LG Uplus Corp. and Subsidiaries Consolidated Financial Statements

December 31, 2019 and 2018

LG Uplus Corp. and Subsidiaries

December 31, 2019 and 2018

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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 LG Uplus Corp.

Opinion

We have audited the accompanying consolidated financial statements of LG Uplus Corp. and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as at December 31, 2019 and 2018, and the consolidated statements of profit or loss, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

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

Basis for Opinion

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

Key Audit Matters

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

(a) Accounting for business combination of LG HelloVision Corp. (formerly, CJ Hello Co., Ltd.)

As explained in Note 22 of the consolidated financial statements, the Group acquired 50.00%+1 shares and obtained control of LG HelloVision Corp. (formerly, CJ Hello Co., Ltd.) for $\forall 800,000$ million as at December 31, 2019, and was accounted for in accordance with Korean IFRS 1103 *Business Combination*. The consideration transferred was allocated to various assets acquired and liabilities assumed, and the purchase price allocation relies on fair value estimates. The Group engaged an independent external expert to assist the Group in valuation of the main tangible and intangible assets acquired. We considered business combination to be a key audit matter given the size of the consideration transferred and the extent of management's judgments required for determination of the purchase price allocation.

We performed the following control testing and substantive testing on business combination of LG HelloVision Corp. including the following procedures.

- Obtained understanding and evaluated the business combination process
- Assessed the appropriateness of the methodology applied by the Group in determining the fair value of identifiable intangible assets and other assets acquired and liabilities assumed
- Assessed the competence and objectivity of expert engaged by management in fair value estimation
- Assessed the reasonableness of key fundamental assumptions and variables used in determining fair value
- Tested that the result of calculation of fair value was accurate
- Assessed the appropriateness of the Group's disclosure around the business combination included in the notes to the consolidated financial statements.

(b) Presentation and disclosure of assets held for sale and discontinued operation of payment service

As explained in the Note 21 of the consolidated financial statements, the Group decided to sell operation of payment service in 2020, and presented in consolidated financial statements as a discontinued operation as at and for the year ended December 31, 2019 in accordance with Korean IFRS 1105 Non-Current Assets Held for Sale and Discontinued Operations. As the sale of operation of payment service is a non-recurring transaction and considering the significant impact in consolidated financial statements, we focused on presentation and disclosure of assets held for sale and discontinued operations.

We performed the following substantive testing on presentation and disclosure of assets held for sale and discontinued operations including the following procedures.

- Reviewed the appropriateness of basis on classification of assets held for sale and discontinued operations of payment service
- Reviewed the appropriateness of classification date of discontinued operations through review
 of minutes of the meetings of the Board of Directors and sales contract regarding
 decision-making on the sale of payment service
- Reviewed the appropriateness of measurement of assets and liabilities held for sale
- Reviewed the appropriateness of financial statement disclosure related to assets held for sale and discontinued operations.

Other Matter

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

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

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

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations.

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

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

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

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

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

cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements.
 We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is Seung-Jae Cho, Certified Public Accountant.

Seoul, Korea March 9, 2020

This report is effective as of March 9, 2020, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that 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.

LG Uplus Corp. and Subsidiaries Consolidated Statements of Financial Position December 31, 2019 and 2018

(in millions of Korean won)	Notes		2019		2018
Assets					
Current assets					
Cash and cash equivalents	5,8,21,33	₩	474,365	₩	378,631
Financial institution deposits	5,9,33		21,765		21,270
Trade receivables	5,6,21,32,33		1,765,630		1,711,963
Other receivables	5,6,21,32,33		236,225		215,877
Inventories	10		436,724		455,134
Current tax assets	29		619		598
Current derivative assets	5,6,25,28,33		1,119		-
Other current assets	7,11		1,661,864		1,463,771
Assets held for sale	5,6,8,12,21,32		207,183		<u> </u>
			4,805,494		4,247,244
Non-current assets					
Financial institution deposits	5,8,33		61		21
Available-for-sale financial assets	5,33		40,671		33,062
Trade receivables	5,6,21,32,33		888,130		490,061
Other receivables	5,6,21,32,33		255,691		264,835
Investments in associates and joint ventures	15		50,680		41,214
Deferred tax assets	29		38		41
Property, plant and equipment	12,21		8,861,052		6,465,781
Investment property	13		34,241		35,564
Intangible assets	14		2,218,862		1,705,693
Other non-current assets	7,11		786,130		656,432
			13,135,556		9,692,704
Total assets		₩	17,941,050	₩	13,939,948
Liabilities					
Current liabilities					
Trade payables	5,21,32,33	₩	421,487	₩	333,612
Non-trade and other payables	5,21,32,33		2,516,085		1,909,147
Short-term borrowings	5,12,16,33		5,000		10,000
Debentures and long-term borrowings	5,12,16,33		824,583		884,809
Other financial liabilities	5,17,21,33		177,437		298,539
Current tax liabilities	29		17,061		78,771
Current derivative liabilities	5,25,28,33		151		-
Other current liabilities	20,21		520,002		318,089
Liabilities held for sale	5,21,32		167,047		-
			4,648,853		3,832,967
Non-current liabilities	E 40 46 22		4 256 649		2.076.252
Debentures and long-term borrowings	5,12,16,33		4,356,648		2,076,253
Other financial liabilities	5,17,33		690,155		907,362
Net defined benefit liabilities	19,32		136,460		38,153
Deferred tax liabilities	29		135,051		79,651
Provisions	18		43,100		40,194
Non-current derivative liabilities	5,33		746		-
Other non-current liabilities	20	-	580,421 5,942,581		111,999 3,253,612
Total liabilities			10,591,434		7,086,579
Equity					
Share capital	23		2,573,969		2,573,969
Capital surplus	23		836,918		836,918
Accumulated other comprehensive income	23		(3,596)		(4,827)
Retained earnings	23		3,673,570		3,447,171
Equity attributable to owners of the Parent Company			7,080,861		6,853,231
Non-controlling interest			268,755		138
Total equity			7,349,616		6,853,369
rotal equity				_	0,000,009

LG Uplus Corp. and Subsidiaries Consolidated Statements of Profit or Loss Years Ended December 31, 2019 and 2018

(in millions of Korean won, except for earnings per share)	Notes		2019		2018
Operating revenue	4,32	₩	12,381,969	_₩	11,725,650
Operating expenses					
Costs of merchandise purchased	10,32		3,437,694		3,002,186
Employee benefits	19,32		977,684		920,775
Depreciation and amortization	12,13,14		2,057,544		1,662,965
Other operating expenses	26		5,222,803		5,398,991
			11,695,725		10,984,917
Operating profit			686,244		740,733
Financial income	28		41,706		34,975
Financial costs	28		132,379		127,513
Share of profit of associates and joint ventures	15		1,201		153
Other non-operating income	27		59,926		53,978
Other non-operating expenses	27		82,758		44,271
Profit before income tax			573,940		658,055
Income tax expense	29		133,029		166,658
Profit from continuing operations			440,911		491,397
Loss from discontinued operations	21,32		2,080		9,788
Profit for the year	,	₩	438,831	₩	481,609
Profit is attributable to:					
Owners of the Parent Company		₩	438,855	₩	481,637
Non-controlling interests			(24)		(28)
Basic and diluted earnings per share (in Korean won)					
From continuing and discontinued operations	30	₩	1,005	₩	1,103
From continuing and discontinued operations From continuing operations	30	VV	1,003	V V	1,125

LG Uplus Corp. and Subsidiaries Consolidated Statements of Comprehensive Income Years Ended December 31, 2019 and 2018

(in millions of Korean won)		2018		
Profit for the year	₩	438,831	₩	481,609
Other comprehensive income (loss) for the year, net of tax				
Items that will not be reclassified to profit or loss				
Gain (loss) on valuation of FV-OCI equity instruments		2,821		(1,319)
Remeasurements of net defined benefit liability		(43,403)		16,382
Items that may be subsequently reclassified to profit or loss				
Gain (loss) on valuation of FV-OCI debt instruments		4,470		(4,795)
Loss on valuation of cash flow hedge derivatives		(664)		-
Gain (loss) on translation of foreign operations		248		(239)
Share of other comprehensive loss of associates and joint ventures		(52)		(37)
		(36,580)		9,992
Total comprehensive income for the year	₩	402,251	₩	491,601
Total comprehensive income (loss) for the year is attributable to:				
Owners of the Parent Company	₩	402,275	₩	491,629
Non-controlling interest		(24)		(28)

LG Uplus Corp. and Subsidiaries Consolidated Statements of Changes in Equity Years Ended December 31, 2019 and 2018

(in millions of Korean won)		Attributable to owners of the Parent Company												
			Accumulated											
							Other							
	Notes					Co	omprehensive		Retained			Non-contro		Total
		Sh	are Capital	Cap	ital Surplus		Income		Earnings		Total	Interest		Equity
Balance at January 1, 2018		₩	2,573,969	₩	836,918	₩	1,422	₩	1,820,562	₩	5,232,871	₩	115_₩	5,232,986
Annual dividends			-		-		-		(174,645)		(174,645)		-	(174,645)
Changes in accounting policy			-		-		-		1,303,354		1,303,354		51	1,303,405
Profit for the year			-		-		-		481,637		481,637		(28)	481,609
Gain on translation of foreign operations	25		-		-		(240)		-		(240)		-	(240)
Share of other comprehensive loss of associates and joint ventures	15		-		-		(37)		-		(37)		-	(37)
Remeasurements of net defined benefit liability	19		-		-		-		16,382		16,382		-	16,382
Loss on valutaion of debt instruments at fair value through other comprehensive income	25		-		-		(4,795)		-		(4,795)		-	(4,795)
Loss on valutaion of equity instruments at fair value through other comprehensive income	25		-		-		(1,177)		(142)		(1,319)		-	(1,319)
Share of reserves of associates and joint ventures	15								23		23			23
Balance at December 31, 2018		₩	2,573,969	₩	836,918	₩	(4,827)	₩	3,447,171	₩	6,853,231	₩	138 ₩	6,853,369
Balance at January 1, 2019		₩	2.573.969	₩	836.918	₩	(4.827)	₩	3.447.171	₩	6.853.231	₩	138 ₩	6.853.369
Annual dividends			-		-		-		(174,645)		(174,645)			(174,645)
Profit for the year			-		-		-		438,855		438,855		(24)	438,831
Gain on translation of foreign operations	25		-		-		248		_		248			248
Share of other comprehensive loss of associates and joint ventures	15		-		-		(52)		-		(52)		-	(52)
Remeasurements of net defined benefit liability	19		-		-		-		(43,403)		(43,403)		-	(43,403)
Loss on valuation of cash flow hedge derivatives	25		-		-		(664)		-		(664)		-	(664)
Gain on valutaion of debt instruments at fair value through other comprehensive income	25		-		-		4,470		-		4,470		-	4,470
Gain on valutaion of equity instruments at fair value through other comprehensive income Reclassification of loss on valutaion of equity instruments at fair value	25		-		-		2,821		-		2,821		-	2,821
through other comprehensive income	25		-		-		(5,592)		5,592		-			
Changes in consolidation	22		-		-		-		-		-	26	8,641	268,641
Balance at December 31, 2019		₩	2,573,969	₩	836,918	₩	(3,596)	₩	3,673,570	₩	7,080,861	₩ 26	8,755 ₩	7,349,616

1. General Information

LG Uplus Corp. (the "Company" or the "Parent Company") was incorporated on July 11, 1996, under the Commercial Code of the Republic of Korea to provide personal communication services, including voice, data and value-added communication. The Company commenced its commercial operation on October 1, 1997. The Company listed its shares on the Korea Securities Dealers Automated Quotation ("KOSDAQ") stock market on September 21, 2000. The Company listed its shares on the Korea Exchange on April 21, 2008.

In efforts to enhance operational efficiency and maximize synergy effects between wire and wireless communication businesses, LG Dacom Corp. and LG Powercom Corp. merged into the Company on January 1, 2010. Through this merger, the Company expanded its business to include landline phone service (including international and long-distance telephone services), internet access service and value-added telecommunications activities from LG Dacom Corp., and broadband network rentals and broadband internet service activities from LG Powercom Corp.

Effective July 1, 2010, the Company changed its name from LG Telecom, Ltd. to LG Uplus Corp. to reflect the expanded nature of its business operations.

The Company's headquarters is located at Hangang daero, Yongsan-gu, Seoul, Korea, and it has set up telecommunication networks all over the country to provide fixed-line and wireless services.

As at December 31, 2019, the Company's shareholders are as follows:

	Number of shares	Percentage of ownership (%)
LG Corporation	157,376,777	36.05%
National Pension Fund	46,874,215	10.74%
The Capital Group Companies, Inc.	30,286,950	6.94%
Others	202,073,419	46.27%
	436,611,361	100.00%

1.1 Consolidated Subsidiaries

		2019	2018		
	Location	Ownership interest held by the Group (%)	Ownership interest held by the Group (%)	Closing month	Main business
AIN TeleService, LTD.	Korea	100.00	100.00	December	Telemarketing service
CSLEADER	Korea	100.00	100.00	December	Telemarketing service
Medialog corp.	Korea	99.58	99.58	December	Internet services and etc.
DACOM America, Inc.	USA	100.00	100.00	December	Telecommunication service
CS One partner Corporation	Korea	100.00	100.00	December	Telemarketing services
WithU Corporation	Korea	100.00	100.00	December	Other business support services
LG UPLUS FUND I LLC	USA	100.00	100.00	December	Investment fund
LG HelloVision Corp. ¹	Korea	50.00% + 1 share	-	December	Cable television business and etc.
Hana Broadcasting Co.,	Korea	50.00% + 1 share	-	December	Cable broadcasting business

¹ During 2019, the Group acquired 50.00% + 1 share of LG HelloVision Corp.

1.2 Changes in Scope for Consolidation

There are no subsidiaries excluded from consolidation for the year ended December 31, 2019, and subsidiary newly included in the consolidation are as follows:

Subsidiary	Reason
LG HelloVision Corp.	During 2019, the Group acquired 50.00% + 1 share of LG HelloVision Corp.
Hana Broadcasting Co., Ltd.	Subsidiary of LG HelloVision Corp. in 2019.

² Subsidiary of LG HelloVision Corp. in 2019.

1.3 Summarized Financial Information

(in millions of

Summarized financial information for consolidated subsidiaries as at and for the years ended December 31, 2019 and 2018, are as follows:

Korean won)							2019						
Subsidiary	Assets Liabilities			Equity Sales			Operating profit (loss)		Profit (loss) for the year		Total comprehensive income (loss)		
AIN TeleService, LTD.	₩	25,028	₩ 27,236	₩	(2,208)	₩	71,835	₩	942	₩	622	₩	(634)
CSLEADER		18,602	19,017		(415)		45,878		414		218		(803)
Medialog corp.		103,916	50,453		53,463		202,149		(9,520)		(11,700)		(11,618)
DACOM America, Inc. CS One partner		240	3,518		(3,278)		1,224		59		40		(74)
Corporation		34,425	31,569		2,856		84,459		794		392		(100)
WithU Corporation		3,403	2,033		1,370		8,062		659		593		559
LG UPLUS FUND I LLC		21,682	274		21,408		-		-		(1,273)		(911)
LG HelloVision Corp		1,790,671	839,364		951,307		1,112,180		20,613		(100,778)		(107,953)
(in millions of Korean won)							2018						
Subsidiary		Assets	Liabilities		Equity		Sales		erating fit (loss)		ofit (loss) the year		Total prehensive ome (loss)
AIN TeleService, LTD.	₩	14,995	₩ 16,568	₩	(1,573)	₩	71,964	₩	1,583	₩	1,584	₩	183
CSLEADER		11,364	10,977		387		45,092		683		646		(729)
Medialog corp.		115,939	50,857		65,082		183,165		(12,011)		(13,312)		10,697
DACOM America, Inc.		191	3,397		(3,206)		1,103		48		32		(103)
CS One partner Corporation		19,093	16,138		2,955		87,749		4,538		4,635		3,054
WithU Corporation		1,989	1,179		810		7,016		223		219		104
LG UPLUS FUND I LLC		10,516	-		10,516		-		-		(654)		(759)

2. Significant Accounting Policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Basis of Preparation

The Company and its subsidiaries (the "Group") 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 consolidated 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 Group's financial position, financial performance or cash flows, is not presented in the accompanying consolidated financial statements.

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

The financial statements have been prepared on a historical cost basis, except for the following:

- · Certain financial assets and liabilities (including derivative instruments), certain investment property measured at fair value
- · assets held for sale measured at fair value less costs to sell, and
- · defined benefit pension plans plan assets measured at fair value.

The preparation of financial statements requires the use of critical accounting estimates. Management also needs to exercise judgement in applying the Group's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 3.

2.2 Changes in Accounting Policies and Disclosures

2.2.1 New and amended standards adopted by the Group

The Group has applied the following standards and amendments for the first time for their annual reporting period commencing January 1, 2019.

(a) Enactment of Korean IFRS 1116 Leases

Under the new standard, with implementation of a single lease model, lessee is required to recognize assets and liabilities for all lease which lease term is over 12 months and underlying assets are not low value assets. A lessee is required to recognize a right-of-use asset and a lease liability representing its obligation to make lease payments.

With implementation of Korean IFRS 1116 *Lease*, the Group has changed accounting policy. The Group has adopted Korean IFRS 1116 retrospectively, as permitted under the specific transitional provisions in the standard, and recognized the cumulative impact of initially applying the standard as at January 1, 2019, the date of initial application. The Group has not restated comparatives for the 2018 reporting period. The impact of the adoption of the leasing standard and the new accounting policies are disclosed in Note 36.

(b) Amendment to Korean IFRS 1109 Financial Instruments – Prepayment Features with Negative Compensation

The narrow-scope amendments made to Korean IFRS 1109 Financial Instruments enable entities to measure certain prepayable financial assets with negative compensation at amortized cost. When a modification of a financial liability measured at amortized cost that does not result in the derecognition, a modification gain or loss shall be recognized in profit or loss. The amendment does not have a significant impact on the financial statements.

(c) Amendments to Korean IFRS 1019 Employee Benefits –Amendment, Curtailment or Settlement of the Plan

The amendments require that an entity shall calculate current service cost and net interest for the remainder of the reporting period after a plan amendment, curtailment or settlement based on updated actuarial assumptions from the date of the change. The amendments also require that a reduction in a surplus must be recognized in profit or loss even if that surplus was not previously recognized because of the impact of the asset ceiling. The amendment does not have a significant impact on the financial statements.

(d) Amendments to Korean IFRS 1028 Investments in Associates and Joint Ventures – Long-term Interests in Associates and Joint Ventures

The amendments clarify that an entity shall apply Korean IFRS 1109 to financial instruments in an associate or joint venture to which the equity method is not applied The amendments also clarify that Korean IFRS 1109 requirements are applied to long-term interests that form part of the entity's net investment in an associate or joint venture before applying the impairment requirements of Korean IFRS 1028. The amendment does not have a significant impact on the financial statements.

(e) Enactment to Interpretation of Korean IFRS 2123 Uncertainty over Income Tax Treatments

The interpretation explains how to recognize and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment, and includes guidance on how to determine whether each uncertain tax treatment is considered separately or together. It also presents examples of circumstances where a judgement or estimate is required to be reassessed. The significant impact on the financial statements is described in Note 29.

(f) Annual Improvements to Korean IFRS 2015 – 2017 Cycle:

Amendments to Korean IFRS 1103 Business Combination

The amendments clarify that when a party to a joint arrangement obtains control of a business that is a joint operation, and had rights to the assets and obligations for the liabilities relating to that joint operation immediately before the acquisition date, the transaction is a business combination achieved in stages. In such cases, the acquirer shall remeasure its entire previously held interest in the joint operation. The amendment does not have a significant impact on the financial statements.

Amendments to Korean IFRS 1111 Joint Agreements

The amendments clarify that when a party that participates in, but does not have joint control of, a joint operation might obtain joint control of the joint operation in which the activity of the joint operation constitutes a business. In such cases, previously held interests in the joint operation are not remeasured. The amendment does not have a significant impact on the financial statements.

· Amendments to Paragraph 57A of Korean IFRS 1012 Income Tax

The amendment is applied to all the income tax consequences of dividends and requires an entity to recognize the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognized those past transactions or events. The amendment does not have a significant impact on the financial statements.

· Korean IFRS 1023 Borrowing Costs

The amendments clarify that if a specific borrowing remains outstanding after the related qualifying asset is ready for its intended use (or sale), it becomes part of general borrowings. The amendment does not have a significant impact on the financial statements.

2.2.2 New standards and interpretations not yet adopted by the Group

The following new accounting standards and interpretations have been published that are not mandatory for December 31, 2019 reporting periods and have not been early adopted by the Group.

(a) Amendments to Korean IFRS 1001 Presentation of Financial Statements and Korean IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors – Definition of Material

The amendments clarify the explanation of the definition of material and amended Korean IFRS 1001 and Korean IFRS 1008 in accordance with the clarified definitions. Materiality is assessed by reference to omission or misstatement of material information as well as effects of immaterial information, and to the nature of the users when determining the information to be disclosed by the Group. These amendments should be applied for annual periods beginning on or after January 1, 2020, and earlier application of permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

(b) Amendments to Korean IFRS 1103 Business Combination - Definition of a Business

To consider the integration of the required activities and assets as a business, the amended definition of a business requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs and excludes economic benefits from the lower costs. An entity can apply a concentration test, an optional test, where substantially all of the fair value of gross assets acquired is concentrated in a single asset or a group of similar assets, the assets acquired would not represent a business. These amendments should be applied for annual periods beginning on or after January 1, 2020, and earlier application of permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

2.3 Consolidation

The Group has prepared the consolidated financial statements in accordance with Korean IFRS 1110 Consolidated Financial Statements.

(a) Subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

The acquisition method of accounting is used to account for business combinations by the Group. The consideration transferred is measured at the fair values of the assets transferred, and identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The Group recognizes any non-controlling interest in the acquired entity on an acquisition-by-acquisition basis either at fair value or at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets. All other non-controlling interests are measured at fair values, unless otherwise required by other standards. Acquisition-related costs are expensed as incurred.

The excess of consideration transferred, amount of any non-controlling interest in the acquired entity and acquisition-date fair value of any previous equity interest in the acquired entity over the fair value of the net identifiable assets acquired is recoded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the business acquired, the difference is recognized directly in the profit or loss as a bargain purchase.

Intercompany transactions, balances and unrealized gains on transactions between group companies are eliminated. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A changed in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interest to reflect their relative interest in the subsidiary. Any difference between the amount of the adjustment to non-controlling interest and any consideration paid or received is recognized in a separate reserve within equity attributable to owners of the Parent Company.

When the Group ceases to consolidate for a subsidiary because of a loss of control, any retained interest in the subsidiary is remeasured to its fair value with the changed in carrying amount recognized in profit or loss.

(b) Associates

Associates are entities over which the Group has significant influence but not control or joint control.

Investments in associates are accounted for using the equity method of accounting, after initially being recognized at cost. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. If the Group's share of losses of an associate equals or exceeds its interest in the associate (including long-term interests that, in substance, form part of the Group's net investment in the associate), the Group discontinues recognizing its share of further losses. After the Group's interest is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate. If there is an objective evidence of impairment for the investment in the associate, the Group recognizes the difference between the recoverable amount of the associate and its book amount as impairment loss.

If an associate uses accounting policies other than those of the Group for like transactions and events in similar circumstances, if necessary, adjustments shall be made to make the associate's accounting policies conform to those of the Group when the associate's financial statements are used by the Group in applying the equity method.

(c) Joint arrangements

A joint arrangement, wherein two or more parties have joint control, is classified as either a joint operation or a joint venture. A joint operator recognizes its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. Interests in joint ventures are accounted for using the equity method, after initially being recognized at cost in the consolidated statement of financial position.

2.4 Foreign Currency Translation

The consolidated financial statements of the Group are presented in the currency of the primary economic environment in which the Group operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of the Group are expressed in Korean won, which is the functional currency of the Group and the reporting currency for the consolidated financial statements.

In preparation of the Group's consolidated financial statements, any transaction that occurred in currency other than its functional currency will be recorded in translated amount using the exchange rate of the transaction. At the end of the reporting period, all monetary assets and liabilities will be translated using the exchange rate at the end of the reporting date. Meanwhile, non-monetary assets and liabilities measured at fair value will be retranslated using the exchange rate on the day of fair value evaluation, whereas non-monetary assets and liabilities measured at historical cost will not be translated.

Exchange differences are recognized in profit or loss in the period in which they arise, except for:

• exchange differences on transactions entered into in order to hedge certain foreign currency risks.

2.5 Financial Assets

(a) Classification

The Group classifies its financial assets in the following measurement categories:

- those to be measured at fair value through profit or loss
- those to be measured at fair value through other comprehensive income, and
- those to be measured at amortized cost.

The classification depends on the Group's business model for managing the financial assets and the contractual terms of the cash flows.

For financial assets measured at fair value, gains and losses will either be recorded in profit or loss or other comprehensive income. For investments in debt instruments, this will depend on the business model in which the investment is held. The Group reclassifies debt investments when, and only when its business model for managing those assets changes.

For investments in equity instruments that are not held for trading, this will depend on whether the Group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income. Changes in fair value of non-designated equity investment are recognized in profit or loss.

(b) Measurement

At initial recognition, the Group 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.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

A. Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the asset. The Group classifies its debt instruments into one of the following three measurement categories:

- Amortized cost: Assets that are held for collection of contractual cash flows where those
 cash flows represent solely payments of principal and interest are measured at amortized
 cost. A gain or loss on a debt investment that is subsequently measured at amortized cost
 and is not part of a hedging relationship is recognized in profit or loss when the asset is
 derecognized or impaired. Interest income from these financial assets is included in
 'financial income' using the effective interest rate method.
- Fair value through other comprehensive income: Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at fair value through other comprehensive income. Movements in the carrying amount are taken through other comprehensive income, except for the recognition of impairment loss (reversal of impairment loss), interest income and foreign exchange gains and losses which are recognized in profit or loss. When the financial asset is derecognized, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss. Interest income from these financial assets is included in 'financial income' using the effective interest rate method.
- Fair value through profit or loss: Assets that do not meet the criteria for amortized cost or
 fair value through other comprehensive income are measured at fair value through profit
 or loss. A gain or loss on a debt investment that is subsequently measured at fair value
 through profit or loss and is not part of a hedging relationship is recognized in profit or loss
 and presented net in the statement of profit or loss within 'financial income and costs' in
 the year in which it arises.

B. Equity instruments

The Group subsequently measures all equity investments at fair value. Where the Group's management has elected to present fair value gains and losses on equity investments, which held for long-term investment or strategic purpose, in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividend income from such investments continue to be recognized in profit or loss as 'financial income' when the right to receive payments is established.

Changes in the fair value of financial assets at fair value through profit or loss are recognized in 'financial income and costs' in the statement of profit or loss as applicable. Impairment loss (reversal of impairment loss) on equity investments measured at fair value through other comprehensive income are not reported separately from other changes in fair value.

(c) Impairment

The Group assesses on a forward looking basis the expected credit losses associated with its debt instruments carried at amortized cost and fair value through other comprehensive income. The impairment methodology applied depends on whether there has been a significant increase in credit risk. For trade receivables and lease receivables, the Group applies the simplified approach, which requires expected lifetime credit losses to be recognized from initial recognition of the receivables.

(d) Recognition and Derecognition

Regular way purchases and sales of financial assets are recognized or derecognized on trade-date, the date on which the Group commits to purchase or sell the asset. Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

If a transfer does not result in derecognition because the Group has retained substantially all the risks and rewards of ownership of the transferred asset, the Group continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received. The Group classified the financial liability as "borrowings" in the statement of financial position.

(e) 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 Group or the counterparty.

2.6 Derivative Instruments

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured at their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group has hedge relationships and designates certain derivatives as either:

 hedges of a particular risk associated with the cash flows of recognized assets and liabilities and highly probable forecast transactions (cash flow hedges)

At inception of the hedge relationship, the Group documents the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items.

The fair values of derivative financial instruments designated in hedge relationships are disclosed in Note 33. Movements in the cash flow hedge reserve are shown in Note 25.

The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. A non-derivative financial asset and a non-derivative financial liability is classified as a current or non-current based on its expected maturity and its settlement, respectively.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in the cash flow hedge reserve within equity, limited to the cumulative change in fair value (present value) of the hedged item (the present value of the cumulative change in the future expected cash flows of the hedged item) from the inception of the hedge. The ineffective portion is recognized in 'finance income or costs'.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss, as follows:

The gain or loss relating to the effective portion of the interest rate swaps hedging variable
rate borrowings is recognized in profit or loss within 'finance cost' at the same time as the
interest expense on the hedged borrowings.

When a hedging instrument expires, or is sold, terminated, exercised, or when a hedge no longer meets the criteria for hedge accounting, any accumulated cash flow hedge reserve at that time remains in equity until the forecast transaction occurs, resulting in the recognition of a non-financial asset such as inventory. When the forecast transaction is no longer expected to occur, the cash flow hedge reserve and deferred costs of hedging that were reported in equity are immediately reclassified to profit or loss.

2.7 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the total-average method (using the moving-average method for certain inventories).

2.8 Non-current Assets (or Disposal Group) Held for sale and Discontinued Operations

Non-current assets (or disposal group) are classified as held for sale when their carrying amount will be recovered principally through a sale transaction rather than through continuing use 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. Assets held for sale and discontinued operations are shown in Note 21.

2.9 Property, Plant and Equipment

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

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

Estimated useful lives (years)

Buildings	20~40
Telecommunication facilities	3~15
Other property plant and equipment	3~5

Right-of-use assets Depreciated over lease period

The assets' depreciation method, residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

2.10 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 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.

2.11 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 Group will comply with all attached conditions. Government grants related to assets are presented in the statement of financial position by deducting the grant in arriving at the carrying amount of the asset, and government grants related to income are deferred and later deducted from the related expense.

2.12 Intangible Assets

Intangible assets are initially recognized at its historical cost, and carried at cost less accumulated amortization and accumulated impairment losses.

Software development costs that are directly attributable to internally generated by the Group are recognized when the criteria; such as, technically feasible, generate probable future economic benefits and other, are met. Customer contracts acquired in a business combination are recognized at fair value at the acquisition date. Membership 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 Group amortizes intangible assets with a limited useful life using the straight-line method over the following periods:

Estimated useful lives (years)

Intellectual property rights	5~10
Frequency usage rights	5~10
Other intangible assets	2~10

2.13 Investment Property

Investment property is property held to earn rentals or for capital appreciation or both. An investment property is measured initially at its cost. An investment property is measured after initial measurement at depreciated cost (less any accumulated impairment losses). After recognition as an asset, investment property is carried at cost less accumulated depreciation and impairment losses. The Group depreciates investment properties, except for land, using the straight-line method over their useful lives of 20 ~ 40 years.

2.14 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 of disposal and value in use. Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

2.15 Financial Liabilities

(a) Classification and measurement

The Group's financial liabilities at fair value through profit or loss are financial instruments held for trading. A financial liability is held for trading if it is incurred principally for the purpose of repurchasing in the near term. A derivative that is not a designated as hedging instruments and an embedded derivative that is separated are also classified as held for trading.

The Group 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 present as 'trade payables', 'borrowings', and 'other financial liabilities' in the statement of financial position.

(b) 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. The difference between the carrying amount of a financial liability extinguished or transferred to another party and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

2.16 Provisions

Provisions for service warranties, make good obligation, and legal claims are recognized when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the end of the reporting period, and the increase in the provision due to the passage of time is recognized as interest expense.

2.17 Current and Deferred Tax

The tax expense for the period consists of current and deferred tax. Current and deferred tax is recognized in 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 current income tax expense is measured at the amount expected to be paid to the taxation authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. The Group recognizes current income tax on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred income tax is not accounted for if it arises 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 profit nor taxable profit or loss.

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

The Group recognizes a deferred tax liability all taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint arrangements, except to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. In addition, The Group recognizes a deferred tax asset for all 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 and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset when the Group has a legally enforceable right to offset and intends either to settle on a net basis, or to realize the assets and settle the liability simultaneously.

2.18 Employee Benefits

The Group operates both defined contribution and defined benefit pension plans.

For defined contribution plans, the Group pays contribution to publicly or privately administered pension insurance plans on mandatory, contractual or voluntary basis. The Group has no further payment obligation once the contribution has been paid. The contribution is recognized as employee benefit expense when they are due.

A defined benefit plan is a pension plan that is not a defined contribution plan. Generally, post-employment 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.

2.19 Revenue Recognition

(a) Identifying performance obligations

The Group shall identify performance obligations from a contract with a customer, such as telecommunication services and handset sales. The timing of revenue recognition may vary depending on whether it satisfies the performance obligation at a point in time or satisfies the performance obligation over time. The Group satisfies the performance obligation and recognizes revenue at the point of sale for handset sales. On the other hand, the Group recognizes revenue over time by providing telecommunication services throughout the estimated contract period.

(b) Allocating the transaction price to performance obligations

The Group shall allocate the transaction price to several performance obligations identified from one contract on a relative stand-alone selling price basis. Accordingly, a certain amount of the discount on handsets given at the point of the sale is deducted from the telecommunication service revenue over the estimated contract period, whereas a certain amount of the discount on plans is added to the telecommunication service revenue over the contract period after immediately deducted from handset sales revenue.

(c) Incremental costs of obtaining a contract and contract assets

The Group pays sales commissions to its employees based on customer contracts signed through the employees in telecommunication services. The commission accounts for substantial portion of sales commissions in operating expenses. The Group recognizes as an asset "the incremental costs of obtaining a contract", and costs that are recognized as assets are amortized over the period.

2.20 Leases

As explained in Note 2.2 above, the Group has changed its accounting policy for leases. The impact of the new accounting policies is disclosed in Note 36.

(a) Accounting for lessor

Lease income from operating leases where the Group is a lessor is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognized as expense over the lease term on the same basis as lease income. The respective leased assets are included in the statement of financial position based on their nature. The Group did not need to make any adjustments to the accounting for assets held as lessor as a result of adopting the new leasing standard.

(b) Accounting for lessee

The Group leases various properties, telecommunication facilities and vehicles. Lease contracts are typically made for fixed periods of 2 to 8 years, but may have extension options as described in (a) below.

Contracts may contain both lease and non-lease components. The Group allocates the consideration in the contract to the lease and non-lease components based on their relative standalone prices.

Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

Until the 2018 financial year, leases of property, plant and equipment were classified as either finance or operating leases. Payments made under operating leases (net of any incentives received from the lessor) were charged to profit or loss on a straight-line basis over the period of the lease.

From January 1, 2019, leases are recognized as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- Fixed payments (including in-substance fixed payments), less any lease incentives receivable
- Variable lease payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date
- Amounts expected to be payable by the Group (the lessee) under residual value guarantees
- The exercise price of a purchase option if the Group (the lessee) is reasonably certain to exercise that option, and
- Payments of penalties for terminating the lease, if the lease term reflects the Group (the lessee) exercising that option

In addition, measurement of the lease liabilities include lease payment according to extension option if the Company is reasonably certain to exercise

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- · restoration costs

The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life.

Leases of low-value assets are recognized on a straight-line basis as an expense in profit or loss. Low-value assets comprise IT-equipment and small items of office furniture.

(a) Extension and termination options

Extension and termination options are included in a number of property and equipment leases across the Group. These terms are used to maximize operational flexibility in terms of managing contracts. The majority of extension and termination options held are exercisable only by the Group and not by the respective lessor.

3. Critical Accounting Estimates and Assumptions

The preparation of financial statements requires the Group to make estimates and assumptions concerning the future. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. 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 discussed below.

3.1 Fair Value of Financial Instruments

Derivative financial instruments and available-for-sale financial assets are measured at fair value after initial recognition and gains and losses from changes in fair value are recognized either in profit or loss or in accumulated other comprehensive income (loss). If there is a market value disclosed in

an active market when measuring fair value, that market value is used as fair value. Otherwise, the fair value is estimated by a valuation technique requiring management's assumption on the expected future cash flows and discount rate.

3.2 Provision for Impairment of Trade Receivables, and Loans and Receivables

The Group estimates an allowance for doubtful loans and receivables based on aging of receivables, historical loss experience and economic and industrial factors.

3.3 Income Taxes

The Group's taxable income generated from these operations are subject to income taxes based on tax laws and interpretations of tax authorities in jurisdictions. There are many transactions and calculations for which the ultimate tax determination is uncertain (Note 29).

The Group estimates the expected average rate applied to future taxable income upon measurement of deferred income tax. Upon determination on possibility of deferred income tax, the expected temporary difference to be deducted, expected taxable income and usefulness of tax credit are estimated.

3.4 Defined Benefit Pension Plan

For the defined benefit pension plan, the service cost is determined using actuarial valuations. In order to apply actuarial valuations, it is necessary to assume a discount rate, an expected wage increase rate, death rate, etc. The retirement benefit plan contains significant uncertainties on the estimation due to its long-term nature. The defined benefit obligations as at December 31, 2019, are $\mbox{$\mathbb{W}$}$ 136,460 million (2018: $\mbox{$\mathbb{W}$}$ 38,153 million) and details are described in Note 19.

3.5 Depreciation of Incremental Costs

The incremental costs are amortized on a systematic basis consistent with the manner in which goods and services are transferred to customers. The Group determined that the costs are amortized during expected length of time which is estimated based on the period specified in contract and average maintenance period.

3.6 Lease

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

For determining lease terms of warehouses, retail stores and equipment, the following factors are normally the most relevant:

• If there are significant penalties to terminate (or not extend), the Group is typically reasonably certain to extend (or not terminate).

- If any leasehold improvements are expected to have a significant remaining value, the Group is typically reasonably certain to extend (or not terminate).
- Otherwise, the Group considers other factors including historical lease durations and the costs and business disruption required to replace the leased asset.

The lease term is reassessed if an option is actually exercised (or not exercised) or the Group becomes obliged to exercise (or not exercise) it. The assessment of reasonable certainty is only revised if a significant event or a significant change in circumstances occurs, which affects this assessment, and that is within the control of the lessee.

3.7 Estimated goodwill impairment

The Group tests whether goodwill has suffered any impairment on an annual basis. The recoverable amount of a cash generating unit (CGU) is determined based on value-in-use calculations (Note 14).

3.8 Business combination

There is uncertainty measuring fair value of acquired assets and liabilities and identifiable intangible assets in relation to accounting for business combination. The Group determined reasonable estimates and assumptions for measurement of fair value as at the business combination date (Note 22).

3.9 Measurement of non-current assets held for sale

The Group measured fair value considering the costs incurred upon reacquisition of assets for fair value measurement of non-current assets held for sale.

4. Operating Segment Information

The Group determined that it operates under two business segments of LG Uplus Corp. and LG HelloVision Corp. based on the characteristics of goods and services provided and nature of network assets held. The deemed acquisition date of LG HelloVision Corp. segment is December 31, 2019, and there is no profit or loss to be recognized in consolidated financial statements. As a result, information on profit or loss of consolidated financial statements is equivalent to profit or loss of LG Uplus Corp. segment. The Group's reportable segments are consistent with the internal business segment reporting provided to the chief operating decision-maker.

Details of operating revenues from the Group's sale of goods and provision of services for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	Revenue recognition	Major goods and services		2019		2018
LG Uplus Corp.	At a point in time	Telecommunication				
		and related services	₩	9,205,595	₩	8,945,088
	Over time	Handset sales		3,176,374		2,780,562
	Total of continuing	g operations		12,381,969		11,725,650
	Discontinued ope	rations ¹		375,986		399,401
			₩	12,757,955	₩	12,125,051

¹ Operating profit on electronic payment services classified as discontinued operations in 2019.

The Group's operating revenues are mostly generated from domestic customers due to the nature of the telecommunication services and the majority of the related non-current assets are located in the Republic of Korea.

5. Classification of Financial Instruments and Fair Value

Carrying amount and fair value of financial assets by category as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	20	19	2018				
	Carrying	_	Carrying				
	amount	Fair value	amount	Fair value			
Financial assets at amortized costs							
Cash and cash equivalents ¹	₩ 637,315	₩ 637,315	₩ 378,631	₩ 378,631			
Financial institution deposits	21,826	21,826	21,291	21,291			
Trade receivables ²	2,168,686	2,168,686	1,343,654	1,343,654			
Loans	98,641	98,641	62,785	62,785			
Non-trade receivables ³	169,048	169,048	167,853	167,853			
Accrued income	458	458	73	73			
Deposits provided	234,632	234,632	250,001	250,001			
	3,330,606	3,330,606	2,224,288	2,224,288			
Financial assets at fair value through							
profit or loss							
Available-for-sale financial assets	30,024	30,024	25,206	25,206			
Short-term derivatives held for							
trading	1,119	1,119					
	31,143	31,143	25,206	25,206			
Financial assets at fair value through							
other comprehensive income							
Available-for-sale financial assets	10,647	10,647	7,856	7,856			
Trade receivables	489,392	489,392	858,370	858,370			
	500,039	500,039	866,226	866,226			
	₩ 3,861,788	₩ 3,861,788	₩ 3,115,720	₩ 3,115,720			

 $^{^{1}}$ Carrying amount of cash and cash equivalents included in assets held for sale amount to \forall 162,950 million as at December 31, 2019.

 $^{^2}$ Carrying amount of trade receivables included in assets held for sale amount to \forall 4,318 million as at December 31, 2019.

 $^{^3}$ Carrying amount of non-trade receivables included in assets held for sale amount to \forall 10,862 million as at December 31, 2019.

Carrying amount and fair value of financial liabilities by category as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	20	19	2018					
	Carrying		Carrying					
	amount	Fair value	amount	Fair value				
Financial liabilities at amortized cost								
Trade payables	₩ 421,487	₩ 421,487	₩ 333,612	₩ 333,612				
Borrowings ¹	1,607,123	1,623,664	635,000	635,000				
Debentures ¹	3,579,108	3,626,611	2,336,062	2,366,838				
Non-trade payables	2,096,921	2,096,921	1,870,235	1,870,235				
Accrued expense ²	995,285	995,285	840,679	840,679				
Withholdings ³	330,332	330,332	293,441	293,441				
Leasehold deposits received	6,276	6,276	5,136	5,136				
	9,036,532	9,100,576	6,314,165	6,344,941				
Derivative liabilities								
Interest swap liabilities	897	897	-	-				
Others								
Lease liabilities	585,402	585,402						
	₩ 9,622,831	₩ 9,686,875	₩ 6,314,165	₩ 6,344,941				

¹ The fair value of the borrowings and debentures are the discounted amount of the future cash flow under the terms of the contract by using current market interest rate (borrowings 2019: 1.63%~1.88%, 2018: 2.04%~2.34%) (debentures 2019: 1.63%~2.63%, 2018: 2.06%~2.53%) applied on similar financial instruments.

The carrying amounts of certain financial assets and liabilities recognized at amortized cost are considered to approximate their fair values.

 $^{^2}$ Carrying amount of accrued expense included in liabilities held for sale amount to \forall 8,234 million as at December 31, 2019.

 $^{^3}$ Carrying amount of withholdings included in liabilities held for sale amount to \forall 158,813 million as at December 31, 2019.

6. Financial Assets

6.1 Financial assets at fair value through profit or loss

(in millions of Korean won)		2019		2018
Current				
Short-term derivatives held for trading	₩	1,119	₩	-
Non-current				
Debt instruments		26,810		25,206
Equity instruments		3,214		-
	₩	31,143	₩	25,206

6.2 Financial assets at fair value through other comprehensive income

(a) Equity investments at fair value through other comprehensive income

(in millions of Korean won)	2	2019		2018
Non-current				
Listed equity securities	₩	201	₩	4,671
Unlisted equity securities		10,446		3,185
	₩	10,647	₩	7,856

Upon disposal of these equity investments, any balance within the accumulated other comprehensive income for these equity investments is reclassified to retained earnings and is not reclassified to profit or loss.

(b) Debt investments at fair value through other comprehensive income

Debt investments at fair value through other comprehensive income comprise the following investments in bonds having solely payments of principal and interest:

(in millions of Korean won)	2019			2018		
Trade receivables						
Handset installment sales (current)	₩	192,522	₩	421,516		
Handset installment sales (non-current)		296,870		436,854		
	₩	489,392	₩	858,370		

Upon disposal of these debt investments, any balance within the accumulated other comprehensive income for these debt investments is reclassified to profit or loss.

6.3 Trade receivables and other financial assets at amortized costs

(a) Trade receivables and provision for impairment

(in millions of Korean won)	2019			2018		
Trade receivables ^{1,2}	₩	2,332,251	₩	1,499,410		
Less: provision for impairment		(163,565)		(155,756)		
Trade receivables - net	₩	2,168,686	₩	1,343,654		

¹ Trade receivables classified as debt instruments at fair value through other comprehensive income are excluded.

(b) Other financial assets at amortized costs

(in millions of Korean won)		2019					2018				2018					
	(Current	Non-current Total Current		Current Non-current		Non-current		Total							
Loans	₩	75,781	₩	22,894	₩	98,675	₩	48,004	₩	14,834	₩	62,838				
Non-trade receivables ¹		264,024		-		264,024		254,501		-		254,501				
Accrued income		458		-		458		73		-		73				
Deposits		1,836		232,797		234,633		-		250,001		250,001				
		342,099		255,691		597,790		302,578		264,835		567,413				
Less: provision for								_								
impairment ¹		(95,011)		-		(95,011)		(86,701)		-		(86,701)				
	₩	247,088	₩	255,691	₩	502,779	₩	215,877	₩	264,835	₩	480,712				

 $^{^1}$ Includes non-trade receivables classified as assets held for sale amounting to \forall 39,992 million (provision for impairment amounting to \forall 29,130 million) as at December 31, 2019.

 $^{^2}$ Includes trade receivables classified as assets held for sale amounting to \forall 4,318 million as at December 31, 2019.

7. Contract Assets and Liabilities

The Group has recognized the following assets and liabilities, which are presented as other current (non-current) assets and other current (non-current) liabilities, respectively:

	2019		2018
₩	354,069	₩	290,933
	69,937		69,715
	2,971		12,688
₩	426,977	₩	373,336
₩	310,785		298,916
	49,894	₩	49,893
₩	360,679		348,809
	₩ ₩	69,937 2,971 ₩ 426,977 ₩ 310,785 49,894	₩ 354,069 ₩ 69,937 2,971 ₩ 426,977 ₩ ₩ 310,785 49,894 ₩

Significant changes in contract assets and liabilities

There are increase in contract assets and liabilities amounting to \forall 7,245 million and \forall 3,242 million, respectively, on allocation of transaction price due to business combination with LG HelloVision Corp. for the year ended December 31, 2019 (Note 22).

Revenue recognized in relation to contract liabilities

The following table shows how much of the revenue recognized in the current and prior reporting periods relates to carried-forward contract liabilities and how much relates to performance obligations that were satisfied in a prior year.

(in millions of Korean won)		2019		2018
Contract liabilities				
Allocating the transaction price	₩	236,094	₩	160,427
Others		34,355		42,926

8. Cash and Cash Equivalents

Cash and cash equivalents in the consolidated statement of cash flows are the same as the cash and cash equivalents in the consolidated statement of financial position. Cash and cash equivalents as at December 31, 2019 and 2018, consists of:

(in millions of Korean won)		2019		2018
Financial institution deposits ¹	₩	637,315	₩	378,101
Other cash equivalents				530
	₩	637,315	₩	378,631

¹ Carrying amount of financial institution deposits included in assets held for sale amounting to ₩ 162,950 million as at December 31, 2019.

9. Restricted Financial Assets

Restricted financial assets as at December 31, 2019 and 2018, are as follows:

Financial institution	;	2019		2018
Industrial Bank of Korea ¹	₩	20,500	₩	20,500
KEB Hana Bank ²		350		350
Woori Bank³		393		-
Woori Bank and others		24		21
	₩	21,267	₩	20,871
	Industrial Bank of Korea ¹ KEB Hana Bank ² Woori Bank ³	Industrial Bank of Korea ¹ W KEB Hana Bank ² Woori Bank ³ Woori Bank and others	Industrial Bank of Korea¹ ₩ 20,500 KEB Hana Bank ² 350 Woori Bank³ 393 Woori Bank and others 24	Industrial Bank of Korea¹ ₩ 20,500 ₩ KEB Hana Bank ² 350 Woori Bank³ 393 Woori Bank and others 24

¹ Financial deposits are restricted in use in relation to Win-win Growth Cooperative Agreements between the big companies and the small and medium enterprises.

² Amounts are pledged by BC Card in relation to the payment gateway business and included in assets held for sale.

³ Restricted to use in relation to guarantee insurance of registration on mechanical equipment construction business.

10.Inventories

The Group periodically reviews a possibility of the significant changes in net realizable value of inventories from decrease in market value and obsolescence, and recognizes as valuation allowances of inventories. Details of inventories as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019			2018	
	Acquisition cost	Valuation allowance	Carrying amount	Acquisition cost	Valuation allowance	Carrying amount
Merchandise	₩ 501.579	₩ (64.855)	₩ 436.724	₩ 491.110	₩ (35.976)	₩ 455.134

Inventory costs recognized in operating expenses for the years ended December 31, 2019 and 2018, are $\mbox{$\%$}$ 3,437,716 million and $\mbox{$\%$}$ 3,002,449 million, respectively, which include $\mbox{$\%$}$ 28,879 million (2018: $\mbox{$\%$}$ 9,046 million) of losses on valuation of inventories for the year ended December 31, 2019, and $\mbox{$\%$}$ 22 million (2018: $\mbox{$\%$}$ 263 million) of cost of sales from discontinued operations for the year ended December 31, 2019.

11.Other Assets

Details of other current assets as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019		2018
Advance payments	₩	31,049	₩	13,382
Prepaid expenses		62,721		106,447
Contract assets				
Allocating the transaction price		265,798		206,684
Costs to fulfill a contract ¹		39,467		38,341
Others		2,971		9,568
Incremental costs of obtaining a contract ²		1,134,981		974,161
Others		124,877		115,188
	₩	1,661,864	₩	1,463,771

¹ The Group recognizes costs related to installment services of home services such as internet, IPTV and others, as "contract assets - costs to fulfill a contract", and amortizes it over the expected contract period.

² The Group recognizes commissions that is paid by the Group to agencies related to the activities to obtain a contract with customer and to maintain a customer in telecommunication services as "incremental costs of obtaining a contract", and amortizes it over the expected contract period.

Details of other non-current assets as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019 2018			
Drawaid average	1.A.	20.075	1A 4	20.002
Prepaid expenses	₩	36,275	₩	30,893
Contract assets				
Allocating the transaction price		88,271		84,249
Costs to fulfill a contract ¹		30,471		31,374
Others		-		3,120
Incremental costs of obtaining a contract ²		524,820		407,333
Others		106,293		99,462
	₩	786,130	₩	656,432

¹ The Group recognizes costs related to installment services of home services such as internet, IPTV and others, as "contract assets - costs to fulfill a contract", and amortizes it over the expected contract period.

Amortization of costs to fulfill a contact and incremental costs of obtaining a contract for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		20)19			
		ts to fulfill a contract	Incremental costs of obtaining a contract			
Beginning balance	₩	69,715	₩	1,381,494		
Recognition		52,897		1,785,741		
Amortization		(52,674)		(1,507,434)		
Ending balance	₩	69,938	₩	1,659,801		
(in millions of Korean won)		20	018			
	Costs to fulfill a contract		Incremental costs obtaining a contra			
Beginning balance	₩	65,429	₩	1,454,408		
Recognition		54,174		1,387,214		
Amortization		(49,888)		(1,460,128)		
Ending balance	₩	69,715	₩	1,381,494		

² The Group recognizes commissions that is paid by the Group to agencies related to the activities to obtain a contract with customer and to maintain a customer in telecommunication services as "incremental costs of obtaining a contract", and amortizes it over the expected contract period.

12. Property, Plant and Equipment

Changes in property, plant and equipment for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)								2019								
					Te	lecommuni-			Cor	struction	Rig	ght of use				
		Land	В	Buildings		cation facilities		Others		progress	i	assets		Total		
Beginning acquisition cost	₩	656,579	₩	1,018,981	₩	14,065,819	₩	939,951	₩	333,120	₩	-	₩	17,014,450		
Accumulated depreciation		-		(235,059)		(9,640,164)		(609,340)		-		-		(10,484,563)		
Accumulated impairment loss		-		-		(56,505)		-		-		-		(56,505)		
Government grants		_		(836)		(6,596)		(169)		-		-		(7,601)		
Beginning balance		656,579		783,086		4,362,554		330,442		333,120		-		6,465,781		
Changes in accounting policy						-		(13,999)		=		678,549		664,550		
		656,579		783,086		4,362,554		316,443		333,120		678,549		7,130,331		
Acquisitions	3,18		4,417			354,219		72,318		2,214,516		226,931		2,875,581		
Transfers		2,869		137,306		1,669,865		150,363	(1,956,216)		-		4,187		
Disposals		(33)		(56)		(42,380)		(2,655)		-		-		(42,267)		(87,391)
Transfer to assets held for sale ¹		-		-		(28,321)		(731)		-		-		(29,052)		
Increase due to business combination		63,969		62,615		456,413		49,426		5,164		5,164		88,199		725,786
Depreciation ²		-		(31,885)		(1,316,011)	6,011) (124,8			-		(281,320)		(1,754,028)		
Impairment loss		-				(4,363)						-		(4,363)		
Ending balance	₩	726,565	₩	955,483	₩	5,451,976	₩	460,352	₩	596,584	₩	670,092	₩	8,861,052		
Ending acquisition cost	₩	726,565	₩	1,259,576	₩	16,861,666	₩	1,192,573	₩	596,584	₩	877,602	₩	21,514,566		
Accumulated depreciation		-		(303,202)		(11,350,188)		(732,081)		-		(207,510)		(12,592,981)		
Accumulated impairment loss		-		-		(53,786)		-		-		-		(53,786)		
Government grants		-		(891)		(5,716)		(140)		<u> </u>		-		(6,747)		
Ending balance	₩	726,565	₩	955,483	₩	5,451,976	₩	460,352	₩	596,584	₩	670,092	₩	8,861,052		

¹ Carrying amount of property, plant and equipment in relation to payment service transferred as assets held for sale amount to $\forall \forall 29,052 \text{ million (Note 21)}.$

² Depreciation in relation to discontinued operations amount to \forall 10,021 million and \forall 8,908 million are included for the year ended December 31, 2019 and 2018, respectively.

(in millions of Korean won)						20)18					
					Tel	lecommuni-			Co	nstruction		
		Land	В	Buildings	cat	ion facilities		Others	in	progress		Total
Beginning acquisition cost	₩	652,555	₩	942,130	₩	13,715,746	₩	919,357	₩	105,012	₩	16,334,800
Accumulated depreciation		-		(203,381)		(8,902,562)		(627,447)		-		(9,733,390)
Accumulated impairment												
loss		-		-		(65,750)		(77)		-		(65,827)
Government grants				(887)		(7,623)		(99)		-		(8,609)
Beginning balance		652,555		737,862		4,739,811		291,734		105,012		6,526,974
Acquisitions		2,814		46,571		225,407		67,494		1,045,812		1,388,098
Transfers		1,210		29,537		715,700		80,819		(817,704)		9,562
Disposals		-		-		(30,419)		(2,649)		-		(33,068)
Depreciation				(30,884)		(1,287,945)		(106,956)		-		(1,425,785)
Ending balance	₩	656,579	₩	783,086	₩	4,362,554	₩	330,442	₩	333,120	₩	6,465,781
Ending acquisition cost	₩	656,579	₩	1,018,981	₩	14,065,819	₩	940,060	₩	333,120	₩	17,014,559
Accumulated depreciation		-		(235,059)		(9,640,164)		(609,449)		-		(10,484,672)
Accumulated impairment												
loss		-		-		(56,505)		-		-		(56,505)
Government grants				(836)		(6,596)		(169)		-		(7,601)
Ending balance	₩	656,579	₩	783,086	₩	4,362,554	₩	330,442	₩	333,120	₩	6,465,781

The Group has pledged a portion of land and buildings carrying amounts of which are $\mbox{$\mbox{$$\psi}$}$ 28,757 million and $\mbox{$\mbox{$$\mbox{$$$$}$}$}$ 7,891 million, as collateral in relation to borrowings from Korea Development Bank ("KDB") and SAMSUNG ELECTRONICS CO.,LTD., respectively, and the maximum amount of bonds are $\mbox{$\mbox{$$\mbox{$$$$}$}$}$ 58,000 million and $\mbox{$\mbox{$$$$}$}$ 4,726 million, respectively.

The Group recognized the entire amount of property, plant and equipment in relation to 2G service which is to be terminated in 2021, as impairment loss by considering its recoverable amount. The amount of impairment loss recognized is $\mbox{$\mbox{$$$\psi}$}$ 4,363 million, and is included in other non-operating expenses.

13.Investment Property

Changes in investment property for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)				2019		
		Land		Buildings		Total
Beginning acquisition cost	₩	18,982	₩	23,667	₩	42,649
Accumulated depreciation		-		(7,085)		(7,085)
Beginning balance		18,982		16,582		35,564
Transfers		(2,869)		153		(2,716)
Increase due to business						
combination		4,362		-		4,362
Depreciation				(2,969)		(2,969)
Ending balance	₩	20,475	₩	13,766	₩	34,241
Ending acquisition cost	₩	20,475	₩	20,328	₩	40,803
Accumulated depreciation				(6,562)		(6,562)
Ending balance	₩	20,475	₩	13,766	₩	34,241
(in millions of Korean won)				2018		
		Land		Buildings		Total
Beginning acquisition cost	₩	20,192	₩	27,278	₩	47,470
Accumulated depreciation		-		(8,755)		(8,755)
Beginning balance		20,192		18,523		38,715
Transfers		(1,210)		839		(371)
Depreciation				(2,780)		(2,780)
Ending balance	₩	18,982	₩	16,582	₩	35,564
Ending acquisition cost	₩	18,982	₩	23,667	₩	42,649
Accumulated depreciation		_		(7,085)		(7,085)
Ending balance	₩	18,982	₩	16,582	₩	35,564

The Group recognized rental revenue related to investment property in the amount of \forall 4,394 million and \forall 4,931 million for the years ended December 31, 2019 and 2018, respectively.

The Group performs annual valuation of fair value using the future cash flow discounts considering the official price of land held by the Group and rent income from buildings. As at December 31, 2019, the fair value of investment property amount to $\forall 33,198$ million.

14.Intangible Assets

Changes in intangible assets for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean

won)	2019									
	Inte	llectual							Other	
	pre	operty					Frequency	Frequency intangible		
	ri	ghts	Men	nbership	G	oodwill	usage rights assets		essets	Total
Danississa sassisitiss										
Beginning acquisition	₩	0.202	₩	20 605	₩	022	₩ 2 700 151	\A .	216,172	₩ 2.066.222
cost Accumulated	٧٧	9,283	٧٧	39,695	٧٧	932	₩ 2,700,151	₩	210,172	₩ 2,966,233
		(F 007)					(4.005.400)		(450.040)	(4.044.000)
amortization		(5,897)		-		-	(1,085,192)		(150,910)	(1,241,999)
Accumulated impairment loss		_		(5,839)		_	_		(12,702)	(18,541)
Beginning balance		3,386		33,856		932	1,614,959		52,560	1,705,693
Acquisition		370		208		-	-		8,271	8,849
Increase due to		070		200					0,271	0,010
business combination		4		9,134		531,358	_		309,776	850,272
Disposals		_		(395)		-	_		(5,720)	(6,115)
Impairment loss		_		-		_	(28,869)		(400)	(29,269)
Amortization		(647)		_		_	(301,106)		(8,815)	(310,568)
Ending balance	₩	3,113	₩	42,803	₩	532,290	₩ 1,284,984	₩	355,672	₩ 2,218,862
Ending acquisition		<u> </u>							·	
cost		9,657		46,322		532,290	2,700,151		518,477	3,806,897
Accumulated		,		,		,	, ,		,	, ,
amortization		(6,544)		_		_	(1,386,297)		(159,120)	(1,551,961)
Accumulated		, ,					, , , , , , ,		. , -,	· · · · · ·
impairment loss		_		(3,519)		-	(28,870)		(3,685)	(36,074)
Ending balance	₩	3,113	₩	42,803	₩	532,290	₩ 1,284,984	₩	355,672	₩ 2,218,862
-										

(in millions of Korean											
won)	Intellectual property rights		Membership		Goo	20 dwill	Frequency usage rights	Other intangible assets		Total	_
Beginning acquisition											
cost	₩	8,617	₩	39,130	₩	932	₩ 1,714,475	₩	211,554	₩ 1,974,70	8
Accumulated amortization Accumulated		(5,206)		-		-	(855,718)	(1	137,766)	(998,690))
impairment loss		-		(6,019)		_	-		(12,657)	(18,676	3)
Beginning balance		3,411		33,111		932	858,757		61,131	957,34	2
Acquisition		666		971		-	985,675		10,421	997,73	3
Disposals		-		(406)		-	-		(5,803)	(6,209))
Impairment loss											
(reversal)		-		180		-	-		(45)	13	
Amortization		(691)					(229,473)		(13,144)	(243,308	3)
Ending balance	₩	3,386	₩	33,856	₩	932	₩ 1,614,959	₩	52,560	₩ 1,705,69	3
Ending acquisition											
cost		9,283		39,695		932	2,700,151		216,172	2,966,23	3
Accumulated											
amortization		(5,897)		-		-	(1,085,192)	(1	150,910)	(1,241,999	})
Accumulated											
impairment loss				(5,839)					(12,702)	(18,541	<u>)</u>
Ending balance	₩	3,386	₩	33,856	₩	932	₩ 1,614,959	₩	52,560	₩ 1,705,69	3

The Group classifies membership and goodwill as intangible assets with indefinite useful lives and performs impairment test annually.

Carrying amount of goodwill attributed to cash generating unit (CGU) as at December 31, 2019 and 2018, are as follows:

(in millions of Korean

won)		2019		2018						
	Acquisition cost	Accumulate impairment loss	Carrying amount	Acquisition cost	Accumulate impairment loss	Carrying amount				
LG Uplus Corp.	₩ 320,108	₩ -	₩ 320,108	₩ 932	₩ -	₩ 932				
LG HelloVision Corp. ¹	212,182		212,182		· ·					
	₩ 532,290	<u> </u>	₩ 532,290	₩ 932	<u>₩</u> -	₩ 932				

¹ LG HelloVision Corp. provides services through own network and operation data processing system, therefore, group of assets that generates cash inflows are largely independent of the cash inflows from other assets or groups of assets.

The recoverable amount of a CGU is determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on business plan approved by management covering a five-year period. The cash flow over five years is estimated within a range that does not exceed the long-term average growth rate of the telecommunications and broadcasting industry to which the group belongs.

Management determined the estimated pre-tax cash flow based on past performance and its expectations of market development. Value in use is measured by applying the pre-tax discount rates reflecting specific risks relating to the relevant operating segments. Long-term growth rates and discount rates used for calculating the value in use of major operating segments are as follows:

(in percentage)	LG Uplus Corp.	LG HelloVision Corp.		
Long-term growth rates	0.5%	0.5%		
Discount rates	5.2%	6.9%		

R&D costs

The costs related to research and development for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2	2019		2018
Other operating expenses – R&D costs¹	₩	62,577	₩	71,920

¹ Includes R&D costs amounting to \forall 180 million and \forall 273 million in relation to profit or loss on discontinued operations for the years ended December 31, 2019 and 2018, respectively.

Impairment of asset

Significant intangible assets

Frequency usage rights were acquired for \forall 880,033 million (including borrowing cost \forall 12,119 million) during the year ended December 31, 2011, and amortized on a straight-line method for ten years of useful lives. Frequency usage rights for 2.6 GHz were acquired for \forall 461,973 million during the year ended December 31, 2013, and amortized on a straight-line method for eight years of useful lives. In addition, frequency usage rights for 2.1 GHz were acquired for \forall 372,470 million during the year ended December 31, 2016, and amortized on a straight-line method for five years of useful lives.

Frequency usage rights for 3.5 GHz and 28GHz were acquired for $\frac{1}{2}$ 781,445 million and $\frac{1}{2}$ 204,231 million, respectively, during the year ended December 31, 2018. And, frequency usage right to 3.5 GHz is amortized on a straight-line method for ten years of useful lives and 28 GHz will be amortized on a straight-line method from time of use.

15.Investments in Associates and Joint Ventures

Composition of the Group's investments in associates and joint ventures as at December 31, 2019 and 2018, are as follows:

			2019	9	2018				
(in millions of Korean won)	Class	Location	Percentage of ownership (%)	Book amount	Percentage of ownership (%)	Book amount			
DACOM Crossing Corporation ¹	Joint venture	South Korea	51.00	₩ 10,024	51.00	₩ 9,072			
Genie Music Corporation ²	Associate	South Korea	12.70	28,701	12.70	28,493			
Focus Media Korea Corporation	Associate	South Korea	9.00	1,839	20.00	2,696			
VENTA VR Co., Ltd. 3	Associate	South Korea	26.32	1,497	25.00	953			
8i corporation ⁴	Associate	USA	26.17	4,861	-	-			
Home Choice Corp.5	Associate	South Korea	17.75	3,237	-	-			
Highway Solar Co., Ltd.5	Associate	South Korea	21.00	521	-				
				₩ 50,680		₩ 41,214			

¹ The Group acquired more than 50% shares of DACOM Crossing Corporation, but as the Group retains joint controlling power, it classified the shares as jointly controlled entities.

² Although the Group holds less than 20% of Genie Music Corporation's equity shares, the Group classified it as an associate because the Group can exercise significant influence over the investee's Board of Directors and others.

³ There are changes in percentage of ownership through capital increase in the form of an allotment to the third party for the year ended December 31, 2019.

⁴ Invested through LG UPLUS FUND I LLC, a subsidiary, and the Group classified it as an associate because the Group can exercise significant influence.

⁵ The Group classified it as an associate because the Group can exercise significant influence through LG HelloVision Corp, a subsidiary.

Details of valuation of investments in associates and joint ventures that are accounted for using the equity method for the years ended December 31, 2019 and 2018, are as follows:

(in millions of																
Korean won)		2019														
	Beginning balance		Acquisition		Business combination		Share of profit or loss of associates and joint ventures		Share of other comprehensive loss of associates and joint ventures					isposal	Ending balance	
DACOM																
Crossing Corporation	₩	9,072	₩	-	₩	-	₩	977	₩	(25)	₩	-	₩	-	₩	10,024
Genie Music Corporation		28,493		-		-		228		(21)		-		-		28,701
Focus Media Korea Corporation ¹		2,696		-		-		(48)		(6)		933		(1,735)		1,839
VENTA VR Co., Ltd. ³		953		500		-		44		-		-		-		1,497
8i corporation		-		4,861		-		-		-		-		-		4,861
Home Choice Corp.		-		-		3,237		-		-		-		-		3,237
Highway Solar Co., Ltd.		-		_		521		-		-		-		-		521
	₩	41,214	₩	5,361	₩	3,758	₩	1,201	₩	(52)	₩	933	₩	(1,735)	₩	50,680

¹ Gain on disposal amounting to ₩ 5,108 million occurred for the year ended December 31, 2019.

(in millions of

Korean won)		2018												
	Beginning balance Acquisition			Share of profit or loss of associates and joint ventures		Share of other comprehensive loss of associates and joint ventures		Share of movement in retained earnings of associates and joint ventures		Others ¹		Ending balance		
DACOM Crossing Corporation	₩	8,316	₩	-	₩	756	₩	-	₩	-	₩	-	₩	9,072
Genie Music														
Corporation		25,780		-		592		(37)		22		2,136		28,493
Focus Media Korea Corporation VENTA VR Co.,		3,844		-		(1,148)		-		-		-		2,696
Ltd.				1,000		(47)				_				953
	₩	37,940	₩	1,000	₩	153	₩	(37)	₩	22	₩	2,136	₩	41,214

² Effect on changes in percentage of ownership through capital increase in the form of an allotment to the third party for the year ended December 31, 2019.

³ Includes goodwill amounting to ₩ 98 million due to additional investment.

Details of reconciliation between net assets of joint ventures and associates and the carrying amount of the investments in associates and joint ventures as at and for the years ended December 31, 2019 and 2018, are as follows:

				2019			
(in millions of Korean won)	Net assets at the end of the year (A)	the end of consolidated amou		(+) Goodwill	(-) Elimination of internal transaction effect	(-) Others	December 31, 2019
DACOM Crossing Corporation	₩ 19,654	51.00%	₩ 10,024	₩ -	₩ -	₩ -	₩ 10,024
Genie Music Corporation	155,001	12.70%	19,685	10,626	-	1,610	28,701
Focus Media Korea Corporation	20,189	9.00%	1,817	-	-	(22)	1,839
VENTA VR Co., Ltd.	2,359	26.32%	621	876	-	-	1,497
8i corporation	6,424	26.17%	1,681	3,180	-	-	4,861
Home Choice Corp.	18,238	17.75%	3,237	-	-	-	3,237
Highway Solar Co., Ltd.	2,919	21.00%	613	-	92	-	521
				2018			
(in millions of Korean won)	Net assets at the end of the year (A)	The ownership interest of the consolidated entity (B)	The ownership amount of net assets (AxB)	(+) Goodwill	(-) Elimination of internal transaction effect	(-) Others	December 31, 2018
DACOM Crossing Corporation	₩ 17,789	51.00%	₩ 9,072	₩ -	₩ -	₩ -	₩ 9,072
Genie Music Corporation	152,698	12.70%	19,393	10,626	-	1,526	28,493
Focus Media Korea Corporation	13,234	20.00%	2,647	-	(49)	-	2,696
VENTA VR Co., Ltd.	700	25.00%	175	778	-	-	953

¹ Others are the effect of changes in percentage of ownership from share issuance of Genie Music Corporation.

Summary of financial information of associates and joint ventures as at December 31, 2019 and 2018, are as follows:

								2019						
(in millions of Korean won)	Assets Liabilities			Equity Sales				Operating profit (loss)	Pr	ofit for the year	Total comprehensive income			
DACOM Crossing Corporation	₩	60,130	₩	40,475	₩	19,654	₩	36,842	₩	2,130	₩	1,916	₩	1,866
Genie Music Corporation Focus Media		244,311		89,310		155,001		230,591		8,476		2,456		2,303
Korea Corporation		34,032		13,843		20,189		24,930		(1,073)		281		358
VENTA VR Co., Ltd.		2,938		580		2,359		5,333		18		14		659
8i corporation		8,599		2,175		6,424		-		-		-		-
Home Choice Corp.		51,175		32,937		18,238		86,074		859		859		859
Highway Solar Co., Ltd.		17,295		14,376		2,919		2,090		234		234		234
								2018						
(in millions of Korean won)		Assets	ı	Liabilities		Equity		Sales		Operating profit (loss)		rofit (loss) or the year		Total nprehensive come (loss)
DACOM Crossing Corporation	₩	58,807	₩	41,018	₩	17,789	₩	30,190	₩	768	₩	1,483	₩	1,482
Genie Music Corporation Focus Media		262,928		110,230		152,698		171,259		3,216		3,824		3,786
Korea Corporation		23,119		9,885		13,234		11,535		(5,581)		(5,611)		(5,611)
VENTA VR Co., Ltd.		1,038		338		700		850		(1,107)		(402)		(402)

16.Borrowings and Debentures

Details of short-term borrowings as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	Financial institution	2	019	2	018
General loans	Shinhan Bank KEB Hana Bank	₩	- 5.000	₩	5,000 5,000
		₩	5,000	₩	10,000

Details of long-term borrowings as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		Annual interest rate				
	Creditor	(%)		2019		2018
Facilities financing	Shinhan Bank and others	1.91~2.43	₩	850,000	₩	600,000
	Others	-		-		25,000
General financing	Shinhan Bank and others	1.80~2.20		600,000		-
ABL	CJH 1st LLC.	3.14		152,123		
				1,602,123		625,000
Less: current portion				(150,000)		(275,000)
			₩	1,452,123	₩	350,000

Details of debentures as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	Annual interest rate			2040			
	(%)		2019		2018		
Debentures issued under public offering	1.77~3.67	₩	3,440,000	₩	2,230,000		
Debentures issued privately	2.56~3.54		144,734		110,000		
Total	Face value		3,584,734		2,340,000		
	Discount on debentures		(5,626)		(3,938)		
	Book amount		3,579,108		2,336,062		
Less: current portion	Face value		674,734		610,000		
	Discount on debentures		(151)		(191)		
	Book amount		674,583		609,809		
Non-current portion	Face value	2,910,000			1,730,000		
	Discount on debentures		(5,475)		(3,747)		
	Book amount	₩	2,904,525	₩	1,726,253		

The repayment schedule of long-term borrowings and debentures as at December 31, 2019, is as follows:

(in millions of Korean won)		ong-term orrowings	De	ebentures		Total
January 1, 2021 ~ December 31, 2021 January 1, 2022 ~ December 31, 2022	₩	337,500 462,500	₩	270,000 1,230,000	₩	607,500 1,692,500
January 1, 2023, and thereafter		652,123		1,410,000		2,062,123
	₩	1,452,123	₩	2,910,000	₩	4,362,123

17. Other Financial Liabilities

Details of other financial liabilities as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		20	19		2018				
	C	urrent	Noi	n-current		Current	No	n-current	
Non-trade payables ¹ Withholdings ² Leasehold deposits	₩	330,332	₩	689,797 -	₩	- 293,441	₩	907,324	
received		5,917		358		5,098		38	
	₩	336,249	₩	690,155	₩	298,539	₩	907,362	

¹ Current portion of non-trade payables are included in non-trade and other payables.

18. Provisions

Changes in restoration liabilities for the years ended December 31, 2019 and 2018, are as follows:

(in millions of						2019)				
Korean won)		eginning palance In		Busine combina					ease	Ending balance	
Restoration liabilities	₩	40,194	₩	1,133	₩	3,	,970	₩	(2,197)	₩	43,100
(in millions of						20	18				
Korean won)		Begin bala	_	I	ncreas	9	C	ecreas	е		ding ance
Restoration liabilities		₩	34,744	₩	9	,721	₩	(4,	271) ₩		40,194

 $^{^2}$ Includes withholdings amounting to \forall 158,813 million classified as liabilities held for sale as at December 31, 2019.

19.Post-employment Benefits

19.1 Defined Contribution Plan

The Group operates a defined contribution plan for employees, under which the Group is obligated to make payments to third-party funds. The employee benefits under the plan are determined by the payments made to the funds by the Group and the investment earnings from the funds. Additionally, plan assets are managed by the third-party funds and are segregated from the Group's assets.

The Group recognized expense of $\forall 7,576$ million and $\forall 6,331$ million related to defined contribution plan for the years ended December 31, 2019 and 2018, respectively.

19.2 Defined Benefit Plan

The Group operates a defined benefit plan for employees and according to the plan, employees will be paid his or her average salary amount of the final three months multiplied by the number of years vested; adjusted for salary pay rate and other. The valuation of the defined benefit plan remeasurements is performed by an independent reputable actuary specialist under the projected unit credit method.

Details of net defined benefit liabilities recognized in the statements of financial position as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019			2018
Present value of defined benefit obligations	₩	634,662	₩	463,645
Fair value of plan assets		(498,202)		(425,492)
Net defined benefit liabilities	₩	136,460	₩	38,153

Movements in the defined benefit obligations for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019	2018		
Beginning balance	₩	463,645	₩	445,588	
Current service cost		67,516		65,007	
Past service cost		-		(4,919)	
Interest expense		11,654		13,526	
Remeasurements:		55,740		(26,106)	
Actuarial loss (gain) from change in demographic assumptions Actuarial loss (gain) from change in financial		2,228		(2,542)	
assumptions		43,820		(17,572)	
Actuarial loss (gain) from experience adjustments Actuarial loss (gain) arising from transfer in/out		9,654		(5,545)	
adjustment		38		(447)	
Benefit payments		(28,559)		(31,513)	
Transferred from affiliated companies		304		2,062	
Liabilities acquired in a business combination		64,362			
Ending balance	₩	634,662	₩	463,645	

Income or loss recognized relating to defined benefit plan for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019		2018
Service cost				
Current service cost	₩	67,516	₩	65,007
Past service cost		_		(4,919)
		67,516		60,088
Net interest on the net defined benefit liability				
Interest cost of defined benefit obligations		11,654		13,526
Interest income on plan assets		(10,694)		(9,648)
		960		3,878
Others		709		717
	₩	69,185	₩	64,683

Movements in the fair value of plan assets for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019	2018		
Beginning balance	₩	425,491	₩ 316,43	Q	
Interest income	**	10,694	9,64		
Remeasurements:		,,,,	,		
Return on plan assets (excluding amounts included in interest income)		(1,731)	(2,425	5)	
Contributions from the employer		27,760	129,19	0	
Transferred to affiliated companies		76	(11	1)	
Others		(709)	(717	')	
Benefit payments		(24,962)	(26,631	1)	
Assets acquired in a business combination		61,583		-	
Ending balance	₩	498,202	₩ 425,492	2	

All of the plan assets are invested in financial instruments that provide guaranteed principal and interest rate as at December 31, 2019 and 2018.

The significant actuarial assumptions as at December 31, 2019 and 2018, are as follows:

(in percentage, %)	2019	2018		
Discount rate	1.76~3.25%	2.23% ~ 3.10%		
Salary growth rate	4.20~5.29%	4.00% ~ 4.99%		

The sensitivity of the defined benefit obligation to changes in the principal assumptions is:

(in percentage)	Impact on defined benefit obligation								
	Changes in assumption	Increase in assumption	Decrease in assumption						
Discount rate	1.0% point	9.2% decrease	10.8% increase						
Salary growth rate	1.0% point	10.4% increase	9.1% decrease						

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. 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 Group 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, 2020, are $\mbox{$W$}$ 58,992 million.

The expected maturity analysis of undiscounted pension benefits as at December 31, 2019, is as follows:

(in millions of Korean won)		ss than I year			Over 5 years		Total			
Pension benefits	₩	39,331	₩	34,835	₩	117,395	₩	770,402	₩	961,963

The weighted average duration of the defined benefit obligation is 10.42 years.

20. Other Liabilities

Details of other liabilities as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		20	19		2018				
,		Current	Non-current			Current	Non-current		
Advances received Unearned income Contract liabilities – allocating the	₩	114,795 7,008	₩	- -	₩	62,287 1,726	₩	-	
transaction price Contract liabilities -		229,286		82,499		222,003		76,913	
others		32,382		16,511		32,072		17,821	
Lease liabilities		136,531		448,871		-		-	
Other		-		32,540		-		17,265	
	₩	520,002	₩	580,421	₩	318,088	₩	111,999	

21. Assets Held for Sale and Discontinued Operations

On December 20, 2019, the Group decided to sell payment service with the resolution of the Board of Directors to focus on the success of 5G service and media and content business. The associated assets and liabilities related to payment service are presented as held for sale, and the profit and loss on the related operations are presented as profit or loss from discontinued operations. The transaction is expected to be completed by newly establishing an entity after splitting the business on June 1, 2020, and selling 100% of shares of the newly established entity to Viva Republica, Inc.

Details of assets and liabilities of disposal group classified as held for sale as at December 31, 2019, are as follows:

(in millions of Korean won)	2019			
Assets of disposal group held for sale				
Cash equivalents	₩	162,950		
Trade receivables		4,318		
Other receivables ¹		10,862		
Property, plant and equipment		29,053		
	₩	207,183		
Liabilities associated with assets of disposal group held for sale				
Trade and other payables	₩	8,234		
Other financial liabilities ²		158,813		
	₩	167,047		

¹ Provision for impairment of ₩ 29,130 million is included as non-trade receivables in relation to payment service.

In accordance with Korean IFRS 1105, the assets and liabilities held for sale were measured at lower of the net fair value or carrying amount Impairment loss or reversal of impairment loss was not recognized for classifying the assets and liabilities as held for sale.

² The amount is the remaining balance of unsettled amounts from customers in relation to payment service.

Profit and loss from discontinued operation for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019	2018		
Revenue	₩	375,986	₩	399,401	
Expense ¹		378,066		409,189	
Profit before income tax of discontinued operation		(2,080)		(9,788)	
Income tax expense		_			
Profit after income tax of discontinued operation	₩	(2,080)	₩	(9,788)	

¹ An amount allocated from common expense is included in expense for discontinued operation.

Cash flows from discontinued operations for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	;	2019	2018		
Net cash inflow from operating activities	₩	42,278	₩	(13,793)	
Net cash outflow from investing activities		(3,927)		(5,209)	
Net cash outflow from financing activities				_	
Net increase (decrease) in cash generated from discontinued operations	₩	38,351	₩	(19,002)	

22. Business Combination

On December 24, 2019, the Group acquired 38,723,433 shares (50% + 1 share) of LG HelloVision Corp., and obtained a control of the entity.

The acquisition is expected to strengthen the Group's business competitiveness in the paid broadcasting market, increase the Group's market share in the market and reduce cost through sharing of network facilities.

The goodwill of \forall 531,358 million arising from the acquisition is attributable to the cost reduction effect arising from sharing of the network facilities between the Group and LG HelloVision Corp. and others. The recognized goodwill will not be deductible for tax purpose.

After December 31, 2019, as deemed acquisition date, the Group did not recognize any revenue or income through LG HelloVision Corp., and the direct costs for acquisition of the shares were accounted for an expense for the year ended December 31, 2019.

Details of the transferred consideration, the assets and liabilities recognized as a result of the acquisition, and fair value of the non-controlling interest at the acquisition date are as follows:

(in millions of Korean won)	A	mount
Transferred consideration		
Cash and cash equivalents	₩	800,000
Total consideration	₩	800,000
Recognized amounts of identifiable assets acquired and liabilities assumed		
Cash and cash equivalents	₩	80,742
Financial institution deposits		3
Trade receivables		207,445
Other receivables		39,169
Inventories		5,152
Other financial assets		1,119
Other assets ¹		15,020
Available-for-sale financial assets		4,334
Investments in associates and joint ventures		3,759
Property, plant and equipment		725,786
Investment property		4,362
Intangible assets		318,914
Assets acquired		1,405,805
Trade payables		19,815
Non-trade and other payables		192,427
Debentures and long-term borrowings		518,642
Other financial liabilities		11,062
Current tax liabilities		5,422
Other liabilities ¹		97,569
Net defined benefit liabilities		2,779
Deferred tax liabilities		16,835
Provisions		3,970
Liabilities acquired		868,521
Net identifiable assets acquired		537,284
Non-controlling interest		(268,642)
Goodwill		531,358
	₩	800,000

¹ Contract assets of ₩ 7,245 million and contract liabilities of ₩ 3,242 million are included in other assets and other liabilities, respectively.

The fair value of trade receivables acquired by the Group is \forall 207,445 million. The gross contractual amount for trade receivables at the acquisition date is \forall 241,112 million, of which \forall 33,667 million is expected to be uncollectible.

The fair value of other receivables acquired by the Group is \forall 39,169 million. The gross contractual amount for other receivables at the acquisition date is \forall 44,145 million, of which \forall 4,976 million is

expected to be uncollectible.

Had LG HelloVision Corp. been consolidated from January 1, 2019, the consolidated statement of comprehensive income would have shown a revenue of \forall 13,492,414 million and profit of \forall 453,234 million.

23. Equity

23.1 Share Capital

Details of share capital as at December 31, 2019 and 2018, are as follows:

	Number of	-	2	2019	2	018
Type of share	authorized shares	Par value	Number of issued shares	Share capital	Number of issued shares	Share capital
Ordinary shares	700,000,000	₩ 5,000	436,611,361	₩ 2,573,969 million	436,611,361	₩ 2,573,969 million

The Parent Company retired 78,182,474 shares of treasury share according to the resolution of the Board of Directors on August 30, 2012. The face amount of issued shares and the amount of paid-in capital are not identical due to the retirement of treasury share.

23.2 Capital Surplus

Capital surplus consisting of share premium and other capital surplus, amount to \forall 836,918 million as at December 31, 2019 and 2018. The Group's share premium is available only for transfer to share capital or use to reduce accumulated deficit.

23.3 Retained Earnings

Retained earnings as at December 31, 2019 and 2018, consist of:

(in millions of Korean won)		2019	2018			
Legal reserves ¹	₩	118,710	₩	101,245		
Retained earnings before appropriation		3,554,860		3,345,926		
	₩	3,673,570	₩	3,447,171		

¹The Commercial Code of the Republic of Korea requires the Group to appropriate for each financial period, 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 cash dividends payment, but may be transferred to share capital or used to reduce accumulated deficit. When the accumulated legal reserves (the sum of capital reserves and earned profit reserves) are greater than 1.5 times the paid-in capital amount, the excess legal reserves may be distributed.

24.Dividends

A dividend is to be proposed to shareholders at the annual general meeting on March 20, 2020.

Details of dividend paid for the years ended December 31, 2019 and 2018, are as follows:

		2019		2018
Number of shares issued and outstanding		436,611,361		436,611,361
Number of treasury shares		3		3
Number of shares eligible for dividends		436,611,358		436,611,358
Par value per share	₩	5,000	₩	5,000
Dividend rate		8%		8%
Dividends per share	₩	400	₩	400
Total dividends	₩	174,645 million	₩	174,645 million

Dividend payout ratio of the Parent Company for the years ended December 31, 2019 and 2018, is as follows:

(in millions of Korean won)			2018		
Total dividends	₩	174,645	₩	174,645	
Profit attributable to the owners of the Group		445,644		476,752	
Dividend payout ratio		39.19%		36.63%	

25.Accumulated Other Comprehensive Income

Changes in accumulated other comprehensive income for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	Defined benefit obligation		Equity investments at fair value through other comprehensive income	fa thro com	Debt stments at air value ough other prehensive ncome		Cash flow hedge erivatives	con i ass	Share of other comprehensive income of associates and joint venture		Foreign currency translation for foreign operations		Total
January 1, 2018	₩		₩ 1,372	₩	_	₩	<i>-</i>	₩	54	₩	(4)	₩	1,422
Fair value estimation Foreign currency translation for foreign		-	(1,319)		(4,795)		-		-		-		(6,114)
operations Changes in share of		-	-		-		-		-		(240)		(240)
other comprehensive income of associates		-	-		-		-		(37)		-		(37)
Remeasurement of defined benefit plan Reclassification to	16,3	82	-		-		-		-		-		16,382
retained earnings	(16,38	32)	142		-		_		_		_		(16,240)
December 31, 2018	₩		₩ 195	₩	(4,795)	₩	+ _	₩	17	₩	(244)	₩	(4,827)
January 1, 2019	₩	- '	₩ 195	₩	(4,795)	₩	<i>+</i> -	₩	17	₩	(244)	₩	(4,827)
Fair value estimation Foreign currency translation for foreign		-	2,821		4,470		-		-		-		7,291
operations Changes in share of other comprehensive		-	-		-		-		-		248		248
income of associates Loss on valuation of cash flow hedge		-	-		-		-		(52)		-		(52)
derivatives Remeasurement of		-	-		-		(664)		-		-		(664)
defined benefit plan Reclassification to	(43,40	3)	-		-		-		-		-		(43,403)
retained earnings	43,4		(5,592)			_							37,811
December 31, 2019	₩		₩ (2,576)	₩	(325)	₩	/ (664)	₩	(35)	₩	4	₩	(3,596)

26.Other Expenses

Details of other expenses for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019 ¹			2018 ¹		
Operating lease payment	₩	57,713	₩	326,169		
Advertising expense		291,523		271,111		
Sales commissions		1,809,710		1,701,923		
Commission charge		1,561,035		1,509,575		
Interconnection charge		528,875		573,407		
Telecommunication equipment rental fees		188,521		200,301		
Outsourcing expense		254,839		344,092		
Bad debt expenses		61,592		65,025		
Settlement expenses		86,352		87,271		
Others		725,728		696,628		
	₩	5,565,888	₩	5,775,502		

¹ Other operation expenses from discontinued operations for the year ended December 31, 2019, amounting to \forall 343,085 million is included (2018: \forall 376,511 million).

27.Other Non-operating Income and Expenses

Details of other non-operating income for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019		2018
Gain on disposal of property, plant and equipment	₩	1,981	₩	2,200
Gain on foreign currency transactions		4,236		2,602
Gain on foreign currency translation		1,617		4,104
Gain on disposal of investments in associates		5,107		2,137
Miscellaneous income		46,985		42,935
	₩	59,926	₩	53,978

Details of other non-operating expenses for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019			2018		
Loss on disposal of property, plant and equipment	₩	28,353	₩	27,954		
Impairment loss of property, plant and equipment		4,363		-		
Loss on disposal of intangible assets		121		67		
Impairment loss of intangible assets (reversal)		29,269		(135)		
Loss on foreign currency transactions		4,899		2,963		
Loss on foreign currency translation		1,516		4,295		
Donation		4,940		3,684		
Miscellaneous expenses		9,297		5,443		
	₩	82,758	₩	44,271		

28. Finance Income and Costs

Details of finance income for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019			2018		
Interest income	₩	41,290	₩	34,286		
Gain on foreign currency transactions		69		155		
Dividend income		347		534		
	₩	41,706	₩	34,975		

Details of interest income included in finance income for the years ended December 31, 2019 and 2018, are as follows:

	2019	2	2018
₩	12,569	₩	8,926
	28,721		25,360
₩	41,290	₩	34,286
		₩ 12,569 28,721	₩ 12,569 ₩ 28,721

Details of finance costs for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019		2018	
Interest expense	₩	111,182	₩	101,468
Loss on foreign currency transactions		3		2
Loss on foreign currency translation		-		2
Loss on valuation of financial assets at fair value through profit or loss		2,002		3,658
Loss on disposal of trade receivables		19,192		22,384
	₩	132,379	₩	127,513

Details of interest expense in finance costs for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019			2018		
Bank overdrafts and loan interest	₩	12,658	₩	16,561		
Financial lease liability interest		6,468		-		
Debentures interest		72,498		71,060		
Other interest expense		19,558		13,847		
	₩	111,182	₩	101,468		

Net gains or losses on each category of financial instruments for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019		2018	
Financial assets				
Financial assets at amortized cost				
Interest income	₩	41,290	₩	34,286
Gain on foreign currency translation		3,392		4,920
Bad debt expenses		(60,775)		(63,587)
		(16,093)		(24,381)
Financial assets at fair value through profit or loss				
Loss on valuation		(2,003)		(3,658)
Dividend income		99		95
		(1,904)		(3,563)
Financial assets at fair value through other comprehensive income				
Gain (loss) on valuation		7,291		(6,114)
Dividend income		249		439
Loss on disposal		(19,192)		(22,384)
Bad debt expenses ¹		(91)		(1,438)
		(11,743)		(29,497)
		(29,740)		(57,441)
Financial liabilities				
Financial liabilities at amortized cost				
Interest expense		(104,117)		(100,289)
Loss on foreign currency translation		(3,888)		(5,321)
		(108,005)		(105,610)
Cash flow hedge derivative liabilities				
Loss on valuation of cash flow hedge		(664)		
derivatives (other comprehensive income) Lease liabilities		(664)		-
		(6.469)		
Interest expense		(6,468)		(105 600)
	₩	(115,137)	₩	(105,609)
	V V	(144,877)	V V	(163,050)

¹ The amounts are bad debt expenses incurred from installment receivables for handsets.

29.Tax Expense

Income tax expense for the years ended December 31, 2019 and 2018, consists of:

(in millions of Korean won)	2019		2018	
Current tax ¹	₩	82,556	₩	145,329
Changes in deferred tax due to temporary differences		38,538		26,524
Beginning deferred tax assets (liabilities)		(79,610)		403,213
Adjustments of beginning deferred tax assets due to changes in accounting policy		-		(456,299)
Adjustments of deferred tax due to business combination and others		(16,866)		-
Ending deferred tax liabilities		(135,014)		(79,610)
Tax that are charged or credited directly to equity		11,935		(5,195)
Income tax expense	₩	133,029	₩	166,658

¹ ₩ 447 million recognized in relation to uncertainty over income tax treatments is included.

Reconciliation between profit before income tax and income tax expense of the Group for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019		2018	
Profit before income tax expense ¹	₩	573,940	₩	648,267
Tax at domestic tax rates applicable to profits		147,116		169,510
Tax effects of:		(14,087)		(2,853)
Income not subject to tax		(663)		(999)
Expenses not deductible for tax purposes		2,551		7,056
Tax credits		(15,955)		(5,709)
Others		(20)		(3,201)
Income tax expense	₩	133,029	₩	166,658
Effective tax rate (income tax expense/profit before income tax)		23.18%		25.71%

¹ before loss from discontinued operations

The aggregate current and deferred tax relating to items that are charged or credited directly to equity for the years ended December 31, 2019 and 2018, is as follows:

(in millions of Korean won)	2019			2018	
Loss on valuation of cash flow hedge derivatives	₩	233	₩	-	
Gain (loss) on valuation of financial assets at fair value through other comprehensive income		(991)		414	
Remeasurement of defined benefit plan		14,264		(7,299)	
Gain (loss) on valuation of debt investments at fair value through other comprehensive income		(1,571)		1,685	
	₩	11,935	₩	(5,200)	

The movements in deferred tax assets and liabilities for the year ended December 31, 2019, are as follows:

(in millions of Korean won)	2019				
	Beginning balance	Increase	Decrease	Ending balance	
Deductible temporary differences:					
Net defined benefit liabilities	₩ 437,415	₩ 194,310	₩ 25,688	₩ 606,037	
Bad debt expenses and others	183,783	207,561	183,162	208,182	
Loss on valuation of inventories	43,916	69,273	43,640	69,549	
Unsettled expenses	174,263	348,147	204,004	318,406	
Property, plant and equipment	467,233	187,250	112,994	541,489	
Provisions	41,353	46,194	41,353	46,194	
Impairment loss on available-for-	7.050	4 000		0.000	
sale financial assets Loss on valuation of investment	7,953	1,033	-	8,986	
securities	7,091	7,557	3,666	10,982	
Intangible assets	57,804	- ,00.	57,804	-	
Deemed dividends	160	_	-	160	
Government grants	7,717	5,154	2,367	10,504	
Adjustments on revenues	82,033	81,854	72,589	91,298	
Investment assets	4,068	464	548	3,984	
Prepaid expenses	2,188	1,518	1,567	2,139	
Present value discount	9	52	9	52	
Goodwill	4,515	-	4,515	-	
Valuation on installment					
receivables	6,500	-	6,061	439	
Impairment loss on investments	0.040			0.040	
in subsidiaries	9,046	-	-	9,046	
Contract liabilities	306,930	362,459	359,649	309,740	
Lease liabilities	-	558,741	137	558,604	
Derivative instruments		897		897	
	1,843,977	2,072,464	1,119,753	2,796,688	

(in millions of Korean won)	2019					
	Beginning balance	Increase	Decrease	Ending balance		
Taxable temporary differences:						
Accrued interest income	(73)	(458)	(73)	(458)		
Deposits for severance benefits	(422,276)	(97,221)	(24,952)	(494,545)		
Share of profit of associates and	(122,210)	(01,221)	(21,002)	(101,010)		
joint venture	(2,694)	(1,149)	-	(3,843)		
Intangible assets	-	(257,320)	-	(257,320)		
Equipment allowances	(70,867)	-	(20,382)	(50,485)		
Estimate of assets for restoration	(14,716)	(14,646)	(14,716)	(14,646)		
Other assets	(1,587,155)	(2,005,319)	(1,706,000)	(1,886,474)		
Contract assets	(353,792)	(325,959)	(366,141)	(313,610)		
Right-of-use assets	-	(558,240)	(10)	(558,230)		
Goodwill	-	(476,394)	(2,709)	(473,685)		
Others	(6,661)	(34,949)	-	(41,610)		
	(2,458,234)	(3,771,655)	(2,134,983)	(4,094,906)		
Tax loss carryforwards	45,967	15,265		61,232		
•	(568,290)	(1,683,926)	(1,015,230)	(1,236,986)		
Realizable temporary differences	(000,200)	(1,000,020)	(1,010,200)	(1,200,000)		
and tax loss carryforwards	(636,895)	(1,195,675)	(1,004,643)	(827,927)		
Unrealizable temporary differences						
and tax loss carryforwards	68,605	(488,251)	(10,587)	(409,059)		
Tax rate	440/ 000/ 000/			11%, 22%,		
Tax effect due to temporary	11%, 22%, 26%			24,2%, 26%		
differences and tax loss						
carryforwards	(160,737)	(325,244)	(274,280)	(211,701)		
Tax effect due to tax credit	,	, ,	,	,		
carryforwards	81,127	14,377	18,816	76,688		
Deferred tax liabilities	₩ (79,610)	₩ (310,867)	₩ (255,464)	₩ (135,013)		

The movements in deferred tax assets and liabilities for the year ended December 31, 2018, are as follows:

(in millions of Korean won)	2018				
	Beginning balance	Increase	Decrease	Ending balance	
Deductible temporary differences:					
Net defined benefit liabilities	₩ 417,357	₩ 47,583	₩ 27,525	₩ 437,415	
Bad debt expenses and others	179,786	176,309	172,312	183,783	
Loss on valuation of inventories	34,583	43,785	34,452	43,916	
Unsettled expenses	205,482	174,263	205,482	174,263	
Property, plant and equipment	466,236	91,164	90,167	467,233	
Provisions	35,623	41,353	35,623	41,353	
Impairment loss on available-for-					
sale financial assets	14,953	-	7,000	7,953	
Loss on valuation of investment	2,598	6,392	1,899	7,091	

(in millions of Korean won)	2018					
	Beginning balance	Increase	Decrease	Ending balance		
securities						
Intangible assets	70,806	3,102	16,104	57,804		
Deemed dividends	160	-	-	160		
Government grants	9,780	736	2,799	7,717		
Adjustments on revenues	80,867	67,180	66,014	82,033		
Investment assets	3,707	361	-	4,068		
Prepaid expenses	456	3,954	2,222	2,188		
Present value discount	22	9	-,	9		
Goodwill	6,321	-	1,806	4,515		
Valuation on installment	-,		1,222	.,		
receivables	-	6,500	-	6,500		
Impairment loss on investments						
in subsidiaries	-	9,046	-	9,046		
Contract liabilities		599,891	292,961	306,930		
	1,528,737	1,271,628	956,388	1,843,977		
Taxable temporary differences:						
Accrued interest income	(166)	(73)	(166)	(73)		
Deposits for severance benefits Share of profit of associates and	(316,387)	(132,623)	(26,734)	(422,276)		
joint venture	(2,578)	-	116	(2,694)		
Estimate of assets for restoration	(10,159)	(15,287)	(10,730)	(14,716)		
Equipment allowances	(91,251)	-	(20,384)	(70,867)		
Other assets	-	(3,215,810)	(1,628,655)	(1,587,155)		
Contract assets	-	(697,026)	(343,234)	(353,792)		
Others	(4,898)	(1,789)	(26)	(6,661)		
	(425,439)	(4,062,608)	(2,029,813)	(2,458,234)		
Tax loss carryforwards	41,374	4,593		45,967		
	1,144,672	(2,786,387)	(1,073,425)	(568,290)		
Realizable temporary differences						
and tax loss carryforwards	1,079,223	(2,777,764)	(1,061,646)	(636,895)		
Unrealizable temporary differences	05.440	(0.000)	(44.770)	00.005		
and tax loss carryforwards	65,449	(8,623)	(11,779)	68,605		
Tax rate Tax effect due to temporary	11%, 22%, 26%			11%, 22%, 26%		
differences and tax loss						
carryforwards	283,218	(724,328)	(280,373)	(160,737)		
Tax effect due to tax credit	•	, , ,	, , ,	, , ,		
carryforwards	119,995	3,468	42,336	81,127		
Deferred tax assets (liabilities)	₩ 403,213	₩ (720,860)	₩ (238,037)	₩ (79,610)		

Details of unrecognized deductible (taxable) temporary differences as deferred tax assets and liabilities as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019		2018	
Temporary differences	₩	(470,128)	₩	22,802
Tax loss		61,069		45,803
Tax credit carryforwards		12,488		18,458

The maturity of tax loss and tax credit carryforwards that are not recognized as deferred tax assets is as follows:

	2019			
(in millions of Korean won)	Tax	loss	_	credit orwards
Less than 1 year	₩	-	₩	6,003
Between 1 and 3 years		-		5,627
More than 3 years		61,069		858
	₩	61,069	₩	12,488

30. Earnings per Share

Basic earnings per share for the years ended December 31, 2019 and 2018, are as follows.

Basic earnings per share are the profit attributable to one share of ordinary shares of the Group. It is measured by dividing profit attributable to ordinary shares during a specified period with weighted-average number of ordinary shares issued during that period. Earnings per share for the years ended December 31, 2019 and 2018, are as follows:

(in Korean won)		2019		2018
Basic earnings per share				
from continuing operations	₩	1,010	₩	1,125
from discontinued operations		(5)		(22)
	₩	1,005	₩	1,103

Diluted earnings per share are same as basic earnings per share as the Group has no dilutive potential ordinary shares as at December 31, 2019 and 2018.

Details of profit for the year and the weighted average number of ordinary shares outstanding used for calculating basic earnings per share are as follows:

(in millions of Korean won)		2019		2018
Profit attributable to the ordinary equity holders of the Parent Company	₩	438,855	₩	481,637
Profit used to determine basic earnings per share				
Loss from discontinued operations	₩	(2,080)	₩	(9,788)
Profit from continuing operations		440,911		491,398
	₩	438,831	₩	481,609
Weighted average number of ordinary shares outstanding		436,611,358 shares		436,611,358 shares

31. Contingencies and Commitments

As at December 31, 2019, there are 79 lawsuits ongoing where the Group is a defendant in the Republic of Korea; total claim amount the Group is being sued for is \forall 17,589 million. Management believes the outcome of these lawsuits will not likely have a significant effect on the consolidated financial position of the Group.

The Group entered into agreements with Woori Bank and others for a line of credit and commercial paper up to \forall 134,500 million. These agreements include bank overdraft agreement with Woori Bank and others up to \forall 30,000 million.

As at December 31, 2019, the Group has entered into agreement with Woori Bank and three other banks for a limit of \forall 65,800 million in relation to payment of its trade payables. It is a loan agreement secured by an electronic trade receivable, where the Group guarantees the payment of trade receivable when the vendors of the Group transfer their trade receivables due from the Group prior to its maturity to banks.

The Group is provided with payment guarantees amounting to \forall 62,466 million, \forall 44,833 million and \forall 100 million in relation to the contract guarantees, bid guarantees, payment guarantees in foreign currencies and payment guarantees in Korean won from Seoul Guarantee Insurance Company, Korea Software Financial Cooperative and KEB Hana Bank, respectively. In this regard, the Company's contribution paid of \forall 500 million is provided as collateral to Korea Software Financial Cooperative, and a deposit of \forall 38 million in Woori Bank is pledged against Seoul Guarantee Insurance Company. In relation to the payment guarantee from Korea Software Financial Cooperative, the right for the guarantee does not expire until the end of extinctive prescription by the applicable laws even after the guarantee period is ended.

As at December 31, 2019, the Group has entered into purchase agreements with Shinhan Bank and KEB Hana Bank for limits of \forall 200 billion and \forall 100 billion, respectively, under which the banks accept any unaccepted bills issued by the Group.

As at December 31, 2019, the Group has entered into agreements with Woori Bank and KEB Hana Bank to provide payment guarantees in relation to housing fund loans for the executives and employees, and the guaranteed amount is $\forall 7$ billion.

According to the financial and other covenants included in certain bonds and borrowings, the Group is required to maintain certain financial ratios such as debt to equity ratio and use the funds for the designated purpose. The covenant also contains restriction on provision of additional collaterals and disposal of certain assets.

The Group acquired frequency usage right for 3.5 ft for the period from December 1, 2018 to November 30, 2028 and 28 ft for the period from December 1, 2018 to November 30, 2023, in the amounts of for \$\fomathbf{W}\$ 809,500 million and \$\fomathbf{W}\$ 207,200 million, respectively, through an auction for 5G frequency by Ministry of Science and ICT in June 2018. A quarter of the acquired amounts for each frequency was paid in November 2018, and the remaining amounts are to be paid in every March over the contract period. The Group paid \$\fomathbf{W}\$ 91,792 million in March 2019.

The Group has entered into a transfer contract of securitized assets with the SPCs (2019: U Plus 5G SPC 46th~48th and U Plus LTE SPC 43th~45th, 2018: U Plus LTE SPC 37th~42th) and transferred the installment receivables of handset during the years ended December 31, 2019 and 2018. The Group also has entered into asset management contract with each SPC to manage the transferred installment receivables, and committed to be received asset management fees when the SPCs are liquidated.

Due to fire in power storage system established by the other company, the power storage system established by the Group was partially shut down in order to inspect safety and take precautions for fire. And, the Group cannot estimate ultimate effect of these uncertainty as of the date of statement of financial position.

32. Related Party Transactions

Major related parties as at December 31, 2019 and 2018, are as follows:

2019

Investor with significant

influence over the

Group

LG Corporation

Joint venture **Dacom Crossing Corporation**

Genie Music Corporation, Focus Media Korea Corporation, VENTA VR **Associates**

Co., Ltd., 8i Corporation, Home Choice Corp., Highway Solar Co., Ltd.

S&I corp. and 10 others, LG CNS and 21 others, LG Sports, LG Holdings Others

Japan, LG Management Development Institute

LG Chem Ltd. and 42 others; LG Household & Health Care Ltd. and 38 others; LG Hausys, Ltd. and 12 others; LG MMA Corp.; LG Electronics

included in Large Business Group defined by the act

Other related parties

Inc. and 117 others; LG Display Co., Ltd. and 21 others; LG Innotek Alliance Fund and 11 others; Silicon Works Inc. and two others; LG International Corp. and 34 others; Pantos Logistics Co., Ltd and 52

others; GIIR Inc. and 15 others

2018

Investor with significant

influence over the

Group

LG Corporation

Joint venture **Dacom Crossing Corporation**

Genie Music Corporation, Focus Media Korea Corporation, VENTA VR **Associates**

Co., Ltd.

S&I corp. and 11 others, LG CNS and 40 others, LG Sports, LG Others

Management Development Institute, Lusem

Other related parties included in Large Business Group defined by the act

LG Electronics Inc. and 110 others; L. Best; HS Ad Co., Ltd. and four others; GIIR Inc. and nine others; Hanultari Co., Ltd.; Helistar Air Co., Ltd.; Pantos Busan Newport Logistics Center Co., Ltd.; Pantos Logistics Co., Ltd and 49 others; Sal de Vida Korea Corp; Global Dynasty Natural

Resource Private Equity Fund; Dangjin Tank Terminal Co., Ltd.; LG International Corp. and 44 others; Robostar Co., Ltd.; Hanuri; LG Fuel Cell Systems (Korea) Inc.; LG-Hitachi Water Solutions Co., Ltd.; Hientech Co., Ltd.; Ace R&A Co., Ltd.; HITeleservice Co., Ltd.; Hi-M Solutec Co., Ltd.; Silicon Works Inc. and two others; Hi Plaza Inc.; Innowith; LG Innotek Alliance Fund and 11 others; Nanumnuri Co., Ltd.; LG Display Co., Ltd. and 20 others; SEETEC Co., Ltd.; LG MMA Corp.; GREENNURI CO., LTD.; LG. Tostem BM Co., Ltd; LG Hausys, Ltd. and 10 others; JS PHARM CO., LTD.; TAI GUK PHARM CO., LTD.; Ulleung Mountain Chu Natural Spring Water Development Company; MiGenstory Co., Ltd.; LG Farouk Co.; Balkeunuri Co., Ltd.; CNP Cosmetics Co., Ltd.; K&I Co., Ltd; Clean Soul Ltd.; HAITAI HTB CO., LTD.; Hankook Beverage Co., Ltd.; The FaceShop Co., Inc. and seven others; Coca-Cola Beverage Co.; LG Household & Health Care Ltd. and 16 others; FarmHanong Co., Ltd. and three others; Ugimag Korea Co., Ltd.; Haengboknuri; LG Chem Ltd. and 38 others; and FMG Inc.

As at December 31, 2019, no entity controls the Group. LG Corporation has 36.05% of ownership interest and has significant influence over the Group.

Sales and purchases with related parties for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019		2018					
	Sales and others	Purchase of property, plant and equipment	Purchase and others	Sales and others	Purchase of property, plant and equipment	Purchase and others			
Investor with significant influence over the Group									
LG Corporation	₩ 130	₩ -	₩ 32,330	₩ 136	₩ -	₩ 31,171			
Joint venture									
Dacom Crossing Corporation	402	-	16,511	541	-	19,745			
Associates									
Genie Music Corporation	401	-	40,098	160	-	22,162			
Focus Media Korea Corporation	2,553	-	878	2,768	-	36			
VENTA VR Co., Ltd.	45	-	4,111	-	-	360			
8I Corporation	-	-	127	-	-	-			
Others									
S&I corp. ^{1,2,6}	6,467	107,766	49,390	6,972	75,237	43,283			
LG CNS ^{2,6}	25,902	216,799	158,926	25,429	212,443	148,134			
LG Management Development Institute ⁶	93	-	7,950	72	-	6,164			
LG Sports	25	-	3,513	30	-	3,517			
Lusem ³	-	-	-	9	-	-			
Other related parties									

(in millions of Korean won)		2019		2018						
	Sales and others	Purchase of property, plant and equipment	Purchase and others	Sales and others	Purchase of property, plant and equipment	Purchase and others				
included in Large Business Group defined by the act ⁴										
HS Ad Co., Ltd.	255	-	35,527	597	8,010	23,836				
LG Display Co., Ltd.	2,352	-	-	1,739	-	21				
LG Household & Health Care Ltd. ⁶	2,576	-	595	2,652	-	830				
LG Innotek Alliance Fund	345	1,843	346	71	8,404	37				
LG Electronics Inc.6	5,596	196	470,060	6,355	6,998	529,616				
LG Chem Ltd.6	2,113	-	54	3,352	234	1,526				
The FaceShop Co., Inc.6	1,906	-	47	2,020	-	139				
Pantos Logistics Co., Ltd ⁶	104	-	9,706	75	-	8,808				
L. Best	51	-	1,322	50	-	3,010				
Hi Plaza Inc.	51,471	-	46,885	54,392	-	44,081				
LG Hausys, Ltd. ⁶	437	-	2	880	159	1,462				
Coca-Cola Beverage Co. ⁶	380	-	44	680	-	56				
Others ⁶	1,585	374	155	2,237	2,654	278				
	₩ 105,189	₩ 326,978	₩ 878,577	₩ 111,217	₩ 314,139	₩ 888,272				

¹ On December 1, 2018, Serveone spun off S&I corp. (existing corporation) and Serveone (newly established corporation), and Serveone (newly established corporation) was excluded from related parties in Large Business Group on July 24, 2019; thus, excluded from the related parties of the Group. The transactions of both corporations until July 2019, are included in the amounts above.

² Transactions with subsidiaries of the related parties are included.

³ Lusem was sold to LB SEMICON CO., LTD. on February 27, 2018, and excluded from related parties as at December 31, 2019.

⁴ These companies are not related parties defined in paragraph 9 of Korean IFRS 1024 *Related Party Disclosures*. However, the companies are designated by the Fair Trade Commission as related parties in accordance with the resolution of the Securities and Futures Commission in accordance with the substantive relationship stipulated in paragraph 10 of Korean IFRS 1024.

⁵ LG HelloVision Corp. is deemed as included in subsidiaries of the Group from December 31, 2019, so the transactions of both corporations are not included.

⁶ Transactions for payment service that is held for sale are included.

Outstanding balances arising from sales/purchases of goods and services as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		20	19		2018			
	Trade receivables and others		Trade payables and others		Trade receivables and others		Trade payables and others	
Investor with significant influence over the Group								
LG Corporation ¹	₩	5,387	₩	1,159	₩ 5,397	₩	-	
Joint venture								
Dacom Crossing Corporation		-		41	-		1,992	
Associates								
Genie Music Corporation		23		11,782	47	•	5,235	
Focus Media Korea Corporation		3		1	14		-	
Others								
S&I corp. ^{2,3}		19,617		60,750	19,939		29,729	
LG Management Development Institute		2,958		18	3,107	•	176	
LG Sports		-		-	-		10	
LG CNS ³		766		133,364	1,057		165,623	
Other related parties included in Large Business Group defined by the act ⁴								
HS Ad Co., Ltd.		-		25,770	-		32,904	
LG Household & Health Care Ltd.		86		-	135		3	
LG Innotek Alliance Fund		182		400	9		2,315	
LG Electronics Inc.		534		5,918	369		14,027	
LG Chem Ltd. ⁵		51		270	111		436	
Pantos Logistics Co., Ltd		-		2,239	-		2,026	
L. Best		-		690	-		2,564	
Hi Plaza Inc.		-		4,043	-		2,850	
Hi-M Solutec Co., Ltd.		1		433	-		209	
Others ⁵		566	_	9	380		1,770	
	₩	30,174	₩	246,887	₩ 30,565	₩	261,869	

¹ The amount of lease liabilities recognized in accordance with the lease contract entered with LG Corporation is \forall 53,507 million as at December 31, 2019, and it is not included in the line item of trade receivables and others. The amount of repayment of lease liabilities for the year ended December 31, 2019, is \forall 6,456 million.

² On December 1, 2018, Serveone spun off S&I corp. (existing corporation) and Serveone (newly established corporation), and Serveone (newly established corporation) was excluded from related parties in Large Business Group on July 24, 2019; thus, excluded from the related parties of the Group. As at December 31, 2018, receivables and payables of both corporations are included.

Above receivables and payables are unsecured and to be settled in cash. Also, there are no payment guarantees, which were given or received related to above receivables and payables.

Fund transactions with related parties for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2	019			2018			
	Dividends paid		Contributions in cash			idends paid	Contributions in cash		
Investor with significant influence over the Group LG Corporation	₩	62,950	₩	-	₩	62,950	₩	-	
Associates									
VENTA VR Co., Ltd.		-		500		-		1,000	
8i Corporation		-		4,861		-		-	

The compensation and benefits for the Group's key management, including directors (excluding non-executive directors) and executive officers, who have significant control and responsibilities on planning, operating and controlling the Group's business activities for the years ended December 31, 2019 and 2018, are summarized as follows:

(in millions of Korean won)	2	2019		2018
Short-term employee benefits	₩	38,981	₩	32,250
Long-term employee benefits		25		44
Post-employment benefits ¹		4,226		5,072
	₩	43,232	₩	37,366

¹ The above balances refer to post-employment benefits incurred for key management during the years ended December 31, 2019 and 2018. In addition, the present values of defined benefit obligations for key management are \forall 41,387 million and \forall 38,490 million as at December 31, 2019 and 2018, respectively.

³ Receivables and payables between the entity and the entity's subsidiaries are included.

⁴ These companies are not related parties defined in paragraph 9 of Korean IFRS 1024 *Related Party Disclosures*. However, the companies are designated by the Fair Trade Commission as related parties in accordance with the resolution of the Securities and Futures Commission in accordance with the substantive relationship stipulated in paragraph 10 of Korean IFRS 1024.

⁵ Receivables and payables classified as assets and liabilities held for sale are included.

33.Risk Management

33.1 Capital Risk Management

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

The Group's capital structure consists of net liability, which is borrowing (including bonds and finance lease liability) less cash and cash equivalents, and equity; the overall capital risk management policy of the Group has been consistently maintained to all the years presented. In addition, items managed as capital by the Group as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019			2018		
Total borrowings ¹	₩	5,771,633	₩	2,971,062		
Less: cash and cash equivalents ²		(637,315)		(378,631)		
Borrowings, net	₩	5,134,318	₩	2,592,431		
Total equity	₩	7,349,616	₩	6,853,369		
Net borrowings-to-equity ratio		69.86%		37.83%		

¹ Lease liabilities of ₩ 585,402 are included as a result from application of Korean IFRS 1116.

33.2 Financial Risk Management

The Group is exposed to various financial risks, such as market risk (foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk related to financial instruments. The purpose of risk management of the Group is to identify the potential risks to financial performance and reduce, eliminate and evade those risks to a degree acceptable to the Group. The Group makes use of derivative financial instruments to hedge certain risks, such as foreign exchange and interest rate risks. Overall financial risk management policy of the Group has been consistently maintained to all the years presented.

² Cash and cash equivalents classified as assets held for sale of ₩ 162,950 are included.

(a) Foreign currency risk

The Group is exposed to foreign currency risk since it undertakes transactions denominated in foreign currencies. The carrying amounts of the Group's monetary assets and liabilities denominated in foreign currencies that is not the functional currency as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	2019							
	A	Assets						
USD	₩	48,327	₩	94,418				
Others		4		274				
	₩	48,331	₩	94,692				
(in millions of Korean won)	A	2018 Assets		Liabilities				
USD	₩	96,420	₩	400.005				
		00, 120		108,085				
Others		48		108,085 783				

The Group internally assesses the foreign currency risk from changes in exchanges rates on a regular basis. The Group's sensitivity to a 10% increase and decrease in the Korean won (functional currency of the Group) against the major foreign currencies as at December 31, 2019 and 2018, is as follows:

(in millions of Korean won)	2019							
	Loss from 10% increase against foreign currency			0% ainst ency				
USD	₩	(3,411)	₩	3,411				
(in millions of Korean won)	2018							
	Loss from increase a foreign cu	gainst	Gain from 1 decrease aga foreign curre	ainst				
USD	₩	(863)	₩	863				

Sensitivity analysis above is conducted for monetary assets and liabilities denominated in foreign currencies other than functional currency as at December 31, 2019 and 2018.

(b) Interest rate risk

The Group borrows funds at floating interest rates and is exposed to cash flow risk arising from interest rate changes. The carrying amount of liabilities exposed to interest rate risk as at December 31, 2019 and 2018, is as follows:

(in millions of Korean won)		2019	2018			
Borrowings ¹	₩	300,000	₩	-		
Debentures		34,734		-		
Non-trade payables		915,033		1,132,011		
	₩	1,249,767	₩	1,132,011		

¹ The amount has been borrowed at floating interest rate, but is not exposed to interest rate risk due to an interest rate swap for cash flow hedge.

The Group internally assesses the cash flow risk from changes in interest rates on a regular basis. The effect of changes in interest rates of 1% point to profit or loss and net assets as at December 31, 2019 and 2018, is as follows:

(in millions of Korean won)	2019											
		1% point	ease	1% point decrease								
	Prof	fit or loss	Ne	t assets	Prof	it or loss	Net	assets				
Debentures	₩	(257)	₩	(257)	₩	257	₩	257				
Non-trade payables		(6,970)		(6,970)	-	6,970		6,970				
	₩	(7,227)	₩	(7,227)	₩	7,227	₩	7,227				
(in millions of Korean won)				20	18							
		1% point	incre	ease		1% point	decre	ase				
	Prof	fit or loss	Ne	t assets	Prof	it or loss	Net	assets				
Non-trade payables	₩	(8,653)	₩	(8,653)	₩	8,653	₩	8,653				

The Group manages interest rate risk by entering into an interest rate swap contract. The Group applies cash flow hedge accounting to the interest rate swap contract, and details of an evaluation on the unsettled amount of the interest rate swap contract as at December 31, 2019, are as follows:

(in millions of Korean won)			Gain or loss on valuation		Gain or loss on valuation		Fair value					
	amo	nsettled ount of the contract	Gain		L	.oss	(Accumulated other comprehensive income) ¹		Ass	sets	Lial	bilities
Interest rate swap	₩	300,000	₩	_	₩	897	₩	(664)	₩	-	₩	897

¹ There is no ineffectiveness recognized from cash flow hedge, and gain or loss on valuation is an after-tax amount.

(c) Price risk

The Group is exposed to price risks arising from marketable equity instruments. The fair value of marketable equity instruments for the years ended December 31, 2019 and 2018, is $\mbox{$W$}$ 201 million and $\mbox{$W$}$ 4,671 million, respectively, and when the price of equity instrument changes by 10% with all other variables held constant, the effect to equity will be $\mbox{$W$}$ 15 million and $\mbox{$W$}$ 346 million, for the years ended December 31, 2019 and 2018, respectively.

(d) Credit risk

Credit risk refers to the risk that counterparty may default on its contractual obligations resulting in financial loss to the Group. Credit risk is managed on respective entity basis, including the Parent Company and its subsidiaries. Credit risk arises from cash and cash equivalents, derivatives, deposits in bank and financial institution as well as receivables and firm commitments to individual customers. The Group's credit risk exposure to bank and financial institutions is limited due to making transactions with high credit rating financial institutions. The Group evaluate credit status of customers based on their financial status, credit history and other factors. The Group does not establish policies to manage credit limits of each customer.

(i) Trade receivables

The Group applies the simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the period. On that basis, the loss allowance as at December 31, 2019 was determined as follows for trade receivables. The expected credit losses reflect forward-looking information.

(in millions of Korean won)	2019									
	Within		More than	_						
	6 months	7-12 months	1 year	Total						
Expected loss rate	2.23%	57.16%	67.16%							
Gross carrying amount	₩ 2,153,946	₩ 43,031	₩ 135,274 ₩	2,332,251						
Loss allowance provision	48,121	24,598	90,847	163,566						

¹ Aging schedule is categorized by claim date for the receivables. The receivables that were not claimed are included in aging schedule of 'Within 6 months'.

Movements in the loss allowance provision for trade receivables for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019		2018
Beginning balance	₩	155,756	₩	172,878
Increase in loss allowance recognized in profit or loss during the year		49,613		45,229
Receivables written off during the year as uncollectible		(59,504)		(56,151)
Unused amounts reversed		16,180		16,679
Transfer of loss allowance due to reclassification of the receivables		1,521		(22,879)
Ending balance	₩	163,566	₩	155,756

As at December 31, 2019, total carrying amounts of trade receivables that are maximum exposure to credit risk is \forall 2,332,251 million (2018: \forall 1,499,410 million).

² Trade receivables classified as assets held for sale are included, and carrying amounts included as at December 31, 2019, amount to ₩ 4,318 million.

Following losses are recognized in profit or loss in relation to impaired trade receivables for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	20	019		2018
Impairment loss				
Bad debt expenses	₩	49,613	₩	45,229

(ii) Debt investments at fair value through other comprehensive income

Debt investments at fair value through other comprehensive income include trade receivables subject to be sold. The loss allowance for debt investments at fair value through other comprehensive income is recognized in profit or loss and reduces the fair value loss otherwise recognized in other comprehensive income.

Debt investments at fair value through other comprehensive income are considered to be low credit risk when they have a low risk of default and the issuer has a strong capacity to meet its contractual cash flow obligations in the near term, after the initial recognition, and the loss allowance recognized during the period was, therefore, limited to 12 months expected losses. When credit risk is not low and decrease in credit risk is significant, a lifetime expected loss allowance is used.

Movements in loss allowance provision for debt investments at fair value through other comprehensive income for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019	2018				
Beginning balance	₩	1,521	₩	984			
Increase in loss allowance recognized in profit or loss during the year		91		1,438			
Receivables written off during the year as uncollectible		-		(1,196)			
Unused amounts reversed		-		295			
Transfer of loss allowance due to change of accounts for receivables		(1,521)		-			
Ending balance	₩	91	₩	1,521			

(iii) Other financial assets at amortized cost

Other financial assets at amortized cost other than trade receivables are considered to be low credit risk when they have a low risk of default and the issuer has a strong capacity to meet its contractual cash flow obligations in the near term, after the initial recognition, and the loss allowance recognized during the period was, therefore, limited to 12 months expected losses. When credit risk is not low and decrease in credit risk is significant, a lifetime expected loss allowance is used.

Movements in loss allowance provision for other financial assets at amortized cost for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019		2018
Beginning balance	₩	86,701	₩	61,542
Increase in loss allowance recognized in profit or loss during the year Receivables written off during the year as		11,888		17,968
uncollectible		(5,737)		(16,616)
Unused amounts reversed		1,070		928
Transfer of loss allowance due to change of accounts for receivables		1,089		22,879
Ending balance ¹	₩	95,011	₩	86,701

¹ Loss allowance for other receivables classified as assets held for sale are included, and the amount of loss allowance included as at December 31, 2019, is ₩ 29,130 million.

(e) Liquidity risk

The Group manages liquidity risk by establishing short-, medium- and long-term funding plans and continuously monitoring actual cash outflow and its budget to match the maturity profiles of financial assets and liabilities. Management of the Group believes that financial liability may be redeemed by cash flows arising from operating activities and financial assets.

Maturity analysis of non-derivative financial liabilities according to its remaining maturity as at December 31, 2019 and 2018, is as follows:

(in millions of Korean won)	2019							
Type ¹		Within a year	More than 1-5 years 5 years				Total	
Non-interest-bearing instruments ²	₩	2,927,252	₩	362	₩	-	₩	2,927,614
Variable interest rate instruments Variable interest rate instruments		268,271		471,690		242,850		982,811
(for cash flow hedge)		5,645		312,990		-		318,635
Fixed interest rate instruments		894,642		3,599,516		687,457		5,181,615
Lease liabilities		141,207		292,297		179,333		612,837
	₩	4,237,017	₩	4,676,855	₩	1,109,640	₩	10,023,512

¹ Maturity analysis above is based on the earliest maturity for the Group to bay based on the carrying amount.

 $^{^2}$ The carrying amount of liabilities held for sale included in non-interest-bearing non-derivative financial liabilities (accrued expenses) with a maturity within one year as at December 31, 2019, is $\mbox{$W$}$ 8,234 million.

(in millions of Korean won)	2018						
Type ¹		Within a year	More than 1-5 years 5 years				Total
Non-interest-bearing instruments	₩	2,205,813	₩	38	₩	- ₩	2,205,851
Variable interest rate instruments		232,637		638,370		303,563	1,174,570
Fixed interest rate instruments		959,568		1,697,316		504,073	3,160,957
	₩	3,398,018	₩	2,335,724	₩	807,636 ₩	6,541,378

¹ Maturity analysis above is based on the earliest maturity for the Group to bay based on the carrying amount.

Maturity analysis of derivative financial liabilities according to its remaining maturity as at December 31, 2019, is as follows:

(in millions of Korean won)	2019			
	Witl a ye		1-5	years
Derivative instruments designated as hedging instruments				
Interest rate swap liabilities	₩	151	₩	746

33.3 Transfer of Financial Assets

Transferred Financial Assets that are Derecognized in their Entirety

The Group transferred trade receivables to special purpose entities and others for \forall 2,333,840 million in relation to handset installment sales and derecognized the trade receivables from the financial statements as substantially all the risks and rewards are transferred. Accordingly, the Group recognized a loss on disposal for \forall 19,192 million.

33.4 Fair Value Hierarchy

Items that are measured at fair value are categorized by the fair value hierarchy levels, and the defined levels are as follows:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1).
- All inputs other than quoted prices included in level 1 that are observable (either directly that is, prices, or indirectly that is, derived from prices) for the asset or liability (Level 2).
- Unobservable inputs for the asset or liability (Level 3).

Fair value hierarchy classifications of the financial instruments that are measured subsequent at fair value to initial recognition as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)			2019		
			Fair	value	
	Carrying amount	Level 1	Level 2	Level 3	Total
Financial assets Financial assets at fair value through profit or loss Available-for-sale financial					
assets	₩ 30,024	₩ -	₩ -	₩ 30,024 ₩	₹ 30,024
Derivative assets held for sale Financial assets at fair value through other comprehensive income	1,119	-	1,119	-	1,119
Available-for-sale financial assets	10,647	201	-	10,446	10,647
Handset installment receivables Financial liabilities	489,392	-	489,392	-	489,392
Derivative liabilities designated as hedging instruments	897	-	897	-	897
(in millions of Korean won)			2018		
			Fair	value	
	Carrying amount	Level 1	Level 2	Level 3	Total
Financial assets Financial assets at fair value through profit or loss Available-for-sale financial assets Financial assets at fair value through other comprehensive income	₩ 25,206	₩ -	₩ -	₩ 25,206 ₩	∀ 25,206
Available-for-sale financial assets	7,856	4,671	-	3,185	7,856
Handset installment receivables	858,370	-	858,370	-	858,370

There were no significant transfers between levels 1 and 2 for fair value measurements for the years ended December 31, 2019 and 2018.

The financial assets categorized within level 2 of the fair value hierarchy classifications are measured with application of the present value discount method using discount rates that are based on interest rates disclosed in the market as at December 31, 2019. Valuation of the financial assets categorized within level 3 of the fair value hierarchy classifications is performed by using reliable information from a third party or in accordance with B5.2.3 of Korean IFRS 1109. The Group performed valuation of the financial assets categorized within level 3 of the fair value hierarchy classifications considering risk-adjusted discount rate and others.

There are no significant changes in business environments or economic environments, which have impact on the fair values of financial assets and financial liabilities held by the Group.

Valuation techniques and inputs used in the recurring and non-recurring fair value measurements categorized within level 2 of the fair value hierarchy are as follows:

(in millions of Korean won)	Fair value	Level	Valuation techniques	Inputs
Debt instruments at fair value through other comprehensive income				
Trade receivables	₩ 489,392	2	Discounted cash flow	Interest rate of guarantee debentures
Derivative liabilities				
Interest rate swap	897	2	Discounted cash flow	Discount rate observed in the market ¹
Derivative assets				
Currency swap	1,119	2	Discounted cash flow	Discount rate observed in the market ¹

¹ The valuation has been performed based on discount rates derived from margin curves that are observable the market.

34. Statements of Cash Flows

The major transactions not involving cash outflows and cash inflows for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)		2019		2018		
Reclassification of assets under construction	₩	1,956,216	₩	817,703		
Current portion of long-term non-trade payables		227,942		134,456		
Non-trade payables relating to acquiring property, plant and equipment and intangible assets		93,015		762,585		
Current portion of long-term borrowings and debentures		489,732		884,411		
Effects of changes in accounting policy		-		1,303,405		

Changes in liabilities arising from financial activities for the years ended December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	р	Current ortion of bentures	De	ebentures		nort-term rrowings	po lo	Current ortion of ng-term rrowings		ong-term errowings		Lease abilities		Total
At January 1, 2018	₩	429,822	₩	2,035,571	₩	15,000	₩	436,197	₩	425,000	₩	-	₩	3,341,589
Cash flows – issue / borrowing Cash flows –		-		298,717		487,337		-		200,000		-		986,054
repayment		(430,000)		-		(492,337)		(436,197)		-		-		(1,358,534)
Current portion		609,411		(609,411)		-		275,000		(275,000)		-		-
Others		576		1,376										1,952
At December 31, 2018	₩	609,809	₩	1,726,253	₩	10,000	₩	275,000	₩	350,000	₩	_	₩	2,971,062
Cash flows – issue / borrowing Cash flows –	₩	-	₩	1,484,186	₩	63,283	₩	-	₩	1,100,000	₩		₩	2,647,469
repayment		(610,000)		-		(68,283)		(275,000)		-		(298,756)		(1,235,144)
Current portion		339,732		(339,732)		-		150,000		(150,000)		-		-
Others		429		1,912		-		-		-		801,498		786,943
Increase due to business combination		334,613		31,906		_		_		152,123		82,661		601,303
At December 31,		304,010		01,000	-					102,120		02,001		001,000
2019	₩	674,583	₩	2,904,525	₩	5,000	₩	150,000	₩	1,452,123	₩	585,403	₩	5,771,633

35.Unconsolidated Structured Entities

In order to carry out asset securitization with receivables of handset as underlying assets, the Group transferred the receivables of handset to U Plus 5G SPC 48th and 20 other companies (the "SPC"). As a result, SPC is not subject to consolidation according to Korean IFRS 1110 *Consolidated Financial Statement* and the receivables of handset satisfy the requirements of derecognition of Korean IFRS 1109 *Financial Instruments*.

Details of scale of unconsolidated structured entities as at December 31, 2019 and 2018, are as follows:

(in millions of Korean won)	Asset secur	itization
Total assets of unconsolidated structured entities	₩.	3.492.086

36. Changes in Accounting Policies

36.1 Adoption of Korean IFRS 1116 Leases

As explained in Note 2, the Group has adopted Korean IFRS 1116, retrospectively, from January 1, 2019, but has not restated comparatives for the 2018 reporting period, as permitted under the specific transitional provisions in the standard. The reclassifications and the adjustments arising from the new leasing rules are, therefore, recognized in the consolidated statement of financial position on January 1, 2019.

(a) Adjustments recognized on adoption of Korean IFRS 1116 Leases

On adoption of Korean IFRS 1116, the Group recognized lease liabilities in relation to leases which had previously been classified as 'operating leases' under the principles of Korean IFRS 1017. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as at January 1, 2019. The lessee's weighted average incremental borrowing rate applied to the lease liabilities on January 1, 2019 was 2.02%.

While the Group has adopted Korean IFRS 1116 from January 1, 2019, as permitted under the specific transitional provisions in the standard, the Group has applied a method that recognizes the cumulative effects of the initial application as an asset for an amount equivalent to the amount of lease liabilities as at January 1, 2019, the initial date of the application.

Right-of use assets were measured at the amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in the consolidated statement of financial position as at December 31, 2018 (including prepaid operating lease payments and prepaid amounts accounted for present value discounts on lease deposits).

An amount transferred from estimated assets for restoration cost is also included in right-of use assets

There were no onerous lease contracts that would have required an adjustment to the right-of-use assets at the date of initial application.

(in millions of Korean won)	2019	
Operating lease commitments disclosed as at December 31, 2018	₩	244,452
Add: adjustments as a result of a different treatment of extension options		245,447
Add: contracts reassessed as lease contracts		96,313
Add: amounts added as lease contracts		49,270
Less: present value discount for leases as at January 1, 2019		(33,241)
Lease liability recognized as at January 1, 2019		602,241
Of which are:		
Current lease liabilities		134,431
Non-current lease liabilities		467,810
	₩	602,241

(i) Amounts recognized in the consolidated statement of financial position

The consolidated statement of financial position shows the following amounts relating to leases:

(in millions of Korean won)	December 31, 2019		January 1, 2019	
Right-of-use assets ^{1,2}				
Properties ³	₩	522,978	₩	540,718
Telecommunication facilities		36,774		26,951
Vehicles		22,244		22,228
Others (charge for exclusive use of road, sites along railways)		88,096		88,652
	₩	670,092	₩	678,549

¹ The amount is included in property, plant and equipment in the statement of financial position

³ On the initial date of the application, prepaid expenses of ₩ 63,098 and estimated assets for restoration cost (property, plant and equipment) of ₩ 13,213 million related to make good obligation on properties were reclassified to right-of-use assets.

(in millions of Korean won)	December 31, 2019		January 1, 2019	
Lease liabilities ^{1,2}				
Current	₩	136,531	₩	134,431
Non-current		448,871		467,810
	₩	585,402	₩	602,241

¹ The amount is included in other liabilities in the statement of financial position

Deduction to the right-of-use assets during the 2019 financial year were ₩ 8,457 million.

² Right-of-use assets of ₩ 88,199 million arisen from the business combination is included.

² Lease liabilities of ₩ 82,661 million arisen from the business combination is included.

(ii) Amounts recognized in the consolidated statement of profit or loss

The consolidated statement of profit or loss shows the following amounts relating to leases:

(in millions of Korean won)		2019		
Depreciation of right-of-use assets				
Properties	₩	249,515		
Telecommunication facilities		8,215		
Vehicles		10,246		
Others (charge for exclusive use of road, sites along railways)		13,344		
		281,320		
Interest expense relating to lease liabilities (included in finance cost)		6,468		
	₩	287,788		

The total cash outflow for leases in 2019 was ₩ 298,756 million.

The change in accounting policy affected the following items in the consolidated statement of financial position on January 1, 2019:

- right-of-use assets: increase by ₩ 678,549 million
- estimated assets for restoration cost: decrease by ₩ 13,213 million
- prepaid expenses: decrease by ₩ 63,098 million
- lease liabilities: increase by ₩ 602,241 million

(b) Activities and accounting policy for leases

The Group leases various properties, telecommunication facilities, vehicles and others. Lease contracts are typically made for fixed periods of two to eight years, but may have extension options. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

Until the 2018 financial year, leases of property, plant and equipment were classified as either finance or operating leases. Payments made under operating leases (net of any incentives received from the lessor) were charged to profit or loss on a straight-line basis over the period of the lease.

From January 1, 2019, leases are recognized as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the lease term on a straight-line

basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- variable lease payment that are based on an index or a rate;
- amounts expected to be payable by the Group (the lessee) under residual value guarantees;
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option; and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability;
- any lease payments made at or before the commencement date less any lease incentives received;
- · any initial direct costs; and
- · restoration costs.

Payments associated with leases of low-value assets are recognized on a straight-line basis as an expense in profit or loss. Low-value assets comprise IT-equipment and small items of office furniture

37. Approval of Issuance of the Financial Statements

The consolidated financial statements 2019 were approved for issue by the Board of Directors on February 5, 2020 and will be finally approved with the approval of shareholders at their annual general shareholders' meeting on March 20, 2020.

38.Events After the Reporting Period

It was approved to issue the following bonds in order to retain conversion funds and operating funds:

- LG Uplus Corp.: approval of the finance committee on January 3, 2020
- LG HelloVision Corp.: approval of the finance committee on December 24, 2019

(in millions of Korean won)

Issued by (Credit rating)	Issuance date	Issuance No.	Fac	e value	Maturity date
LG Uplus Corp.	2020.01.21	Public bond No. 106-1st	₩	160,000	2023.01.20
(AA0)	2020.01.21	Public bond No. 106-2 nd		120,000	2025.01.21
	2020.01.21	Public bond No. 106-3 rd		50,000	2030.01.21
	2020.01.21	Public bond No. 106-4 th		70,000	2035.01.21
LG HelloVision Corp.	2020.01.17	Public bond No. 9-1st		100,000	2023.01.17
(AA-)	2020.01.17	Public bond No. 9-2 nd		100,000	2025.01.17

On January 22, 2020, in accordance with the resolution of finance committee, the Group transferred trade receivables (handset installment receivables) with a total face amount of \forall 418,927 million to UPlus 5G SPC 49th. The proceeds from this sale was settled on February 7, 2020.

On January 2, 2020, the Group newly established Uplus Home Service, a subsidiary, for a purpose of improving its home service. The Group's contribution amounts to \forall 14,000 million, and its ownership interest is 100%. (The approval date of the Board of directors is December 20, 2019.)

From September 16, 2019 to January 15, 2020 (during four months), a fact-finding investigation was conducted by the Korean Communications Commission against the Group in relation to violation of the *Mobile Device Distribution Improvement Act*, and an administrative measure such as a fine may be prescribed in the future in accordance with the results of the finding.