Current | ₩ 175,213 | ₩ 190,812 | | |
| Other liabilities | | | | |
| Advances received | ₩ 60,938 | ₩ 81,565 | | |
| Withholdings | 21,210 | 19,835 | | |
| Unearned revenue | 14,072 | 14,564 | | |
| Less: Non-current | (19,492) | (21,305) | | |
| Current | ₩ 76,728 | ₩ 94,659 | | |

10. Property and Equipment

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

| (in millions of Korean won) | 2017 | | | | | | | |
|--|-----------|-------------|--------------|-------------|---------------|--------------|--|--|
| | | Buildings | Telecommuni- | | | | | |
| | | and | cations | | Construction | | | |
| | Land | structures | equipment | Others | - in-progress | Total | | |
| Acquisition cost | ₩ 912,387 | ₩ 2,928,545 | ₩ 33,472,178 | ₩ 1,434,494 | ₩ 678,425 | ₩ 39,426,029 | | |
| Less: Accumulated depreciation | | | | | | | | |
| (including accumulated impairment loss | (131) | (1,355,088) | (25,007,058) | (1,101,938) | (621) | (27,464,836) | | |
| and others) | | | | | . <u> </u> | | | |
| Beginning, net | ₩ 912,256 | ₩ 1,573,457 | ₩ 8,465,120 | ₩ 332,556 | ₩ 677,804 | ₩ 11,961,193 | | |
| Acquisition and capital expenditure | 1,948 | 16 | 202,058 | 103,321 | 2,087,248 | 2,394,591 | | |
| Disposal and termination | (568) | (957) | (170,307) | (6,380) | (3,086) | (181,298) | | |
| Depreciation | - | (102,036) | (2,289,316) | (110,984) | - | (2,502,336) | | |
| Transfer to investment properties | 26,763 | 25,306 | 1,735,479 | 4,486 | (2,088,215) | (296,181) | | |
| Others | (1,863) | (703) | 1,609 | 35 | | (922) | | |
| Ending, net | ₩ 938,536 | ₩ 1,495,083 | ₩ 7,944,643 | ₩ 323,034 | ₩ 673,751 | ₩ 11,375,047 | | |
| Acquisition cost | ₩ 938,667 | ₩ 2,954,300 | ₩ 33,910,943 | ₩ 1,453,205 | ₩ 674,864 | ₩ 39,931,979 | | |
| Less: Accumulated depreciation | | | | | | | | |
| (including accumulated impairment loss | (131) | (1,459,217) | (25,966,300) | (1,130,171) | (1,113) | (28,556,932) | | |
| and others) | | | | | | | | |

| (in millions of Korean won) | 2016 | | | | | | | |
|--|-----------|-------------|--------------|-------------|---------------|--------------|--|--|
| | | Buildings | Telecommuni- | | | | | |
| | | and | cations | | Construction | | | |
| | Land | structures | equipment | Others | - in-progress | Total | | |
| Acquisition cost | ₩ 906,064 | ₩ 2,825,403 | ₩ 32,705,831 | ₩ 1,508,459 | ₩ 671,068 | ₩ 38,616,825 | | |
| Less: Accumulated depreciation | | | | | | | | |
| (including accumulated impairment loss | (131) | (1,267,849) | (24,046,929) | (1,155,652) | (1,300) | (26,471,861) | | |
| and others) | | | | | | | | |
| Beginning, net | ₩ 905,933 | ₩ 1,557,554 | ₩ 8,658,902 | ₩ 352,807 | ₩ 669,768 | ₩ 12,144,964 | | |
| Acquisition and capital expenditure | 29 | 2,334 | 210,607 | 126,288 | 2,137,531 | 2,476,789 | | |
| Disposal and termination | (818) | (1,481) | (107,056) | (6,078) | (3,047) | (118,480) | | |
| Depreciation | - | (100,925) | (2,314,066) | (114,183) | - | (2,529,174) | | |
| Transfer to investment properties | 4,015 | 135,792 | 1,978,619 | 8,022 | (2,126,448) | - | | |
| Others | 3,097 | (19,817) | 38,114 | (34,300) | | (12,906) | | |
| Ending, net | ₩ 912,256 | ₩ 1,573,457 | ₩ 8,465,120 | ₩ 332,556 | ₩ 677,804 | ₩ 11,961,193 | | |
| Acquisition cost | ₩ 912,387 | ₩ 2,928,545 | ₩ 33,472,178 | ₩ 1,434,494 | ₩ 678,425 | ₩ 39,426,029 | | |
| Less: Accumulated depreciation | | | | | | | | |
| (including accumulated impairment loss | (131) | (1,355,088) | (25,007,058) | (1,101,938) | (621) | (27,464,836) | | |
| and others) | | | | | | | | |

The borrowing costs capitalized for qualifying assets amount to $\forall 7,190$ million for the year ended December, 2017 (2016: $\forall 9,793$ million). The interest rate applied to calculate the capitalized borrowing costs in 2017 is 3.37 % (2016: 3.38 %).

11. Investment Properties

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

| (in millions of | | 2017 | | | 2016 | |
|---------------------|-----------|-----------|-------------|-----------|-----------|-------------|
| Korean won) | Land | Buildings | Total | Land | Buildings | Total |
| Acquisition cost | ₩ 181,331 | ₩ 870,476 | ₩ 1,051,807 | ₩ 182,216 | ₩ 847,376 | ₩ 1,029,592 |
| Less: Accumulated | | (388,822) | (388,822) | | (346,081) | (346,081) |
| depreciation | - | (300,022) | (300,022) | - | (340,081) | (340,001) |
| Beginning, net | 181,331 | 481,654 | 662,985 | 182,216 | 501,295 | 683,511 |
| Depreciation | - | (31,221) | (31,221) | - | (32,175) | (32,175) |
| Transfer from (to) | 1,862 | 225 | 2,087 | | | |
| property, plant and | | | | (885) | 12,534 | 11,649 |
| equipment | | | | | | |
| Ending, net | ₩ 183,193 | ₩ 450,658 | ₩ 633,851 | ₩ 181,331 | ₩ 481,654 | ₩ 662,985 |
| Acquisition cost | ₩ 183,193 | ₩ 866,575 | ₩ 1,049,768 | ₩ 181,331 | ₩ 870,476 | ₩ 1,051,807 |
| Less: Accumulated | | (415,917) | (415,917) | | (388,822) | (388,822) |
| depreciation | - | (415,917) | (415,917) | - | (300,022) | (300,022) |

The fair value of investment properties is $\forall 1,691,010$ million as of December 31, 2017 (2016: $\forall 1,433,599$ million). The fair value of investment properties is estimated based on the expected cash flow.

Rental income from investment properties is $\forall 208,407$ million (2016 : $\forall 212,236$ million) and direct operating expenses (including repairs and maintenance) arising from investment properties that generated rental income during the period are recognized as operating expenses.

Details of investment properties provided as collateral as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | | | | | | | |
|-----------------------------|-------------------|----------|---------|----------|-------------------|----------------|--|--|
| Collateral | Carrying | g amount | Secured | l amount | Related account | Related amount | | |
| Land and Building | ₩ | 386,713 | ₩ | 74,603 | Deposits received | ₩ 64,342 | | |
| | | | | | | | | |
| (in millions of Korean won) | | | | Decemb | per 31, 2016 | | | |
| Collateral | Carrying | g amount | Secured | l amount | Related account | Related amount | | |
| Land and Building | ₩ | 384,081 | ₩ | 66,094 | Deposits received | ₩ 56,472 | | |

12. Intangible Assets

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

| | | | | 2017 | | |
|--|----------|------------|-------------|-----------|-------------|-----------------------|
| | | | | | Frequency | |
| | | Industrial | Development | | usage | |
| (in millions of Korean won) | Goodwill | rights | costs(*) | Software | rights | Others Total |
| Acquisition cost | ₩ 65,057 | ₩ 25,705 | ₩ 1,545,032 | ₩ 625,137 | ₩ 2,522,269 | ₩ 286,485 ₩ 5,069,685 |
| Less : Accumulated depreciation | | | | | | |
| (including accumulated impairment loss | - | (14,406) | (1,188,275) | (502,236) | (853,239) | (173,980) (2,732,136) |
| and others) | | | | | | |
| Beginning, net | ₩ 65,057 | ₩ 11,299 | ₩ 356,757 | ₩ 122,901 | ₩ 1,669,030 | ₩ 112,505 ₩ 2,337,549 |
| Acquisition and capital expenditure | - | 4,482 | 260,320 | 44,257 | - | 11,370 320,429 |
| Disposal and termination | - | (374) | (14,806) | (421) | - | (6,854) (22,455) |
| Amortization | - | (2,125) | (159,953) | (47,061) | (310,868) | (15,301) (535,308) |
| Ending, net | ₩ 65,057 | ₩ 13,282 | ₩ 442,318 | ₩ 119,676 | ₩ 1,358,162 | ₩ 101,720 ₩ 2,100,215 |
| Acquisition cost | ₩ 65,057 | ₩ 29,105 | ₩ 1,714,859 | ₩ 668,894 | ₩ 2,522,269 | ₩ 284,025 ₩ 5,284,209 |
| Less : Accumulated depreciation | | | | | | |
| (including accumulated impairment loss | - | (15,823) | (1,272,541) | (549,218) | (1,164,107) | (182,305) (3,183,994) |
| and others) | | | | | | |

(*) The Company's development costs mainly consist of acquisition costs to develop a combined billing system and an information management system.

| | | | | 2016 | | | |
|--|----------|------------|-------------|-----------|-------------|-----------|-------------|
| | | | | | Frequency | | |
| | | Industrial | Development | | usage | | |
| (in millions of Korean won) | Goodwill | rights | costs | Software | rights | Others | Total |
| Acquisition cost | ₩ 65,057 | ₩ 24,692 | ₩ 1,537,556 | ₩ 620,232 | ₩ 2,760,182 | ₩ 284,110 | ₩5,291,829 |
| Less : Accumulated depreciation | | | | | | | |
| (including accumulated impairment loss | - | (13,777) | (1,056,535) | (459,240) | (1,796,562) | (161,632) | (3,487,746) |
| and others) | | | | | | | |
| Beginning, net | ₩ 65,057 | ₩ 10,915 | ₩ 481,021 | ₩ 160,992 | ₩ 963,620 | ₩ 122,478 | ₩ 1,804,083 |
| Acquisition and capital expenditure | - | 2,794 | 45,203 | 14,558 | 978,309 | 15,965 | 1,056,829 |
| Disposal and termination | - | (412) | (8,600) | (1,666) | - | (9,027) | (19,705) |
| Amortization | - | (1,998) | (160,867) | (50,983) | (272,899) | (16,120) | (502,867) |
| Impairment | - | - | - | - | - | (791) | (791) |
| Ending, net | ₩ 65,057 | ₩ 11,299 | ₩ 356,757 | ₩ 122,901 | ₩ 1,669,030 | ₩ 112,505 | ₩ 2,337,549 |
| Acquisition cost | ₩ 65,057 | ₩ 25,705 | ₩ 1,545,032 | ₩ 625,137 | ₩ 2,522,269 | ₩ 286,485 | ₩ 5,069,685 |
| Less : Accumulated depreciation | | | | | | | |
| (including accumulated impairment loss | - | (14,406) | (1,188,275) | (502,236) | (853,239) | (173,980) | (2,732,136) |
| and others) | | | | | | | |

and others)

The carrying amount of membership rights with indefinite useful life not subject to amortization is \forall 66,356 million as of December 31, 2017 (2016: \forall 66,530 million).

Goodwill impairment reviews are undertaken annually. The recoverable amount of all CGUs has been determined based on value-in-use calculations. These calculation use cash flow projections based on financial budgets approved by management covering a five-year period. Cash flows beyond the five-year period are extrapolated using the estimated growth rates. The growth rate does not exceed the long-term average growth rate included in industry report specific to the industry in which the CGU operates.

The Company determined the gross margin rate based on past performance and its expectations of market development. The average growth rates used are estimated based on the historical growth rate. In addition, the Company estimated the cash flow based on past performance and its expectation of market growth, and the discount rates used reflected specific risks relating to the relevant CGUs.

As a result of impairment test, the Company concluded that the carrying amount of CGUs does not exceed the recoverable amount of CGUs. Therefore, the Company did not recognize the impairment loss on goodwill for the years ended December 31, 2017 and 2016.

13. Investments in Subsidiaries, Associates and Joint ventures

Carrying amount in investments in subsidiaries, associates and joint ventures as of December 31, 2017 and 2016, is as follows:

| (in millions of Korean won) | December 31, 2017 | | December 31, 2016 | |
|-------------------------------|-------------------|-----------|-------------------|-----------|
| Subsidiaries | ₩ | 3,317,738 | ₩ | 3,373,731 |
| Associates and joint ventures | | 267,240 | | 265,125 |
| Total | ₩ | 3,584,978 | ₩ | 3,638,856 |

Investments in subsidiaries as of December 31, 2017 and 2016, are as follows:

| | | Porcontago of | Carrying amount | | | |
|-------------------------------|----------|--------------------------------|-----------------|-----------------|--|--|
| | Location | Percentage of ownership (%) | December 3 | I, December 31, | | |
| (in millions of Korean won) | | | 2017 | 2016 | | |
| KT Estate Inc. | Korea | 100.0% | , ₩ 1,084,5 | 22 ₩ 1,084,522 | | |
| KT Sat Co., Ltd. | Korea | 100.0% | 390,5 | 30 390,530 | | |
| KTCS Corporation ¹ | Korea | 7.6% | 6,42 | 6,427 | | |
| KTIS Corporation ¹ | Korea | 30.1% | 30,6 | 33 30,633 | | |
| KT Skylife Co., Ltd. | Korea | 50.3% | 311,6 | 96 311,696 | | |
| BC Card Co., Ltd. | Korea | 69.5% | 633,0 | 633,004 | | |
| KT M&S Co., Ltd. | Korea | 100.0% | 26,7 | 64 124,564 | | |
| KT Hitel Co., Ltd. | Korea | 63.7% | 120,0 | 78 120,078 | | |

| KT Belgium | Belgium | 100.0% | 86,432 | 69,461 |
|---|-----------------|--------|-------------|-------------|
| KT Powertel Co., Ltd ^{. 1} | Korea | 44.8% | 37,419 | 37,419 |
| Genie Music Corporation (KT Music Corporation) ¹ | Korea | 42.5% | 37,417 | 37,417 |
| KTSC Dutch B.V | Netherlan ds | 100.0% | 55,847 | 55,847 |
| KT Telecop Co., Ltd. | Korea | 86.8% | 26,045 | 26,045 |
| KT Submarine Co., Ltd. ² | Korea | 39.3% | 24,370 | 24,370 |
| Nasmedia, Inc. ² | Korea | 42.7% | 23,051 | 23,051 |
| KT New Business Fund No.1 | Korea | 90.9% | 8,112 | 8,112 |
| KT Strategic Investment Fund No.1 | Korea | 90.9% | 20,000 | 20,000 |
| KTDS Co., Ltd. | Korea | 95.5% | 19,616 | 19,616 |
| KTSB Data Service | Korea | 51.0% | 18,870 | 18,870 |
| KT Strategic Investment Fund No.2 | Korea | 90.9% | 20,000 | 20,000 |
| KT Sports | Korea | 66.0% | 6,600 | 6,600 |
| KT M mobile Co., Ltd. | Korea | 100.0% | 200,000 | 200,000 |
| KT Service Bukbu Co., Ltd. | Korea | 67.3% | 7,092 | 7,089 |
| KT Service Nambu Co., Ltd. | Korea | 76.4% | 10,160 | 10,155 |
| KT Strategic Investment Fund No.3 | Korea | 86.7% | 13,000 | 6,500 |
| KT Strategic Investment Fund No.4 | Korea | 95.0% | 9,500 | - |
| PlayD Co., Ltd. (N Search Marketing Co., Ltd.) ³ | Korea | 33.3% | 20,000 | 20,000 |
| Others | Korea | | 70,553 | 61,725 |
| Total | | | ₩ 3,317,738 | ₩ 3,373,731 |
| | | | | |

¹ At the end of the reporting period, although the Company and its subsidiaries own less than 50% ownership in this entity, this entity is deemed to be a Company's subsidiary due to the dispersion of the non-controlling interests and voting patterns at the shareholders' meetings in the past.

² At the end of the reporting period, although the Company owns less than 50% ownership, these entities are deemed to be the Company's subsidiaries as the Company holds the majority of voting right based on an agreement with other investors.

³ At the end of reporting period, Nasmedia, Inc., the Company's subsidiary, owns 66.7% ownership in this entity, and total ownership of the Company and the subsidiary is 100%. Therefore, this entity is deemed to be the Company's subsidiary.

Investments in associates and joint ventures as of and for the years ended December 31, 2017 and 2016, are as follows:

| | | Percentage of | Carrying | arrying amount | | |
|--|----------|---------------|--------------|----------------|--|--|
| | Location | ownership (%) | December 31, | December 31, | | |
| (in millions of Korean won) | | | 2017 | 2016 | | |
| KIF Investment Fund | Korea | 33.3% | ₩ 115,636 | ₩ 115,636 | | |
| KT-SB Venture Investment Fund ¹ | Korea | 50.0% | 6,437 | 7,505 | | |
| Mongolian Telecommunications ¹ | Mongolia | - | - | 11,135 | | |
| KT Wibro Infra Co., LTD ¹ | Korea | - | - | 52,200 | | |
| KT-IBKC Future Investment Fund 1 ¹ | Korea | 43.3% | 9,750 | 3,250 | | |
| KT-CKP New Media Investment Fund | Korea | 49.7% | 1,530 | 4,500 | | |
| K Bank Inc. ¹ | Korea | 10.0% | 63,043 | - | | |
| Others | | | 70,844 | 70,889 | | |
| Total | | | ₩ 267,240 | ₩ 265,125 | | |

¹ At the end of reporting period, although the Company owns 50% ownership, the equity method accounting has been applied as the Company cannot participate in determining the operating and financial policies of those entities. As of December 31, 2017, the entire shares of Mongolian Telecommunications is classified as assets held for sale, and KT Wibro Infra Co., Ltd. was liquidated during 2017. Also, 8% of non-voting convertible stock are excluded from percentage of ownership for K bank Inc.

Changes in investments in subsidiaries, associates and joint ventures for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | 2016 |
|-----------------------------|-------------|-------------|
| Beginning | ₩ 3,638,856 | ₩ 3,541,837 |
| Acquisition | 80,054 | 149,869 |
| Disposal | (64,498) | (10,609) |
| Impairment 1 | (97,800) | (42,241) |
| Others ² | 28,366 | - |
| Ending | ₩ 3,584,978 | ₩ 3,638,856 |

¹ During the year, the Company recognized impairment loss of $\forall 97,800$ million in KT M&S Co., Ltd. During the prior year, the Company recognized impairment loss of $\forall 12,800$ million, $\forall 6,574$ million and $\forall 22,867$ million in KT Wibro Infra Co., Ltd., KT Innoedu Co., Ltd. and Korea Telecom Japan Co., Ltd., respectively.

² During the year, \forall 36,500 million of K Bank and \forall 3,000 million of GE Premier 1st Corporate Restructuring Real Estate Investment Trust Company are reclassified as investment in subsidiaries, associates and joint ventures, and the Company reclassified \forall 11,135 million of Mongolian Telecommunications as assets held for sale.

Marketable investments in subsidiaries, associates and joint ventures as of December 31, 2017 and 2016, are as follows:

| | December 31, 2017 | | | | | |
|------------------------|---------------------|---|---------|-------------------------------|---------|--|
| | Number of shares | Carrying amount (in millions of Korean won) | | Fair v (in milli Korean | ons of | |
| KT Skylife Co., Ltd. | 23,908,000 | ₩ | 311,696 | ₩ | 321,563 | |
| KT Hitel Co., Ltd. | 22,750,000 | | 120,078 | | 146,283 | |
| KT Submarine Co., Ltd. | 8,085,000 | | 24,370 | | 35,534 | |
| Nasmedia, Inc. | 3,742,406 | | 23,051 | | 278,809 | |
| KT Music Corporation | 20,904,514 | | 37,417 | | 99,192 | |
| KTCS Corporation | 3,177,426 | | 6,427 | | 7,213 | |
| KTIS Corporation | 10,196,190 | | 30,633 | | 30,792 | |
| Total | | ₩ | 553,672 | ₩ | 919,386 | |

| _ | December 31, 2016 | | | | | | |
|------------------------------|-------------------|-------------------|---------|------------|---------|--|--|
| | | Carrying a | amount | Fair value | | | |
| | Number of | (in millio | ons of | (in milli | ons of | | |
| | shares | Korean | won) | Korean | won) | | |
| KT Skylife Co., Ltd. | 23,908,000 | $\forall \forall$ | 311,696 | ₩ | 413,608 | | |
| KT Hitel Co., Ltd. | 22,750,000 | | 120,078 | | 148,785 | | |
| KT Submarine Co., Ltd. | 8,085,000 | | 24,370 | | 39,859 | | |
| Nasmedia, Inc. | 3,742,406 | | 23,051 | | 147,825 | | |
| KT Music Corporation | 20,904,514 | | 37,417 | | 75,361 | | |
| KTCS Corporation | 3,177,426 | | 6,427 | | 7,880 | | |
| KTIS Corporation | 10,196,190 | | 30,633 | | 37,726 | | |
| Mongolian Telecommunications | 10,348,111 | | 11,135 | | 3,940 | | |
| Total | | ₩ | 564,807 | ₩ | 874,984 | | |

14. Trade and Other Payables

Details of trade and other payable as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) Current Liabilities | December 31, 2017 | | December 31, 2016 | |
|--|-------------------|-----------|-------------------|-----------|
| Accounts payable | ₩ | 947,025 | ₩ | 802,251 |
| Other payables | | 3,162,499 | | 3,378,841 |
| Total | ₩ | 4,109,524 | ₩ | 4,181,092 |
| Non-current Liabilities | | | | |
| Accounts payable | ₩ | - | ₩ | 1,499 |
| Other payables | | 958,189 | | 1,134,239 |
| Total | ₩ | 958,189 | ₩ | 1,135,738 |

Details of other payables as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|-----------------------------|-------------------|-------------------|
| Non-trade payable | ₩ 2,685,355 | ₩ 2,973,345 |
| Accrued expenses | 532,316 | 609,530 |
| Operating deposits | 557,149 | 601,652 |
| Others | 345,868 | 328,553 |
| Less: Non-current | (958,189) | (1,134,239) |
| Current | ₩ 3,162,499 | ₩ 3,378,841 |

15. Borrowings

Details of borrowings as of December 31, 2017 and 2016, are as follows:

Debentures

| nillions of Korean won and thousands of foreign currencies) | | December 3 | December 31, 2017 | | December 31, 2016 | | |
|---|---------------|-----------------|-------------------|---------|-------------------|---------|--|
| | | Annual interest | Foreign | Korean | Foreign | Korean | |
| Туре | Maturity | rates | currency | won | currency | won | |
| MTNP notes 1 | Sept. 7, 2034 | 6.50% | USD 100,000 | 107,140 | USD 100,000 | 120,850 | |
| MTNP notes | Jan 20, 2017 | - | - | - | USD 350,000 | 422,975 | |
| FR notes ² | Aug. 28, 2018 | LIBOR(3M)+1.15% | USD 300,000 | 321,420 | USD 300,000 | 362,550 | |
| MTNP notes | Apr. 22, 2017 | - | - | - | USD 650,000 | 785,525 | |
| MTNP notes | Apr. 22, 2019 | 2.63% | USD 350,000 | 374,990 | USD 350,000 | 422,975 | |
| MTNP notes | Jan. 29, 2018 | 0.86% | JPY 6,800,000 | 64,539 | JPY 6,800,000 | 70,503 | |

| (in millions of Korean won ar | nd thousands of fo | oreign currencies) | December 31, 2017 | | December 3 | 81, 2016 |
|-------------------------------|--------------------|--------------------|-------------------|-------------|----------------|-------------|
| | | Annual interest | Foreign | Korean | Foreign | Korean |
| Туре | Maturity | rates | currency | won | currency | won |
| MTNP notes | Feb. 23, 2018 | 0.48% | JPY 15,000,000 | 142,367 | JPY 15,000,000 | 155,522 |
| MTNP notes | July 18, 2026 | 2.50% | USD 400,000 | 428,560 | USD 400,000 | 483,400 |
| MTNP notes | Aug. 7, 2022 | 2.63% | USD 400,000 | 428,560 | - | - |
| The 173-2nd Public bond | Aug. 6, 2018 | 6.62% | - | 100,000 | - | 100,000 |
| The 177-3rd Public bond | Feb. 9, 2017 | - | - | - | - | 170,000 |
| The 179th Public bond | Mar. 29, 2018 | 4.47% | - | 260,000 | - | 260,000 |
| The 180-2nd Public bond | Apr. 26, 2021 | 4.71% | - | 380,000 | - | 380,000 |
| The 181-2nd Public bond | Aug. 26, 2018 | 3.99% | - | 90,000 | - | 90,000 |
| The 181-3rd Public bond | Aug. 26, 2021 | 4.09% | - | 250,000 | - | 250,000 |
| The 182-2nd Public bond | Oct. 28, 2021 | 4.31% | - | 100,000 | - | 100,000 |
| The 183-2nd Public bond | Dec. 22, 2021 | 4.09% | - | 90,000 | - | 90,000 |
| The 183-3rd Public bond | Dec. 22, 2031 | 4.27% | - | 160,000 | - | 160,000 |
| The 184-1st Public bond | Apr. 10, 2018 | 2.74% | - | 120,000 | - | 120,000 |
| The 184-2nd Public bond | Apr. 10, 2023 | 2.95% | - | 190,000 | - | 190,000 |
| The 184-3rd Public bond | Apr. 10, 2033 | 3.17% | - | 100,000 | - | 100,000 |
| The 185-1st Public bond | Sept. 16, 2018 | 3.46% | - | 200,000 | - | 200,000 |
| The 185-2nd Public bond | Sept. 16, 2020 | 3.65% | - | 300,000 | - | 300,000 |
| The 186-1st Public bond | June 26, 2017 | - | - | - | - | 120,000 |
| The 186-2nd Public bond | June 26, 2019 | 3.08% | - | 170,000 | - | 170,000 |
| The 186-3rd Public bond | June 26, 2024 | 3.42% | - | 110,000 | - | 110,000 |
| The 186-4th Public bond | June 26, 2034 | 3.70% | - | 100,000 | - | 100,000 |
| The 187-1st Public bond | Sept. 2, 2017 | - | - | - | - | 110,000 |
| The 187-2nd Public bond | Sept. 2, 2019 | 2.97% | - | 220,000 | - | 220,000 |
| The 187-3rd Public bond | Sept. 2, 2024 | 3.31% | - | 170,000 | - | 170,000 |
| The 187-4th Public bond | Sept. 2, 2034 | 3.55% | - | 100,000 | - | 100,000 |
| The 188-1st Public bond | Jan. 29, 2020 | 2.26% | - | 160,000 | - | 160,000 |
| The 188-2nd Public bond | Jan. 29, 2025 | 2.45% | - | 240,000 | - | 240,000 |
| The 188-3rd Public bond | Jan. 29, 2035 | 2.71% | - | 50,000 | - | 50,000 |
| The 189-1st Public bond | Jan. 27, 2019 | 1.76% | - | 100,000 | - | 100,000 |
| The 189-2nd Public bond | Jan. 27, 2021 | 1.95% | - | 130,000 | - | 130,000 |
| The 189-3rd Public bond | Jan. 27, 2026 | 2.20% | - | 100,000 | - | 100,000 |
| The 189-4th Public bond | Jan. 27, 2036 | 2.35% | | 70,000 | | 70,000 |
| Total | | | | 5,927,576 | | 7,834,300 |
| Less : Current portion | | | | (1,297,794) | | (1,607,571) |
| Discount on bonds | | | _ | (19,330) | - | (20,434) |
| Net | | | | ₩ 4,610,452 | | ₩ 5,656,295 |

¹ As of December 31, 2017, the Company has outstanding notes in the amount of USD 100 million with fixed interest rates under Medium Term Note Program ("MTNP") registered in the Singapore Stock Exchange, which allowed issuance of notes of up to USD 2,000 million. However, the MTN program has been suspended since 2007.

² The Libor (3M) is approximately 1.695% as of December 31, 2017.

Long-term Borrowings

| (in millions of Korean won) Financial institution | Туре | Maturity | Annual interest rates | | ember , 2017 | | ember , 2016 |
|---|--|---------------|-----------------------------|---|-----------------|---|-----------------|
| Export-Import Bank of Korea | Inter-Korean Cooperation Fund ¹ | July 10, 2026 | 1.50% | ₩ | 4,688 | ₩ | 5,181 |
| NH Investment & Securities Co., Ltd. | Long-term commercial papers | Feb. 18, 2019 | 3.17% | | 300,000 | | 300,000 |
| Total | | | | | 304,688 | | 305,181 |
| Less: Current portion | | | | | (740) | | (493) |
| Net | | | | ₩ | 303,948 | ₩ | 304,688 |

¹ The above Inter-Korean Cooperation Fund is repayable in installments over 13 years after a seven-year grace period.

Repayment schedule of the Company's debentures and borrowings as of December 31, 2017, is as follows:

| (in millions of | | | | | |
|--------------------------------------|---------------|------------------------|---------------|-------------------|-------------|
| Korean won) | | Debentures | | Borrowings | |
| | Korean won | In foreign currency | Sub- total | In local currency | Total |
| Jan. 1 2018~Dec. 31, 2018 | ₩ 770,000 | ₩ 528,326 | ₩ 1,298,326 | ₩ 740 | ₩ 1,299,066 |
| Jan. 1 2019~Dec. 31, | 490,000 | 374,990 | 864,990 | 300,493 | 1,165,483 |
| 2019 Jan. 1 2020~Dec. 31, 2020 | 460,000 | - | 460,000 | 493 | 460,493 |
| Jan. 1 2021~Dec. 31, 2021 | 950,000 | - | 950,000 | 493 | 950,493 |
| Thereafter | 1,390,000 | 964,260 | 2,354,260 | 2,469 | 2,356,729 |
| Total | ₩ 4,060,000 | ₩ 1,867,576 | ₩ 5,927,576 | ₩ 304,688 | ₩ 6,232,264 |

Carrying amount and fair value of the Company's debentures and borrowings as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)

| | December | 31, 2017 | December | 31, 2016 |
|---|---------------|-------------|-------------|-------------|
| | Carrying Fair | | Carrying | Fair |
| Туре | amount | value | amount | value |
| Debentures | ₩ 5,908,246 | ₩ 5,962,569 | ₩ 7,263,866 | ₩ 7,327,085 |
| Long-term borrowings (Including the current portion) | 304,688 | 305,030 | 305,181 | 305,001 |
| Total | ₩ 6,212,934 | ₩ 6,267,599 | ₩ 7,569,047 | ₩ 7,632,086 |

The fair value of debentures and long-term borrowings are calculated by discounting the expected future cash flows at weighted average borrowing rate. The weighted average borrowing rate is approximately 3.37% as of December 31, 2017 (December 31, 2016: 3.38%).

16. Provisions

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

| | 2017 | | | | |
|-----------------------------|------------|------------------|----------|-----------|--|
| (in millions of Korean won) | Litigation | Restoration cost | Others | Total | |
| Beginning | ₩ 18,235 | ₩ 92,388 | ₩ 73,772 | ₩ 184,395 | |
| Increase(Transfer) | 10 | 2,042 | 14,850 | 16,902 | |
| Usage | (1,740) | (1,519) | (21,906) | (25,165) | |
| Reversal | (2,269) | (1,523) | (10,940) | (14,732) | |
| Ending | ₩ 14,236 | ₩ 91,388 | ₩ 55,776 | ₩ 161,400 | |
| Current portion | ₩ 14,236 | ₩ - | ₩ 53,244 | ₩ 67,480 | |
| Non-current portion | - | 91,388 | 2,532 | 93,920 | |

| | 2016 | | | | |
|-----------------------------|------------|------------------|----------|-----------|--|
| (in millions of Korean won) | Litigation | Restoration cost | Others | Total | |
| Beginning | ₩ 17,524 | ₩ 82,190 | ₩ 83,639 | ₩ 183,353 | |
| Increase(Transfer) | 2,589 | 12,320 | 37,880 | 52,789 | |
| Usage | (640) | (1,733) | (36,928) | (39,301) | |
| Reversal | (1,238) | (389) | (10,819) | (12,446) | |
| Ending | ₩ 18,235 | ₩ 92,388 | ₩ 73,772 | ₩ 184,395 | |
| Current portion | ₩ 18,235 | ₩ - | ₩ 73,772 | ₩ 92,007 | |
| Non-current portion | - | 92,388 | - | 92,388 | |

17. Net Defined Benefit Liability

The amounts recognized in the statements of financial position are determined as follows:

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|--|-------------------|-------------------|
| Present value of defined benefit obligations | ₩ 1,436,666 | ₩ 1,285,300 |
| Less : Fair value of plan assets | (1,134,347) | (1,000,369) |
| Liabilities in the statement of financial position | ₩ 302,319 | ₩ 284,931 |

Changes in the defined benefit obligations for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | 2016 |
|---|-------------|-------------|
| Beginning | ₩ 1,285,300 | ₩ 1,231,234 |
| Current service cost | 122,140 | 124,923 |
| Interest expense | 30,449 | 30,153 |
| Benefits paid | (97,522) | (69,460) |
| Remeasurements: | | |
| Actuarial gains and losses arising from changes in demographic assumptions | - | (54,641) |
| Actuarial gains and losses arising from changes in financial assumptions | 45,425 | 23,019 |
| Actuarial gains and losses arising from experience adjustments | 50,874 | |
| Ending | ₩ 1,436,666 | ₩ 1,285,300 |

Changes in the fair value of plan assets for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | 2016 |
|-----------------------------|-------------|-------------|
| Beginning | ₩ 1,000,369 | ₩ 801,298 |
| Interest income | 23,698 | 19,624 |
| Remeasurements: | (4,857) | (2,001) |
| Employer contributions | 200,000 | 237,500 |
| Benefits paid | (84,863) | (56,052) |
| Ending | ₩ 1,134,347 | ₩ 1,000,369 |

Amounts recognized in the statements of profit or loss for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | | 2016 | |
|-----------------------------|------|---------|------|----------|
| Current service cost | ₩ | 122,140 | ₩ | 124,923 |
| Net interest expense | | 6,751 | | 10,529 |
| Transfer out | | (9,731) | | (10,595) |
| Total expense | ₩ | 119,160 | ₩ | 124,857 |

Principal actuarial assumptions were as follows:

| | December 31, 2017 | December 31, 2016 |
|-------------------------|-------------------|-------------------|
| Discount rate | 2.82% | 2.42% |
| Future salary increases | 5.35% | 4.45% |

The sensitivity of the defined benefit obligations as of December 31, 2017, to changes in the principal assumptions is:

| (in millions of Korean won) | Effect on defined benefit obligation | | | | | |
|-----------------------------|--------------------------------------|------------------------|------------------------|--|--|--|
| _ | Changes in assumption | Increase in assumption | Decrease in assumption | | | |
| Discount rate | 0.5%p | ₩ (53,606) | ₩ 56,969 | | | |
| Future salary growth rate | 0.5%p | 51,656 | (49,225) | | | |

A decrease in corporate bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings.

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. The sensitivity of the defined benefit obligation to changes in principal actuarial assumptions is calculated using the projected unit credit method, the same method applied when calculating the defined benefit obligations recognized on the statement of financial position.

The Company actively monitors how the duration and the expected yield of the investments match the expected cash outflows arising from the pension obligations. A large portion of assets is invested in equity instruments, and the majority of equities are in a diversified portfolio of domestic blue chip entities.

The Company reviews the funding level on an annual basis and has a policy of eliminating deficit from the fund.

Expected contributions to post-employment benefit plans for the year ending December 31, 2018, are ₩ 119,085 million.

The expected maturity analysis of undiscounted pension benefits as at December 31, 2017, is as follows:

| (in millions of Korean won) | | s than year | Be | tween 1-2 years | Be | etween 2-5 years | Ov | er 5 years | Total |
|-----------------------------|---|----------------|----|--------------------|----|---------------------|----|-------------|-----------|
| Pension benefits | ₩ | 58,194 | ₩ | 95,898 | ₩ | 421,422 | ₩ | 3,055,383 ₩ | 3,630,897 |

The weighted average duration of the defined benefit obligations is 7.9 years.

18. Defined Contribution Plan

Recognized expense related to the defined contribution plan for the year ended December 31, 2017, is $\forall 35,640 \text{ million} (2016: \forall 36,991 \text{ million}).$

19. Commitments and Contingencies

As of December 31, 2017, major commitments with local financial institutions are as follows:

| (in millions of Korean won and thousands of foreign currencies) | Financial institution | Currency | / Limit | Used amount |
|--|---|----------|-----------|-------------|
| Bank overdraft | Kookmin Bank and others | KRW | 1,720,000 | 72 |
| Commercial papers | NH Investment & Securities Co., Ltd. and others | KRW | 370,000 | 300,000 |
| Inter-Korean Cooperation Fund | Export-Import Bank of Korea | KRW | 37,700 | 4,688 |
| Green energy factoring | Shinhan Bank | KRW | 16 | 16 |
| Collateralized loan on accounts receivable -trade | Shinhan Bank and others | KRW | 340,000 | 42,184 |
| Plus electronic notes payable | Industrial Bank of Korea | KRW | 50,000 | 140 |
| Forward trading commitment | Shinhan Bank | USD | 11,500 | - |

As of December 31, 2017, guarantees received from financial institutions are as follows:

| (in millions of Korean won | Financial institution | Curronov | Limit |
|--------------------------------------|-----------------------|----------|--------|
| and thousands of foreign currencies) | Financial institution | Currency | LIIIII |
| Comprehensive line of credit | KEB Hana Bank | KRW | 15,000 |

| (in millions of Korean won and thousands of foreign currencies) | Financial institution | Currency | Limit |
|--|--------------------------------------|------------------|---------|
| Guarantee for advances received | Export-Import Bank of Korea | USD | 7,414 |
| Bid guarantee | | KRW | 87,442 |
| Contract and warranty guarantee | Korea Software Financial Cooperative | KRW | 267,193 |
| Prepayment and other guarantee | | KRW | 92,718 |
| Guarantees for bonds payable in foreign | Kookmin Bank and others | USD | 54,072 |
| currency | KEB Hana Bank | PLN ¹ | 23,000 |
| Performance guarantee | | KRW | 16,505 |
| Guarantee for licensing | | KRW | 4,051 |
| Guarantee for deposits | Seoul Guarantee Insurance | KRW | 1,370 |
| Auction guarantee | | KRW | 50 |
| 1 | | | |

¹ Polish zloty.

The Company is jointly and severally obligated with KT Sat Co., Ltd. to pay KT Sat Co., Ltd.'s liabilities prior to spin-off. As of December 31, 2017, the Company and KT Sat Co., Ltd. are jointly and severally liable for reimbursement of \forall 4,328 million.

For the year ended December 31, 2017, the Company entered into agreements with the Securitization Specialty Companies (2017: Olleh KT Thirty-first to Thirty-sixth Securitization Specialty Co., Ltd., 2016: Olleh KT Twenty-fifth to Twenty-sixth Securitization Specialty Co., Ltd., GiGA LTE Twenty-seventh to Thirtieth Securitization Specialty Co., Ltd.) and disposed of its trade receivables related to handset sales. The Company also made asset management agreements with each securitization specialty company and will receive the related management fees.

As of December 31, 2017, the Company is a defendant in 156 lawsuits with an aggregate amount of $\forall 92,747$ million. As of December 31, 2017, litigation provisions of $\forall 14,236$ million for various pending lawsuits and unasserted claims are recorded as liabilities for potential loss in the ordinary course of business. The final outcome of the case cannot be estimated as at the end of the reporting period.

Asia Broadcast Satellite Holdings(ABS), Ltd. sued the Controlling Company and its subsidiary, KT Sat, at the International Court of Arbitration of the International Chamber of Commerce(ICC) on December 31, 2013, for the ownership and compensation of damages due to the sales contract of the satellite KOREASAT. In addition, ABS sued the Controlling Company and its subsidiary, KT Sat, at the International Centre for Dispute Resolution of the American Arbitration Association on December 24, 2013, for the compensation of damages from relocation of equipment and the breach of entrustment contract. These two cases are merged into one by ICC, and the arbitration is in progress. On July 2017, ICC made partial judgement that ABS has ownership of KOREASAT 3 satellite. Regarding the judgement, as joint defendants of this arbitration, the Controlling Company

and its subsidiary, KT Sat Co., Ltd. filed a lawsuit for cancellation of the arbitration to the Court of Appeals in United States of America. At the end of the reporting period, the final outcome of these claims cannot be reasonably estimated.

According to the financial and other covenants included in certain debentures and borrowings, the Company is required to maintain certain financial ratios such as debt-to-equity ratio, use the funds for the designated purpose and report to the creditors periodically. The covenant also contains restriction on provision of additional collateral and disposal of certain assets.

At the end of the reporting period, the Company is offering construction completion guarantee agreement to development of Nonsan Hwagidong apartment complex. When the date of payment for borrowing comes up in between November 24, 2017 and to August 9, 2019, the Company collaterally guarantees the debt of AbleNS 1st Co. up to # 9,000 million.

At the end of the reporting period, the Company participates in Algerie Sidi Abdela new town development consortium with 2.5% of interest and has joint liability with other consortium participants.

At the end of the reporting period, contract amount of property, plant and equipment acquisition agreement made but not yet recognized as liabilities amounts to # 619,628 million (2016: # 412,133 million).

20. Lease

Finance Lease

Details of finance lease assets as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | | December 31, 2016 | | |
|---------------------------------|-------------------|-----------|-------------------|----------|--|
| Acquisition costs | $\forall \forall$ | 319,052 | $\forall \forall$ | 291,708 | |
| Less : Accumulated depreciation | | (120,046) | | (99,421) | |
| Net balance | ₩ | 199,006 | ₩ | 192,287 | |

As of December 31, 2017, the Company recognized finance lease assets as other property and equipment. The related depreciation amounted to $\forall 57,833$ million (2016: $\forall 49,993$ million) for the year ended December 31, 2017.

Details of future minimum lease payments as of December 31, 2017 and 2016, under finance lease contracts are summarized below:

| (in millions of Korean won) | December 31, 2016 | | December 31, 2015 | | 2015 |
|------------------------------|-------------------|--------|-------------------|---|--------|
| Total minimum lease payments | | | | | |
| Within one year | ₩ | 88,338 | | ₩ | 79,551 |

| From one year to five years | | 131,954 | | 131,797 |
|--------------------------------------|---|---------|---|---------|
| Over five years | | 81 | | - |
| Total | ₩ | 220,373 | ₩ | 211,348 |
| Unrealized interest expense | ₩ | 43,656 | ₩ | 30,719 |
| Net amount of minimum lease payments | | | | |
| Within one year | | 68,648 | | 64,008 |
| From one year to five years | | 107,989 | | 116,621 |
| Over five years | | 80 | | |
| Total | ₩ | 176,717 | ₩ | 180,629 |

Operating Lease

Details of future minimum lease payments as of December 31, 2017 and 2016, under operating lease contracts are summarized below:

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|-----------------------------|-------------------|-------------------|
| Within one year | ₩ 104,966 | ₩ 98,021 |
| From one year to five years | 259,093 | 267,437 |
| Over five years | - | 16,549 |
| Total | ₩ 364,059 | ₩ 382,007 |

Operating lease expenses incurred for the years ended December 31, 2017 and 2016, amounted to \forall 121,140 million and \forall 112,330 million, respectively.

21. Share Capital

As of December 31, 2017 and 2016, the Company's number of authorized shares is one billion.

| | | December 31, 2 | 017 | December 31, 2016 | | | |
|------------------------------|------------------------------------|---|--|-------------------|--|---|--|
| | Number of outstanding shares | Par value per share (in Korean won) | Ordinary shares (in millions of Korean won) shares | | Par value per share <i>(in Korean won)</i> | Ordinary shares (in millions of Korean won) | |
| Ordinary shares ¹ | 261,111,808 | ₩ 5,000 | ₩ 1,564,499 | 261,111,808 | ₩ 5,000 | ₩ 1,564,499 | |

¹ The Company retired 51,787,959 treasury shares against retained earnings. Therefore, the ordinary shares amount differs from the amount resulting from multiplying the number of shares issued by \forall 5,000 par value per share of ordinary share.

22. Retained Earnings

Details of retained earnings as December 31, 2017 and 2016, are as follows:

| | December | 31, 2017 | December 3 | 1, 2016 |
|----------------------------------|----------|-----------|------------|-----------|
| Legal reserve ¹ | ₩ | 782,249 | ₩ | 782,249 |
| Voluntary reserves ² | | 4,651,362 | | 4,651,362 |
| Unappropriated retained earnings | | 3,910,895 | | 3,722,593 |
| Total | ₩ | 9,344,506 | ₩ | 9,156,204 |

¹ The Commercial Code of the Republic of Korea requires the Company to appropriate, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its issued share capital. The reserve is not available for the payment of cash dividends, but may be transferred to share capital with the approval of the Company's Board of Directors or used to reduce accumulated deficit, if any, with the ratification of the Company's majority shareholders.

² The provision of research and development of human is separately accumulated with tax reserve fund during earned surplus disposal by Tax Reduction and Exemption Control Act of Korea. Reversal of this provision can be paid out as dividends according to related tax law.

The appropriation of retained earnings for the year ended December 31, 2017, is expected to be appropriated at the shareholders' meeting on March 23, 2018. The appropriation date for the year ended December 31, 2016 was March 24, 2017.

The appropriation of retained earnings for the years ended December 31, 2017 and 2016, is as follows:

| (in millions of Korean won) | Note | 2017 | 2016 |
|---|------|-------------|-------------|
| Unappropriated retained earnings from prior year | | ₩ 3,524,304 | ₩ 2,890,865 |
| Remeasurements of net defined benefit liabilities | | (76,677) | 22,398 |
| Profit for the year | | 463,268 | 809,330 |
| Retained earnings available for appropriation | | 3,910,895 | 3,722,593 |
| Reversal of voluntary reserve | | - | - |
| Appropriation of loss on disposal of treasury stock | | (2,046) | (2,312) |
| Dividends | | | |
| (Cash dividend (%): | | | |
| Ordinary shares: | 31 | (245,097) | (195,977) |
| ₩ 1,000 (20.0%) in 2017 | | | |
| ₩ 800 (16.0%) in 2016) | | | |
| Appropriation of retained earnings | | (247,143) | (198,289) |
| Retained earnings after appropriation | | ₩ 3,663,752 | ₩ 3,524,304 |

23. Accumulated Other Comprehensive Income and Other Components of Equity

As of December 31, 2017 and 2016, the details of the Company's accumulated other comprehensive income are as follows:

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|---|-------------------|-------------------|
| Gain on valuation of available-for-sale | ₩ - | ₩ 5 |
| Loss on derivatives valuation | (1,502) | (32,096) |
| Total | ₩ (1,502) | ₩ (32,091) |

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

| | | | | 2 | 017 | | | |
|---|------|----------|-----------|-----------|---------------------|----------|-----|------------|
| (in millions of Korean won) | Begi | inning | Increase/ | decrease | Reclassi to gain | | Enc | ling |
| Gain(loss) on valuation of available-for-sale | ₩ | 5 | ₩ | (5) | ₩ | - | А | <i>t</i> - |
| Gain(loss) on derivatives valuation | | (32,096) | | (111,335) | | 141,929 | | (1,502) |
| Total | ₩ | (32,091) | ₩ | (111,340) | ₩ | 141,929 | ¥ | ∀ (1,502) |
| | | | | 2 | 016 | | | |
| (in millions of Korean won) | Begi | inning | Increase/ | decrease | Reclassi to gain | | Enc | ling |
| Gain(loss) on valuation of available-for-sale | ₩ | 3,110 | ₩ | (164) | ₩ | (2,941) | ₩ | 5 |
| Gain(loss) on derivatives valuation | | (20,380) | | 64,155 | | (75,871) | | (32,096) |
| Total | ₩ | (17,270) | ₩ | 63,991 | ₩ | (78,812) | ₩ | (32,091) |

As of December 31, 2017 and 2016, the other components of equity are as follows:

| | December 31, 2017 | December 31, 2016 | | |
|---|-------------------|-------------------|--|--|
| Treasury stock ¹ | ₩ (853,108) | ₩ (859,789) | | |
| Loss on disposal of treasury stock ² | (2,046) | (2,312) | | |
| Share-based payments | 6,483 | 5,762 | | |
| Other | (188,012) | (188,012) | | |
| Total | ₩ (1,036,683) | ₩ (1,044,351) | | |

¹ During the year ended December 31, 2017, the Company granted 125,412 treasury shares as sharebased payment.

² The amounts directly reflected in equity is ₩ 653 million (2016: ₩ 738 million) as of December 31, 2017.

As of December 31, 2017 and 2016, details of treasury stock are as follows:

| | December 37 | 1, 2017 | December 3 | 31, 2016 |
|-------------------------------------|-------------|-----------|-------------------|------------|
| Number of shares | 10 | 6,014,753 | | 16,140,165 |
| Amounts (in millions of Korean won) | ₩ | 853,108 | $\forall \forall$ | 859,789 |

Treasury stock is expected to be used for the stock compensation for the Company's directors and employees, and other purposes.

24. Share-based Payments

Details of other share-based payments as of December 31, 2017 and 2016, are as follows:

| | 11th grant |
|--|--|
| Grant date | July,27, 2017 |
| Grantee | CEOs, inside directors, outside directors, executives |
| Vesting conditions | Service condition: 1 year |
| | Non-market performance condition: achievement of performance |
| Fair value per option (in Korean won) | ₩ 34,400 |
| Total compensation costs (in Korean won) | ₩ 6,483 million |
| Estimated exercise date (exercise date) | During 2018 |
| Valuation method | Fair value method |

Changes in the number of other share-based and the weighted-average price exercise price as of payments in 2017 and 2016 are as follows:

| | 2017 | | | | | | |
|------------|-----------|---------|---------|------------------------|---------|---------------------------------|--|
| | Beginning | Grant | Expired | Exercised ¹ | Ending | Number of shares exercisable | |
| 10th grant | 318,506 | - | 193,094 | 125,412 | - | - | |
| 11th grant | <u> </u> | 316,949 | - | <u> </u> | 316,949 | - | |
| Total | 318,506 | 316,949 | 193,094 | 125,412 | 316,949 | - | |

| | 2016 | | | | | |
|------------|-----------|---------|---------|------------------------|---------|---------------------------------|
| | Beginning | Grant | Expired | Exercised ¹ | Ending | Number of shares exercisable |
| 9th grant | 263,123 | 54,913 | 181,685 | 136,351 | - | |
| 10th grant | <u> </u> | 318,506 | - | | 318,506 | |
| Total | 263,123 | 373,419 | 181,685 | 136,351 | 318,506 | |

¹ The weighted average price of ordinary shares at the time of exercise during 2017 was $\forall 31,797$ (2016: $\forall 31,750$).

25. Operating Revenues

Operating revenues for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | 2016 | |
|-----------------------------|--------------|--------------|--|
| Services provided | ₩ 14,586,234 | ₩ 14,755,901 | |
| Sales of goods | 2,755,082 | 2,272,967 | |
| Total | ₩ 17,341,316 | ₩ 17,028,868 | |

26. Operating Expenses

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

| (in millions of Korean won) | 2017 | | 2016 |
|-----------------------------------|---------|--------|-------------|
| Salaries and wages | ₩ 2,066 | ,574 ₩ | ∀ 2,022,667 |
| Depreciation | 2,492 | ,051 | 2,518,167 |
| Amortization of intangible assets | 524 | ,480 | 487,216 |
| Commissions | 1,521 | ,954 | 1,520,069 |
| Interconnection charges | 641 | ,790 | 691,153 |
| International interconnection fee | 214 | ,580 | 217,812 |
| Purchase of inventories | 3,428 | ,244 | 2,906,959 |
| Changes of inventories | (54, | 149) | 149,144 |
| Sales commission | 2,257 | ,083 | 2,123,234 |
| Service Cost | 620 | ,435 | 585,609 |
| Purchase of contents | 453 | ,948 | 407,767 |
| Utilities | 304 | ,439 | 306,628 |
| Taxes and dues | 247 | ,432 | 220,677 |
| Rent | 434 | ,282 | 431,166 |
| Insurance premium | 59 | ,521 | 166,471 |

| Installation fee | | 415,015 | | 391,305 |
|-----------------------------------|---------|------------|---------|------------|
| Advertising expenses | | 184,874 | | 182,840 |
| Research and development expenses | 170,095 | | 165,720 | |
| Others | | 406,507 | | 474,673 |
| Total | ₩ | 16,389,155 | ₩ | 15,969,277 |

Details of employee benefits for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | 2016 |
|---|-------------|-------------|
| Short-term employee benefits | ₩ 1,901,031 | ₩ 1,846,022 |
| Post-employment benefits (defined benefit) | 119,160 | 124,857 |
| Post-employment benefits (defined contribution) | 35,640 | 36,691 |
| Post-employment benefits (others) | 3,083 | 7,387 |
| Share-based payment | 7,660 | 7,710 |
| Total | ₩ 2,066,574 | ₩ 2,022,667 |

27. Other Income and Other Expenses

Other income for the years ended, consists of:

| (in millions of Korean won) | 20 | 17 | 20 | 16 |
|--|----|---------|----|---------|
| Gain on disposal of property and equipment | ₩ | 17,739 | ₩ | 36,909 |
| Gain on disposal of intangible assets | | 11,028 | | 3,780 |
| Compensation on property and equipment | | 124,630 | | 81,735 |
| Gain on disposal of investments in subsidiaries, associates and joint ventures | | 519 | | 21 |
| Dividends received | | 139,447 | | 172,764 |
| Gains on government subsidies | | 26,021 | | 19,146 |
| Others | | 70,869 | | 199,572 |
| Total | ₩ | 390,253 | ₩ | 513,927 |

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

| (in millions of Korean won) | 2017 | 2016 |
|--|-----------|-----------|
| Loss on disposal of property and equipment | ₩ 172,473 | ₩ 108,169 |
| Loss on disposal of intangible assets | 15,857 | 11,479 |
| Impairment loss on intangible assets | - | 791 |

| Loss on disposal of investments in subsidiaries, associates and joint ventures | 4,849 | 1,092 |
|--|-----------|-----------|
| Impairment loss on investments in subsidiaries, associates and joint ventures | 97,800 | 42,241 |
| Donation | 72,260 | 63,110 |
| Others | 142,734 | 98,566 |
| Total | ₩ 505,973 | ₩ 325,448 |

28. Financial Income and Costs

Details of financial income for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | 2016 |
|-----------------------------------|-----------|-----------|
| Interest income | ₩ 72,656 | ₩ 98,260 |
| Foreign currency transaction gain | 73,588 | 19,377 |
| Foreign currency translation gain | 200,672 | 11,367 |
| Gain on settlement of derivatives | - | 8,329 |
| Gain on valuation of derivatives | - | 97,158 |
| Others | 4,708 | 22,525 |
| Total | ₩ 351,624 | ₩ 257,016 |

Details of financial costs for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | 2016 |
|---------------------------------------|-----------|-----------|
| Interest expenses | ₩ 282,243 | ₩ 318,926 |
| Foreign currency transaction loss | 16,299 | 21,147 |
| Foreign currency translation loss | 11,590 | 114,172 |
| Loss on settlement of derivatives | 58,569 | - |
| Loss on valuation of derivatives | 187,468 | - |
| Loss on disposal of trade receivables | 19,389 | 15,838 |
| Others | 115 | 407 |
| Total | ₩ 575,673 | ₩ 470,490 |

29. Deferred Income Tax and Income Tax Expense

The analyses of deferred tax assets and deferred tax liabilities as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | December 31, 2016 |
|---|-------------------|-------------------|
| Deferred tax assets | | |
| Deferred tax assets to be recovered within 12 months | ₩ 261,118 | ₩ 238,732 |
| Deferred tax assets to be recovered after more than 12 months | 797,725 | 764,250 |
| _ | 1,028,843 | 1,002,982 |
| Deferred tax liabilities | | |
| Deferred tax liability to be recovered within 12 months | (128) | (47,584) |
| Deferred tax liability to be recovered after more than 12 months | (606,970) | (554,052) |
| _ | (607,098) | (601,636) |
| Deferred tax assets, net | ₩ 421,745 | ₩ 401,346 |

The gross movements on the deferred income tax account for the years ended December 31, 2017 and 2016, are calculated as follows:

| (in millions of Korean won) | 2017 | 2016 |
|--|-----------|-----------|
| Beginning | ₩ 401,346 | ₩ 556,488 |
| Charged to the statement of profit or loss | 5,685 | (152,723) |
| Charged to other comprehensive income | 14,714 | (2,419) |
| Ending | ₩ 421,745 | ₩ 401,346 |

The movement in deferred income tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

| (in millions of Korean won) | 2017 | | | | |
|--|-----------|-----------------------------|----------------------------------|-----------|--|
| | Beginning | Statement of profit or loss | Other comprehensive income | Ending | |
| Deferred tax liabilities | | | | | |
| Investment in subsidiaries, associates and joint ventures | ₩ (1,234) | ₩ (221) | ₩ - | ₩ (1,455) | |
| Derivative instruments | (48,705) | 48,705 | - | - | |
| Depreciation | (37,971) | 37,971 | - | - | |
| Deposits for severance benefits | (242,089) | (69,856) | - | (311,945) | |
| Deferred tax gain on disposal of fixed assets | (233,614) | (22,909) | - | (256,523) | |

| Accrued income | | (369) | | 273 | | - | | (96) |
|---|---|-----------|---|----------|---|---------|---|-----------|
| Gain or loss foreign currency | | | | (11 605) | | | | (11 605) |
| translation | | - | | (11,605) | | - | | (11,605) |
| Others | | (37,653) | | 12,180 | | - | | (25,473) |
| | ₩ | (601,635) | ₩ | (5,462) | ₩ | - | ₩ | (607,097) |
| Deferred tax assets | | | | | | | | |
| Provision for impairment on trade receivables | ₩ | 92,425 | ₩ | 10,610 | ₩ | - | ₩ | 103,035 |
| Available-for-sale financial assets | | 14,132 | | 1,547 | | 2 | | 15,681 |
| Contribution for construction | | 9,462 | | 181 | | - | | 9,643 |
| Derivative instruments | | - | | 32,301 | | (9,767) | | 22,534 |
| Depreciation | | - | | 1,669 | | - | | 1,669 |
| Accrued expenses | | 53,796 | | 10,710 | | - | | 64,506 |
| Provisions | | 22,266 | | (3,012) | | - | | 19,254 |
| Defined benefit liabilities | | 311,043 | | 59,561 | | 24,480 | | 395,084 |
| Withholding of facilities expenses | | 6,910 | | 472 | | - | | 7,382 |
| Accrued payroll expenses | | 43,541 | | (11,407) | | - | | 32,134 |
| Deduction of instalment receivables | | 13,897 | | (13,897) | | - | | - |
| Present value discount | | 2,809 | | 775 | | - | | 3,584 |
| Assets retirement obligation | | 17,376 | | 2,771 | | - | | 20,147 |
| Gain or loss foreign currency translation | | 67,558 | | (67,558) | | - | | - |
| Deferred revenue | | 26,141 | | 379 | | - | | 26,570 |
| Tax credit carryforwards | | 199,599 | | (48,823) | | - | | 150,776 |
| Others | | 122,026 | | 34,867 | | | | 156,893 |
| | | 1,002,981 | | 11,146 | | 14,715 | | 1,028,842 |
| Net balance | ₩ | 401,346 | ₩ | 5,684 | ₩ | 14,715 | ₩ | 421,745 |
| | | | | | | | | |

| (in millions | of Korean | won) |
|--------------|-----------|------|
|--------------|-----------|------|

Other Statement of Beginning Ending comprehensive profit or loss income Deferred tax liabilities Investment in subsidiaries, associates ₩ ₩ (1,234) ₩ ₩ (1,234) and joint ventures Derivative instruments (18,877) (33, 569)3,741 (48,705) Depreciation (54, 245)16,274 (37,971) Deposits for severance benefits (192,984) (49,105) (242,089) _ Deferred tax gain on disposal of (239,619) 6,005 (233,614) fixed assets Accrued income (238) (130)(368) _ Others (30,591) (7,064) (37,655) ₩ 3,741 ₩ (536,554) ₩ (68,823) ₩ (601,636)

2016

| Deferred tax assets | | | | | | | |
|--|---|-----------|---|-----------|---|------------|-----------|
| Investment in subsidiaries, associates and joint ventures | ₩ | 1,874 | ₩ | (1,874) | ₩ | ۰ <u>-</u> | ₩ - |
| Provision for impairment on trade receivables | | 118,892 | | (26,466) | | - | 92,426 |
| Available-for-sale financial assets | | 18,099 | | (4,959) | | 991 | 14,131 |
| Contribution for construction | | 10,989 | | (1,527) | | - | 9,462 |
| Accrued expenses | | 45,649 | | 8,147 | | - | 53,796 |
| Provisions | | 22,287 | | (21) | | - | 22,266 |
| Defined benefit liabilities | | 283,253 | | 34,940 | | (7,151) | 311,042 |
| Withholding of facilities expenses | | 7,360 | | (450) | | - | 6,910 |
| Accrued payroll expenses | | 39,376 | | 4,165 | | - | 43,541 |
| Deduction of instalment receivables | | 10,523 | | 3,374 | | - | 13,897 |
| Present value discount | | 4,479 | | (1,670) | | - | 2,809 |
| Assets retirement obligation | | 16,264 | | 1,113 | | - | 17,377 |
| Gain or loss foreign currency translation | | 43,140 | | 24,418 | | - | 67,558 |
| Deferred revenue | | 42,868 | | (16,729) | | - | 26,139 |
| Tax credit carryforwards | | 214,012 | | (14,413) | | - | 199,599 |
| Tax loss carryforwards | | 107,485 | | (107,485) | | - | - |
| Others | | 106,492 | | 15,537 | | - | 122,029 |
| | | 1,093,042 | | (83,900) | | (6,160) | 1,002,982 |
| Net balance | ₩ | 556,488 | ₩ | (152,723) | ₩ | (2,419) | ₩ 401,346 |

The total of unrecognized temporary differences as deferred tax liabilities at the end of the reporting date is $\forall 52,340$ million (2016: $\forall 66,085$ million) related to investment in subsidiaries, associates and joint ventures, and the total of unrecognized temporary differences as deferred tax assets at the end of the reporting date is $\forall 97,800$ million related to investment in subsidiaries, associates and joint ventures

The tax impact recognized directly to equity as of December 31, 2017 and 2016, are as follows:

| | | 2017 | | 2016 | | | |
|---|--------------------|------------|-------------------|--------------------|------------|-------------------|--|
| (in millions of Korean won) | Before recognition | Tax effect | After recognition | Before recognition | Tax effect | After recognition | |
| Available-for-sale valuation gain (loss) | ₩ (6) | ₩ 1 | ₩ (5) | ₩ (4,095) | ₩ 991 | ₩ (3,104) | |
| Hedge instruments valuation gain (loss) | 40,361 | (9,767) | 30,594 | (15,458) | 3,741 | (11,717) | |
| Remeasurements of net defined benefit liabilities | (101,156) | 24,480 | (76,676) | 29,550 | (7,151) | 22,399 | |
| Total | ₩ (60,801) | ₩ 14,714 | ₩ (46,087) | ₩ 9,997 | ₩ (2,419) | ₩ 7,578 | |

Details of income tax benefit for the years ended December 31, 2017 and 2016, are calculated as follows:

| (in millions of Korean won) | 2017 | | 2016 |
|--|------|---------|-----------|
| Current income tax expenses | ₩ | 154,809 | ₩ 72,543 |
| Impact of change in temporary difference | | (5,685) | 152,723 |
| Total income tax expense (benefit) | ₩ | 149,124 | ₩ 225,266 |

The tax on the Company's profit before tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of the entities as follows:

| (in millions of Korean won) | 2017 | 2016 |
|---|-----------|-------------|
| Loss before income tax benefit | ₩ 612,392 | ₩ 1,034,596 |
| Expected tax expense at statutory tax rate | ₩ 147,737 | ₩ 249,910 |
| Tax effects of | | |
| Income not subject to tax | (15,911) | (28,149) |
| Expenses not deductible for tax purposes | 36,839 | 10,047 |
| Tax credit carryforwards and deductions | (24,113) | (13,626) |
| Deferred tax effects due to consolidated tax return | (11,475) | (15,368) |
| Others | 16,047 | 22,452 |
| Income tax expense | ₩ 149,124 | ₩ 225,266 |
| Average effective tax rate | 24.4% | 21.8% |

30. Earnings per Share

Basic earnings per share is calculated by dividing the profit for the period by the weighted average number of ordinary shares outstanding during the year, excluding ordinary shares purchased by the Company and held as treasury stock.

Basic earnings per share for the years ended December 31, 2017 and 2016, is calculated as follows:

| | 2017 | 2016 |
|--|-------------|-------------|
| Profit attributable to ordinary shares (in millions of Korean won) | ₩ 463,268 | ₩ 809,330 |
| Weighted average number of ordinary shares outstanding | 245,017,175 | 244,892,313 |
| Basic earnings per share (in Korean won) | 1,891 | 3,305 |

Diluted earnings per share from operations is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. The Company has dilutive potential ordinary shares from other share-based payments.

Diluted earnings per share for the years ended December 31, 2017 and 2016, is calculated as follows:

| | | 2017 | | 2016 |
|--|---|-------------|---|-------------|
| Profit attributable to ordinary shares | ₩ | 463,268 | ₩ | 809,330 |
| (in millions of Korean won) | | , | | , |
| Adjusted profit for the year attributable to ordinary shares (in | | 463.268 | | 809,330 |
| millions of Korean won) | | 403,200 | | 009,330 |
| Number of dilutive potential ordinary shares outstanding | | 79,880 | | 84,245 |
| Weighted-average number of ordinary shares outstanding | | 245,097,055 | | 244,976,558 |
| and dilutive ordinary shares | | 243,097,033 | | 244,970,558 |
| Diluted earnings per share (in Korean won) | | 1,890 | | 3,304 |

Diluted earnings per share is calculated by dividing adjusted profit for the period by the sum of the number of ordinary shares and dilutive potential ordinary shares.

31. Dividends

The dividends paid by the Company in 2017 were $\forall 195,977$ million ($\forall 800$ per share). The dividends paid by the Company in 2016 were $\forall 122,425$ million ($\forall 500$ per share). A dividend in respect of the year ended December 31, 2017, of $\forall 1,000$ per share, amounting to a total dividend of $\forall 245,097$ million, is to be proposed at the shareholders' meeting on March 23, 2018.

32. Cash Generated from Operations

Cash flows from operating activities for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 201 | 17 | 20 | 16 |
|--|-------------------|-----------|----|-----------|
| 1. Profit for the year | $\forall \forall$ | 463,268 | ₩ | 809,330 |
| 2. Adjustments for: | | | | |
| Income tax expense | | 149,124 | | 225,266 |
| Interest income | | (72,656) | | (98,260) |
| Interest expense | | 282,243 | | 318,926 |
| Dividends income | | (139,448) | | (172,962) |
| Depreciation | | 2,533,557 | | 2,561,349 |
| Amortization of intangible assets | | 535,308 | | 502,867 |
| Provisions for post-employment benefits (defined benefits) | | 128,891 | | 135,452 |
| Impairment losses on trade receivables | | 32,728 | | 81,059 |
| Loss on disposal of subsidiaries, associates and joint ventures | | 4,330 | | 1,071 |
| Impairment loss on interests in associates and joint arrangements | | 97,800 | | 42,241 |
| Loss on disposal of property and equipment | | 154,734 | | 71,260 |
| Loss on disposal of intangible assets | | 4,829 | | 7,699 |
| Impairment loss on intangible assets | | - | | 791 |
| Loss (gain) on foreign currency translation | | (189,082) | | 102,805 |
| Loss (gain) on valuation of derivatives, net | | 249,114 | | (105,520) |

| Impairment loss on available for sale | 9 | - |
|---|-------------|-------------|
| Gain on disposal of available-for-sale securities | (4,690) | (22,326) |
| Others | (74,889) | 76,685 |
| 3. Changes in operating assets and liabilities | | |
| Decrease(increase) in trade receivables | (326,599) | 315,905 |
| Decrease in other receivables | 22,924 | 10,999 |
| Decrease(increase) in other current assets | (6,750) | 9,877 |
| Decrease(increase) in other non-current assets | (1,445) | 4,422 |
| Decrease(increase) in inventories | (65,891) | 155,704 |
| Increase(decrease) in trade payables | 150,640 | (155,317) |
| Increase in other payables | 35,527 | 56,740 |
| Decrease in other current liabilities | (20,889) | (32,337) |
| Increase(decrease) in other non-current liabilities | (1,812) | 8,465 |
| Decrease in accrued provisions | (16,999) | (14,085) |
| Decrease in deferred revenue | (11,659) | (69,179) |
| Post-employment benefits paid (defined benefits) | (77,422) | (69,106) |
| Increase in plan assets | (133,851) | (182,631) |
| 4. Cash generated from operations(1+2+3) | ₩ 3,700,944 | ₩ 4,577,190 |

The Company made agreements with securitization specialty companies and disposed of its trade receivables related to handset sales (Note 19). Cash flows from the disposals are presented in cash generated from operations.

Significant transactions not affecting cash flows for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | 2016 |
|--|-------------|-------------|
| Reclassification of the current portion of debentures | ₩ 1,357,243 | ₩ 1,567,936 |
| Reclassification of construction-in-progress to property and equipment | 2,088,215 | 2,126,448 |
| Reclassification of accounts payable from property and equipment | (197,573) | (15,038) |
| Reclassification of accounts payable from intangible assets | (222,388) | 673,630 |
| Reclassification of accounts payable from net defined liability | 20,100 | 354 |
| Reclassification of accounts payable from plan assets | 18,714 | 1,183 |

33. Changes in Liabilities Arising from Financing Activities

Changes in liabilities arising from financial activities for the periods ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | | | | 2017 | | | | |
|-----------------------------|-------------|---------------|----------|-------------|------------|-------------|-------------|--|
| | | Non-cash | | | | | | |
| | Beginning | Cash flows | Newly | Exchange | Fair value | Other | Ending | |
| | | | acquired | difference | change | changes | | |
| Borrowing | ₩ 7,569,047 | ₩ (1,106,920) | ₩ - | ₩ (197,075) | ₩ - | ₩ (52,118) | ₩ 6,212,934 | |
| Financial lease liabilities | 180,629 | (71,575) | 68,939 | - | - | (1,276) | 176,717 | |
| Derivative assets | 214,648 | (71,370) | - | (63,882) | 2,687 | (74,694) | 7,389 | |
| Derivative liabilities | 13,386 | | | 120,974 | (27,369) | (20,740) | 86,251 | |
| Total | ₩ 7,977,710 | ₩ (1,249,865) | ₩ 68,939 | ₩ (139,983) | ₩ (24,682) | ₩ (148,828) | ₩ 6,483,291 | |

34. Related Party Transactions

The list of subsidiaries of the Company as of December 31, 2016, is as follows:

Relationship

Name of Entry

Subsidiaries KT Hitel Co., Ltd., Ktcs Corporation, Ktis Corporation, KT Service Bukbu Co., Ltd., KT Service Nambu Co., Ltd., KT Powertel Co., Ltd., KT Linkus Co., Ltd., KT Telecop Co., Ltd., KTDS Co., Ltd., Nasmedia, Inc., KT M Hows Co., Ltd., KT M&S Co., Ltd., GENIE Music Corporation(KT Music Corporation), KT Estate Inc., KT Skylife Co., Ltd., H&C Network, KTSB Data service, KT Sat Co., Ltd., KT Submarine Co., Ltd., KT Sports Co., Ltd., KT New Business Fund No.1, KT Strategic Investment Fund No.1, KT Strategic Investment Fund No.2, KT Music Contents Fund 1, Korea Telecom America, Inc., Korea Telecom Japan Co., Ltd., Korea Telecom China Co., Ltd., KT Dutch B.V., PT. KT Indonesia, KT AMC, KT Commerce Inc., BC Card Co., Ltd., VP Inc., BC Card China Co., Ltd., Skylife TV Co., Ltd., Initech Co., Ltd., Smartro Co., Ltd., East Telecom LLC, Super iMax LLC, NEXR Co., Ltd., KT Rwanda Networks Ltd., KT Belgium, KT ORS Belgium, KT-Michigan Global Contents Fund, Autopion Co., Ltd., KBTO sp.zo.o, Africa Olleh Services Ltd., KT M mobile, KT investment Co., Ltd, PT. BCCard Asia Pacific, Whowho&Company Co., Ltd., KT Hongkong Telecommunications Co., Ltd., KT Strategic Investment Fund No.3, PlayD Co., Ltd. (N search Marketing Co., Ltd.), KT Hong Kong Limited, Korea Telecom Singapore Pte, Ltd. Texno Pro Sistem, KT Music Contents Fund No.2, KT Strategic Investment Fund No.4 Associates and Korea Information & Technology Investment Fund., K-REALTY CR REIT 1, KT-SB joint ventures Venture Investment Fund, Boston Global Film & Contents Fund L.P., QTT Global (Group) Company Limited, CU Industrial Development Co., Ltd, PHI Healthcare Inc. (HooH Healthcare Inc.), KD Living, Inc., MOS GS Co., Ltd., MOS Daegu Co., Ltd., MOS Chungcheong Co., Ltd., MOS Gangnam Co., Ltd., MOS GB Co., Ltd., MOS BS Co., Ltd., MOS Honam Co., Ltd., Oscar Ent. Co., Ltd., Texno Pro Sistem, KT-CKP New Media Investment Fund, LoginD Co., Ltd., NgeneBio, K Bank Inc., K-REALTY CR-REIT

| Relationship | Name of Entry |
|---------------------|--|
| | 6, ISU-kth Contents Fund L.P., Daiwon Broadcasting Co., Ltd., KT-DSC creative |
| | economy youth start-up investment fund, Gyeonggi-KT Green Growth Fund, Korea |
| | Electronic Vehicle Charging Service, PT.MitraTransaksiIndonesia, K-REALTY RENTAL |
| | HOUSING REIT 2, AI RESEARCH INSTITUTE, kt-ibkc future investment fund 1, |
| | Gyeonggi-KT Yoojin Superman Fund, FUNDA Co., Ltd, CHAMP IT Co., Ltd., GE |
| | Premier 1st Corporate Restructuring Real Estate Investment Trust Company, Alliance |
| | Internet Corp. |
| Others ¹ | KT ENGCORE Co., Ltd. |

¹ Although the entity is not the related party of the Company in accordance with Korean IFRS 1024, the entity belongs to the Large Enterprise Group to which the Company also belongs in accordance with the Monopoly Regulation and Fair Trade Act.

Outstanding balances of receivables and payables in relation to transaction with related parties as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | an won) December 31, 2017 | | | | | |
|--|---------------------------|-------------|-------------------|-------------------|-------------------|--|
| | | Receivables | | Payables | | |
| | Trade receivables | Loans | Other receivables | Trade payables | Other payables | |
| Subsidiaries | | | | | | |
| KT Linkus Co., Ltd. | ₩ 1,240 | ₩ - | ₩ 13 | - | ₩ 14,565 | |
| KT Telecop Co., Ltd. | 798 | - | 95 | 1,222 | 2,441 | |
| Ktcs Corporation | 1,682 | 50 | - | - | 45,913 | |
| Ktis Corporation | 2,330 | - | 4,834 | 51 | 35,762 | |
| KT Service Bukbu Co., Ltd. | 11 | - | 8 | - | 17,729 | |
| KT Service Nambu Co., Ltd. | - | - | 5 | - | 18,608 | |
| KT Skylife Co., Ltd. | 858 | - | 4,281 | - | 13,713 | |
| Skylife TV Co., Ltd. | 416 | 3,000 | - | - | 2,403 | |
| KTDS Co., Ltd. | 1,114 | - | 812 | - | 91,409 | |
| KT Estate Inc. | 934 | - | 43,102 | - | 39,857 | |
| BC Card Co., Ltd. ¹ | 5,451 | - | 11 | 5,887 | 1,313 | |
| KT Sat Co., Ltd. | 330 | - | - | - | 2,352 | |
| KT Hitel Co., Ltd. | 1,886 | - | 21 | 14,176 | 8,174 | |
| KT Commerce Inc. | 253 | - | 44 | 14,346 | 84,443 | |
| KT M Hows Co., Ltd. | - | - | 356 | - | 2,621 | |
| KT M&S Co., Ltd. | 243 | - | 57 | - | 65,086 | |
| GENIE Music Corporation (KT Music Corporation) | 497 | - | 19 | - | 5,654 | |
| KT M mobile | 6,479 | - | - | - | 6,979 | |
| Nasmedia, Inc. | 8,049 | - | 3 | - | 1,310 | |

| (in millions of Korean won) | December 31, 2017 | | | | | |
|-----------------------------|----------------------|-------------|-------------------|-------------------|-------------------|--|
| | | Receivables | | Paya | ables | |
| | Trade receivables | Loans | Other receivables | Trade payables | Other payables | |
| Others | 5,942 | 1,461 | 1,161 | 420 | 9,273 | |
| Associates | | | | | | |
| K-REALTY CR REIT 1 | - | - | 33,800 | - | - | |
| MOS GS Co., Ltd. | 9 | - | - | - | 392 | |
| MOS Daegu Co., Ltd. | 1 | - | - | - | 1,388 | |
| MOS Chungcheong Co., Ltd. | 1 | - | 290 | - | 1,753 | |
| MOS Gangnam Co., Ltd. | 4 | - | 1 | - | 287 | |
| MOS GB Co., Ltd. | 5 | - | 1 | - | 778 | |
| MOS BS Co., Ltd. | 18 | - | 1 | - | 26 | |
| MOS Honam Co., Ltd. | 1 | - | 1 | - | 384 | |
| K Bank, Inc. | - | - | 138 | - | - | |
| NgeneBio ² | 1 | 1,900 | - | - | - | |
| Others | 14 | - | 1 | - | 701 | |
| Others | | | | | | |
| KT ENGCORE Co., Ltd. | 4,983 | - | 2,861 | 12,488 | 103,686 | |
| Total | ₩ 43,550 | ₩ 6,411 | ₩ 91,916 | ₩ 48,590 | ₩ 579,900 | |

¹ As of December 31, 2017, $\forall 1,092$ million of the unsettled amount (2016: $\forall 1,116$ million) in credit card transaction with BC Card Co., Ltd. is included in trade payables.

² It is the amount after excluded from consolidation during the year.

| (in millions of Korean won) | December 31, 2016 | | | | | | | | | |
|-----------------------------|-------------------|-------|---------|----------------------|----|-------------------|--------------|---------------|------|---------|
| | | | Receiva | bles | | | | Paya | bles | |
| | Trade Loans re | | | Other receivables | | Trade payables | | ther ables | | |
| Subsidiaries | | | | | | | | | | |
| KT Linkus Co., Ltd. | ₩ | 2,806 | ₩ | - | ₩ | 7 | \mathbf{W} | - | ₩ | 11,391 |
| KT Telecop Co., Ltd. | | 771 | | - | | 110 | | 5 | | 4,095 |
| Ktcs Corporation | | 1,746 | | 74 | | 34 | | - | | 37,343 |
| Ktis Corporation | | 2,645 | | - | 2 | l,064 | | - | | 40,512 |
| KT Service Bukbu Co., Ltd. | | 49 | | - | | 28 | | - | | 18,377 |
| KT Service Nambu Co., Ltd. | | 52 | | - | | 1 | | - | | 18,805 |
| KT Skylife Co., Ltd. | | 1,959 | | - | | 243 | | - | | 10,727 |
| Skylife TV Co., Ltd. | | 4 | 3 | ,000 | | 3 | | - | | 2,276 |
| KTDS Co., Ltd. | | 204 | | - | 8 | 3,372 | | - | | 116,079 |
| KT Estate Inc. | | 2,447 | | - | 43 | 3,427 | | - | | 45,772 |
| BC Card Co., Ltd. | | 378 | | - | 5 | 5,786 | | - | | 1,139 |

| (in millions of Korean won) | December 31, 2016 | | | | | | | |
|-----------------------------|----------------------|-------------|-------------------|-------------------|-------------------|--|--|--|
| | | Receivables | Payables | | | | | |
| | Trade receivables | Loans | Other receivables | Trade payables | Other payables | | | |
| KT Sat Co., Ltd. | 311 | - | 36 | - | 3,639 | | | |
| KT Hitel Co., Ltd. | 503 | - | 1,954 | 17,803 | 7,178 | | | |
| KT Commerce Inc. | 192 | - | 8 | 9,544 | 72,353 | | | |
| KT M Hows Co., Ltd. | 114 | - | 8 | - | 3,357 | | | |
| KT M&S Co., Ltd. | 24 | - | 102 | - | 83,674 | | | |
| KT Music Corporation | - | - | 562 | - | 6,707 | | | |
| KT M mobile | 3,354 | - | 640 | - | 6,158 | | | |
| Nasmedia, Inc. | 7,742 | - | 2 | - | 1,427 | | | |
| Others | 11,622 | 2,660 | 3,135 | - | 46,104 | | | |
| Associates | | | | | | | | |
| KT WiBro Infra Co., Ltd. | - | - | - | - | 43,394 | | | |
| K-REALTY CR REIT 1 | - | - | 33,110 | - | - | | | |
| MOS GS Co., Ltd. | 9 | - | 1 | - | 1,481 | | | |
| MOS Daegu Co., Ltd. | 1 | - | - | - | 1,082 | | | |
| MOS Chungcheong Co., Ltd. | 6 | - | 1 | - | 2,043 | | | |
| MOS Gangnam Co., Ltd. | 5 | - | 1 | - | 1,114 | | | |
| MOS GB Co., Ltd. | 2 | - | 1 | - | 2,164 | | | |
| MOS BS Co., Ltd. | 17 | - | 1 | - | 1,094 | | | |
| MOS Honam Co., Ltd. | 1 | - | - | - | 1,289 | | | |
| Others | 70 | - | 179 | 2 | 302 | | | |
| Others | | | | | | | | |
| KT ENGCORE Co., Ltd. | 6,042 | - | 4,173 | 2,338 | 134,496 | | | |
| Total | ₩ 43,076 | ₩ 5,734 | ₩ 105,989 | ₩ 29,692 | ₩ 725,572 | | | |

Significant transactions with related parties for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | | | | | | | | |
|-----------------------------|-----------------------------------|--------|-----------------------|----|---------------------|---------|---|--------|--|
| | Sales | | | | Purchases | | | | |
| | Operating Other revenue income | | Operating expenses | | Others ¹ | | | | |
| Subsidiaries | | | | | | | | | |
| KT Linkus Co., Ltd. | ₩ | 8,814 | ₩ | 27 | ₩ | 65,929 | ₩ | 338 | |
| KT Telecop Co., Ltd. | | 11,885 | | 4 | | 8,847 | | 5,238 | |
| KTCS Corporation | | 60,843 | | 72 | | 301,775 | | 52,128 | |

| (in millions of Korean won) |) 2017 | | | | | | |
|--|-------------------|-----------------|-----------------------|---------------------|--|--|--|
| | Sale | s | Purch | ases | | | |
| | Operating revenue | Other income | Operating expenses | Others ¹ | | | |
| KTIS Corporation | 64,790 | 21 | 278,818 | 59,192 | | | |
| KT Service Bukbu Co., Ltd. | 14,489 | 5 | 185,530 | 1,900 | | | |
| KT Service Nambu Co., Ltd. | 13,067 | 9 | 217,085 | 841 | | | |
| KT Skylife Co., Ltd. | 24,138 | 39 | 46,096 | - | | | |
| Skylife TV Co., Ltd. | 4,957 | 90 | 9,774 | - | | | |
| KTDS Co., Ltd. | 13,889 | 1 | 240,309 | 144,424 | | | |
| KT Estate Inc. | 8,164 | 7 | 170,139 | 4,622 | | | |
| BC Card Co., Ltd. | 6,963 | 3 | 21,949 | 5,525 | | | |
| KT Sat Co., Ltd. | 4,705 | - | 20,761 | 4 | | | |
| KT Hitel Co., Ltd. | 12,064 | 3 | 50,035 | 5,547 | | | |
| KT Commerce Inc. | 1,277 | - | 183,400 | 183,462 | | | |
| KT M Hows Co., Ltd. | 978 | 4 | 1,742 | - | | | |
| KT M&S Co., Ltd. | 505,905 | 45 | 190,383 | 216,414 | | | |
| GENIE Music Corporation (KT Music Corporation) | 1,888 | - | 36,137 | 189 | | | |
| KT M mobile | 56,158 | - | 9,522 | 38,808 | | | |
| Others | 22,260 | 313 | 58,979 | 1,077 | | | |
| Associates | | | | | | | |
| K-REALTY CR REIT 1 | - | - | 35,532 | - | | | |
| MOS GS Co., Ltd. | 594 | - | 15,135 | 1,811 | | | |
| MOS Daegu Co., Ltd. | 220 | - | 7,580 | 934 | | | |
| MOS Chungcheong Co., Ltd. | 303 | - | 13,888 | 1,019 | | | |
| MOS Gangnam Co., Ltd. | 265 | - | 14,971 | 1,409 | | | |
| MOS GB Co., Ltd. | 705 | - | 20,060 | 1,591 | | | |
| MOS BS Co., Ltd. | 201 | - | 15,495 | 462 | | | |
| MOS Honam Co., Ltd. | 372 | - | 13,220 | 1,074 | | | |
| K Bank, Inc. | 1,991 | - | 46 | - | | | |
| NgeneBio ² | 2 | 30 | - | - | | | |
| Others | 296 | 123 | 4,644 | - | | | |
| Others | | | | | | | |
| KT ENGCORE Co., Ltd. | 687 | - | 112,443 | 167,033 | | | |
| Total | ₩ 842,870 | ₩ 796 | ₩ 2,350,224 | ₩ 895,042 | | | |

¹ The amount for acquisition of tangible assets, etc. are included.

 $^{2}\ensuremath{\,\text{It}}$ is the amount after excluded from consolidation during the year.

| (in millions of Korean won) | | 2016 | | | | | | | |
|--------------------------------------|-----------|--------|-----------|----------------------------|--|--|--|--|--|
| | Sale | s | Purchases | | | | | | |
| | Operating | Other | Operating | Others ¹ | | | | | |
| | revenue | income | expenses | Others | | | | | |
| Subsidiaries | | | | | | | | | |
| KT Linkus Co., Ltd. | ₩ 10,121 | ₩ 38 | ₩ 65,111 | ₩ 742 | | | | | |
| KT Telecop Co., Ltd. | 13,562 | - | 17,778 | 217 | | | | | |
| KTCS Corporation | 54,947 | - | 299,327 | 41,521 | | | | | |
| KTIS Corporation | 59,251 | - | 276,008 | 45,447 | | | | | |
| KT Service Bukbu Co., Ltd. | 14,225 | - | 172,968 | 952 | | | | | |
| KT Service Nambu Co., Ltd. | 15,095 | - | 203,792 | 243 | | | | | |
| KT Skylife Co., Ltd. | 20,814 | 26 | 42,920 | 11 | | | | | |
| KTDS Co., Ltd. | 14,364 | - | 245,605 | 163,244 | | | | | |
| KT Estate Inc. | 7,104 | - | 163,227 | 7,270 | | | | | |
| BC Card Co., Ltd. | 12,279 | - | 19,595 | - | | | | | |
| KT Sat Co., Ltd. | 4,342 | - | 19,979 | 12 | | | | | |
| KT Hitel Co., Ltd. | 8,273 | - | 57,140 | 6,959 | | | | | |
| KT M Hows Co., Ltd. | 1,251 | - | 387,953 | 309 | | | | | |
| KT Commerce Inc. | 1,019 | - | 2,363 | - | | | | | |
| KT M&S Co., Ltd. | 455,648 | 918 | 193,328 | 166,240 | | | | | |
| KT Music Corporation | 4,025 | - | 32,983 | 1,771 | | | | | |
| KT M mobile | 47,028 | - | 3,348 | 23,824 | | | | | |
| Smart Channel Co., Ltd. ² | 439 | - | - | - | | | | | |
| Others | 35,070 | 585 | 67,260 | 2,908 | | | | | |
| Associates | | | | | | | | | |
| KT WiBro Infra Co., Ltd. | 11 | - | - | 391 | | | | | |
| Smart Channel Co., Ltd. ³ | 766 | - | - | - | | | | | |
| K-REALTY CR REIT 1 | - | - | 37,469 | - | | | | | |
| MOS GS Co., Ltd. | 564 | - | 15,019 | 2,241 | | | | | |
| MOS Daegu Co., Ltd. | 191 | - | 10,857 | 1,091 | | | | | |
| MOS Chungcheong Co., Ltd. | 265 | - | 11,335 | 1,481 | | | | | |
| MOS Gangnam Co., Ltd. | 256 | - | 14,146 | 1,540 | | | | | |
| MOS GB Co., Ltd. | 606 | - | 19,417 | 2,188 | | | | | |
| MOS BS Co., Ltd. | 189 | - | 13,985 | 1,075 | | | | | |
| MOS Honam Co., Ltd. | 285 | - | 12,944 | 1,174 | | | | | |
| Others | 89 | 100 | 3,670 | - | | | | | |
| Others | | | | | | | | | |
| KT ENGCORE Co., Ltd. | 664 | 5 | 77,749 | 306,532 | | | | | |

| (in millions of Korean won) | 2016 | | | | | | |
|-----------------------------|-------------------|-----------------|-----------------------|---------------------|--|--|--|
| | Sale | s | Purcha | ases | | | |
| | Operating revenue | Other income | Operating expenses | Others ¹ | | | |
| Total | ₩ 782,743 | ₩ 1,672 | ₩ 2,487,276 | ₩ 779,383 | | | |

¹ The amount for acquisition of tangible assets, etc. are included

² It is the amount after included and before excluded from consolidation during the prior year.

³ It is the amount before included from consolidation during the prior year.

Key management compensation for the years ended December 31, 2017 and 2016, consists of:

| (in millions of Korean won) | 2017 | | 201 | 6 |
|--|-------------------|-------|-----|-------|
| Salaries and other short-term benefits | $\forall \forall$ | 2,879 | ₩ | 2,629 |
| Post-employment benefits | | 311 | | 381 |
| Stock-based compensation | | 1,331 | | 1,237 |
| Total | ₩ | 4,521 | ₩ | 4,247 |

Fund transactions with related parties for the years ended December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | 2017 | | | | | | | | |
|--------------------------------------|-------------------|-------|------------|-------|--------------------------|-------|----------|--------|--|
| | Loan transactions | | | | Equity | | Dividend | | |
| | Loans | | Repayments | | contributions in cash | | income | | |
| Subsidiaries | | | | | | | | | |
| Ktcs Corporation | ₩ | 60 | ₩ | 84 | ₩ | - | ₩ | 254 | |
| KT Linkus Co., Ltd | | - | | - | | 150 | | - | |
| KT Submarine Co., Ltd. | | - | | - | | - | | 404 | |
| KTIS Corporation | | - | | - | | - | | 816 | |
| KT Skylife Co., Ltd. | | - | | - | | - | | 9,922 | |
| KTDS Co., Ltd. | | - | | - | | - | | 5,904 | |
| KT Estate Inc. | | - | | - | | - | | 46,854 | |
| BC Card Co., Ltd. | | - | | - | | - | | 67,310 | |
| Nasmedia, Inc. | | - | | - | | - | | 1,460 | |
| KT Commerce Inc. | | - | | - | | - | | 326 | |
| KBTO Sp.z o. o. | | 4,127 | | 4,036 | | 5,978 | | - | |
| KT Strategic Investment Fund No.3 | | - | | - | | 6,500 | | - | |

| (in millions of Korean won) | 2017 | | | | | | | |
|---|------|------------------|----------|-------|-----------------------|-------------------------|-------|---------|
| | | Loan tran | sactions | | | Equity contributions in | | vidend |
| | Loa | Loans Repayments | | | contributions in cash | | ncome | |
| KT Music Contents Investment Fund No.2 | | - | | - | | 2,000 | | - |
| KT Strategic Investment Fund No.4 | | - | | - | | 9,500 | | - |
| KT Music Contents Investment Fund No.1 | | - | | - | | 1,050 | | - |
| KT Belgium | | - | | - | | 16,971 | | - |
| Autopion Co., Ltd. | | 1,461 | | 1,400 | | - | | - |
| Associates and jointly controlled entities | | | | | | | | |
| K-REALTY CR REIT 1 | | - | | - | | - | | 5,392 |
| kt-ibkc future investment fund 1 | | - | | - | | 6,500 | | - |
| K Bank, Inc. | | - | | - | | 26,543 | | - |
| Others | | - | | - | | 1,865 | | 805 |
| Total | ₩ | 5,648 | ₩ | 5,520 | ₩ | 77,057 | ₩ | 139,447 |

| (in millions of Korean won) | 2016 | | | | | | | |
|---|-------------------|----|--------|--------|--------------------|----------|------|---------|
| - | Loan transactions | | | Equity | | Dividend | | |
| - | Loans | | Repaym | ents | contributi cash | | inco | ome |
| Subsidiaries | | | | | | | | |
| Ktcs Corporation | ₩ | - | ₩ | 87 | ₩ | - | ₩ | 318 |
| Autopion Co., Ltd. | | - | | 100 | | - | | - |
| KT M Hows Co., Ltd. | | - | | - | | 3,450 | | - |
| KT-Michigan Global Contents Fund | | - | | - | | 6,280 | | - |
| KT HONG KONG TELECOMMUNICATIONS CO. LIMITED | | - | | - | | 460 | | - |
| KT Innoedu Co., Ltd.1 | | - | | - | | 1,034 | | - |
| KT Submarine Co., Ltd. | | - | | - | | - | | 404 |
| Ktis Corporation | | - | | - | | - | | 1,020 |
| KT Skylife Co., Ltd. | | - | | - | | - | | 8,368 |
| KTDS Co., Ltd. | | - | | - | | - | | 7,920 |
| KT Estate Inc. | | - | | - | | - | | 29,408 |
| BC Card Co., Ltd. | | - | | - | | - | | 101,883 |
| KT Sat Co., Ltd. | | - | | - | | - | | 14,500 |
| Nasmedia, Inc. | | - | | - | | - | | 1,347 |
| KBTO Sp.z.o.o. | 1,93 | 37 | | - | | 1,295 | | - |

| (in millions of Korean won) | 2016 | | | | | |
|---|------|-----------|----------|-------|-------------------------|-----------|
| | | Loan tran | sactions | | Equity contributions in | Dividend |
| | Loa | ins | Repayn | nents | cash | income |
| KT Strategic Investment Fund No.3 | | - | | - | 6,500 | - |
| KT M mobile | | - | | - | 100,000 | - |
| N SEARCH MARKETING Corp | | - | | - | 20,000 | - |
| Associates and jointly controlled entities KT-DSC creative economy youth start-up investment | | | | _ | 3,600 | |
| fund | | | | | 0,000 | |
| AI RESEARCH INSTITUTE | | - | | - | 3,000 | - |
| kt-ibkc future investment fund 1 | | - | | - | 3,250 | - |
| Gyeonggi-KT Yoojin Superman Fund | | - | | - | 1,000 | - |
| K-REALTY CR REIT 1 | | - | | - | - | 4,186 |
| KIF-IMM IT Investment Fund | | - | | - | - | 3,201 |
| Others | | - | | - | - | 66 |
| Total | ₩ | 1,937 | ₩ | 187 | ₩ 149,869 | ₩ 172,621 |

¹ During the year ended December 31, 2016, the Company invested ₩ 1,034 million in kind.

At the end of the reporting period, the Company entered into a credit card agreement with a limit of $\forall 4,817 \text{ million} (2016: \forall 4,707 \text{ million})$ with BC Card Co., Ltd.

35. Financial Risk Management

(1) Financial Risk Factors

The Company's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Company's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance. The Company uses derivatives to hedge certain financial risk exposures such as fair value risk and cash flow risk.

The Company's financial policy is set up in the long-term perspective and annually reported to the Board of Directors. The financial risk management is carried out by the Value Management Office, which identifies, evaluates and hedges financial risks. The treasury department in the Value Management Office considers various market conditions to estimate the effect from the market changes.

(1) Market risk

The Company's market risk management focuses on controlling the extent of exposure to the risk in order to minimize revenue volatility. Market risk is a risk that decreases value or profit of the Company's portfolio due to changes in market interest rate, foreign exchange rate and other factors.

i) Sensitivity analysis

Sensitivity analysis is performed for each type of market risk to which the Company is exposed. Reasonably possible changes in the relevant risk variable such as prevailing market interest rates, currency rates, equity prices or commodity prices are estimated and if the rate of change in the underlying risk variable is stable, the Company does not alter the chosen reasonably possible change in the risk variable. The reasonably possible change does not include remote or 'worst case' scenarios or 'stress tests'.

ii) Foreign exchange risk

The Company is exposed to foreign exchange risk arising from operating, investing and financing activities. Foreign exchange risk is managed within the range of the possible effect on the Company's cash flows. Foreign exchange risk not affecting the Company's cash flows is not hedged but can be hedged at a particular situation.

As of December 31, 2017 and 2016, if the foreign exchange rate had strengthened/weakened by 10% with all other variables held constant, the effects on profit before income tax and equity would have been as follows:

| (in millions of Korean won) | Fluctuation of foreign exchange rate | Income before | e tax | Equity | |
|-----------------------------|---|---------------|---------|--------|---------|
| 2017. 12. 31 | + 10% | \mathbf{W} | (5,948) | ₩ | (3,089) |
| 2017. 12. 31 | - 10% | | 5,948 | | 3,089 |
| 2016. 12. 31 | + 10% | \forall | (6,792) | ₩ | (2,475) |
| | - 10% | | 6,792 | | 2,475 |

The above analysis is a simple sensitivity analysis which assumes that all the variables other than foreign exchange rates are held constant. Therefore, the analysis does not reflect any correlation between foreign exchange rates and other variables, nor the management's decision to decrease the risk.

Details of financial assets and liabilities in foreign currencies as of December 31, 2017 and 2016, are as follows:

| (in thousands of | December 31, 2017 | | | | Decembe | r 31, 2016 | 6 | |
|---------------------|-------------------|---------|----------|----------------|----------|------------|----------|----------------|
| foreign currencies) | Financial a | issets | Financia | al liabilities | Financia | al assets | Financia | al liabilities |
| USD | $\forall \forall$ | 126,588 | ₩ | 1,652,424 | ₩ | 120,270 | ₩ | 2,271,980 |
| SDR | | 306 | | 738 | | 311 | | 737 |
| JPY | | - | | 21,800,000 | | - | | 21,800,000 |
| MMK | | 84 | | - | | 2,750 | | - |
| EUR | | 175 | | 12 | | 38 | | 153 |
| DZD | | 47 | | - | | 471 | | - |
| HKD | | - | | - | | 254 | | - |
| BDT | | 38,074 | | - | | 69,473 | | - |
| PLN | | 338 | | - | | 106,025 | | - |
| RWF | | 3,346 | | - | | 1,203 | | - |
| UZS | | 136,787 | | - | | 39,531 | | - |
| VND | 3 | 311,649 | | - | | 515,412 | | - |
| TZS | 3 | 317,348 | | - | | 29,987 | | - |
| BWP | | 42 | | - | | 15 | | - |

iii) Price risk

As of December 31, 2017, the Company is exposed to equity securities price risk because the securities held by the Company are traded in active markets. If the market prices had increased/decreased by 10% with all other variables held constant, the effects on profit before income tax and equity would have been as follows:

| (in millions of Korean won) | Fluctuation of price | Income before tax | | Equity | |
|-----------------------------|----------------------|-------------------|---|--------|-----|
| 2017. 12. 31 | +10% | $\forall \forall$ | - | ₩ | 9 |
| | -10% | | - | | (9) |
| 2016. 12. 31 | +10% | $\forall \forall$ | - | ₩ | 9 |
| | -10% | | - | | (9) |

The above analysis is based on the assumption that the equity index had increased/decreased by 10% with all other variables held constant and all the Company's marketable equity instruments had moved according to the historical correlation with the index. Gain or loss on equity securities classified as available-for-sale financial assets can increase or decrease equity.

iv) Cash flow and fair value interest rate risk

The Company's interest rate risk arises from liabilities in foreign currency such as foreign currency debentures. Debentures in foreign currency issued at variable rates expose the Company to cash flow interest rate risk which is partially offset by swap transactions. Debentures and borrowings issued at fixed rates expose the Company to fair value interest rate risk. The Company sets the policy and operates to minimize the uncertainty of the changes in interest rates and financial costs.

As of December 31, 2017 and 2016, if the market interest rate had increased/decreased by 100bp with other variables held constant, the effects on profit before income tax and equity would be as follows:

| (in millions of Korean won) | Fluctuation of interest rate | Income before tax | Equity |
|-----------------------------|---------------------------------|-------------------|---------|
| 2017. 12. 31 | + 100 bp | ₩ 291 | ₩ 3,356 |
| | - 100 bp | (303) | (3,686) |
| 2016. 12. 31 | + 100 bp | ₩ 170 | ₩ 1,233 |
| | - 100 bp | (181) | (1,374) |

The above analysis is a simple sensitivity analysis which assumes that all the variables other than market interest rates are held constant. Therefore, the analysis does not reflect any correlation between market interest rates and other variables, nor the management's decision to decrease the risk.

(2) Credit risk

Credit risk is managed on the Company basis with the purpose of minimizing financial loss. Credit risk arises from the normal transactions and investing activities, where clients or other party fails to discharge an obligation on contract conditions. To manage credit risk, the Company considers the counterparty's credit based on the counterparty's financial conditions, default history and other important factors.

Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as outstanding receivables. To minimize such risk, only the financial institutions with strong credit ratings are accepted.

| | December 31, 2017 | December 31, 2016 | |
|---|-------------------|-------------------|--|
| Cash equivalents(except for cash on hand) | ₩ 1,165,532 | ₩ 1,601,383 | |
| Trade and other receivables ¹ | 3,475,985 | 3,212,206 | |
| Other financial assets | | | |
| Derivate used for hedge | 7,389 | 214,648 | |
| Financial instruments | 58,365 | 168,366 | |
| Available-for-sale financial assets | 4,900 | 7,200 | |
| Total | ₩ 4,712,171 | ₩ 5,203,803 | |

As of December 31, 2017 and 2016, maximum exposure to credit risk is as follows:

(3) Liquidity risk

The Company manages its liquidity risk by liquidity strategy and plans. The Company considers the maturity of financial assets and financial liabilities and the estimated cash flows from operations.

The table below analyzes the Company's liabilities (including interest expenses) into relevant maturity groups based on the remaining period at the report date to the contractual maturity date and these amounts are contractual undiscounted cash flows:

| | | r 31, 2017 | | |
|----------------------------------|------------------|-------------|-------------------|--------------|
| (in millions of Korean won) | Less than 1 year | 1-5 years | More than 5 years | Total |
| Trade and other payables | ₩ 4,144,455 | ₩ 914,052 | ₩ 158,106 | ₩ 5,216,613 |
| Borrowings(including debentures) | 1,474,485 | 3,488,074 | 2,317,203 | 7,279,762 |
| Others ¹ | 13,328 | - | | 13,328 |
| Total | ₩ 5,632,268 | ₩ 4,402,126 | ₩ 2,475,309 | ₩ 12,509,703 |

| | December 31, 2016 | | | | |
|----------------------------------|-------------------|-------------|-------------------|--------------|--|
| (in millions of Korean won) | Less than 1 year | 1-5 years | More than 5 years | Total | |
| Trade and other payables | ₩ 4,214,212 | ₩ 1,073,968 | ₩ 216,025 | ₩ 5,504,205 | |
| Borrowings(including debentures) | 1,821,587 | 4,490,006 | 2,458,719 | 8,770,312 | |
| Others ¹ | 6,004 | - | | 6,004 | |
| Total | ₩ 6,041,803 | ₩ 5,563,974 | ₩ 2,674,744 | ₩ 14,280,521 | |

¹ It consists of the maximum limit related to joint responsibility and agreement of assumption of debts. The cash flows on agreement are classified based on the earliest period that the agreement can be executed. (Note 19)

As of December 31, 2017 and 2016, cash outflow and inflow of derivatives settled gross or net are undiscounted contractual cash flow and can differ from the amount in the financial statements.

| | December 31, 2017 | | | | |
|-----------------------------|-------------------|-----------|-------------------|-------------|--|
| (in millions of Korean won) | Less than 1 year | 1-5 years | More than 5 years | Total | |
| Outflows | ₩ 588,914 | ₩ 407,503 | ₩ 526,633 | ₩ 1,523,050 | |
| Inflows | 557,858 | 428,339 | 509,558 | 1,495,755 | |
| | December 31, 2016 | | | | |
| (in millions of Korean won) | Less than 1 year | 1-5 years | More than 5 years | Total | |
| Outflows | ₩ 1,135,472 | ₩ 987,107 | ₩ 535,942 | ₩ 2,658,521 | |
| Inflows | 1,258,354 | 1,091,053 | 588,419 | 2,937,826 | |

(2) Management of Capital Risk

The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The Company's capital structure consists of liabilities including borrowings, cash and cash equivalents, and shareholders' equity. The treasury department monitors the Company's capital structure and considers cost of capital and risks related each capital component.

The Company's debt-to-equity ratios as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won, %) | December 31, 2017 | December 31, 2016 |
|--------------------------------|-------------------|-------------------|
| Total liabilities | ₩ 12,023,84 | 5 ₩ 13,615,818 |
| Total equity | 11,311,07 | 3 11,084,519 |
| Debt-to-equity ratio | 106% | 123% |

The Company manages capital on the basis of the gearing ratio. The ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings less cash and cash equivalents. Total capital is calculated as 'equity' as shown in the statement of financial position plus net debt.

The Company's gearing ratios as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won, %) | December 31, 2017 | December 31, 2016 | |
|---------------------------------|-------------------|-------------------|--|
| Total borrowings | ₩ 6,212,934 | ₩ 7,569,047 | |
| Less: cash and cash equivalents | (1,166,402) | (1,602,397) | |
| Net debt | 5,046,532 | 5,966,650 | |
| Total equity | 11,311,078 | 11,084,519 | |
| Total capital | 16,357,610 | 17,051,169 | |

31%

35%

(3) Offsetting Financial Assets and Financial Liabilities

Details of the Company's recognized financial assets subject to enforceable master netting arrangements or similar agreements are as follows:

| (in millions of | December 31, 2017 | | | | | | |
|---|-------------------|--------------------------------|---|--|------------|--|--|
| | | | Net amounts | Amounts not offset | _ | | |
| Korean won) | Gross assets | Gross liabilities offset | presented in the statement of financial position | Financial Cash instruments collateral | Net amount | | |
| Derivate used for hedge 1 | ₩ 3,284 | ₩ - | ₩ 3,284 | ₩ (3,284) ₩ - | - ₩ - | | |
| Trade receivables ² | 76,292 | - | 76,292 | (73,438) | 2,854 | | |
| Total | ₩ 79,576 | ₩ - | ₩ 79,576 | ₩ (76,722) ₩ | ₩ 2,854 | | |
| (in millions of | | | December 3 | 31, 2016 | | | |
| | | | Net amounts | Amounts not offset | _ | | |
| Korean won) | Gross assets | Gross liabilities offset | presented in the statement of financial position | Financial Cash instruments collateral | Net amount | | |
| Derivate used for hedge ¹ | ₩ 35,334 | ₩ - | ₩ 35,334 | ₩ (5,707) ₩ - | ₩ 29,627 | | |
| Trade receivables ² | 95,847 | - | 95,847 | (91,662) | 4,185 | | |
| Total | ₩ 131,181 | ₩ - | ₩ 131,181 | ₩ (97,369) ₩ - | ₩ 33,812 | | |

¹ Netting arrangements under the standard contract of International Swap and Derivatives Association (ISDA).

²Netting arrangements with reference to the offers of telecommunication facility interconnection and sharing data among telecommunication companies.

Details of the Company's recognized financial assets subject to enforceable master netting arrangements or similar agreements are as follows:

| (in millions of | December 31, 2017 | | | | | | | |
|--------------------------------------|----------------------|------------------------|---|--------------------------|--------------------|------------|--|--|
| | | Net amounts A | | Amounts n | ot offset | _ | | |
| Korean won) | Gross liabilities | Gross assets offset | presented in the statement of financial position | Financial instruments | Cash collateral | Net amount | | |
| Derivate used for hedge ¹ | ₩ 26,135 | ₩ - | ₩ 26,135 | ₩ (3,284) | ₩ - | ₩ 22,851 | | |
| Trade payables ² | 75,283 | | 75,283 | (73,438) | | 1,845 | | |
| Total | ₩ 101,418 | ₩ - | ₩ 101,418 | ₩ (76,722) | ₩ - | ₩ 24,696 | | |
| (in millions of | | | December | 31, 2016 | | | | |
| | | | Net amounts | Amounts n | ot offset | | | |
| | | • | presented in the | | | - | | |

| | | | | | not amounto | Anounts in | | | or onset | | | |
|--------------------------------------|---|------------------|------------------------|---|---|------------|---|--|--------------------|---|------------|-----|
| Korean won) | - | ross pilities | Gross assets offset | S | presented in the statement of financial position | | ement of Financial nancial instruments | | Cash collateral | | Net amount | |
| Derivate used for hedge ¹ | ₩ | 5,707 | ₩ | - | ₩ 5,7 | 07 | ₩ (5,707) | | ₩ | - | ₩ | - |
| Trade payables ² | | 92,374 | | - | 92,3 | 74 | (91,662) | | | - | | 712 |
| Total | ₩ | 98,081 | ₩ | - | ₩ 98,0 | 81 | ₩ (97,369) | | ₩ | - | ₩ | 712 |

¹ Netting arrangements under the standard contract of ISDA (International Swap and Derivatives Association).

 $^2\,\text{Netting}$ arrangements with reference to the offers of telecommunication facility interconnection and sharing data among telecommunication companies.

36. Fair Value

(1) Fair Value by Financial Instruments Category

Carrying amounts and fair values of the financial assets and financial liabilities by category as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December | 31, 2017 | December 31, 2016 | | | |
|--|--------------------|--------------|--------------------|--------------|--|--|
| | Carrying amount | Fair value | Carrying amount | Fair value | | |
| Financial assets | | | | | | |
| Cash and cash equivalents ¹ | ₩ 1,166,402 | ₩ 1,166,402 | ₩ 1,602,397 | ₩ 1,602,397 | | |
| Trade and other receivables ¹ | 3,475,985 | 3,475,985 | 3,212,206 | 3,212,206 | | |
| Other financial assets | | | | | | |
| Derivative used for hedge | 7,389 | 7,389 | 214,648 | 214,648 | | |
| Other financial instruments ¹ | 58,365 | 58,365 | 168,366 | 168,366 | | |
| Available-for-sale financial assets ² | 85 | 85 | 93 | 93 | | |
| | ₩ 4,708,226 | ₩ 4,708,226 | ₩ 5,197,710 | ₩ 5,197,710 | | |
| Financial liabilities | | | | | | |
| Trade and other payables ¹ | ₩ 5,067,712 | ₩ 5,067,712 | ₩ 5,316,830 | ₩ 5,316,830 | | |
| Borrowings | 6,212,934 | 6,267,599 | 7,569,047 | 7,632,086 | | |
| Other financial liabilities | | | | | | |
| Derivative used for hedge | 81,200 | 81,200 | 11,413 | 11,413 | | |
| Other derivative financial liability | 5,051 | 5,051 | 1,973 | 1,973 | | |
| | ₩ 11,366,897 | ₩ 11,421,562 | ₩ 12,899,263 | ₩ 12,962,302 | | |

¹ An additional measurement of fair value is not performed because the carrying amount is a reasonable approximation of fair value.

² Investments in equity instruments that do not have a quoted market price in an active market, and whose fair value cannot be reliably measured are not included and these are measured at cost.

(2) Financial Instruments Measured at Cost

The details of Available-for-sale financial assets measured at historical cost as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 3 ⁴ | 1, 2017 | December | 31, 2016 |
|---|-------------------------|---------|----------|----------|
| K-Bank | ₩ | - | ₩ | 36,500 |
| IBK-AUCTUS Green Growth Private Equity Fund | | 8,518 | | 9,506 |
| WALDEN No.6 Fund | | 4,670 | | 4,710 |
| TRANSLINK No.2 Fund | | 9,395 | | 9,395 |
| Storm IV Fund | | 8,453 | | 7,550 |
| CBC II Fund | | 7,298 | | 8,601 |
| Others | | 26,497 | | 29,021 |
| Total | ₩ | 64,831 | ₩ | 105,283 |

The range of estimated cash flows is significant and the probabilities of the various estimates cannot be reasonably assessed and therefore, these instruments are measured at cost.

The Company does not have any plans to dispose of the above-mentioned equities instruments in the near future. These instruments will be measured at fair value when the Company can develop a reliable estimate of the fair value.

(3) Fair Value Hierarchy

Assets measured at fair value or for which the fair value is disclosed are categorized within the fair value hierarchy, and the defined levels are as follows:

Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1).

Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, prices) or indirectly (that is, derived from prices) (Level 2).

Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (Level 3).

Fair value hierarchy classifications of the financial assets and financial liabilities that are measured at fair value or its fair value is disclosed as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | | | | | | | | |
|--|-------------------|---------|---------|----------|---------|---------|-------|-----------|--|
| | Level 1 | | Level 2 | | Level 3 | | Total | | |
| Assets | | | | | | | | | |
| Recurring fair value measurements | | | | | | | | | |
| Other financial assets | | | | | | | | | |
| Derivative used for hedging | ₩ | - | ₩ | 7,389 | ₩ | - | ₩ | 7,389 | |
| Available-for-sale financial assets | | 85 | | - | | - | | 85 | |
| | | 85 | | 7,389 | | - | | 7,474 | |
| Disclosed fair value | | | | | | | | | |
| Investment in subsidiaries, associates and joint ventures | | 919,386 | | - | | - | | 919,386 | |
| Investment property ¹ | | - | | - | 1,6 | 691,010 | | 1,691,010 | |
| | | 919,386 | | - | 1,6 | 691,010 | | 2,610,396 | |
| Total | ₩ | 919,471 | ₩ | 7,389 | ₩ 1,6 | 691,010 | ₩ | 2,617,870 | |
| Liabilities | | | | | | | | | |
| Recurring fair value measurements | | | | | | | | | |
| Other financial liabilities | | | | | | | | | |
| Derivative used for hedging | ₩ | - | ₩ | 63,475 | ₩ | 17,725 | ₩ | 81,200 | |
| Other derivative financial liability | | - | | - - | | 5,051 | | 5,051 | |
| | | - | | 63,475 | | 22,776 | | 86,251 | |
| Disclosed fair value | | | | | | | | | |
| Borrowings | | - | | - | 6,2 | 267,599 | | 6,267,599 | |
| | | - | | - | 6,2 | 267,599 | | 6,267,599 | |
| Total | ₩ | - | ₩ | 63,475 | ₩ 6,2 | 290,375 | ₩ | 6,353,850 | |
| (in millions of Korean won) | | | | December | 24 2046 | | | | |
| | | vel 1 | | evel 2 | Leve | | | Total | |
| Assets | Le | VEII | Le | | Leve | 51 3 | | Total | |
| Recurring fair value measurements | | | | | | | | | |
| Other financial assets | | | | | | | | | |
| Derivative used for hedging | ₩ | · - | ₩ | 214,648 | ₩ | - | ₩ | 214,648 | |
| Available-for-sale financial assets | | 93 | | - | | - | | 93 | |
| | | 93 | | 214,648 | | - | | 214,741 | |
| | | | | / | | | | , - | |

| Disclosed fair value | | | | | | | | |
|--|-----|---------|---|---------|-----|---------|-----|-----------|
| Investment in subsidiaries, associates and joint ventures | 8 | 374,984 | | - | | - | | 874,984 |
| Investment property ¹ | | - | | - | 1, | 433,599 | | ,433,599 |
| | 8 | 374,984 | | - | 1, | 433,599 | | 2,308,583 |
| Total | ₩ 8 | 375,077 | ₩ | 214,648 | ₩1, | 433,599 | ₩ 2 | 2,523,324 |
| | | | | | | | | |
| Liabilities | | | | | | | | |
| Recurring fair value measurements | | | | | | | | |
| Other financial liabilities | | | | | | | | |
| Derivative used for hedging | ₩ | - | ₩ | 11,413 | ₩ | - | ₩ | 11,413 |
| Other derivative financial liability | | - | | - | | 1,973 | | 1,973 |
| | | - | | 11,413 | | 1,973 | | 13,386 |
| Disclosed fair value | | | | | | | | |
| Borrowings | | - | | - | 7, | 632,086 | - | 7,632,086 |
| | | - | | - | 7, | 632,086 | - | 7,632,086 |
| Total | ₩ | - | ₩ | 11,413 | ₩7, | 634,059 | ₩ | 7,645,472 |
| | | | | | | | | |

¹ The highest and best use of a non-financial asset does not differ from its current use.

(4) Transfers between Fair Value Hierarchy Levels of Recurring Fair Value Measurements

There are no transfers between Level 1 and Level 2 of the fair value hierarchy for the recurring fair value measurements.

Details of changes in Level 3 of the fair value hierarchy for the recurring fair value measurements are as follows:

| (in millions of Korean won) | December 31, 2017 | | | | | | | |
|---|---|---------|--|-------|--|--|--|--|
| | Derivative financial ass for hedging pu | sets | Other derivative financia liabilities | | | | | |
| Beginning balance | ₩ | - | ₩ | 1,973 | | | | |
| Amount recognized in profit or loss ¹ Amount recognized in | | 19,634 | | 3,078 | | | | |
| other comprehensive | | (1,909) | | - | | | | |
| Ending balance | ₩ | 17,725 | ₩ | 5,051 | | | | |

¹ Profit of loss from derivatives used for hedging consist of gains or losses on valuation of derivatives

| (in millions of Korean won) | December 31, 2016 | | | | | | | |
|---|--|---|--------------------------------------|-----------|--|--|--|--|
| | Derivative financial assets for hedging purposes | | Other derivative financ liabiliti | | | | | |
| Beginning balance Amount recognized in | ₩ | - | ₩ 2 | ,006 | | | | |
| Amount recognized in Amount recognized in other comprehensive | | - | | (33) - | | | | |
| income | | | | | | | | |
| Ending balance | ₩ | - | ₩ 1 | ,973 | | | | |

¹ Profit or loss from other derivatives consist of gain on sale.

² Profit of loss from derivatives used for hedging consist of gains or losses on valuation of derivatives.

(5) Valuation Technique and the Inputs

Valuation techniques and inputs used in the recurring, non-recurring fair value measurements and disclosed fair values categorized within Level 2 and Level 3 of the fair value hierarchy as of December 31, 2017 and 2016, are as follows:

| (in millions of Korean won) | December 31, 2017 | | | | | | |
|--------------------------------------|----------------------|------------|----------------------|--|--|--|--|
| | Fair value | Level | Valuation techniques | | | | |
| Assets | | | | | | | |
| Recurring fair value measurements | | | | | | | |
| Other financial assets | | | | | | | |
| Derivative used for hedging | ₩ 7,38 | 39 2 | DCF Model | | | | |
| Disclosed fair value | | | | | | | |
| Investment properties | 1,691,0 ⁻ | 0 3 | DCF Model | | | | |
| Liabilities | | | | | | | |
| Recurring fair value measurements | | | | | | | |
| Other financial liabilities | | | | | | | |
| Devices the second for herderic r | 63,4 | 75 2 | DCF Model | | | | |
| Derivative used for hedging | 17,72 | 25 3 | Hull-White model | | | | |
| | | | DCF Model, | | | | |
| Other derivative financial liability | 5,0 | 51 3 | Comparable Company | | | | |
| | | | Analysis | | | | |
| Disclosed fair value | | | | | | | |
| Borrowings | 6,267,59 | 99 3 | DCF Model | | | | |
| (in millions of Korean won) | | December : | 31, 2016 | | | | |
| | Fair value | Level | Valuation techniques | | | | |
| Assats | | | | | | | |

Assets

| ₩ 214,648 | 2 | DCF Model |
|-----------|------------------------------|------------------------------------|
| | | |
| 1,433,599 | 3 | DCF Model |
| | | |
| | | |
| | | |
| 11,413 | 2 | DCF Model |
| | | DCF Model, |
| 1,973 | 3 | Comparable Company |
| | | Analysis |
| | | |
| 7,632,086 | 3 | DCF Model |
| | 1,433,599 11,413 1,973 | 1,433,599 3 11,413 2 1,973 3 |

(6) Valuation Processes for Fair Value Measurements Categorized Within Level 3

The Company uses external experts that perform the fair value measurements required for financial reporting purposes. External experts report directly to the chief financial officer (CFO), and discusses valuation processes and results with the CFO in line with the Company's closing dates.

(7) Gains and Losses on Valuation at the Transaction Date

In the case that the Company values derivative financial instruments using inputs not based on observable market data, and the fair value calculated by the said valuation technique differs from the transaction price, then the fair value of the financial instruments is recognized as the transaction price. The difference between the fair value at initial recognition and the transaction price is deferred and amortized using a straight-line method by maturity of the financial instrument. However, in the case where inputs of the valuation techniques become observable in markets, the remaining deferred difference is immediately recognized in full as profit for the year.

| (in millions of Korean won) | 2017 | | 2016 | |
|-----------------------------|--|---|--|---|
| | Other derivative financial assets | Other derivative financial liabilities | Other derivative financial assets | Other derivative financial liabilities |
| Beginning balance | ₩ 8,470 | ₩ - | ₩ 11,293 | ₩ - |
| Increase | - | 7,126 | - | - |
| Amortization | (2,823) | (594) | (2,823) | |
| Ending balance | ₩ 5,647 | ₩ 6,532 | ₩ 8,470 | ₩ - |

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

37. Events after Reporting Period

Subsequent to the reporting period, public bonds issued are as follow:

| - | December 31, 2017 | | | | |
|-----------------------------|-------------------|-----------------|---------------|-----------------|--|
| (in millions of Korean won) | Issue date | Carrying amount | Interest rate | Redemption date | |
| The 190-1st Public bond | 2018.01.30 | 110,000 | 2.55% | 2021.01.29 | |
| The 190-2nd Public bond | 2018.01.30 | 150,000 | 2.75% | 2023.01.30 | |
| The 190-3rd Public bond | 2018.01.30 | 170,000 | 2.95% | 2028.01.30 | |
| The 190-4th Public bond | 2018.01.30 | 70,000 | 2.93% | 2038.01.30 | |

Report on Independent Accountants' Review of Internal Accounting Control System

To the President of KT Corporation

We have reviewed the accompanying management's report on the operations of the Internal Accounting Control System ("IACS") of KT Corporation (the "Company") as of December 31, 2017. The Company's management is responsible for designing and operating IACS and for its assessment of the effectiveness of IACS. Our responsibility is to review the management's report on the operations of the IACS and issue a report based on our review. The management's report on the operations of the IACS of the Company states that "Based on the assessment of the IACS, the Company's IACS has been effectively designed and is operating as of December 31, 2017, in all material respects, in accordance with the IACS Framework."

Our review was conducted in accordance with the IACS review standards established by the Korean Institute of Certified Public Accountants. Those standards require that we plan and perform, in all material respects, the review of management's report on the operations of the IACS to obtain a lower level of assurance than an audit. A review is to obtain an understanding of a company's IACS and consists principally of inquiries of management and, when deemed necessary, a limited inspection of underlying documents, which is substantially less in scope than an audit.

A company's IACS is a system to monitor and operate those policies and procedures designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the Republic of Korea. Because of its inherent limitations, IACS may not prevent or detect a material misstatement of the financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Based on our review, nothing has come to our attention that causes us to believe that management's report on the operations of the IACS, referred to above, is not presented fairly, in all material respects, in accordance with the IACS standards.

Our review is based on the Company's IACS as of December 31, 2017, and we did not review management's assessment of its IACS subsequent to December 31, 2017. This report has been prepared pursuant to the Acts on External Audit for Stock Companies in Korea and may not be appropriate for other purposes or for other users.

Samil PricewaterhouseCoopers March 2, 2018 Report on the Operations of Internal Accounting Control System ("IACS")

To the Board of Directors and Audit Committee of KT Corporation

I, as the Internal Accounting Control Officer ("IACO") of KT Corporation ("the Company"), assessed the status of the design and operation of the Company's IACS for the year ended December 31, 2017.

The Company's management including IACO is responsible for designing and operating IACS.

I, as the IACO, assessed whether the IACS has been effectively designed and is operating to prevent and detect any error or fraud which may cause any misstatement of the financial statements, for the purpose of establishing the reliability of financial reporting and the preparation of financial statements for external purposes.

I, as the IACO, applied the IACS Framework established by the Korea Listed Companies Association for the assessment of design and operation of the IACS.

Based on the assessment of the IACS, the Company's IACS has been effectively designed and is operating as of December 31, 2017, in all material respects, in accordance with the IACS Framework.

February 20, 2018

Chief Executive Officer

Chang-Gyu Hwang

Internal Accounting Control Officer Kyung-Keun Yoon