

Hankook Technology Group Co., Ltd
(formerly, Hankook Tire Worldwide Co., Ltd.)
and Subsidiaries
Consolidated Financial Statements
December 31, 2019 and 2018

Hankook Technology Group Co., Ltd. and Subsidiaries

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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
Hankook Technology Group Co., Ltd. (formerly, Hankook Tire Worldwide Co., Ltd.)

Opinion

We have audited the accompanying consolidated financial statements of Hankook Technology Group Co., Ltd. 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 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 consolidated opinion on these matters.

(1) Impairment assessment of investment in associates

Key Audit Matter

The book value of investment in associates of Hankook Tire & Technology Co., Ltd. is ₩ 2,747,154,884 thousand as at December 31, 2019. As explained in Note 10, the Group has significant influence over Hankook Tire & Technology Co., Ltd. and is applying equity method on the investments. We considered as a key audit matter because of the i) existence of indication of impairment loss on investment in associates due to long-term steady decrease of Hankook Tire & Technology Co., Ltd.'s share price, ii) significance of management's estimation used in determining recoverable amount of Hankook Tire & Technology Co., Ltd., and iii) the category causes significant influence to the Group.

How our audit addressed the Key Audit Matter

We performed the following audit procedures for the valuation model, key assumptions and decisions related to the value-in-use valuation. We engaged a specialist in value assessment when performing audit procedure.

- We assessed the capability and related experience (independence and competency) of the expert that the management used in value-in-use valuation.
- We made an inquiry about and assessed valuation model that the management applied.
- We obtained an understanding of the future cash flow of Hankook Tire & Technology Co., Ltd., and tested whether future cash flow estimation is based on the business plan approved by management.
- We assessed the adequacy of the estimation of the past business plan by comparing it with the performance for Hankook Tire & Technology Co., Ltd.
- We assessed the rationality of key assumptions used in valuation model, such as discount rate, growth rate and others by comparing the external benchmark in the same industry and past financial information of Hankook Tire & Technology Co., Ltd.

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 Keun-young, Chung, Certified Public Accountant.

Seoul, Korea
March 19, 2020

This report is effective as of March 19, 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.

Hankook Technology Group Co., Ltd. and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2019 and 2018

<i>(in thousands of Korean won)</i>	Notes	2019	2018
Assets			
Current assets			
Cash and cash equivalents	6	₩ 103,029,504	₩ 198,335,208
Short-term financial assets	6	120,000,000	85,000,000
Financial assets at fair value through profit or loss	5,6,7	57,361,189	60,502,478
Derivative financial assets	5,6	892,588	-
Trade receivables	6,8	129,032,085	151,658,775
Other receivables	6,8	7,632,886	4,115,943
Other current assets	9	8,043,755	5,927,922
Inventories	31	98,267,144	84,842,609
Current tax assets		107,844	3,184
		<u>524,366,995</u>	<u>590,386,119</u>
Non-current assets			
Long-term financial assets	6	17,898	10,013,392
Financial assets at fair value through profit or loss	5,6,7	6,405,142	15,180,870
Financial assets at fair value through other comprehensive income	5,6,7	12,294,945	11,405,284
Other non-current receivables	6,8	5,266,773	7,827,773
Property, plant and equipment	11	252,469,654	158,359,983
Investment properties	12	28,878,862	29,842,657
Intangible assets	13	18,866,494	24,456,851
Investments in associates	10	2,757,262,469	2,649,766,278
Net defined benefit assets	16	606,988	701,382
Other non-current assets	9	650,018	650,019
		<u>3,082,719,243</u>	<u>2,908,204,489</u>
Total assets		<u>₩ 3,607,086,238</u>	<u>₩ 3,498,590,608</u>
Liabilities			
Current liabilities			
Trade payables	4,6	₩ 12,330,056	₩ 44,974,243
Other payables	4,6,14	39,522,057	42,394,929
Current tax liabilities		13,686,094	18,003,556
Provisions	17	563,429	-
Other current liabilities	15	6,120,182	5,153,834
Borrowings	4,6,27,32,35	62,902,927	86,356,661
		<u>135,124,745</u>	<u>196,883,223</u>
Non-current liabilities			
Other non-current payables	4,6,14	5,000	276,679
Net defined benefit liabilities	16	4,944,921	3,211,719
Long-term borrowings	4,6,27,35	12,976,187	-
Deferred tax liabilities	26	67,429,894	58,537,965
Other non-current liabilities	15	7,070,288	3,082,752
Other provisions	17	963,062	725,943
		<u>93,389,352</u>	<u>65,835,058</u>
Total liabilities		<u>228,514,097</u>	<u>262,718,281</u>
Equity			
Share capital	1,18	46,510,087	46,510,087
Other paid-in capital	19	1,281,041,833	1,281,093,682
Retained earnings	20	2,008,629,109	1,884,292,022
Other components of equity	21	(55,431,219)	(62,549,038)
Equity attributable to owners of the Parent Company		<u>3,280,749,810</u>	<u>3,149,346,753</u>
Non-controlling interest		<u>97,822,331</u>	<u>86,525,574</u>
Total equity		<u>3,378,572,141</u>	<u>3,235,872,327</u>
Total liabilities and equity		<u>₩ 3,607,086,238</u>	<u>₩ 3,498,590,608</u>

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

Hankook Technology Group Co., Ltd. and Subsidiaries
Consolidated Statements of Comprehensive Income
Years Ended December 31, 2019 and 2018

<i>(in thousands of Korean won)</i>	Notes	2019	2018
Sales and share of profit or loss of associates accounted for using the equity method	30	₩ 847,609,750	₩ 847,957,281
Costs of sales	23	<u>588,370,004</u>	<u>563,849,070</u>
Gross profit		259,239,746	284,108,211
Selling and administrative expenses	22,23	<u>88,363,765</u>	<u>72,646,921</u>
Operating profit		<u>170,875,981</u>	<u>211,461,290</u>
Finance income	24	14,321,852	12,066,044
Finance costs	24	8,821,657	6,265,267
Other non-operating income	25	33,726,141	16,613,628
Other non-operating expense	25	<u>13,396,295</u>	<u>12,226,652</u>
Profit before income tax		196,706,022	221,649,043
Income tax expense	26	<u>33,414,986</u>	<u>3,293,439</u>
Profit for the year		<u>₩ 163,291,036</u>	<u>₩ 218,355,604</u>
Other comprehensive income			
<i>Items that will not be reclassified to profit or loss</i>			
Remeasurements of net defined benefit liabilities	16	1,355,217	824,049
Remeasurements of net defined benefit liabilities of associates		(303,082)	910,094
Gain on valuation of equity instruments at fair value through other comprehensive income	6,21	683,080	647,025
<i>Items that may be subsequently reclassified to profit or loss</i>			
Loss on valuation of debt instruments at fair value through other comprehensive income	6,21	-	(745,480)
Gain (loss) on foreign operation translation	21	(411,348)	91,433
Share of other comprehensive income of associates	21	<u>6,730,402</u>	<u>(11,311,887)</u>
Total comprehensive income for the year		<u>₩ 171,345,305</u>	<u>₩ 208,770,838</u>
Profit is attributable to:			
Owners of the Parent Company		₩ 151,337,458	₩ 207,068,039
Non-controlling interest		11,953,578	11,287,565
Total comprehensive income for the year is attributable to:			
Owners of the Parent Company		₩ 158,963,431	₩ 196,912,868
Non-controlling interest		12,381,873	11,857,970
Earnings per share (in Korean won)			
Basic and diluted earnings per share	33	₩ 1,650	₩ 2,258

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

Hankook Technology Group Co., Ltd. and Subsidiaries
Consolidated Statements of Changes in Equity
Years Ended December 31, 2019 and 2018

	Notes	Attributable to owners of the Parent Company							Non-controlling interests	Total
		Share capital	Other paid-in capital	Retained earnings	Other components of equity					
					Changes in the fair value of available-for-sale financial assets	Gain (loss) on foreign operation translation	Share of other comprehensive income of associates			
<i>(in thousands of Korean won)</i>		₩	₩	₩	₩	₩	₩	₩	₩	
Balance at January 1, 2018		46,510,087	1,285,765,464	1,702,637,351	403,932	(107,867)	(50,594,775)	75,049,687	3,059,663,879	
Changes in accounting policy	35	-	-	896,658	(896,658)	-	-	-	-	
Balance at January 1, 2018 (Adjusted)		46,510,087	1,285,765,464	1,703,534,009	(492,726)	(107,867)	(50,594,775)	75,049,687	3,059,663,879	
Annual dividends	20	-	-	(27,508,525)	-	-	-	(382,083)	(27,890,608)	
Changes in other paid-in capital of associates		-	(4,671,782)	-	-	-	-	-	(4,671,782)	
Total comprehensive income for the year		-	-	208,266,537	(110,256)	68,473	(11,311,887)	11,857,970	208,770,837	
Profit for the year		-	-	207,068,039	-	-	-	11,287,565	218,355,604	
Remeasurements of net defined benefit liabilities	16	-	-	288,404	-	-	-	535,644	824,048	
Remeasurements of net defined benefit liabilities of associates		-	-	910,094	-	-	-	-	910,094	
Gain on valuation of equity instruments at fair value through other comprehensive income	6,21	-	-	-	635,224	-	-	11,801	647,025	
Loss on valuation of debt instruments at fair value through other comprehensive income	6,21	-	-	-	(745,480)	-	-	-	(745,480)	
Gain on foreign operation translation	21	-	-	-	-	68,473	-	22,960	91,433	
Share of other comprehensive income of associates	10	-	-	-	-	-	(11,311,887)	-	(11,311,887)	
Balance at December 31, 2018		46,510,087	1,281,093,682	1,884,292,022	(602,982)	(39,394)	(61,906,662)	86,525,574	3,235,872,327	
Balance at January 1, 2019		46,510,087	1,281,093,682	1,884,292,022	(602,982)	(39,394)	(61,906,662)	86,525,574	3,235,872,327	
Annual dividends	20	-	-	(27,508,525)	-	-	-	(382,083)	(27,890,608)	
Business combination		-	-	-	-	-	-	(703,033)	(703,033)	
Changes in other paid-in capital of associates		-	(51,849)	-	-	-	-	-	(51,849)	
Total comprehensive income for the year		-	-	151,845,612	695,471	(308,053)	6,730,401	12,381,873	171,345,304	
Profit for the year		-	-	151,337,458	-	-	-	11,953,578	163,291,036	
Remeasurements of net defined benefit liabilities		-	-	811,236	-	-	-	543,981	1,355,217	
Remeasurements of net defined benefit liabilities of associates		-	-	(303,082)	-	-	-	-	(303,082)	
Gain (loss) on valuation of equity instruments at fair value through other comprehensive income	6,21	-	-	-	695,471	-	-	(12,391)	683,080	
Gain (loss) on valuation of debt instruments at fair value through other comprehensive income	6,21	-	-	-	-	-	-	-	-	
Loss on foreign operation translation	21	-	-	-	-	(308,053)	-	(103,295)	(411,348)	
Share of other comprehensive income of associates	10	-	-	-	-	-	6,730,401	-	6,730,401	
Balance at December 31, 2019		46,510,087	1,281,041,833	2,008,629,109	92,489	(347,447)	(55,176,261)	97,822,331	3,378,572,141	

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

Hankook Technology Group Co., Ltd. and Subsidiaries
Consolidated Statements of Cash Flows
Years Ended December 31, 2019 and 2018

<i>(in thousands of Korean won)</i>	Notes	2019	2018
Cash flows from operating activities			
Cash generated from operations			
Profit for the year		₩ 163,291,036	₩ 218,355,604
Adjustments	27	(29,022,260)	(87,411,134)
Changes in operating assets and liabilities	27	<u>(27,955,421)</u>	<u>(60,712,191)</u>
		106,313,355	70,232,279
Interest received		6,141,098	6,371,166
Interest paid		(3,220,918)	(1,887,558)
Dividend received		17,259,782	15,138,128
Income taxes paid		<u>(31,666,173)</u>	<u>(28,983,349)</u>
Net cash inflow from operating activities		<u>94,827,144</u>	<u>60,870,667</u>
Cash flows from investing activities			
Payments for short-term financial assets		(170,000,000)	(131,501,015)
Proceeds from sale of short-term financial assets		135,000,000	84,191,316
Payments for long-term financial assets		(4,505)	(10,003,932)
Proceeds from sale of long-term financial assets		10,000,000	-
Increase in short-term loans		(114,830)	-
Repayments of short-term loans		(75,210)	7,644
Increase in long-term loans		(1,300,000)	(4,000,000)
Proceeds from sale of available-for-sale financial assets		-	9,712,548
Payment for debt instruments at fair value through profit or loss	7	(35,616,610)	(110,000,000)
Proceeds from sale of debt instruments at fair value through profit or loss	7	49,914,275	183,185,170
Proceeds from sale of debt instruments at fair value through other comprehensive income	7	-	18,363,164
Payment for equity instruments at fair value through profit or loss	7	-	(4,993,539)
Payments for property, plant and equipment	11	(99,375,547)	(21,317,792)
Proceeds from sale of property, plant and equipment	11	6,585	172,727
Payments for intangible assets	13	(2,717,386)	(2,275,278)
Proceeds from sale of intangible assets	13	-	203,000
Payments for investments in associates	10	(17,838,354)	(9,845,698)
Increase in cash due to change in the scope of consolidation		248,031	-
Cash outflow from business combination	37	<u>(2,100,768)</u>	<u>(3,571,878)</u>
Net cash outflow from investing activities		<u>(133,974,320)</u>	<u>(1,673,563)</u>
Cash flows from financing activities			
Proceeds from short-term borrowings	27,32	44,269,346	37,507,742
Repayments of short-term borrowings	27,32	(70,322,511)	-
Dividends paid	27,32	(2,027,820)	-
Dividends paid to non-controlling interests	20	(27,508,525)	(27,508,525)
Share issuance cost		<u>(382,083)</u>	<u>(382,083)</u>
Net cash inflow (outflow) from financing activities		<u>(55,972,719)</u>	<u>9,617,134</u>
Net increase (decrease) in cash and cash equivalents		(95,119,895)	68,814,238
Cash and cash equivalents at the beginning of the financial year		198,335,208	129,484,160
Effects of exchange rate changes on cash and cash equivalents		<u>(185,809)</u>	<u>36,811</u>
Cash and cash equivalents at the end of the year		<u>₩ 103,029,504</u>	<u>₩ 198,335,209</u>

The above consolidated statements of cash flows should be read in conjunction with the accompanying notes.

Hankook Technology Group Co., Ltd. and Subsidiaries

Notes to the Consolidated Financial Statements

December 31, 2019 and 2018

1. General Information

The consolidated financial statements of Hankook Technology Group Co., Ltd. (the Parent Company) and its subsidiaries (collectively referred to as “the Group”) were prepared in accordance with Korean IFRS 1110 *Consolidated Financial Statements*.

1.1 The Group

The Parent Company was incorporated in May, 1941 to manufacture and sell tires, tubes and alloy wheels. In December 1968, the Group offered its shares for public ownership and all of the Group’s shares were registered with the Korea Exchange. On April 25, 2012, the Board of Directors resolved to spin-off the tire business unit and the investment business unit separately; the former engages in manufacturing, processing and distribution of tires, tubes and parts; the latter engages in the subsidiary management and real estate rental business. Following the approval of the shareholders’ meeting on July 27, 2012, the spin-off has been implemented on September 1, 2012 and the Group changed its corporate name from Hankook Tire Co., Ltd. to Hankook Tire Worldwide Co., Ltd.

On February 28, 2019, the Board of Directors resolved to change its corporate name from Hankook Tire Worldwide Co., Ltd. to Hankook Technology Group Co., Ltd. Following the approval of the shareholders’ meeting on March 28, 2019, the Group changed its corporate name on May 8, 2019.

Through the several capital increases, transfers of convertible notes and the spin-off, the authorized number of the Group’s ordinary shares are 250 million with a par value of ₩ 500 per share as at December 31, 2019. The share capital of the Group is ₩ 46,510,087 thousand (ordinary shares: 93,020,173) and the Group’s shareholders as at the end of the reporting periods, are as follows:

	2019		2018	
	Number of shares	Percentage of ownership (%)	Number of shares	Percentage of ownership (%)
Yang Rai Cho	21,942,693	23.6	21,942,693	23.6
Hyun Shick Cho	17,974,870	19.3	17,974,870	19.3
Hyun Bum Cho	17,959,178	19.3	17,959,178	19.3
Treasury shares	1,325,090	1.4	1,325,090	1.4
Others	33,818,342	36.4	33,818,342	36.4
	<u>93,020,173</u>	<u>100.0</u>	<u>93,020,173</u>	<u>100.0</u>

Hankook Technology Group Co., Ltd. and Subsidiaries

Notes to the Consolidated Financial Statements

December 31, 2019 and 2018

1.2 Consolidated Subsidiaries and Change in the Scope in Consolidation

Details of the consolidated subsidiaries as at the end of the reporting periods, are as follows:

Name of entity	Ownership interest held by the group (%)		Location	Main business
	2019	2018		
Hankook AtlasBX Co., Ltd. (formerly, Atlas BX Co., Ltd)	74.9	74.9	Korea	Manufacturing and sales of storage batteries and dry cells
AtlasBX Motorsports Co., Ltd. ¹	74.9	74.9	Korea	Management of racing team and agency of advertisement
Hankook AtlasBX America Corporation ¹	74.9	74.9	USA	Sales of storage batteries and dry cells
Hankook Car & Life Co., Ltd. (formerly, HK Automotive Co., Ltd.)	100.0	100.0	Korea	Repairing automobiles and sales of parts
JAX Motors Co., Ltd.	100.0	100.0	Korea	Repairing automobiles and sales of parts
HK Motors Co., Ltd.	100.0	100.0	Korea	Repairing automobiles and sales of parts
Han Automobile Co., Ltd.	100.0	100.0	Korea	Sales and repairing imported automobiles
Wavers Co., Ltd. ²	98.2	-	Korea	Internet information service

¹ Hankook AtlasBX Co., Ltd. holds 100% of equity interests of the entity as at December 31, 2019 and 2018.

² During the year ended December 31, 2019, Hankook Car & Life Co., Ltd., a subsidiary of the Group, acquired 28.1% shares and obtained control over Wavers Co., Ltd., which is classified as a subsidiary since the Group can exercise the majority of voting rights in its decision-making process of Board of Directors by agreement with shareholders although the Group owns less than 50% ownership (Note 37). The effective percentage of ownership including preferred shares with voting rights and delegated voting rights under the agreement with shareholders is 98.2% as at December 31, 2019.

Hankook Technology Group Co., Ltd. and Subsidiaries

Notes to the Consolidated Financial Statements

December 31, 2019 and 2018

Summarized financial information for consolidated subsidiaries as at the end of the reporting periods, is as follows:

(in thousands of Korean won)

	2019					
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year	Total comprehensive income (loss)
Hankook AtlasBX Co., Ltd. (formerly, Atlas BX Co., Ltd)	₩ 476,129,809	₩ 109,171,862	₩ 366,957,947	₩ 640,849,538	₩ 51,273,342	₩ 53,390,275
AtlasBX Motorsports Co., Ltd.	1,495,368	484,996	1,010,372	2,546,988	100,622	100,622
Hankook AtlasBX America Corporation	115,154,251	78,352,388	36,801,863	64,443,236	(529,022)	754,463
Hankook Car & Life Co., Ltd. (formerly, HK Automotive Co., Ltd.)	44,018,165	403,028	43,615,137	3,462,083	(240,382)	(237,336)
JAX Motors Co., Ltd.	12,935,964	5,582,873	7,353,092	3,432,947	(1,765,461)	(1,777,337)
HK Motors Co., Ltd.	17,893,374	7,126,788	10,766,586	13,065,793	(76,383)	(120,192)
Han Automobile Co., Ltd.	21,541,186	17,266,939	4,274,247	39,901,835	(3,766,289)	(3,804,402)
Wavers Co., Ltd.	2,663,281	1,627,353	1,035,928	719,797	(623,548)	(635,545)

(in thousands of Korean won)

	2018					
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year	Total comprehensive income (loss)
Hankook AtlasBX Co., Ltd. (formerly, AtlasBX Co., Ltd)	₩ 487,617,592	₩ 172,528,363	₩ 315,089,229	₩ 657,402,850	₩ 50,693,940	₩ 52,874,013
AtlasBX Motorsports Co., Ltd.	737,953	328,204	409,750	2,056,237	255,098	255,098
Hankook AtlasBX America Corporation	58,970,642	22,923,242	36,047,400	51,834,026	605,666	719,919
Hankook Car & Life Co., Ltd. (formerly, HK Automotive Co., Ltd.)	18,000,597	248,124	17,752,473	2,442,556	(130,642)	(130,642)
JAX Motors Co., Ltd.	3,157,391	1,525,836	1,631,555	1,734,320	(2,554,327)	(2,623,587)
HK Motors Co., Ltd.	6,499,128	2,072,350	4,426,778	5,724,009	(429,556)	(456,167)
Han Automobile Co., Ltd.	8,936,432	5,387,783	3,548,649	11,267,528	(351,351)	(351,351)

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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 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 classes of property, plant and equipment and 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

(a) 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.

- 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

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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 35.

- 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.

- 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.

- 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.

- 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 enactment does not have a significant impact on the financial statements.

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- 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.

(b) 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.

- 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,

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2020, and earlier application of permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

- 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 Parent 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.

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(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

(a) Functional and presentation currency

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

(b) Transactions and balances

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

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example,

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translation differences on non-monetary assets and liabilities such as equities held at fair value through profit or loss are recognized in profit or loss as part of the fair value gain or loss and translation differences on non-monetary assets such as equities classified as equity instrument at fair value through other comprehensive income are recognized in other comprehensive income.

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

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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 'finance 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 'finance income' using the effective interest rate method. Foreign exchange gains and losses are presented in 'finance income or costs' and impairment losses are presented in 'finance costs'
- 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 'finance income or 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 'finance 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 'other income or expenses' 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. (Note 34 provides more detail of how the Group determines there has been a

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significant increase in credit risk.)

(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 statement 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 when a derivative contract is entered into and are subsequently remeasured at their fair value at the end of each reporting period. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognized immediately in profit or loss within 'other non-operating income (expenses)' or 'finance income (costs)' based on the nature of transactions.

2.7 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the moving-weighted average method.

2.8 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 straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives as follows:

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	Useful life
Buildings	10 - 40 years
Structures	10 - 40
Machinery and equipment	10
Vehicles	4 - 5
Supplies	4 - 5
Tools, furniture and fixtures	5 - 10

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

2.9 Intangible Assets

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

Membership rights and goodwill 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:

	Useful life
Industrial property rights	5 - 10 years
Other intangible assets	4 - 10

2.10 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 for 20-40 years.

2.11 Impairment of Non-financial Assets

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. 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.

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2.12 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.

Preferred shares that require mandatory redemption at a particular date are classified as liabilities. Interest expenses on these preferred shares using the effective interest method are recognized in the statement of profit or loss as 'finance costs', together with interest expenses recognized from other financial liabilities.

(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.

2.13 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 nor taxable profit or loss.

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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.

2.14 Employee Benefits

(a) Post-employment 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 have been paid. The contribution are 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.

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(b) Other long-term employee benefits

Certain entities within the Group provide long-term employee benefits that are entitled to employees with service period for ten years and above. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans. The Group recognizes service cost, net interest on other long-term employee benefits and remeasurements as profit or loss for the year. These liabilities are valued annually by an independent qualified actuary.

2.15 Revenue Recognition

(a) Sale of goods

The Group manufactures and sells storage batteries and dry cells. Sales related to storage batteries business are recognized when control of the products has transferred, being when the products are delivered to the wholesaler.

(b) Providing of transportation Service

In connection with export transactions agreed on conditions of delivery of the shipment, which the Group is obliged to pay freight, delivery of goods is identified as a separate performance obligation as it is deemed to be satisfied after the control of goods is transferred to customers.

(c) Rendering of services including Shared Service

The Group is providing supporting service to affiliates. If the Group has the right to receive the amount for the value provided to the customer for the performance completed, the Group recognizes the amount of right for the service provided. This is because the Group can use practical impediment in recognizing the amount of right to receive.

(d) Royalty income

Royalty income is the consideration that provides a license of intellectual property, and is recognized when a later event occurs between fulfillment of the performance obligation to which the consideration is allocated and the subsequent sale or use.

(e) Rental income

Rental income from investment properties is recognized using the straight-line method over the period of rent.

2.16 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.

As at December 31, 2018, leases of property, plant and equipment where the Group, as lessee, had substantially all the risks and rewards of ownership were classified as finance leases. Finance

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leases were capitalized at the lease's inception at the fair value of the leased property or, if lower, the present value of the minimum lease payments. The corresponding lease payments, net of finance charges, were included in other short-term or long-term payables. Each lease payment was allocated between the liability and finance cost. The finance cost was 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 property, plant and equipment acquired under finance leases was depreciated over the asset's useful life, or over the shorter of the asset's useful life and the lease term if there is no reasonable certainty that the Group will obtain ownership at the end of the lease term.

Leases in which a significant portion of the risks and rewards of ownership were not transferred to the Group as lessee were classified as 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.

The Group leases various office supplies and cars. Lease contracts are typically made for fixed periods of 1 to 10 years, but may have extension options as described in 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 stand-alone 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

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exercise that option, and

- Payments of penalties for terminating the lease, if the lease term reflects the Group (the lessee) exercising that option

Lease liability measurement also include payments to be made in option periods if the lessee is reasonably certain to exercise an option to extend the lease.

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.

To determine the incremental borrowing rate, the Group:

- where possible, uses recent third-party financing received by the individual lessee as a starting point, adjusted to reflect changes in financing conditions since third party financing was received
- uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk for leases held by an entity which does not have recent third-party financing, and
- makes adjustments specific to the lease, for example term, country, currency and security.

The Group is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

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.

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Payments associated with short-term leases of equipment and vehicles and leases of low-value assets are recognized on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise small items of IT-equipment and office furniture.

2.17 Provisions

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.

2.18 Segment Reporting

Information of each operating segment is reported in a manner consistent with the internal business segment reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors that makes strategic decisions.

2.19 Approval of Issuance of the Financial Statements

The consolidated financial statements 2019 were approved for issue by the Board of Directors on March 11, 2020 and are subject to change with the approval of shareholders at their Annual General Meeting.

3. Critical Accounting Estimates and Assumptions

The preparation of financial statements requires the Group to make estimates and assumptions concerning the future. Management also needs to exercise judgement in applying the Group's accounting policies. Estimates and assumptions 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. As the resulting accounting estimates will, by definition, seldom equal the related actual results, it can contain a significant risk of causing a material adjustment.

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. Additional information of significant judgement and assumptions of certain items are included in relevant notes.

(a) 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.

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(b) 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 numerous jurisdictions. There are many transactions and calculations for which the ultimate tax determination is uncertain.

If certain portion of the taxable income is not used for investments or increase in wages or dividends in accordance with the *Tax System For Recirculation of Corporate Income*, the Group is liable to pay additional income tax calculated based on the tax laws. Accordingly, the measurement of current and deferred income tax is affected by the tax effects from the new tax system. As the Group's income tax is dependent on the investments, increase in wages and dividends, there is an uncertainty measuring the final tax effects (Note 26).

(c) Fair value of financial instruments

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period (Note 5).

(d) Impairment of financial assets

The provision for impairment for financial assets are based on assumptions about risk of default and expected loss rates. The Group uses judgement in making these assumptions and selecting the inputs to the impairment calculation based on the Group's past history, existing market conditions as well as forward looking estimates at the end of each reporting period (Note 34).

(e) Net defined benefit liability

The present value of net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate (Note 16).

(f) 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) (Note 35).

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4. Financial Risk Management

(a) Capital Management

The Group manages its capital to ensure that entities under the Group will be able to continue while maximizing the return to shareholders through the optimization of its debt and equity balance. The Group's overall strategy remains unchanged from that of the prior periods. The Group utilizes the debt ratio as capital management index which is the total liabilities divided by the total equity. Total liabilities and total equity are based on the amounts stated in the financial statements. The Group is not subject to any externally imposed capital requirements.

The debt ratio as at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>	2019	2018
Total liabilities	₩ 228,514,097	₩ 262,718,282
Total equity	<u>3,378,572,141</u>	<u>3,235,872,326</u>
Debt ratio	<u>6.76%</u>	<u>8.12%</u>

(b) The significant accounting policies and methods (including recognition, measurement, and related gain (loss) recognition) adopted to the Group's financial assets, financial liabilities and equity are detailed in Note 2.

(c) Financial risk management

1) Purpose of financial risk management

The Group is exposed to various risks related to its financial instruments, such as market risk (currency risk, fair value interest rate risk, and price risk), credit risk, liquidity risk and cash flow interest rate risk. The finance department of the Group manages operations, organizes the approach to financial market and controls the financial risks related to operations of the Group through internal risk reports which analyze the scope and degree of each risk factor.

The Group uses derivative financial instruments to hedge against the risks listed. The use of derivatives is decided in the observance of the Group's policies approved by the board of the directors. They provide the documented principles of currency risk, interest rate risk, credit risk, use of derivatives/non-derivatives and excessive liquidity investments. The audit committee constantly oversees the observance of the policies and the degree of risk exposure. The Group does not trade the financial instruments including derivatives for the speculative purpose.

The finance department of the Group report the details quarterly to Financial Risk Management Committee monitoring whether the Group continues to comply with the risk management policies and the current risk management system works appropriately for the risks that the Group is exposed to.

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2) Market risk

Operations of the Group are mainly exposed to financial risks of changes in currency and interest rate. The Group makes various contracts of derivatives for management of interest risk and foreign exchange rate.

a) Foreign currency risk management

The Group undertakes transactions denominated in foreign currencies; consequently, exposures to exchange rate fluctuations arise. Exchange rate exposures are managed within approved policy parameters utilizing forward foreign exchange contracts.

The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the year end for a 10% change in foreign currency rates.

The table below summarizes the impact of weakened Korean won on the Group's pre-tax profit for the year. The analysis is based on the assumption that Korean won has weakened by 10% with all other variables held constant.

<i>(in thousands of Korean won)</i>		2019		2018
USD	₩	2,315,702	₩	16,307
EUR		141,393		106,757
Others		260,515		70,600

b) Interest rate risk

Interest rate risk is defined as the risk that the interest income or expenses arising from the Group's investing and financing activities will fluctuate because of changes in market interest rate. In order to minimizing uncertainty caused by fluctuations in interest rates and minimizing finance costs, the Group monitors a fluctuation of domestic and foreign interest rates and establishes alternatives.

c) Other price risks

The Group is exposed to equity price risks arising from its equity investments. Equity investments are held for strategic rather than trading purposes. The Group does not actively trade these investments.

The below sensitivity analysis was performed based on stock price fluctuation risk at the end of the reporting period.

If the price of financial assets at fair value through other comprehensive income and financial assets at fair value through profit or loss changed by 5% with all other variables held constant, other comprehensive income would be increased/decreased by ₩ 98,578 thousand (2018: ₩ 62,220 thousand) and profit before income tax would be increased/decreased by ₩ 319,682 (2018: ₩ 256,021 thousand) for the year ended December 31, 2019.

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There was no significant change in sensitivity of stock price of the Group comparing to that of prior year.

3) Liquidity risk management

The Group has established an appropriate liquidity risk management framework for the management of the Group's short, medium and long-term funding and liquidity management requirements. The Board of Directors has a full responsibility of the liquidity risk management. The Group manages liquidity risk by maintaining adequate reserves and credit facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

The table below illustrates remaining contractual maturity of non-derivative financial liabilities and Derivative financial liabilities in detail. Contractual maturity is based on the earliest day when the payment can be claimed to the Group. Maturity analysis of non-derivative financial liabilities according to their remaining maturity at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>	2019					
	Book amount	Contractual cash flows	Residual amount			
			Within a year	1-2 years	2-5 years	After 5 years
Trade payables	₩ 12,330,056	₩ 12,330,056	₩ 12,330,056	₩ -	₩ -	₩ -
Other payables	39,522,057	39,522,057	39,522,057	-	-	-
Other non-current payables	5,000	5,000	-	-	-	5,000
Short-term borrowings	60,958,868	61,216,448	61,216,448	-	-	-
Current lease liabilities	1,944,059	2,572,237	2,572,237	-	-	-
Non-current lease liabilities	12,976,187	15,199,814	-	2,342,725	6,437,312	6,419,776
	<u>₩ 127,736,227</u>	<u>₩ 130,845,612</u>	<u>₩ 115,640,798</u>	<u>₩ 2,342,725</u>	<u>₩ 6,437,312</u>	<u>₩ 6,424,776</u>

<i>(in thousands of Korean won)</i>	2018					
	Book amount	Contractual cash flows	Residual amount			
			Within a year	1-2 years	2-5 years	After 5 years
Trade payables	₩ 44,974,243	₩ 44,974,243	₩ 44,974,243	₩ -	₩ -	₩ -
Other payables	42,394,929	42,394,929	42,394,929	-	-	-
Other non-current payables	276,679	276,679	-	276,679	-	-
Short-term borrowings	86,356,661	86,356,661	86,356,661	-	-	-
	<u>₩ 174,002,512</u>	<u>₩ 174,002,512</u>	<u>₩ 173,725,833</u>	<u>₩ 276,679</u>	<u>₩ -</u>	<u>₩ -</u>

Amounts of instruments with floating interest rate included in the above table may change if the changes in floating interest rate is different from the interest rate estimates determined at the end of the reporting period. The Group determined that the Group can repay the obligations with the cash that will be redeemed when the financial assets mature.

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5. Fair Value

5.1 Financial Instruments Measured at Fair Value

Details of the financial instruments that are measured at fair value as at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Debt instruments at fair value through profit or loss (current)	₩ 57,361,189	₩ 57,361,189	₩ 60,502,478	₩ 60,502,478
Debt instruments at fair value through profit or loss (non-current)	11,500	11,500	10,060,445	10,060,445
Equity instruments at fair value through profit or loss (non-current)	6,393,642	6,393,642	5,120,425	5,120,425
Equity instruments at fair value through other comprehensive income (non-current)	12,294,945	12,294,945	11,405,284	11,405,284
Derivative financial assets (current)	892,588	892,588	-	-

Trade receivables, non-trade receivables, other receivables and payables measured at amortized cost whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

5.2 Fair Value Hierarchy

Financial instruments that are measured subsequent to initial recognition 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).

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Financial instruments that are measured subsequent to initial recognition at fair value at the end of the reporting periods, are as follows:

(in thousands of Korean won)

	2019			
	Level 1	Level 2	Level 3	Total
Recurring fair value measurements				
Equity instruments at fair value through other comprehensive income	₩ 2,191,645	₩ 10,103,300	₩ -	₩ 12,294,945
Debt instruments at fair value through profit or loss	-	57,372,689	-	57,372,689
Equity instruments at fair value through profit or loss	6,393,642	-	-	6,393,642
Derivative financial assets	-	892,588	-	892,588
	<u>₩ 8,585,287</u>	<u>₩ 68,368,577</u>	<u>₩ -</u>	<u>₩ 76,953,864</u>

(in thousands of Korean won)

	2018			
	Level 1	Level 2	Level 3	Total
Recurring fair value measurements				
Equity instruments at fair value through other comprehensive income	₩ 1,464,484	₩ 9,940,800	₩ -	₩ 11,405,284
Debt instruments at fair value through profit or loss	-	70,562,923	-	70,562,923
Equity instruments at fair value through profit or loss	5,120,425	-	-	5,120,425
	<u>₩ 6,584,909</u>	<u>₩ 80,503,723</u>	<u>₩ -</u>	<u>₩ 87,088,632</u>

5.3 Transfers Between Fair Value Hierarchy Levels of Recurring Fair Value Measurements

The Group's policy is to recognize transfers between levels of the fair value at the date of the event or change in circumstances that caused the transfer. There were no transfers between levels of each fair value hierarchy of financial instruments.

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5.4 Valuation Techniques and the Inputs

Valuation techniques and inputs used in levels 2 fair value measurements are as follows:

<i>(in thousands of Korean won)</i>	2019			
	Fair value	Level	Valuation techniques	Inputs
Derivative financial assets				
Foreign exchange forward	₩ 892,588	2	Discounted cash flows model	Exchange rate, interest rate
Equity instruments at fair value through other comprehensive income				
Hybrid capital securities (consol bond)	10,103,300	2	Discounted cash flows model	Credit risk adjusted discount rate
Debt instruments at fair value through profit or loss				
Derivative linked securities	6,595,414	2	Option pricing model	Underlying assets price, Credit risk adjusted discount rate, Volatility of underlying assets
Beneficiary certificates	50,777,275	2	Discounted cash flows model	Credit risk adjusted discount rate

<i>(in thousands of Korean won)</i>	2018			
	Fair value	Level	Valuation techniques	Inputs
Equity instruments at fair value through other comprehensive income				
Hybrid capital securities (consol bond)	₩ 9,940,800	2	Discounted cash flows model	Credit risk adjusted discount rate
Debt instruments at fair value through profit or loss				
Derivative linked securities	20,037,512	2	Option pricing model	Underlying assets price, Credit risk adjusted discount rate, Volatility of underlying assets
Beneficiary certificates	50,525,412	2	Discounted cash flows model	Credit risk adjusted discount rate

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6. Financial Instruments

Carrying amounts of financial assets and liabilities by category as at December 31, 2019 and 2018, are as follows:

(in thousands of Korean won)

		2019		2018	
		Book amount		Book amount	
Financial assets:					
Financial assets at fair value	Financial assets at fair value through profit or loss	₩	63,766,331	₩	75,683,349
	Financial assets at fair value through other comprehensive income		12,294,945		11,405,284
	Derivative financial assets		892,588		-
Financial assets at amortized cost	Cash and cash equivalents		103,029,504		198,335,208
	Short-term financial assets		120,000,000		85,000,000
	Trade receivables		129,032,085		151,658,775
	Other receivables		7,632,886		4,115,943
	Long-term financial assets		17,898		10,013,392
	Other non-current receivables		5,266,773		7,827,773
		₩	<u>441,933,010</u>	₩	<u>544,039,724</u>

(in thousands of Korean won)

		2019		2018	
		Book amount		Book amount	
Financial liabilities:					
Financial liabilities at amortized cost	Trade payables	₩	12,330,056	₩	44,974,243
	Other payables		39,522,057		42,394,929
	Other non-current payables		5,000		276,679
	Borrowings		60,958,868		86,356,661
Other financial liabilities	Current lease liabilities		1,944,059		-
	Non-current lease liabilities		12,976,187		-
		₩	<u>127,736,227</u>	₩	<u>174,002,512</u>

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

<i>(in thousands of Korean won)</i>	2019	2018
Derivatives		
Gains on valuation	₩ 892,588	₩ -
Financial assets measured at amortized cost		
Interest income	3,970,346	3,664,124
Gains on foreign currency transaction	3,022,532	3,916,940
Losses on foreign currency translation	(962,854)	(1,580,215)
Impairment losses	(30,629)	(62,885)
Debt instruments at fair value through other comprehensive income		
Reclassification to profit or loss (other comprehensive income, net of tax)	-	(745,480)
Interest income	-	81,739
Gain on disposal	-	199,918
Equity instruments at fair value through other comprehensive income		
Gain on valuation (other comprehensive income, net of tax)	683,080	647,025
Dividend income	7,894	7,894
Interest income	327,000	352,188
Debt instruments at fair value through profit or loss		
Gain on valuation	800,743	179,066
Gain on disposal	295,187	71,409
Interest income	2,392,249	2,591,379
Equity instruments at fair value through profit or loss		
Gain on valuation	1,273,217	126,886
Financial liabilities measured at amortized cost		
Interest expense	(2,555,815)	(1,633,872)
Losses on foreign currency transaction	(1,455,222)	(2,782,727)
Gains on foreign currency translation	907,449	1,135,852
Other financial liabilities		
Interest expense	(655,037)	-
	<u>₩ 8,912,728</u>	<u>₩ 6,169,241</u>

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7. Financial Assets

7.1 Financial Assets at Fair Value through Profit or Loss

Details of financial assets at fair value through profit or loss at the end of the reporting periods are as follows:

<i>(in thousands of Korean won)</i>	2019	2018
Current		
Derivative-linked securities	₩ 6,595,414	₩ 20,037,512
Beneficiary certificates	50,765,775	40,464,966
Non-current		
Beneficiary certificates	11,500	10,060,445
Listed securities	6,393,642	5,120,425
	<u>₩ 63,766,331</u>	<u>₩ 75,683,348</u>

Amounts recognized in profit or loss for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019	2018
Gain from equity instruments at fair value through profit or loss	₩ 1,273,217	₩ 126,886
Gain from debt instruments at fair value through profit or loss	3,488,180	2,841,853
	<u>₩ 4,761,397</u>	<u>₩ 2,968,739</u>

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Changes in financial assets at fair value through profit or loss for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019					
	Beginning balance	Acquisition	Disposals	Valuation	Reclassification	Ending balance
Debt instruments						
Derivative-linked securities	₩ 20,037,512	₩ 21,800,000	₩ (35,337,512)	₩ 95,414	₩ -	₩ 6,595,414
Beneficiary certificates	50,525,411	13,816,610	(14,281,576)	705,330	11,500	50,777,275
Equity instruments						
Listed securities	5,120,425	-	-	1,273,217	-	6,393,642
	<u>₩ 75,683,348</u>	<u>₩ 35,616,610</u>	<u>₩ (49,619,088)</u>	<u>₩ 2,073,961</u>	<u>₩ 11,500</u>	<u>₩ 63,766,331</u>

<i>(in thousands of Korean won)</i>	2018					
	Beginning balance	Acquisition	Disposals	Valuation	Reclassification	Ending balance
Debt instruments						
Derivative-linked securities	₩ 40,385,818	₩ 20,000,000	₩ (40,454,818)	₩ 106,512	₩ -	₩ 20,037,512
Beneficiary certificates	103,111,800	90,000,000	(142,658,943)	72,554	-	50,525,411
Equity instruments						
Listed securities	-	4,993,539	-	126,886	-	5,120,425
	<u>₩ 143,497,618</u>	<u>₩ 114,993,539</u>	<u>₩ (183,113,761)</u>	<u>₩ 305,952</u>	<u>₩ -</u>	<u>₩ 75,683,348</u>

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7.2 Financial Assets at Fair Value through Other Comprehensive Income

(a) Details of financial assets at fair value through other comprehensive income at the end of the reporting periods are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
Non-current				
Listed securities and others	₩	2,191,645	₩	1,464,484
Hybrid capital securities (consol bond)		10,103,300		9,940,800
	₩	<u>12,294,945</u>	₩	<u>11,405,284</u>

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

Changes in Financial assets at fair value through other comprehensive income for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019				
	Beginning balance¹	Disposals	Valuation	Reclassification	Ending balance
Equity instruments					
Listed securities and others	₩ 1,464,484	₩ -	₩ 738,661	₩ (11,500)	₩ 2,191,645
Hybrid capital securities (consol bond)	9,940,800	-	162,500	-	10,103,300
	<u>₩ 11,405,284</u>	<u>₩ -</u>	<u>₩ 901,161</u>	<u>₩ (11,500)</u>	<u>₩ 12,294,945</u>

<i>(in thousands of Korean won)</i>	2018			
	Beginning balance	Disposals	Valuation	Ending balance
Equity instruments				
Listed securities and others	₩ 1,123,389	₩ -	₩ 341,095	₩ 1,464,484
Hybrid capital securities (consol bond)	9,428,300	-	512,500	9,940,800
Debt instruments				
Government bonds	19,146,730	(18,163,247)	(983,483)	-
	<u>₩ 29,698,419</u>	<u>₩ (18,163,247)</u>	<u>₩ (129,888)</u>	<u>₩ 11,405,284</u>

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8. Trade and Other Receivables

Details of trade and other receivables as at the end of the reporting periods, are as follows:

(in thousands of Korean won)

	2019		
	Gross amount	Less: Provision for impairment	Net amount
Current			
Trade receivables	₩ 129,163,625	₩ (131,539)	₩ 129,032,085
Other receivables			
Non-trade receivables	1,156,486	-	1,156,486
Accrued income	2,284,160	-	2,284,160
Short-term loans	4,190,040	-	4,190,040
Deposits	2,200	-	2,200
	<u>₩ 7,632,886</u>	<u>₩ -</u>	<u>₩ 7,632,886</u>
Non-current			
Other receivables			
Long-term loans	₩ 1,300,000	-	₩ 1,300,000
Leasehold deposits provided	3,966,773	-	3,966,773
	<u>₩ 5,266,773</u>	<u>₩ -</u>	<u>₩ 5,266,773</u>

(in thousands of Korean won)

	2018		
	Gross amount	Less: Provision for impairment	Net amount
Current			
Trade receivables	₩ 151,660,314	₩ (1,539)	₩ 151,658,775
Other receivables			
Non-trade receivables	2,277,202	-	2,277,202
Accrued income	1,821,141	-	1,821,141
Short-term loans	-	-	-
Deposits	17,600	-	17,600
	<u>₩ 4,115,943</u>	<u>₩ -</u>	<u>₩ 4,115,943</u>
Non-current			
Other receivables			
Long-term loans	₩ 4,000,000	-	₩ 4,000,000
Leasehold deposits provided	3,827,773	-	3,827,773
	<u>₩ 7,827,773</u>	<u>₩ -</u>	<u>₩ 7,827,773</u>

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Movements on the provision for impairment of trade and other receivables for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
Beginning balance	₩	1,539	₩	5,727
Impairment loss		30,629		62,885
Written-off and others		99,371		(67,073)
Ending balance	₩	<u>131,539</u>	₩	<u>1,539</u>

The Group considers a change of credit grade about trade receivables from starting date for granting credit to the statements of financial position date to judge recoverability of trade receivables and others. Since the Group has many customers that are not interconnected with each other, concentration risk in trade receivables is limited.

9. Other Assets

Details of other assets as at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
	Current	Non-current	Current	Non-current
Advance payments	₩ 375,214	₩ -	₩ 1,618,682	₩ -
Prepaid expenses	803,910	-	861,639	-
Prepaid value added tax	6,864,631	-	3,447,602	-
Others	-	650,018	-	650,018
	₩ 8,043,755	₩ 650,018	₩ 5,927,922	₩ 650,018

10. Investments in Associates

Details of the Group's associates as at the end of the reporting periods, are as follows:

Name of entity	Percentage of ownership (%)		Location	Main business
	2019	2018		
Associates				
Hankook Tire & Technology Co.,Ltd. ¹	30.7%	30.2%	Korea	Manufacturing and sales of the tires, tubes and alloy wheels
Hankook Networks Co.,Ltd.	40.0%	40.0%	Korea	Managing e-business and providing service of integrated system

¹ The Group additionally acquired 587,304 shares (acquisition cost : ₩ 17,838,354 thousand) of Hankook Tire & Technology Co.,Ltd. (formerly, Hankook Tire Co., Ltd.) for the year ended

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December 31, 2019, and the Group's effective percentage of ownership changed to 30.7%. As at December 31, 2019, the Group could not complete the initial recognition of this acquisition, because the Group is in progress of evaluating fair value of identifiable assets held by Hankook Tire & Technology Co.,Ltd. (formerly, Hankook Tire Co., Ltd.). The fair value of the investee's identifiable assets are tentative amounts that will be adjusted according to the final valuation results.

Details of the Group's investments in associates as at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>	2019		
	Number of shares	Acquisition cost	Book amount
Hankook Tire & Technology Co.,Ltd. ¹	37,995,959	₩ 1,979,452,254	₩ 2,747,154,884
Hankook Networks Co.,Ltd.	1,333,334	2,778,102	10,107,584
		₩ 1,982,230,356	₩ 2,757,262,468

¹ In 2019, the Group acquired shares of Hankook Tire & Technology Co.,Ltd. and recognized ₩ 20,184,334 thousand of gain from a bargain purchase as profit.

<i>(in thousands of Korean won)</i>	2018		
	Number of shares	Acquisition cost	Book amount
Hankook Tire & Technology Co.,Ltd. ¹	37,408,655	₩ 1,961,613,900	₩ 2,640,509,520
Hankook Networks Co.,Ltd.	1,333,334	2,778,102	9,256,758
		₩ 1,964,392,002	₩ 2,649,766,278

Details of share of profit or loss of associates accounted for using the equity method for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019						
	Beginning balance	Acquisition	Share of profit or loss of associates accounted for using the equity method	Dividend	Retained earnings	Others ¹	Ending balance
Hankook Tire & Technology Co.,Ltd.	₩ 2,640,509,520	₩ 17,838,354	₩ 77,037,375	₩ (16,833,895)	₩ (447,730)	₩ 29,051,261	₩ 2,747,154,884
Hankook Networks Co.,Ltd.	9,256,758	-	805,258	-	36,297	9,271	10,107,584
	₩ 2,649,766,278	₩ 17,838,354	₩ 77,842,633	₩ (16,833,895)	₩ (411,433)	₩ 29,060,532	₩ 2,757,262,468

¹ Others include gain from a bargain purchase regarding acquisition of shares of Hankook Tire & Technology Co.,Ltd. in 2019 amounting to ₩ 20,184,334 thousand.

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	2018						
	Beginning balance	Acquisition	Share of profit or loss of associates accounted for using the equity method	Dividend	Retained earnings	Others	Ending balance
Hankook Tire & Technology Co.,Ltd	₩ 2,542,230,243	₩ 9,845,698	₩ 117,096,886	₩ (14,865,008)	₩ 1,281,914	₩ (15,080,213)	₩ 2,640,509,520
Hankook Networks Co.,Ltd.	9,071,002	-	233,327	-	(61,596)	14,025	9,256,758
	<u>₩ 2,551,301,245</u>	<u>₩ 9,845,698</u>	<u>₩ 117,330,213</u>	<u>₩ (14,865,008)</u>	<u>₩ 1,220,318</u>	<u>₩ (15,066,188)</u>	<u>₩ 2,649,766,278</u>

The tables below provide summarized financial information and received dividends for those associates that are material to the Group.

(in thousands of Korean won)

	2019	
	Hankook Tire & Technology Co.,Ltd.	Hankook Networks Co.,Ltd.
Assets	₩ 10,164,607,903	₩ 35,889,952
Liabilities	2,977,390,790	10,620,998
Equity	7,187,217,114	25,268,953
Sales	6,883,268,577	44,925,450
Profit for the year	429,614,534	2,013,144
Total comprehensive income	457,235,275	2,127,064
Dividend received	16,833,895	-

(in thousands of Korean won)

	2018	
	Hankook Tire & Technology Co.,Ltd.	Hankook Networks Co.,Ltd.
Assets	₩ 9,796,442,247	₩ 33,085,754
Liabilities	3,006,129,279	9,943,866
Equity	6,790,312,968	23,141,889
Sales	6,795,088,816	38,694,062
Profit for the year	530,380,684	583,317
Total comprehensive income	484,929,790	432,687
Dividend received	14,865,008	-

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As at the end of the reporting periods, adjustments of the amount of financial information of an important associates to the carrying amount of equity interest in an associate are as follows:

(in thousands of Korean won)

	2019						
	Ownership interest of parent company	Percentage of ownership (%)	Amount of ownership	Increase (decrease) in fair value	Goodwill	Others	Ending balance
Hankook Tire & Technology Co.,Ltd.	₩ 7,156,765,954	30.7	₩ 2,197,127,148	₩ 291,021,204	₩ 262,313,525	₩ (3,306,992)	₩ 2,747,154,884

(in thousands of Korean won)

	2018						
	Ownership interest of parent company	Percentage of ownership (%)	Amount of ownership	Increase (decrease) in fair value	Goodwill	Others	Ending balance
Hankook Tire & Technology Co.,Ltd.	₩ 6,765,543,099	30.2	₩ 2,043,194,016	₩ 335,746,273	₩ 262,313,525	₩ (744,294)	₩ 2,640,509,520

As at the end of the reporting periods, the fair values of marketable investments in associates are as follows:

(in thousands of Korean won)

	2019	2018
Hankook Tire & Technology Co.,Ltd.	₩ 1,274,764,424	₩ 1,501,957,498

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11. Property, Plant and Equipment

Details of property, plant and equipment as at the end of the reporting periods, are as follows:

(in thousands of Korean won)

	2019			
	Cost	Accumulated depreciation	Accumulated impairment loss	Book amount
Land	₩ 41,106,964	₩ -	₩ -	₩ 41,106,964
Buildings	80,067,616	(40,844,343)	-	39,223,272
Structures	6,111,815	(4,671,041)	-	1,440,774
Machinery and equipment	173,536,565	(108,416,337)	-	65,120,229
Vehicles	1,319,974	(837,977)	-	481,998
Supplies	10,138,125	(8,294,289)	-	1,843,836
Tools, furniture and fixtures	36,084,226	(26,785,618)	-	9,298,608
Construction in progress	78,641,670	-	(301,888)	78,339,781
Right-to-use assets	18,143,815	(2,529,623)	-	15,614,191
	<u>₩ 445,150,770</u>	<u>₩ (192,379,228)</u>	<u>₩ (301,888)</u>	<u>₩ 252,469,654</u>

(in thousands of Korean won)

	2018			
	Cost	Accumulated depreciation	Accumulated impairment loss	Book amount
Land	₩ 40,946,754	₩ -	₩ -	₩ 40,946,754
Buildings	79,494,724	(38,035,041)	-	41,459,684
Structures	5,986,015	(4,412,563)	-	1,573,452
Machinery and equipment	152,870,973	(98,709,550)	-	54,161,423
Vehicles	948,113	(579,688)	-	368,425
Supplies	9,179,184	(7,532,847)	-	1,646,338
Tools, furniture and fixtures	33,183,548	(23,045,039)	-	10,138,509
Construction in progress	8,367,286	-	(301,888)	8,065,398
	<u>₩ 330,976,598</u>	<u>₩ (172,314,727)</u>	<u>₩ (301,888)</u>	<u>₩ 158,359,983</u>

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

(in thousands of Korean won)

	2019				
	Opening net book amount	Changes in accounting policy	Opening net book amount after change	Acquisition	Disposal
Land	₩ 40,946,754	₩ -	₩ 40,946,754	₩ -	₩ -
Buildings	41,459,684	-	41,459,684	410,910	(11,620)
Structures	1,573,452	-	1,573,452	125,800	-
Machinery and equipment	54,161,423	-	54,161,423	16,383,845	(96,608)
Vehicles	368,425	-	368,425	370,753	-
Supplies	1,646,338	-	1,646,338	885,728	(940)
Tools, furniture and fixtures	10,138,509	-	10,138,509	3,333,391	(106,111)
Construction in progress	8,065,398	-	8,065,398	76,313,924	-
Right-to-use assets	-	17,223,360	17,223,360	304,382	-
	₩ 158,359,983	₩ 17,223,360	₩ 175,583,343	₩ 98,128,733	₩ (215,278)

(in thousands of Korean won)

	2019				
	Depreciation	Transfer	Others	The change in the scope of consolidation	Closing net book amount
Land	₩ -	₩ 115,270	₩ 44,940	₩ -	₩ 41,106,964
Buildings	(2,700,638)	64,936	-	-	39,223,272
Structures	(258,478)	-	-	-	1,440,774
Machinery and equipment	(10,879,507)	5,551,009	67	-	65,120,229
Vehicles	(257,980)	-	800	-	481,998
Supplies	(712,492)	-	1,630	23,571	1,843,836
Tools, furniture and fixtures	(4,129,877)	62,674	21	-	9,298,608
Construction in progress	-	(5,613,683)	(425,858)	-	78,339,781
Right-to-use assets	(2,499,179)	-	24,980	560,648	15,614,191
	₩ (21,438,151)	₩ 180,206	₩ (353,420)	₩ 584,219	₩ 252,469,654

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	2018							Closing net book amount
	Opening net book amount	Acquisition	Disposal	Depreciation	Transfer	The change in the scope of consolidation		
Land	₩ 42,424,322	₩ 1,265,689	₩ -	₩ -	₩ (2,743,257)	₩ -	₩ 40,946,754	
Buildings	43,336,812	2,180,594	(28,479)	(2,824,729)	(1,204,514)	-	41,459,684	
Structures	1,799,672	28,000	-	(254,220)	-	-	1,573,452	
Machinery and equipment	53,366,781	7,931,303	(84,834)	(9,832,956)	2,763,312	17,817	54,161,423	
Vehicles	334,441	272,122	(81,819)	(162,194)	-	5,875	368,425	
Supplies	1,596,210	806,047	(28)	(759,498)	-	3,607	1,646,338	
Tools, furniture and fixtures	8,751,996	4,042,881	(4,777)	(3,594,800)	921,437	21,772	10,138,509	
Construction in progress	7,314,856	5,102,922	-	-	(4,352,380)	-	8,065,398	
	<u>₩ 158,925,090</u>	<u>₩ 21,629,558</u>	<u>₩ (199,937)</u>	<u>₩ (17,428,397)</u>	<u>₩ (4,615,402)</u>	<u>₩ 49,071</u>	<u>₩ 158,359,983</u>	

Line items including depreciation of property, plant and equipment for the years ended December 31, 2019 and 2018, are as follows:

(in thousands of Korean won)

	2019	2018
Cost of sales	₩ 16,613,482	₩ 15,432,677
Selling and administrative expenses(included research and development costs)	4,824,669	1,995,720
	<u>₩ 21,438,151</u>	<u>₩ 17,428,397</u>

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12. Investment Properties

Details of investment properties as at the end of the reporting periods, are as follows:

(in thousands of Korean won)

	2019		
	Cost	Accumulated depreciation	Book amount
Land	₩ 20,203,886	₩ -	₩ 20,203,886
Buildings	28,926,456	(20,251,480)	8,674,976
	<u>₩ 49,130,342</u>	<u>₩ (20,251,480)</u>	<u>₩ 28,878,862</u>

(in thousands of Korean won)

	2018		
	Cost	Accumulated depreciation	Book amount
Land	₩ 20,319,156	₩ -	₩ 20,319,156
Buildings	29,113,977	(19,590,477)	9,523,500
	<u>₩ 49,433,134</u>	<u>₩ (19,590,477)</u>	<u>₩ 29,842,657</u>

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

(in thousands of Korean won)

	2019			
	Beginning balance	Depreciation	Transfer	Ending balance
Land	₩ 20,319,157	₩ -	₩ (115,270)	₩ 20,203,887
Buildings	9,523,500	(783,589)	(64,936)	8,674,975
	<u>₩ 29,842,657</u>	<u>₩ (783,589)</u>	<u>₩ (180,206)</u>	<u>₩ 28,878,862</u>

(in thousands of Korean won)

	2018			
	Beginning balance	Depreciation	Transfer	Ending balance
Land	₩ 17,575,899	₩ -	₩ 2,743,258	₩ 20,319,157
Buildings	8,426,973	(775,617)	1,872,145	9,523,500
	<u>₩ 26,002,872</u>	<u>₩ (775,617)</u>	<u>₩ 4,615,403</u>	<u>₩ 29,842,657</u>

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

<i>(in thousands of Korean won)</i>	2019		2018	
Rental sales	₩	5,479,944	₩	5,498,973
Rental income		2,732,731		2,822,015
Operating expenses		2,601,509		2,919,216

Fair value of investment properties at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
Book amount	₩	28,878,862	₩	29,842,657
Fair value		136,508,520		121,791,457

13. Intangible Assets

Intangible assets as at the end of the reporting periods, consist of:

<i>(in thousands of Korean won)</i>	2019					
	Cost		Accumulated amortization¹		Book amount	
Industrial rights	₩	6,616,252	₩	(4,987,785)	₩	1,628,467
Membership rights		7,617,952		(235,208)		7,382,744
Other intangible assets		33,424,222		(30,281,783)		3,142,439
Construction in progress		3,986,582		-		3,986,582
Goodwill		4,741,424		(2,015,162)		2,726,262
	₩	56,386,432	₩	(37,519,938)	₩	18,866,494

¹Accumulated impairment loss is included.

<i>(in thousands of Korean won)</i>	2018					
	Cost		Accumulated amortization¹		Book amount	
Industrial rights	₩	6,307,253	₩	(4,122,935)	₩	2,184,318
Membership rights		7,617,952		(368,119)		7,249,833
Other intangible assets		33,162,577		(22,978,955)		10,183,623
Construction in progress		2,211,114		-		2,211,114
Goodwill		6,072,863		(3,444,900)		2,627,963
	₩	55,371,760	₩	(30,914,909)	₩	24,456,851

¹Accumulated impairment loss is included.

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

	2019							
	Beginning balance	Acquisition	Disposal	Amortization	Impairment	Transfer	The change in the scope of consolidation	Ending balance
Industrial rights	₩ 2,184,318	₩ 139,293	₩ (170)	₩ (851,718)	₩ -	₩ 156,744	₩ -	₩ 1,628,467
Membership rights	7,249,833	-	-	-	132,911	-	-	7,382,744
Other intangible assets	10,183,623	261,646	-	(7,357,308)	-	(21)	54,499	3,142,439
Construction in progress	2,211,114	1,932,212	-	-	-	(156,744)	-	3,986,582
Goodwill	2,627,963	200,000	-	-	(2,827,964)	-	2,726,263	2,726,262
	<u>₩ 24,456,851</u>	<u>₩ 2,533,151</u>	<u>₩ (170)</u>	<u>₩ (8,209,026)</u>	<u>₩ (2,695,053)</u>	<u>₩ (21)</u>	<u>₩ 2,780,762</u>	<u>₩ 18,866,494</u>

	2018							
	Beginning balance	Acquisition	Disposal	Amortization	Impairment	Transfer	The change in the scope of consolidation	Ending balance
Industrial rights	₩ 2,945,418	₩ 165,445	₩ -	₩ (944,019)	₩ -	₩ 17,474	₩ -	₩ 2,184,318
Membership rights	7,090,465	323,447	(204,835)	-	40,756	-	-	7,249,833
Other intangible assets	17,312,878	490,013	-	(7,619,268)	-	-	-	10,183,623
Construction in progress	824,076	1,404,512	-	-	-	(17,474)	-	2,211,114
Goodwill	2,510,095	-	-	-	(3,449,670)	-	3,567,538	2,627,963
	<u>₩ 30,682,932</u>	<u>₩ 2,383,417</u>	<u>₩ (204,835)</u>	<u>₩ (8,563,287)</u>	<u>₩ (3,408,914)</u>	<u>₩ -</u>	<u>₩ 3,567,538</u>	<u>₩ 24,456,851</u>

Line items including amortization of intangible assets for the years ended December 31, 2019 and 2018, are as follows:

	2019		2018	
Cost of sales	₩	388,490	₩	421,321
Selling and administrative expenses (included research and development costs)		7,820,536		8,141,966
	<u>₩</u>	<u>8,209,026</u>	<u>₩</u>	<u>8,563,287</u>

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14. Other Payables

Details of other payables as at the end of the reporting period, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
	Current	Non-current	Current	Non-current
Non-trade payables	₩ 21,896,724	₩ -	₩ 22,528,919	₩ -
Accrued expenses	7,623,222	-	10,051,773	-
Dividend payables	3,017	-	2,622	-
Leasehold deposits received	9,999,094	5,000	9,811,615	276,679
	<u>₩ 39,522,057</u>	<u>₩ 5,000</u>	<u>₩ 42,394,929</u>	<u>₩ 276,679</u>

15. Other Liabilities

Details of current and non-current other liabilities as at the end of the reporting period, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
	Current	Non-current	Current	Non-current
Withholdings	₩ 2,829,538	₩ -	₩ 3,058,857	₩ -
Value added tax withheld	142,915	-	9,461	-
Other long-term employee benefits	-	3,596,888	-	3,082,752
Advance received	3,009,008	-	2,051,599	-
Deferred revenue	-	3,473,400	-	-
Emission obligation	138,721	-	33,917	-
	<u>₩ 6,120,182</u>	<u>₩ 7,070,288</u>	<u>₩ 5,153,834</u>	<u>₩ 3,082,752</u>

Changes in other long-term employee benefits for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019				
	Beginning balance	Profit or loss	Payment	The change in the scope of consolidation	Ending balance
Other long-term employee benefits	₩ 3,082,752	₩ 716,685	₩ (202,549)	₩ -	₩ 3,596,888

<i>(in thousands of Korean won)</i>	2018				
	Beginning balance	Profit or loss	Payment	The change in the scope of consolidation	Ending balance
Other long-term employee benefits	₩ 2,330,729	₩ 895,291	₩ (143,268)	₩ -	₩ 3,082,752

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16. Net Defined Benefit Liabilities

The Group operates a defined benefit pension plans for its employees with eligibility requirements. By applying the three-month average salary in the final work period service that the employee has been provided at the time of retirement, the employee has received a lump-sum payment under the scheme. Under the plan, the Group is exposed to the risk of the investment risk, interest rate risk and wage risk.

The most recent actuarial assessment of plan assets and defined benefit obligation was performed on December 31, 2019, by SAMSUNG SECURITIES CO., LTD. and others. Present value of the defined benefit obligation, its related current service cost and past service cost have been measured by the projected unit credit method.

Details of net defined benefit liabilities recognized in the statements of financial position at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
Present value of defined benefit obligations	₩	51,368,827	₩	46,182,472
Fair value of plan assets		<u>(47,030,895)</u>		<u>(43,672,136)</u>
Net defined benefit liabilities	₩	4,944,921	₩	3,211,719
Net defined benefit assets		<u>(606,989)</u>		<u>(701,382)</u>

The significant actuarial assumptions used in defined benefit obligations assessment at the end of the reporting periods, are as follows:

	2019	2018
Discount rate	2.91%	3.30%
Expected rate of salary increase	4.52%	5.10%

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

(in thousands of Korean won)

	2019		
	Present value of defined benefit obligations	Fair value of plan assets	Total
Beginning balance	₩ 46,182,470	₩ (43,672,136)	₩ 2,510,334
Current service cost	6,945,514	-	6,945,514
Interest expense (income)	1,365,155	(1,424,129)	(58,974)
	<u>8,310,670</u>	<u>(1,424,129)</u>	<u>6,886,541</u>
Remeasurements:			
Return on plan assets (excluding amounts included in net interest)	-	394,308	712,337
Actuarial gain from change in demographic assumptions	534	-	534
Actuarial gain from change in financial assumptions	(1,333,146)	-	(3,072,009)
Actuarial gain from experience adjustments	(882,383)	-	538,450
	<u>(2,214,995)</u>	<u>394,308</u>	<u>(1,820,687)</u>
Employers contributions	-	(2,892,174)	(2,892,174)
Benefits payments	(3,120,567)	3,093,064	(27,503)
Others	2,050,026	(2,529,828)	(479,802)
The change in the scope of consolidation	161,223	-	161,223
Ending balance	<u>₩ 51,368,827</u>	<u>₩ (47,030,895)</u>	<u>₩ 4,337,932</u>

(in thousands of Korean won)

	2018		
	Present value of defined benefit obligations	Fair value of plan assets	Total
Beginning balance	₩ 59,212,021	₩ (60,477,093)	₩ (1,265,072)
Current service cost	5,951,827	-	5,951,827
Interest expense (income)	1,812,018	(1,636,433)	175,585
	<u>7,763,845</u>	<u>(1,636,433)</u>	<u>6,127,412</u>
Remeasurements:			
Return on plan assets (excluding amounts included in net interest)	-	768,765	768,765
Actuarial gain from change in demographic assumptions	6,114	-	6,114
Actuarial gain from change in financial assumptions	(1,033,197)	-	(1,033,197)
Actuarial gain from experience adjustments	(866,709)	-	(866,709)
	<u>(1,893,792)</u>	<u>768,765</u>	<u>(1,125,027)</u>
Benefits payments	(3,665,350)	2,368,282	(1,297,068)
Others	(15,234,254)	15,304,343	70,089
Ending balance	<u>₩ 46,182,470</u>	<u>₩ (43,672,136)</u>	<u>₩ 2,510,334</u>

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When significant actuarial assumptions vary within a reasonable range with all other assumptions held constant at the end of the reporting periods, the effects on the defined benefit obligations are as follows:

<i>(in thousands of Korean won)</i>	2019			
	Increase		Decrease	
1% change of discount rate	₩	(5,270,864)	₩	6,207,349
1% change of salary growth rate		6,078,232		(5,269,715)

<i>(in thousands of Korean won)</i>	2018			
	Increase		Decrease	
1% change of discount rate	₩	(469,160)	₩	5,469,114
1% change of salary growth rate		5,337,458		(4,595,178)

Amounts recognized in the statements of comprehensive income regarding defined benefit pension plans for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
Current service cost	₩	6,945,514	₩	5,951,827
Interest cost		(58,974)		175,585
	₩	<u>6,886,541</u>	₩	<u>6,127,412</u>

Plan assets as at the end of the reporting periods, consist of:

<i>(in thousands of Korean won)</i>	2019				2018			
	Amount		Composition		Amount		Composition	
Debt instruments	₩	40,180,340		85.4%	₩	37,697,454		86.3%
Deposits		6,816,963		14.5%		5,941,089		13.6%
National Pension Fund		<u>33,592</u>		0.1%		<u>33,592</u>		0.1%
	₩	<u>47,030,895</u>		100.0%	₩	<u>43,672,136</u>		100.0%

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

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The expected maturity analysis of undiscounted pension benefits as at the end of the reporting period, is as follows:

<i>(in thousands of Korean won)</i>	2019				
	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years	Total
Pension benefits	₩ 1,579,280	₩ 1,947,219	₩ 10,349,400	₩ 233,250,860	₩ 247,126,759

The weighted average duration of the defined benefit obligation is 11.6 years (2018: 12.6 years).

17. Provisions

The Group's provisions are provisions for product warranties as at the end of the reporting period. Changes in provisions for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019			
	Beginning balance	Profit or loss	Payment	Ending balance
Provisions for product warranties	₩ 725,943	₩ 733,374	₩ (703,076)	₩ 756,241
Provisions for litigations	-	770,251	-	770,251
	<u>₩ 725,943</u>	<u>₩ 1,503,625</u>	<u>₩ (703,076)</u>	<u>₩ 1,526,492</u>

<i>(in thousands of Korean won)</i>	2018			
	Beginning balance	Profit or loss	Payment	Ending balance
Provisions for product warranties	₩ 746,308	₩ 676,017	₩ (696,382)	₩ 725,943

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18. Share Capital

Details of share capital as at the end of the reporting periods, are as follows:

<i>(in Korean won, except for number of shares)</i>	2019	2018
Authorized (in shares)	250,000,000	250,000,000
Par value	₩ 500	₩ 500
Outstanding (in shares):		
Ordinary share	93,020,173	93,020,173
Share capital:		
Ordinary share	<u>₩ 46,510,086,500</u>	<u>₩ 46,510,086,500</u>

19. Other Paid-in-Capital

Details of other paid-in-capital as at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>	2019	2018
Share premium	₩ 1,302,628,300	₩ 1,302,628,300
Treasury shares	(11,092,609)	(11,092,609)
Other capital surplus	(10,493,857)	(10,442,009)
	<u>₩ 1,281,041,833</u>	<u>₩ 1,281,093,682</u>

As at December 31, 2019, the Group holds 1,325,090 ordinary shares in treasury, to stabilize the market price of its shares, and records treasury share as other paid-in capital. Further appropriation of them is not determined.

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20. Retained Earnings and Dividends

Retained earnings as at the end of the reporting periods, consist of:

<i>(in thousands of Korean won)</i>	2019	2018
Legal reserve:		
Earned profit reserve ¹	₩ 24,761,716	₩ 22,010,864
	<u>24,761,716</u>	<u>22,010,864</u>
Discretionary reserve:		
Reserve for revaluation ²	443,289,239	443,289,239
Dividend equalization reserve	60,000,000	60,000,000
Director's retirement bonus reserve	93,918,000	93,918,000
Voluntary reserve	256,000,000	110,000,000
	<u>853,207,239</u>	<u>707,207,239</u>
Unappropriated retained earnings	<u>1,130,660,154</u>	<u>1,155,073,919</u>
	<u>₩ 2,008,629,109</u>	<u>₩ 1,884,292,022</u>

¹ The Commercial Law of the Republic of Korea requires the Group to appropriate a portion of retained earnings as a legal reserve in an amount equal to a minimum of 10% of its cash dividends, until such reserve equals 50% of its share capital. The reserve is not available for the payment of cash dividends but may be transferred to ordinary share or used to offset accumulated deficit, if any, through a resolution of shareholders.

² According to the past assets revaluation law, the Group conducted assets revaluation and appropriated revaluation gains for revaluation reserve. This revaluation surplus is not allowed to use as financial resources of dividends, but it is allowed to use only for capitalization or preservation of losses.

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

<i>(in thousands of Korean won)</i>	2019	2018
Beginning balance	₩ 1,884,292,022	₩ 1,702,637,352
Changes in accounting policy	-	896,658
Profit for the year	151,337,458	207,068,039
Dividend payments	(27,508,525)	(27,508,525)
Remeasurements of net defined benefit liabilities	811,236	288,404
Remeasurements of net defined benefit liabilities of associates	(303,082)	910,094
Ending balance	<u>₩ 2,008,629,109</u>	<u>₩ 1,884,292,022</u>

Dividend distribution to the Group's shareholders amounted to ₩ 27,508,525 thousand (paid in 2018: ₩ 27,508,525 thousand) for the year ended December 31, 2018, was paid in 2019.

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21. Other Components of Equity

Changes in other component of equity for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019			
	Beginning balance	Increase (decrease) ¹	Non-controlling interests	Ending balance
Gain (loss) on valuation of financial assets at fair value through other comprehensive income	₩ (602,982)	₩ 683,080	₩ 12,391	₩ 92,489
Exchange differences on translating foreign operations	(39,394)	(411,348)	103,295	(347,447)
Share of other comprehensive income of associates	(61,906,662)	6,730,401	-	(55,176,261)
	<u>₩ (62,549,038)</u>	<u>₩ 7,002,133</u>	<u>₩ 115,686</u>	<u>₩ (55,431,219)</u>

¹ Amount of tax effect is deducted.

<i>(in thousands of Korean won)</i>	2018						
	Beginning balance ¹	Changes in accounting policy	Beginning balance (adjusted)	Increase (decrease) ¹	Non-controlling interests	Reclassification to profit or loss	Ending balance
Changes in the fair value of available-for-sale financial assets	₩ 403,932	₩ (403,932)	₩ -	₩ -	₩ -	₩ -	₩ -
Gain (loss) on valuation of financial assets at fair value through other comprehensive income	-	(492,726)	(492,726)	647,025	(11,801)	(745,480)	(602,982)
Exchange differences on translating foreign operations	(107,867)	-	(107,867)	91,433	(22,960)	-	(39,394)
Share of other comprehensive income of associates	(50,594,775)	-	(50,594,775)	(11,311,887)	-	-	(61,906,662)
	<u>₩(50,298,710)</u>	<u>₩ (896,658)</u>	<u>₩ (51,195,368)</u>	<u>₩ (10,573,429)</u>	<u>₩ (34,761)</u>	<u>₩ (745,480)</u>	<u>₩ (62,549,038)</u>

¹ Amount of tax effect is deducted.

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22. Selling and Administrative Expenses

Selling and administrative expenses for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
Payroll	₩	24,880,330	₩	17,809,327
Post-employment benefits		2,241,257		1,916,227
Employee benefits		3,115,099		1,953,671
Training expenses		302,004		179,965
Travel expenses		1,393,274		1,193,945
Vehicles maintenance expenses		311,799		195,877
Insurance		676,988		405,408
Taxes and dues		1,742,684		1,306,894
Entertainment expenses		459,957		468,808
Supplies expenses		1,802,867		1,693,356
Publication expenses		130,287		121,617
Communication expenses		203,190		180,952
Impairment loss on receivables		30,629		62,885
Utility expenses		1,014,535		941,056
Repairs expenses		246,765		332,854
Conference expenses		4,870		224
Service fees		8,758,313		8,077,311
Rental expenses		816,726		1,884,418
Depreciation of investment property		783,589		775,617
Depreciation of property, plant and equipment		4,329,807		1,443,472
Amortization of intangible assets		7,768,652		8,092,758
Travel and transportation expenses		2,874,144		2,048,374
Service expenses		62,531		367,593
Shared service expenses		1,384,516		1,540,117
Export expenses		8,466,776		9,043,234
Advertisement		7,799,908		4,701,914
Foreign market development expenses		65,158		87,441
Sales damage expenses		733,374		676,017
Test expenses		69,692		347,657
Sample expenses		38,384		42,163
Research and development expenses		5,517,841		4,474,514
Miscellaneous expenses		337,821		281,255
	₩	<u>88,363,765</u>	₩	<u>72,646,921</u>

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23. Breakdown of Expenses by Nature

Expenses by nature for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
Changes in inventories	₩	(13,424,535)	₩	(39,036,085)
Purchase of raw materials		410,085,329		459,028,606
Purchase of merchandises		66,774,275		22,754,392
Payroll		85,415,043		70,512,575
Post-employment benefits		7,393,832		6,512,677
Employee benefits		12,223,975		10,565,655
Power expenses		14,450,286		14,250,339
Fuel expenses		2,464,229		2,272,750
Depreciation of property, plant and equipment		21,438,151		17,428,397
Depreciation of investment property		783,589		775,617
Amortization of intangible assets		8,209,026		8,563,287
Supplies expenses		5,940,193		5,477,206
Repairs expenses		4,046,615		3,489,044
Service fees		15,415,768		19,400,886
Export expenses		20,201,383		19,923,488
Foreign market development expenses		65,158		87,441
Research and development expenses		1,003,689		148,186
Others		14,247,762		14,341,530
Total cost of sales, and selling and administrative expenses	₩	676,733,768	₩	636,495,991

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24. Finance Income and Finance Costs

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

<i>(in thousands of Korean won)</i>	2019		2018	
Finance income				
Interest income	₩	6,689,595	₩	6,689,430
Gains on foreign currency transaction		4,384,146		3,308,168
Gains on foreign currency translation		878,003		1,143,524
Gains on valuation of debt instruments at fair value through profit or loss		800,743		179,066
Gains on valuation of equity instruments at fair value through profit or loss		1,273,217		126,886
Gains on disposal of debt instruments at fair value through profit or loss		296,148		419,053
Gains on disposal of financial instruments at fair value through other comprehensive income		-		199,918
	₩	14,321,852	₩	12,066,045
Finance costs				
Interest expense	₩	3,210,852	₩	1,633,872
Losses on foreign currency transaction		5,576,434		4,149,846
Losses on foreign currency translation		33,411		133,904
Losses on disposal of debt instruments at fair value through profit or loss		960		347,645
	₩	8,821,657	₩	6,265,267

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25. Other Non-operating Income and Expenses

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

<i>(in thousands of Korean won)</i>	2019		2018	
Other non-operating income				
Dividend income	₩	7,894	₩	7,894
Gains on foreign currency transaction		8,427,390		6,708,560
Gains on foreign currency translation		113,061		88,091
Gains on valuation of derivatives		892,588		-
Rental income		2,732,731		2,822,015
Gains on disposal of property, plant and equipment		1,175		132,664
Gain from a bargain purchase ¹		20,184,334		6,089,279
Reversal of impairment loss on intangible assets		132,911		-
Miscellaneous gain		1,234,055		765,124
	₩	<u>33,726,141</u>	₩	<u>16,613,627</u>
Other non-operating expenses				
Losses on foreign currency transaction	₩	5,667,792	₩	4,732,668
Losses on foreign currency translation		1,013,059		1,542,073
Losses on disposal of property, plant and equipment		209,869		118,118
Losses on disposal of intangible assets		170		1,835
Impairment loss on intangible assets		2,827,964		3,449,670
Donation		3,187,799		2,184,836
Losses on disposal of trade receivables		121,717		-
Miscellaneous loss		367,927		197,452
	₩	<u>13,396,295</u>	₩	<u>12,226,652</u>

¹ In 2019, the Group acquired shares of Hankook Tire & Technology Co.,Ltd. and recognized ₩ 20,184,334 thousand of gain from a bargain purchase as profit.

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26. Tax Expense and Deferred Tax

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

<i>(in thousands of Korean won)</i>	2019	2018
Current tax:		
Current tax on profits for the year	₩ 26,770,135	₩ 28,448,187
Adjustments in respect of prior years	253,390	109,821
Deferred tax:		
Origination and reversal of temporary differences	8,891,929	(29,810,269)
Charged or credited directly to equity	(2,720,999)	4,545,700
Tax for recirculation of corporate income	220,530	-
Income tax expense	₩ 33,414,985	₩ 3,293,439

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

<i>(in thousands of Korean won)</i>	2019	2018
Profit before income tax expense	₩ 196,706,022	₩ 221,649,043
Tax at domestic tax rates applicable to profits in the respective countries	45,842,843	52,124,010
Tax effects of:		
Income not subject to tax	(420,830)	(340)
Expenses not deductible for tax purposes	118,752	152,556
Tax credit and tax cut	(729,430)	(190,795)
Additional tax payment	253,390	109,821
Unrecognized changes in net assets of investments in subsidiaries and associates	(15,154,973)	(47,602,353)
Tax for recirculation of corporate income	220,530	48,158
Others	3,284,704	(1,347,617)
	(12,427,857)	(48,830,570)
Income tax expense	₩ 33,414,985	₩ 3,293,439

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The tax effect relating to components of other comprehensive income (expenses) for the years ended December 31, 2019 and 2018, is as follows:

<i>(in thousands of Korean won)</i>	2019			2018		
	Before tax	Tax effect	After tax	Before tax	Tax effect	After tax
Remeasurements of net defined benefit liabilities	₩ 1,820,689	₩ (465,472)	₩ 1,355,217	₩ 1,119,505	₩ (295,457)	₩ 824,048
Remeasurements of net defined benefit liabilities of associates	(411,433)	108,351	(303,082)	1,220,316	(310,223)	910,093
Exchange differences on translating foreign operations	(411,348)	-	(411,348)	91,433	-	91,433
Share of other comprehensive income of associates	8,876,197	(2,145,796)	6,730,401	(21,103,617)	5,119,948	(15,983,669)
Gain (loss) on valuation of financial assets at fair value through other comprehensive income	901,161	(218,081)	683,080	(129,888)	31,433	(98,455)
	<u>₩ 10,775,266</u>	<u>₩ (2,720,998)</u>	<u>₩ 8,054,268</u>	<u>₩ (18,802,251)</u>	<u>₩ 4,545,701</u>	<u>₩ (14,256,550)</u>

The analysis of deferred tax assets and liabilities as at December 31, 2019 and 2018, is as follows:

<i>(in thousands of Korean won)</i>	2019	2018
Deferred tax assets		
Deferred tax asset to be recovered after more than 12 months	₩ 20,983,348	₩ 20,688,111
Deferred tax asset to be recovered within 12 months	1,759,662	978,404
	<u>22,743,010</u>	<u>21,666,515</u>
Deferred tax liabilities		
Deferred tax liability to be recovered after more than 12 months	89,272,768	79,759,475
Deferred tax liability to be recovered within 12 months	900,137	445,005
	<u>90,172,905</u>	<u>80,204,480</u>
Deferred tax liabilities, net	<u>₩ (67,429,895)</u>	<u>₩ (58,537,965)</u>

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

	2019			
	Beginning balance	Statement of profit or loss	Other comprehensive income	Ending balance
<i>(in thousands of Korean won)</i>				
Deferred tax assets (liabilities)				
Unearned revenue	₩ (445,004)	₩ (239,127)	₩ -	₩ (684,131)
Other receivables	64,254	(6,919)	-	57,335
Other long-term employee benefits	469,486	140,196	-	609,682
Accrued expenses	100,728	20,400	-	121,128
Property, plant and equipment	2,328,010	418,772	-	2,746,782
Net defined benefit liabilities	659,504	680,493	(465,472)	874,525
Financial assets at fair value through profit or loss	(138,702)	(408,530)	-	(547,232)
Intangible assets	(7,300,876)	1,554,905	-	(5,745,971)
Construction in progress	232,760	-	-	232,760
Financial instruments at fair value through other comprehensive income	3,200,256	(84,290)	(218,081)	2,897,885
Advanced depreciation provision	(2,556,024)	-	-	(2,556,024)
Valuation of inventories	61,610	19,694	-	81,304
Impairment loss	281,686	-	-	281,686
Annual leave provisions	546,056	142,580	-	688,636
Stock dividend	307	-	-	307
Provisions for product warranties	175,678	7,332	-	183,010
Emission obligation	8,208	25,362	-	33,570
Lease	-	1,325	-	1,325
Provision for litigations	-	186,401	-	186,401
Gains on valuation of foreign exchange forward contracts	-	(216,006)	-	(216,006)
Investment in subsidiaries and associates	(56,225,903)	(8,413,517)	(2,037,446)	(66,676,866)
	(58,537,966)	(6,170,929)	(2,720,999)	(67,429,894)
Tax loss carryforwards	-	-	-	-
	₩ (58,537,966)	₩ (6,170,929)	₩ (2,720,999)	₩ (67,429,894)

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<i>(in thousands of Korean won)</i>	2018			
	Beginning balance	Statement of profit or loss	Other comprehensive income	Ending balance
Deferred tax assets (liabilities)				
Unearned revenue	₩ (362,854)	₩ (82,150)	₩ -	₩ (445,004)
Other receivables	-	64,254	-	64,254
Other long-term employee benefits	287,497	181,989	-	469,486
Accrued expenses	139,807	(39,079)	-	100,728
Property, plant and equipment	2,207,530	120,480	-	2,328,010
Net defined benefit liabilities	(362,942)	1,317,903	(295,457)	659,504
Financial assets at fair value through profit or loss	(93,368)	(45,334)	-	(138,702)
Intangible assets	(8,894,785)	1,593,909	-	(7,300,876)
Construction in progress	232,760	-	-	232,760
Financial instruments at fair value through other comprehensive income	3,084,533	84,290	31,433	3,200,256
Advanced depreciation provision	(2,556,024)	-	-	(2,556,024)
Valuation of inventories	24,935	36,675	-	61,610
Impairment loss	281,686	-	-	281,686
Annual leave provisions	460,319	85,737	-	546,056
Stock dividend	307	-	-	307
Provisions for product warranties	180,606	(4,928)	-	175,678
Emission obligation	7,216	992	-	8,208
Investment in subsidiaries and associates	(83,109,806)	22,074,178	4,809,725	(56,225,903)
	(88,472,583)	25,388,916	4,545,701	(58,537,966)
Tax loss carryforwards	124,348	(124,348)	-	-
	₩ (88,348,235)	₩ 25,264,568	₩ 4,545,701	₩ (58,537,966)

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

<i>(in thousands of Korean won)</i>	2019	2018	Remarks
Interests in subsidiary	₩ 1,169,692,454	₩ 1,168,043,664	No plan for disposal

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27. Cash Generated from Operations

Details of cash generated from operations for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019	2018
Adjustments for:		
Income tax expense	₩ 33,414,985	₩ 3,293,439
Losses on foreign currency translation	1,046,470	1,675,977
Losses on disposal of financial assets at fair value through profit or loss	960	347,644
Losses on disposal of property, plant and equipment	209,869	118,117
Losses on disposal of intangible assets	170	1,835
Impairment loss on intangible assets	2,827,964	3,449,670
Reversal of impairment loss on intangible assets	(132,911)	(45,526)
Depreciation of investment property	783,589	775,617
Depreciation of property, plant and equipment ¹	21,438,151	17,428,397
Amortization of intangible assets	8,209,026	8,563,287
Other long-term employee benefits	716,685	895,291
Post-employment benefit obligations	6,886,539	6,127,414
Interest expense	3,210,852	1,633,872
Sales damage expenses	733,374	676,017
Addition to provision for litigation	770,251	
Miscellaneous losses	1,126	-
Losses on disposal of trade receivables	121,717	-
Losses on valuation of inventory	161,795	62,149
Impairment loss	30,629	62,885
Interest income	(6,689,595)	(6,689,430)
Dividend received	(430,153)	(9,273)
Gains on foreign currency translation	(991,065)	(1,231,615)
Gains on valuation of foreign exchange forward contracts	(892,588)	-
Gains on valuation of debt instrument at fair value through profit or loss	(800,743)	(179,066)
Gains on valuation of equity instruments at fair value through profit or loss	(1,273,217)	(126,886)
Gains on disposal of financial assets at fair value through profit or loss	(296,148)	(419,053)
Gains on disposal of financial assets at fair value through other comprehensive income	-	(199,918)
Gains on disposal of property, plant and equipment	(1,175)	(132,664)
Share of profit of associates	(77,842,633)	(117,330,213)
Gain from a bargain purchase	(20,184,334)	(6,089,279)
Miscellaneous gains	(51,849)	(69,822)
	<u>₩ (29,022,260)</u>	<u>₩ (87,411,134)</u>

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<i>(in thousands of Korean won)</i>	2019		2018	
Changes in operating assets and liabilities:				
Decrease (increase) in trade receivables	₩	22,070,683	₩	(11,406,219)
Decrease (increase) in non-trade receivables		1,161,072		(1,249,462)
Decrease in accrued revenues		133,086		9,174
Decrease (increase) in advance payments		1,252,978		(690,772)
Increase in prepaid expenses		(89,734)		(81,295)
Increase in prepaid value added tax		(3,417,029)		(263,050)
Increase in inventory		(13,155,030)		(38,809,633)
Increase in leasehold deposits provided		(1,078,997)		(2,152,289)
Increase (decrease) in trade payables		(33,416,621)		369,826
Increase (decrease) in non-trade payables		629,975		(4,808,552)
Decrease in value added tax withheld		(4,551)		(49,110)
Increase (decrease) in advance received		957,408		(2,199,779)
Increase (decrease) in accrued expenses		(2,322,974)		3,410,127
Decrease in withholdings		(317,217)		(1,510,181)
Increase (decrease) in deferred revenue		3,473,400		(409)
Increase (decrease) in leasehold deposits received		(89,200)		917,383
Decrease in provisions for product warranties		(703,076)		(761,711)
Increase in emission obligation		104,803		4,097
Decrease in post-employment benefit obligation		(3,120,567)		(3,665,350)
Decrease in pension plan assets		178,718		2,368,282
Decrease in other long-term employee benefits		(202,549)		(143,268)
	₩	<u>(27,955,421)</u>	₩	<u>(60,712,191)</u>

¹ Depreciation of right-of-use assets is included in 2019.

The principal non-cash transaction for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
Transfer of construction in progress to intangible assets	₩	156,744	₩	17,474
Transfer of property, plant and equipment to investment property		-		4,615,402
Transfer of investment property to property, plant and equipment		180,206		-
Transfer of construction in progress to property, plant and equipment		5,613,683		4,321,161
Increase in non-trade payables in relation to acquisition of property, plant and equipment		4,726,180		1,435,828
Increase in non-trade payables in relation to acquisition of intangible assets		1,578		185,815
Decrease in non-trade payables in relation to acquisition of property, plant and equipment		6,277,377		1,165,819

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<i>(in thousands of Korean won)</i>	2019	2018
Decrease in non-trade payables in relation to acquisition of intangible assets	185,815	77,676
Increase in right-of-use assets due to recognition of lease liabilities and others	18,088,390	-
Decrease in non-trade receivables in relation to disposal of AFS financial assets	-	9,712,548
Reclassification of current portion of financial assets at fair value through profit or loss	10,765,774	-
Reclassification of current portion of other receivables	4,000,000	-

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

<i>(in thousands of Korean won)</i>	2019		
	Lease liabilities	Short-term borrowings	Total
Beginning balance	₩ -	₩ 86,356,661	₩ 86,356,661
Changes in accounting policy	16,094,834	-	16,094,834
Exchange differences and others	-	(544,629)	(544,629)
Cash flows (principal)	(2,027,820)	(26,053,165)	(28,080,985)
Cash flows (interest expenses)	(655,037)	-	(655,037)
Increase in lease liabilities	964,892	-	964,892
The change in the scope of consolidation	543,377	1,200,000	1,743,377
Ending balance	₩ 14,920,246	₩ 60,958,868	₩ 75,879,113

<i>(in thousands of Korean won)</i>	2018	
	Short-term borrowings	
Beginning balance	₩	49,953,567
Exchange differences and others		(1,104,648)
Cash flows		37,507,742
Ending balance	₩	86,356,661

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28. Related Party Transactions

Details of related parties as at December 31, 2019, are as follows:

Type	Name of related parties
Individuals	Yang-Rai Cho, Hyun-Shick Cho, Hyun-Bum Cho
Associates	Hankook Tire & Technology Co.,Ltd. (formerly, Hankook Tire Co., Ltd.), Hankook Networks Co.,Ltd. (formerly, EmFrontier, Inc.)
Domestic subsidiaries of associates	Hankook Engineering Works Co.,Ltd. (formerly, Daehwa Engineering & Machinery Co., Ltd.), Hankook Precision Works Co., Ltd. (formerly, MK Technology Corp.), Hankook Donggeurami Partners Co., Ltd., Model Solution Co., Ltd., KCG 1 Private Equity Fund Limited Partnership
Overseas subsidiaries of associates	Hankook Tire America Corp., Hankook Tyre U.K. Ltd., Jiangsu Hankook Tire Co., Ltd., Hankook Tire China Co., Ltd., Shanghai Hankook Tire Sales Co., Ltd., Hankook Tire Netherlands B.V., Hankook Tire Japan Corp., Hankook Tire Canada Corp., Hankook Reifen Deutschland GmbH, Hankook Tire France SARL, Hankook Tire Italia S.R.L., Hankook Espana S.A., Hankook Tyre Australia Pty., Ltd., Hankook Tire Hungary Ltd., Hankook Tire Europe Holdings B.V, Hankook Tire Europe GmbH, Hankook Tire Budapest Kereskedelmi Kft, Hankook Tire DE Mexico, S.A. DE C.V., Chongqing Hankooktire Co., Ltd., Hankook Tire Rus LLC, PT. Hankooktire Indonesia, MK Mold (Jiaxing) Co., LTD, Hankook Tire Singapore PTE., Ltd., Hankook Tire Malaysia SDN.BHD., Hankook Tire Sweden AB, Beijing Jielun Trading Company Co.,Ltd., Hankook Lastikleri A.S., Hankook Tire Polska Sp. z o.o., Hankook Tire de Colombia Ltda., Hankook Tire America Holdings I, LLC, Hankook Tire America Holdings II, LLC, Hankook Tire Manufacturing Tennessee LP, Hankook Tire Ceska Republika s.r.o. MK Technology (CHONGQING) Mould Co., Ltd., Hankook Networks America, Inc (formerly, Emfrontier America Inc.), Hankook Tyre Australia Retail Pty.,Ltd., JAX Quickfit Franchising Systems Unit Trust., JAX Quickfit Franchising Systems Pty Ltd., JAX Quickfit Properties Pty Ltd., Hankook Tires India LLP, Hankook Tire Latam, S.A., Hankook Tire Latin America Distribution Center, S.A., Hankook Tire Ukraine LLC, ModelSolution Inc., Reifen-Muller KG, Reifen-Muller Runderneuerung BV, RM Verwaltungs GmbH, RU Verwaltungs GmbH, Hankook Tire D.O.O. Beograd, HANKOOK TIRE MIDDLE EAST AND AFRICA FZE, Hankook Tire Vietnam Co. LTD, PT. HankookTire Sales Indonesia, Hankook Tire Austria GmbH
Domestic associate of associates	Hanon Systems Co., Ltd., Peaches Group Korea co., Ltd., DAE MYONG TECH ONE Co., Ltd.
Other related parties ¹	Shin-Yang Tourist Development, Shin-Yang World Leisure, FWS Investment Advisory, Daehwa Eng' & Machinery Jiaxing Co., Ltd., Anothen WTE Co., Ltd., H-2 WTE Co., Ltd., Anothen Geumsan Co., Ltd., YKT Co., Ltd., SPTeam Co.,Ltd., Seil Hwangyeong Co.,Ltd., Doowon Holdings Co.,Ltd., Arum Dentistry Co., Ltd. (formerly, Doowon ID CO.,LTD.), SI Carbon Co.,Ltd.

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

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Transactions between the Group and related parties for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>		2019			
		Sales ¹	Selling and administrative expenses	Purchase and others	Other income
Associates	Hankook Tire & Technology Co.,Ltd.	₩ 70,965,229	₩ 2,592,933	₩ 104,427	₩ 1,261,194
	Hankook Networks Co.,Ltd.	-	1,330,058	5,333,762	-
Domestic subsidiary of associates	Hankook Donggeurami Partners Co., Ltd. and others	5,780	85,934	-	2,580
Overseas subsidiary of associates	Hankook Tire Canada Corp. and others	-	169,074	-	-
Other related parties	Shin-Yang Tourist Development and others	450	-	-	5,814
		<u>₩ 70,971,459</u>	<u>₩ 4,177,999</u>	<u>₩ 5,438,189</u>	<u>₩ 1,269,588</u>

¹ Share of profit or loss of associates accounted for using the equity method is not included in sales.

<i>(in thousands of Korean won)</i>		2018			
		Sales ¹	Selling and administrative expenses	Purchase and others	Other income
Associates	Hankook Tire & Technology Co.,Ltd.	₩ 78,182,220	₩ 2,562,177	₩ 178,854	₩ 1,294,848
	Hankook Networks Co.,Ltd.	-	1,148,577	469,732	-
Domestic subsidiary of associates	Hankook Donggeurami Partners Co., Ltd. and others	6,368	114,570	31,600	2,580
Overseas subsidiary of associates	Hankook Tire Canada Corp. and others	-	91,586	-	-
Other related parties	Shin-Yang Tourist Development and others	-	1,298,180	-	5,814
		<u>₩ 78,188,588</u>	<u>₩ 5,215,091</u>	<u>₩ 680,186</u>	<u>₩ 1,303,242</u>

¹ Share of profit or loss of associates accounted for using the equity method is not included in sales.

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Outstanding balances of receivables and payables at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>		2019					
		Name of entity	Trade receivables	Loans	Other receivables	Non-trade payables	Other payables
Associates	Hankook Tire & Technology Co.,Ltd.	₩ 19,498,808	₩ -	₩ 180,382	₩ 717,883	₩ 2,335,890	
	Hankook Networks Co.,Ltd.	-	-	-	466,576	-	
Domestic subsidiary of associates	Hankook Donggeurami Partners Co., Ltd. and others	-	-	748	1,093	4,650	
Overseas subsidiary of associates	Hankook Tire Canada Corp. and others	-	-	2,911	7,954	-	
Other related parties	Shin-Yang Tourist Development and others	-	-	-	-	105,503	
		<u>₩ 19,498,808</u>	<u>₩ -</u>	<u>₩ 184,041</u>	<u>₩ 1,193,506</u>	<u>₩ 2,446,043</u>	

<i>(in thousands of Korean won)</i>		2018					
		Name of entity	Trade receivables	Loans	Other receivables	Non-trade payables	Other payables
Associates	Hankook Tire & Technology Co.,Ltd.	₩ 23,450,250	₩ -	₩ 552,715	₩ 1,045,440	₩ 2,370,090	
	Hankook Networks Co.,Ltd.	-	-	2,041	335,524	-	
Domestic subsidiary of associates	Hankook Donggeurami Partners Co., Ltd. and others	-	-	-	726	4,650	
Overseas subsidiary of associates	Hankook Tire Canada Corp. and others	-	-	-	7,447	-	
Other related parties	Shin-Yang Tourist Development and others	-	-	-	-	105,503	
		<u>₩ 23,450,250</u>	<u>₩ -</u>	<u>₩ 554,756</u>	<u>₩ 1,389,138</u>	<u>₩ 2,480,243</u>	

Hankook Technology Group Co., Ltd. and Subsidiaries
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There is no loans to related parties for the year ended December 31, 2019.

Dividend income and contributions in cash from/to related parties for the years ended December 31, 2019 and 2018, are as follows:

(in thousands of Korean won)

	Name of entity	2019		2018	
		Dividend income	Contributions in cash and others	Dividend income	Contributions in cash and others
Associates	Hankook Tire & Technology Co.,Ltd.	₩ 16,833,895	₩ 17,838,353	₩ 14,865,008	₩ 9,845,699

Compensations for key management for the years ended December 31, 2019 and 2018, are as follows:

(in thousands of Korean won)

	2019		2018	
Short-term benefits	₩	2,266,066	₩	1,915,252
Post-employment benefits		308,921		207,247
	₩	<u>2,574,987</u>	₩	<u>2,122,499</u>

Key management refers to the directors (registered and non-registered) and audit committee members who have significant authority and responsibility in respect to planning, operating and controlling of the Group's business activities.

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29. Contingencies and Commitments

Details of outstanding credit facility agreements of the Group as at the end of the reporting periods, are as follows:

(in thousands on Korean won and thousands of USD)

		2019		2018	
		Commitment amount	Korean won	Commitment amount	Korean won
Purchase card agreements	Woori Bank and others	KRW 15,000,000	₩ 15,000,000	KRW 20,000,000	₩ 20,000,000
General loans agreements	Woori Bank and others	KRW 5,100,000	5,100,000	KRW 5,000,000	5,000,000
Agreements to forward exchange contracts	Citi Bank and others	USD 12,000	13,893,600	USD 6,000	6,708,600
Trade financing	Woori Bank and others	KRW 5,300,000	5,300,000	KRW 10,300,000	10,300,000
Letter of credit	Woori Bank and others	USD 104,300	120,758,540	USD 97,500	109,014,750
Loans for working capital	KEB Hana Bank and others	KRW 7,000,000	7,000,000	KRW 8,000,000	8,000,000
	BOA	USD 19,000	21,998,200	USD 9,000	10,062,900
Overdraft	Woori Bank and others	KRW 2,000,000	2,000,000	KRW 2,000,000	2,000,000
Inventory financing	Shinhan card	KRW 11,600,000	11,600,000	KRW 8,000,000	8,000,000
		KRW 46,000,000	₩ 202,650,340	KRW 53,300,000	₩ 179,086,250
		USD 135,300		USD 112,500	

As at December 31, 2019, the Group entered into supply and demand contracts with Hankook Tire & Technology Co., Ltd., a related party, to provide trademark license and supporting work regarding planning and investment and to be provided with several finance, accounting and legal support. In addition, the Group entered into a demand contract to be provided with maintenance service for the Group's information system with Hankook Networks Co., Ltd., an associate.

As at December 31, 2019, the Group entered into a dealer contract for retail sales of vehicles and parts of Peugeot and Citroën in Gangnam-gu, Seoul which Hanbul Motors supplies domestically under the contract with PSA Group.

When transferred trade receivables with resource are not yet matured, the Group recognizes the amount as short-term borrowings. Details of trade receivables transferred to financial institutions which are not yet matured as at December 31, 2019 and 2018, are as follows:

(in thousands of Korean won)

	2019	2018
Borrowings with collateralized trade receivables	₩ 52,787,103	₩ 80,815,859

The Group is provided with payment guarantees for borrowings amounting to ₩ 2,169,000 thousand from Korea Credit Guarantee Fund and others.

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As at December 31, 2019, the Group is named as a defendant in five legal actions amounting to ₩ 1,077 million arising from salaries and damage compensation and others. As a result of second trial, the Group recognized the principal obligated for the payment as other provisions amounting to ₩ 770,251 thousand, and this amount is subject to change as a result of litigation. The final obligated amount can be differ from its estimates, depending on the outcome of litigation. As at December 31, 2019, the Group cannot reasonably estimate the results of the legal action and management expects the results will not have material impact on the consolidated financial statements.

30. Operating Segment Information

Operating segments of the Group are classified into investment business and storage batteries business. Management has determined the operating segments based on the information reported to and reviewed by the Board of Directors that performs resource allocation and performance assessment. From a product perspective, management classifies the investment and storage batteries.

Profit or loss by each segment for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019					
	Investment business		Storage batteries business		Total	
Total segment revenue	₩	200,709,649	₩	648,039,575	₩	848,749,224
Inter-segment revenue		(1,139,474)		-		(1,139,474)
Revenue from external customers		199,570,175		648,039,575		847,609,750
Operating profit		106,340,129		64,535,853		170,875,982

<i>(in thousands of Korean won)</i>	2018					
	Investment business		Storage batteries business		Total	
Total segment revenue	₩	196,736,838	₩	652,359,917	₩	849,096,755
Inter-segment revenue		(1,139,474)		-		(1,139,474)
Revenue from external customers		195,597,364		652,359,917		847,957,281
Operating profit		147,228,599		64,232,690		211,461,290

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The Group derives the following types of revenue:

<i>(in thousands of Korean won)</i>	2019		2018	
Sales of finished goods	₩	616,267,371	₩	634,523,031
Sales of merchandise		61,708,510		18,198,610
Shared service sales		6,916,986		4,116,165
Rental sales		5,479,944		5,498,973
Trademark right revenue		50,800,053		49,221,532
Share of profit or loss of associates accounted for using the equity method		77,842,633		117,330,213
Others		28,594,254		19,068,757
	₩	<u>847,609,750</u>	₩	<u>847,957,281</u>

Revenue from external customers broken down by location of the Group for the years ended December 31, 2019 and 2018, are shown as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
Korea (headquarter)	₩	783,166,514	₩	796,123,255
America		64,443,236		51,834,026
	₩	<u>847,609,750</u>	₩	<u>847,957,281</u>

Details of external customers, who contribute more than 10% of the Group's revenue for the years ended December 31, 2019 and 2018, are as follows:

<i>(in thousands of Korean won)</i>	2019		2018	
A Company	₩	148,002,604	₩	195,279,106

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31. Inventories

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

<i>(in thousands of Korean won)</i>	2019		2018	
Finished goods	₩	26,908,856	₩	25,038,593
Merchandise		11,946,547		6,150,746
Raw materials		35,603,322		35,192,564
Work in process		19,478,795		13,277,357
Supplies		2,634,164		2,007,533
Materials in transit		1,695,460		3,175,816
	₩	<u>98,267,144</u>	₩	<u>84,842,609</u>

Inventories recognized as expenses during the year ended December 31, 2019 amounted to ₩ 463,435,070 thousand (2018: ₩ 442,746,913 thousand).

32. Borrowings

Borrowings of the Group as at December 31, 2019 and 2018, consist of:

<i>(in thousands of Korean won)</i>	2019				2018			
	Current		Non-current		Current		Non-current	
Borrowings	₩	60,958,868	₩	-	₩	86,356,661	₩	-
Lease liabilities		1,944,059		12,976,187		-		-
	₩	<u>62,902,927</u>	₩	<u>12,976,187</u>	₩	<u>86,356,661</u>	₩	<u>-</u>

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Details of short-term borrowings as at the end of the reporting periods, are as follows:

<i>(in thousands of Korean won)</i>		Creditor	Latest maturity date	Annual interest rate as at December 31, 2019	2019	2018
Short-term borrowings	Export bill discount (Nego borrowings)	Kookmin Bank	2020.03.31	2.3% ~ 3.5%	₩ 6,359,028	₩ 12,241,970
		NH Bank	2020.04.14	2.3% ~ 2.5%	8,487,823	11,317,225
		Shinhan Bank	2020.04.20	0.04% ~ 2.5%	9,202,155	10,626,975
		Woori Bank	2020.04.13	0.01% ~ 2.6%	10,897,164	25,888,927
		KEB Hana Bank	2020.04.20	0.01% ~ 2.6%	13,294,632	14,611,597
		Citi Bank	2020.04.17	2.3% ~ 2.6%	4,546,301	6,129,166
	Inventory financing	Shinhan card	2020.04.30	3.70% ~ 4.75%	7,471,765	4,540,802
	Loans for operating funds	Woori Bank	2019.05.15	3.88%	-	1,000,000
		Industrial Bank of Korea	2020.05.15	2.80%	700,000	-
					<u>₩ 60,958,868</u>	<u>₩ 86,356,661</u>

33. Earnings Per Share

The Group's basic earnings per share attributable to equity holders of Parent Company for the years ended December 31, 2019 and 2018, are computed as follows:

<i>(in Korean won, except for number of shares)</i>	2019	2018
Profit attributable to the ordinary equity holders of Parent Company ¹	₩ 151,337,458,154	₩ 207,068,039,256
Weighted-average number of ordinary shares outstanding (in share) ²	91,695,083	91,695,083
Basic earnings per share	<u>₩ 1,650</u>	<u>₩ 2,258</u>

¹ As there are no adjustments during the reporting period, profit attributable to the ordinary equity holders of Parent Company is identical to profit attributable to owners of the Parent Company in the statements of comprehensive income.

² The Group's outstanding ordinary shares excluding the number of treasury share acquired are weighted averaged.

The Group did not issue any potential ordinary shares. Therefore, basic earnings per share is identical to diluted earnings per share.

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34. Credit risk

The Group is exposed to credit risk if the counterparty does not make payment by the due date.

- Payment of trade receivables by payment term for the customer
- Contractual cash flow of debt instruments at amortized costs
- Contractual cash flow of debt instruments at fair value through other comprehensive income

A. 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 days past due. Loss allowance was not recognized at the end of the reporting period and no related loss was recognized as 'operating expenses' in profit or loss for the years ended December 31, 2019 and 2018.

Gross book amount of trade receivables, the maximum exposure amount, is ₩ 129,163,625 thousand at the reporting period (2018: ₩ 151,660,314 thousand).

B. Other financial assets at amortized cost

Other financial assets at amortized cost include government bonds, loans to related parties, and other receivables. Loss allowance for Other financial assets amortized cost was not recognized at the end of the reporting period and no related loss was recognized as 'operating expenses' in profit or loss for the years ended December 31, 2019 and 2018.

All of the financial assets at amortized costs are considered to have low credit risk, and the loss allowance recognized during the period was, therefore, limited to 12 months expected losses. Management consider 'low credit risk' for government bonds. Other instruments 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.

C. Debt investments at fair value through other comprehensive income

Debt investments at fair value through other comprehensive income include government bonds, corporate bonds and 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. Loss allowance for Debt investments at fair value through other comprehensive income was not recognized at the end of the reporting period and no related loss was recognized as 'finance costs' in profit or loss for the years ended December 31, 2019 and 2018.

All of the debt investments at fair value through other comprehensive income are considered to have low credit risk, and the loss allowance recognized during the period was, therefore, limited to

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12 months expected losses. Other instruments 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.

35. Leases

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

<i>(in thousands of Korean won)</i>	December 31, 2019		January 1, 2019¹	
Right-of-use assets ²				
Buildings	₩	15,228,954	₩	16,893,268
Vehicles		385,237		330,092
	₩	<u>15,614,191</u>	₩	<u>17,223,360</u>

¹ Amount reclassified applying Korean IFRS 1116

² Included in 'property, plant and equipment' in the consolidated statement of financial position

<i>(in thousands of Korean won)</i>	December 31, 2019		January 1, 2019¹	
Lease liabilities ²				
Current	₩	1,944,059	₩	1,946,038
Non-current		12,976,187		14,148,796
	₩	<u>14,920,246</u>	₩	<u>16,094,834</u>

¹ Amount reclassified applying Korean IFRS 1116

² Included in 'property, plant and equipment' in the consolidated statement of financial position

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

<i>(in thousands of Korean won)</i>	2019	
Depreciation of right-of-use assets		
Buildings	₩	2,357,723
Vehicles		141,456
	₩	<u>2,499,179</u>
Interest expense relating to lease liabilities (included in finance cost)	₩	655,037
Expense relating to short-term leases (included in cost of goods sold and administrative expenses)		761,663
Expense relating to leases of low-value assets that are not short-term leases (included in administrative expenses)		40,880
Expense relating to variable lease payments not included in lease liabilities (included in administrative expenses)		-

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The total cash outflow for leases in 2019 was ₩ 3,485,399 thousand.

Changes in right-of-use assets for the year ended December 31, 2019, are as follows:

<i>(in thousands of Korean won)</i>	Beginning balance	Changes in accounting policy	Newly acquired	Depreciation	Others	The change in the scope of consolidation	Ending balance
Buildings	₩ -	₩ 16,893,268	₩ 139,163	₩ (2,357,723)	₩ 24,980	₩ 529,267	₩ 15,228,954
Vehicles	-	330,092	165,219	(141,456)	-	31,382	385,237
	<u>₩ -</u>	<u>₩ 17,223,360</u>	<u>₩ 304,382</u>	<u>₩ (2,499,179)</u>	<u>₩ 24,980</u>	<u>₩ 560,648</u>	<u>₩ 15,614,191</u>

Changes in lease liabilities for the year ended December 31, 2019, are as follows:

<i>(in thousands of Korean won)</i>	Beginning balance	Changes in accounting policy	Newly acquired	Redemption	Interest expenses	Others	The change in the scope of consolidation	Ending balance
Lease liabilities	₩ -	₩ 16,094,834	₩ 284,581	₩ (2,682,857)	₩ 655,037	₩ 25,274	₩ 543,377	₩ 14,920,246

The total of future minimum lease payments to the lessor at the end of the reporting period are as follows:

(in thousands of Korean won)

2019

Total minimum lease payments

Within one year	₩	2,572,278
Later than one year but not later than five years		8,752,780
Later than five years		6,435,866
	<u>₩</u>	<u>17,760,924</u>

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36. Changes in Accounting Policies

As explained in Note 2.2, 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. Details of adjustments recognized on adoption of Korean IFRS 1116 *Lease* are as follows:

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 4.41%.

For leases previously classified as 'finance leases', the Group recognized the carrying amount of the lease asset and lease liability immediately before transition as the carrying amount of the right-of-use asset and the lease liability at the date of initial application. The measurement principles of Korean IFRS 1116 are only applied after that date.

(a) *Practical expedients applied*

In applying Korean IFRS 1116 for the first time, the Group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics
- reliance on previous assessments on whether leases are onerous – there were no onerous contracts as at January 1, 2019
- the accounting for operating leases with a remaining lease term of less than 12 months as at January 1, 2019, as short-term leases
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application, and
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease

The Group has also elected not to reassess whether a contract is, or contains a lease at the date of initial application. Instead, for contracts entered into before the transition date, the Group relied on its assessment made applying Korean IFRS 1017 and Interpretation 2104 *Determining whether an Arrangement contains a Lease*.

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(b) Measurement of lease liabilities

(in thousands of Korean won)

	2019
Operating lease commitments disclosed as at December 31, 2018	₩ 19,952,568
Discounted using the lessee's incremental borrowing rate of at the date of initial application	16,564,789
Add: finance lease liabilities recognized as at December 31, 2018	-
Less: short-term leases not recognized as a liability	(428,695)
Less: low-value leases not recognized as a liability	(41,260)
Add: adjustments as a result of a different treatment of extension and termination options	-
Lease liability recognized as at January 1, 2019	16,094,834
Of which are:	
Current lease liabilities	1,946,038
Non-current lease liabilities	14,148,796
	<u>₩ 16,094,834</u>

(c) Measurement of right-of-use assets

The associated right-of-use assets for property leases were measured on a retrospective basis as if the new rules had always been applied. Other 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. There were no onerous lease contracts that would have required an adjustment to the right-of-use assets at the date of initial application.

(d) Measurement of right-of-use assets

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 ₩ 17,223,360 thousand
- lease liabilities: increase by ₩ 16,094,834 thousand
- other non-current assets: decrease by ₩ 1,128,526 thousand

(e) Lessor accounting

The Group did not need to make any adjustments to the accounting for assets held as lessor as a result of the adoption of Korean IFRS 1116.

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37. Business Combination and Transactions with Non-controlling Interests

During the year ended December 31, 2019, Hankook Car & Life Co., Ltd., a subsidiary of the Group, acquired 28.1% shares and obtained control over Wavers Co., Ltd., which is classified as a subsidiary since the Group can exercise the majority of voting rights in its decision-making process of the Board of Directors by agreement with shareholders although the Group owns less than 50% ownership. The goodwill of ₩ 2,726,263 thousand arising from the acquisition is attributable to economies of scale expected from combining the operations of the Group and Wavers Co., Ltd.. The recognized goodwill will not be deductible for tax purpose. Details of the purchase consideration, the assets and liabilities recognized as a result of the acquisition, and the goodwill of Wavers Co., Ltd. at the acquisition date are as follows:

(in thousands of Korean won)

	Amount
Purchase consideration	₩ 2,100,768
Recognized amounts of identifiable assets acquired and liabilities assumed	
Assets	972,060
Liabilities	(2,300,588)
Net identifiable assets acquired	(1,328,528)
Non-controlling interests	703,033
Goodwill	2,726,263
	₩ 2,100,768