Consolidated Financial Statements December 31, 2020 and 2019

December 31, 2020 and 2019

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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 Tire & Technology Co., Ltd.

Opinion

We have audited the accompanying consolidated financial statements of Hankook Tire & Technology Co., Ltd. and its subsidiary (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as at December 31, 2020 and 2019, 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, 2020 and 2019, 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.

Emphasis of Matter

Without modifying our opinion, we draw attention to Note 3 to the consolidated financial statements of the Group. Note 3 to the consolidated financial statements describes management's plans and action taken to resolve uncertainty relating to the impact of Coronavirus disease 2019 (COVID-19) on the Group's productivity and ability to satisfy customer's orders, and to solve these events or circumstances.

Key Audit Matters

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

Valuation of Finished Goods Inventories

Key Audit Matter

As disclosed in Note 10 to the consolidated financial statements, the Group's finished goods amount to $\mbox{$W1,082,369$}$ million as at December 31, 2020, representing 10.2% of total assets which is significant to the Group. Inventories initially measured at cost are to be decreased in value if those inventories are damaged, if they have become obsolete, or if their estimated net realizable value is less than the cost. We considered that valuation of finished goods inventories is a key audit matter because the determination of the net realizable value of the finished goods inventories involves the significant level of management's judgements.

How our audit addressed the Key Audit Matter

We have performed the following audit procedures in relation to the above key audit matter:

- We reviewed the appropriateness of accounting policy on valuation of finished goods inventories.
- We obtained an understanding of the net realizable value and valuation process of obsolescence of finished goods inventories.
- We tested the accuracy and completeness of aging data for finished goods inventories through sampling.
- We tested whether the Group's actual recent selling price is consistent with the estimated selling price used in calculation of net realizable value of finished goods inventories through sampling.
- We recalculated valuation allowance of finished goods prepared by the Group.

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 Sung Woo, Choi, Certified Public Accountant.

Seoul, Korea March 22, 2021

This report is effective as of March 22, 2021, 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 Tire & Technology Co., Ltd. and Subsidiaries Consolidated Statements of Financial Position December 31, 2020 and 2019

(in thousands of Korean won)	Notes		2020		2019
Assets					
Current assets					
Cash and cash equivalents	6	₩	1,060,864,709	₩	877,600,276
Short-term financial assets	6		239,826,957		33,134,195
Financial assets at fair value through profit or loss	5,6,7		406,933,099		-
Trade and other receivables	6,9,42		1,314,383,164		1,376,866,042
Inventories	10		1,562,764,801		1,725,393,475
Other financial assets	5,6,8,11		8,933,867		27,136,911
Other current assets	12		56,788,842		73,583,919
Assets held for sale	16		37,734,720		<u>-</u>
Non august coasts			4,688,230,159		4,113,714,818
Non-current assets	6		257,000		17,000
Long-term financial assets	6,9		62,755,262		18,954,627
Long-term trade and other receivables Financial assets at fair value through other comprehensive income	5,6,7		39,697,511		40,314,271
Financial assets at fair value through profit or loss	5,6,7		146,255,000		8,140,000
Investments in associates	13		1,070,783,940		1,106,250,141
	15		3,901,607,189		
Property, plant and equipment Investment properties	18		113,936,723		4,105,500,675 99,021,025
Intangible assets	19		271,144,476		340,516,293
Other financial assets	5,6,8,11		134,927,194		77,380,199
Other innancial assets Other non-current assets	12		28,783,446		71,249,799
Deferred tax assets	36		200,169,989		183,549,055
Deletted tax assets	30	-	5,970,317,730		6,050,893,085
Total assets		₩	10,658,547,889	₩	10,164,607,903
Liabilities					
Current liabilities					
Trade and other payables	6,20,42	₩	962,556,323	₩	883,812,360
Borrowings	6,21	VV	528,329,865	٧V	1,062,142,319
Current tax liabilities	0,21		68,469,718		65,650,814
Provisions	22		8,436,599		45,974,307
Other financial liabilities	5,6,8,23		4,508,215		3,743,853
Other current liabilities	24		208,655,083		69,760,589
		-	1,780,955,803		2,131,084,242
Non-current liabilities			.,,,		
Borrowings	6,21		1,190,681,644		656,849,030
Net defined benefit liabilities	25		15,611,109		12,507,985
Provisions	22		62,433,417		24,090,109
Other financial liabilities	5,6,23		65,783,752		26,126,463
Other non-current liabilities	24		93,341,418		90,709,651
Deferred tax liabilities	36		37,593,223		36,023,309
			1,465,444,563		846,306,547
Total liabilities			3,246,400,366		2,977,390,790
Equity					
Share capital	26		61,937,535		61,937,535
Other paid-in capital	27		2,927,985,079		2,971,745,781
Other components of equity	29		(277,692,786)		(220,620,981)
Retained earnings	28		4,665,265,076		4,343,703,619
Equity attributable to owners of the Parent Company			7,377,494,904		7,156,765,954
Non-controlling interest			34,652,618		30,451,160
Total equity			7,412,147,522		7,187,217,114
Total liabilities and equity		₩	10,658,547,889	₩	10,164,607,903

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

Consolidated Statements of Comprehensive Income

Years Ended December 31, 2020 and 2019

(in thousands of Korean won, except per share data)	Notes		2020		2019
Sales	30,39,42	₩	6,453,071,785	₩	6,883,268,577
Cost of sales	30,37,42		(4,550,059,850)		(4,961,117,130)
Gross profit			1,903,011,935		1,922,151,447
Selling and administrative expenses	31,37		(1,093,998,198)		(1,183,210,435)
Research and development expenses	37		(180,743,181)		(194,976,181)
Operating profit			628,270,555		543,964,832
Finance income	32		100,607,996		81,413,987
Finance costs	33		(137,415,868)		(170,121,275)
Other non-operating income	34		207,010,904		214,011,365
Other non-operating expense	35		(225,396,138)		(125,358,049)
Gain on investments in associates, net	13		5,190,654		45,972,850
Profit before income tax			578,268,103		589,883,709
Income tax expense	36		(193,062,721)		(160,269,175)
Profit for the year		₩	385,205,382	₩	429,614,534
Other comprehensive income (loss) Items that will not be reclassified to profit or loss					
Financial assets at fair value through other comprehensive income		₩	6,631,507	₩	(5,967,847)
Remeasurements of net defined benefit liabilities			17,573,760		(14,519,224)
Remeasurements of net defined benefit liabilities of associates Items that may be subsequently reclassified to profit or loss			(3,419,753)		(1,459,434)
Cash flow hedges			5,538,152		6,246,556
Share of other comprehensive income of associates			(5,683,825)		6,124,556
Exchange differences on translating foreign operations			(64,080,952)		37,196,134
Other comprehensive income (loss) for the year, net of tax			(43,441,111)		27,620,741
Total comprehensive income for the year		₩	341,764,272	₩	457,235,275
Profit for the year is attributable to:			070 007 005		440.540.445
Owners of the Parent Company		₩	372,337,205	₩	419,513,115
Non-controlling interests			12,868,177		10,101,419
Total comprehensive income for the year is attributable to:					
Owners of the Parent Company		₩	332,608,625	₩	446,956,561
Non-controlling interests			9,155,647		10,278,714
Earnings per share					
Basic and diluted earnings per share	38	₩	3,032	₩	3,387

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

Consolidated Statements of Changes in Equity

Years Ended December 31, 2020 and 2019

Consolidated reserve Retained components Non-controlling (in thousands of Korean won) Notes Share capital Share premium within equity Treasury shares earnings of equity Total interest	Total equity 6,790,312,968
(in thousands of Korean won) Notes Share capital Share premium within equity Treasury shares earnings of equity Total interest	
	5,790,312,968
Annual dividends (55,733,706) - (55,733,706) (4,597,423)	(60,331,129)
Total comprehensive income for the year	
Profit for the year 419,513,115 - 419,513,115 10,101,420	429,614,535
Remeasurements of net defined benefit liabilities of associates (1,459,434) - (1,459,434) -	(1,459,434)
Cash flow hedges 29 6,246,556 6,246,556 -	6,246,556
Loss on valuation of equity instruments at fair value	
through other comprehensive income 29 (5,965,451) (5,965,451) (2,396)	(5,967,847)
Share of other comprehensive income 29 6,124,556 6,124,556 -	6,124,556
Exchange differences on translating foreign operations 29 37,016,444 37,016,444 179,690	37,196,134
Remeasurements of net defined benefit liabilities	(14,519,224)
Balance at December 31, 2019 $\underline{\forall}$ 61,937,535 $\underline{\forall}$ 2,993,465,738 $\underline{\forall}$ (20,631,939) $\underline{\forall}$ (1,088,018) $\underline{\forall}$ 4,343,703,621 $\underline{\forall}$ (220,620,981) $\underline{\forall}$ 7,156,765,956 $\underline{\forall}$ 30,451,159 $\underline{\forall}$ 30,451,159	7,187,217,115
<u> </u>	7,187,217,115
Annual dividends (68,118,975) - (68,118,976) (4,954,187)	(73,073,163)
Acquisition of treasury shares (43,760,701) (43,760,701) -	(43,760,701)
Total comprehensive income for the year	
Profit for the year 372,337,205 - 372,337,205 12,868,177	385,205,382
Remeasurements of net defined benefit liabilities of associates (3,419,753) - (3,419,753) -	(3,419,753)
Cash flow hedges 29 5,538,152 - 5,538,152 -	5,538,152
Gain (loss) on valuation and disposal of equity instruments at fair value through other	
1,102)	6,631,507
(*,***,****)	(5,683,825)
(======================================	(64,080,952) 17.573,760
Balance at December 31, 2020 $\underline{\forall}$ 61,937,535 $\underline{\forall}$ 2,993,465,738 $\underline{\forall}$ (20,631,939) $\underline{\forall}$ (44,848,719) $\underline{\forall}$ 4,665,265,076 $\underline{\forall}$ (277,692,786) $\underline{\forall}$ 7,377,494,904 $\underline{\forall}$ 34,652,618 $\underline{\forall}$	7,412,147,522

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

Consolidated Statements of Cash Flows

Years Ended December 31, 2020 and 2019

(in thousands of Korean won)	Notes	2020	2019
Cash flows from operating activities			
Cash generated from operating activities			
Profit for the year		₩ 385,205,382	₩ 429,614,534
Adjustments	40	945,118,719	893,585,517
Changes in operating assets and liabilities	40	140,432,782	(334,973,785)
		1,470,756,883	988,226,266
Interest income received		12,751,920	16,480,771
Interest expense paid		(47,945,279)	(57,061,362)
Dividends received		45,434,263	34,618,354
Income tax paid		(190,146,986)	(221,916,635)
Net cash inflow from operating activities		1,290,850,801	760,347,395
Cash flows from investing activities			
Net change in short-term financial assets		(226,042,965)	(5,044,465)
Net change in long-term financial assets		(240,000)	44,085
Payments for financial assets at fair value through profit or loss		(684,377,500)	(6,640,000)
Proceeds from disposal of financial assets at fair value through profit or loss		135,405,124	-
Payments for equity instruments at fair value			
through other comprehensive income		(535,747)	-
Proceeds from disposal of equity instruments at fair value			
through other comprehensive income		9,361,103	1,884
Payments for debt instruments at fair value through			
other comprehenvice income		(1,224,035)	-
Proceeds from disposal of debt instruments at fair value through			
other comprehenvice income		1,220,564	4,916
Payments for property, plant and equipment	15	(312,176,510)	(272,210,898)
Proceeds from disposal of property, plant and equipment	15	14,099,875	47,804,081
Payments for intangible assets	19	(7,339,717)	(7,389,732)
Proceeds from disposal of intangible assets	19	270,058	1,035,208
Payments for investment properties	18	(34,516)	(63,452)
Proceeds from disposal of investment properties	18	=	39,064,712
Settlement of derivatives		(843,105)	(46,243,942)
Net changes in other financial assets		21,795,903	9,996,291
Proceeds from disposal of other investment assets		320,078	-
Payments for investments in associates		(221,685)	(1,666,142)
Increase in leasehold deposits provided		(81,816,646)	-
Decrease in leasehold deposits provided		4,696,278	-
Assets held for sale (advances)		123,360,000	
Net cash outflow from investing activities		(1,004,323,443)	(241,307,454)
Cash flows from financing activities			
Net changes in short-term borrowings	40	(248,557,483)	(106,334,090)
Repayments of long-term borrowings		177,004,500	-
Issuance of debentures	40	421,765,591	-
Repayments of debentures	40	(250,000,000)	-
Repayments of lease liabilities	40	(53,649,435)	(54,425,569)
Repayments of current portion of long-term borrowings	40	(58,601,200)	(23,712,400)
Dividends paid to owners of the Parent Company	40	(68,116,260)	(55,733,706)
Increase in financial liabilities to non-controlling interests	40	(1,756,600)	-
Dividends paid to non-controlling Interests	40	(5,138,188)	(4,597,423)
Collection of leasehold deposits received	40	30,780,545	-
Payments of leasehold deposits received	40	(391,200)	-
Acquisition of treasury shares		(43,760,701)	
Net cash outflow from financing activities		(100,420,431)	(244,803,188)
Net increase in cash and cash equivalents		186,106,927	274,236,752
Cash and cash equivalents at the beginning of the year		877,600,276	611,977,140
Effects of exchange rate changes on cash and cash equivalents		(2,842,494)	(8,613,616)
Cash and cash equivalents at the end of the year		₩ 1,060,864,709	₩ 877,600,276

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

1. General Information

General information of Hankook Tire & Technology Co., Ltd. (the Company), that is a controlling company in accordance with Korean IFRS 1110 *Consolidated Financial Statements*, and its subsidiaries (collectively referred to as the "Group") is as follows:

1.1 The Company

The Group was spun off from the tire business division of Hankook & Company Co., Ltd. (formerly, Hankook Technology Group Co., Ltd.) on September 1, 2012 to manufacture and sell tires, tubes and alloy wheels. The Group's headquarters is located at Bundang-Gu, Seongnam-si, Gyeonggi-do and eight manufacturing factories are located in Korea, China, Hungary, Indonesia and USA, including its subsidiaries. On October 4, 2012, the Group was relisted on the Korea stock exchange.

On February 28, 2019, the Board of Directors resolved to change its corporate name from Hankook Tire Co., Ltd. to Hankook Tire & Technology Co., Ltd. The Company changed its name on May 8, 2019, according to the approval of general meeting of stockholders on March 28, 2019.

As at December 31, 2020 and 2019, the Group's shareholders are as follows:

	20	20	2019	
	Number of shares	Percentage of ownership (%)	Number of shares	Percentage of ownership (%)
Hankook & Company Co., Ltd. (formerly,				
Hankook Technology				
Group Co., Ltd.)	37,995,959	30.67	37,995,959	30.67
Yang Rai Cho	7,019,903	5.67	7,019,903	5.67
Hyun Bum Cho	2,561,241	2.07	2,561,241	2.07
Hyun Shick Cho	799,241	0.65	799,241	0.65
Others ¹	75,498,725	60.94	75,498,725	60.94
	123,875,069	100.00	123,875,069	100.00

¹ Including 1,886,316 treasury shares as at December 31, 2020.

1.2 Consolidated Subsidiaries

Details of the consolidated subsidiaries as at December 31, 2020 and 2019, are as follows:

			Ownership interest			
Name of entity	Location	Main business	held by the	Group (%)	Closing	
			2020	2019	month	
Hankook Engineering Works Co., Ltd. (formerly, Daehwa Engineering & Machinery Co., Ltd.)	Korea	Manufacture of tire and tube manufacturing machine	95.0	95.0	December	
Hankook Tire America Corp.	USA	Sales of tires	100.0	100.0	December	
Hankook Tyre U.K. Ltd.	United Kingdom	Sales of tires	100.0	100.0	December	

Name of entity	Location	Main business		ip interest Group (%)	Closing
-			2020	2019	month
Jiangsu Hankook Tire Co., Ltd.	China	Manufacture and sales of tires	100.0	100.0	December
Hankook Tire China Co., Ltd.	China	Manufacture and sales of tires	100.0	100.0	December
Shanghai Hankook Tire Sales Co., Ltd.	China	Sales of tires	100.0	100.0	December
Hankook Tire Netherlands B.V.	Netherlands	Sales of tires	100.0	100.0	December
Hankook Tire Japan Corp.	Japan	Sales of tires	100.0	100.0	December
Hankook Tire Canada Corp.	Canada	Sales of tires	100.0	100.0	December
Hankook Reifen Deutschland GmbH	Germany	Sales of tires	100.0	100.0	December
Hankook Tire France SARL	France	Sales of tires	100.0	100.0	December
Hankook Espana S. A.	Spain	Sales of tires	100.0	100.0	December
Hankook Tyre Australia Pty., Ltd.	Australia	Sales of tires	100.0	100.0	December
Hankook Tire Europe Holdings B.V.	Netherlands	Building European governance	100.0	100.0	December
Hankook Tire Hungary Ltd.	Hungary	Manufacture and sales of tires	100.0	100.0	December
Hankook Tire Budapest Kereskedelmi Kft	Hungary	Sales of tires	100.0	100.0	December
Hankook Tire Italia S.R.L.	Italy	Sales of tires	100.0	100.0	December
Hankook Tire Europe GmbH	Germany	Support to sales of tires	100.0	100.0	December
Hankook Tire Rus LLC	Russia	Sales of tires	100.0	100.0	December
Hankook Tire DE Mexico, S.A. DE C.V.	Mexico	Sales of tires	100.0	100.0	December
Chongqing Hankooktire Co., Ltd.	China	Manufacture and sales of tires	100.0	100.0	December
PT. HANKOOKTIRE INDONESIA.	Indonesia	Manufacture and sales of tires	99.9	99.9	December
MK Mold (Jiaxing) Co., LTD.	China	Manufacture and sales of tire mold	50.1	50.1	December
Hankook Precision Works Co., Ltd.	Korea	Manufacture and sales of tire mold	50.1	50.1	December
Hankook Tire Singapore PTE., Ltd.	Singapore	Trade and consulting	100.0	100.0	December
Hankook Tire Malaysia SDN.BHD.	Malaysia	Sales of tires	100.0	100.0	December
Hankook Tire India Ilp	India	Sales of tires	100.0	100.0	December
Hankook Tire Sweden AB	Sweden	Sales of tires	100.0	100.0	December
Beijing Jielun Trading Company Co., Ltd.	China	Sales of tires	100.0	100.0	December
Hankook Lastikleri A.S.	Turkey	Sales of tires	100.0	100.0	December
Hankook Tire Polska Sp. z o.o.	Poland	Sales of tires	100.0	100.0	December
Hankook Tire Thailand Co., Ltd.	Thailand	Sales of tires	99.9	99.9	December
Hankook Tire de Colombia Ltda.	Colombia	Sales of tires	100.0	100.0	December

Name of entity	Location	Main business		p interest Group (%)	Closing
•			2020	2019	month
Hankook Tire Manufacturing Tennessee LP	USA	Manufacture and sales of tires	100.0	100.0	December
Hankook Tire America Holdings I, LLC	USA	Building American governance	100.0	100.0	December
Hankook Tire America Holdings II, LLC	USA	Building American governance	100.0	100.0	December
MK Technology (CHONGQING) Mould Co., Ltd.	China	Manufacture and sales of tire mold	50.1	50.1	December
Hankook Tire Ceska Republika s.r.o.	Czech	Sales of tires	100.0	100.0	December
Hankook Donggeurami Partners Co., Ltd.	Korea	Facilities management service, baking	100.0	100.0	December
Hankook Tyre Australia Retail Pty., Ltd.	Australia	Distribution of tires	100.0	100.0	December
JAX Quickfit Franchising Systems Unit Trust.	Australia	Distribution of tires	100.0	100.0	December
JAX Quickfit Franchising Systems Pty Ltd.	Australia	Distribution of tires	100.0	100.0	December
JAX Quickfit Properties Pty Ltd.	Australia	Distribution of tires	100.0	100.0	December
Hankook Tire Latam, S.A.	Panama	Trade and consulting	100.0	100.0	December
Hankook Tire Latin America Distribution Center, S.A.	Panama	Sales of tires	100.0	100.0	December
Hankook Tire Ukraine LLC	Ukraine	Sale of tires	100.0	100.0	December
KCG 1 Private Equity Fund Limited Partnership	Korea	Collective investment	80.0	80.0	December
Model Solution Co., Ltd.	Korea	Manufacture of injection molds	75.0	75.0	December
ModelSolution Inc.	USA	Computer printing	75.0	75.0	December
Reifen-Muller KG	Germany	Distribution of tires	100.0	100.0	December
Reifen-Muller GmbH & Co. Runderneuerungswerk KG	Germany	Distribution of tires	100.0	100.0	December
Rm Verwaltungs GmbH	Germany	Building European governance	100.0	100.0	December
RU Verwaltungs GmbH	Germany	Building European governance	100.0	100.0	December
Hankook Tire D.O.O. Beograd	Serbia	Sale of tires	100.0	100.0	December
Hankook Tire Middle East and Africa FZE	United Arab Emirates	Sale of tires	100.0	100.0	December
Hankook Tire Vietnam. Co., Ltd.	Vietnam	Sale of tires	100.0	100.0	December
PT. HANKOOK TIRE SALES INDONESIA	Indonesia	Sale of tires	100.0	100.0	December
Hankook Tire Austria GmbH	Austria	Sale of tires	100.0	100.0	December
TNA Co., Ltd.	Korea	Sale of tires	100.0	-	December

1.3 Changes in Scope for Consolidation

Subsidiaries newly included in the consolidation during the year ended December 31, 2020, are as follow, and there are no subsidiaries excluded from consolidation:

Subsidiary Reason
TNA Co., Ltd. Newly established

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

2.2.1 New and amended standards adopted by the Group

The Group has applied the following standards and amendments for the first time for their annual reporting period commencing January 1, 2020.

(a) Amendments to Korean IFRS 1001 Presentation of Financial Statements and Korean IFRS 1008 Accounting policies, changes in accounting estimates and errors – Definition of Material

The amendments clarify the definition of material. Information is material if omitting, misstating or obscuring it could reasonably be expected to influence the decisions that the primary users of general-purpose financial statements make on the basis of those financial statements. The amendments do not have a significant impact on the consolidated financial statements.

(b) Amendments to Korean IFRS 1103 Business Combination - Definition of 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 the definition of output excludes the returns in the form of lower costs and other economic benefits. If substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets, an entity may elect to apply an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business. The amendments do not have a significant impact on the consolidated financial statements.

(c) Amendments to Korean IFRS 1109 Financial Instruments, Korean IFRS 1039 Financial Instruments: Recognition and Measurement and Korean IFRS 1107 Financial Instruments: Disclosure – Interest Rate Benchmark Reform

The Group's risk exposure directly affected by interest rate benchmark reform is borrowings at variable rate of 3 years for US\$ 100 million. To hedge fluctuations in cash flows of borrowings resulting from the changes in USD LIBOR of 3 months which is an interest rate benchmark, the Group enters into a currency swap contract for nominal amount of US\$100 million and designates it as a hedging instrument of cash flow hedge. However, the interest rate of USD LIBOR will be replaced to SOFR (Secured Overnight Financing Rate) based on actual transactions since 2023. In the hedging relationship, the Group shall assume that a spread which is to be changed based on SOFR in 2023 is similar with the spread included in the currency swap used as hedging instruments, with all other conditions not changed. For the purpose to minimize disruptions in business, mitigate operating risk and reduce financial losses as possible, the Group performs a replacement of existing interest rate benchmarks with alternative benchmarks within contracts.

2.2.2 New standards and interpretations not yet adopted by the Group

The following new accounting standards and interpretations have been published that are not mandatory for December 31, 2020 reporting periods and have not been early adopted by the Group.

(a) Amendments to Korean IFRS 1116 Lease – Practical expedient for COVID-19 - Related Rent Exemption, Concessions, Suspension

As a practical expedient, a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification, and the amounts recognized in profit or loss as a result of applying this exemption should be disclosed. The amendments should be applied for annual periods beginning on or after June 1, 2020, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the consolidated financial statements.

(b) Amendments to Korean IFRS 1109 Financial Instruments, Korean IFRS 1039 Financial Instruments: Recognition and Measurement, Korean IFRS 1107 Financial Instruments: Disclosure, Korean IFRS 1104 Insurance Contracts and Korean IFRS 1116 Lease – Interest Rate Benchmark Reform

In relation to interest rate benchmark reform, the amendments provide exceptions including adjust effective interest rate instead of book amounts when interest rate benchmark of financial instruments at amortized costs is replaced, and apply hedge accounting without discontinuance although the interest rate benchmark is replaced in hedging relationship. The amendments should be applied for annual periods beginning on or after January 1, 2021, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

(c) Amendments to Korean IFRS 1103 Business Combination – Reference to the Conceptual Framework

The amendments update a reference of definition of assets and liabilities qualify for recognition in revised Conceptual Framework for Financial Reporting. However, the amendments add an exception for the recognition of liabilities and contingent liabilities within the scope of Korea IFRS 1037 *Provisions, Contingent Liabilities and Contingent Assets*, and Korean IFRS 2121 *Levies*. The amendments also confirm that contingent assets should not be recognized at the acquisition date. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

(d) Amendments to Korean IFRS 1016 Property, Plant and Equipment - Proceeds before intended use

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

(e) Amendments to Korean IFRS 1037 Provisions, Contingent Liabilities and Contingent Assets - Onerous Contracts: Cost of Fulfilling a Contract

The amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts when assessing whether the contract is onerous. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

(f) Annual improvements to Korean IFRS 2018-2020

Annual improvements of Korean IFRS 2018-2020 Cycle should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

- Korean IFRS 1101 First time Adoption of Korean International Financial Reporting Standards –
 Subsidiaries that are first-time adopters
- Korean IFRS 1109 Financial Instruments Fees related to the 10% test for derecognition of financial liabilities
- Korean IFRS 1116 Leases Lease incentives
- · Korean IFRS 1041 Agriculture Measuring fair value
- (g) Amendments to Korean IFRS 1001 *Presentation of Financial Statements Classification of Liabilities as Current or Non-current*

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the expectations of management. Also, the settlement of liability include the transfer of the entity's own equity instruments, however, it would be excluded if an option to settle them by the entity's own equity instruments if compound financial instruments is met the definition of equity instruments and recognized separately from the liability. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

2.3 Consolidation

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

(a) Subsidiaries

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

The acquisition method of accounting is used to account for business combinations by the Group.

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

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

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

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

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

(b) Associates

Associates are entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting, after initially being recognized at cost. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. If the Group's share of losses of an associate equals or exceeds its interest in the associate (including long-term interests that, in substance, form part of the Group's net investment in the associate), the Group discontinues recognizing its share of further losses. After the Group's interest is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate. If there is 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.

2.4 Foreign Currency Translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities 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. They are deferred in other comprehensive income if they relate to qualifying cash flow hedges and qualifying effective portion of net investment hedges, or are attributable to monetary part of the net investment in a foreign operation.

Foreign exchange gains and losses that relate to borrowings are presented in the statement of profit or loss, within finance costs. All other foreign exchange gains and losses are presented in the statement of profit or loss within 'other income or other expenses'.

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

(c) Translation to the presentation currency

The results and financial position of foreign operations that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities for each statement of financial position presented are translated at the closing rate at the end of the reporting period,
- income and expenses for each statement of profit or loss are translated at average exchange rates, and
- All resulting exchange differences are recognized in other comprehensive income.

When the Company ceases to control a subsidiary, exchange differences that were recorded in equity are recognized in the consolidated statements of comprehensive income as part of the gain or loss on sale.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the Group, and translated at the closing rate at the end of the reporting period.

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.

(b) Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

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

A. Debt instruments

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

Amortized cost: Assets that are held for collection of contractual cash flows where those cash
flows represent solely payments of principal and interest are measured at amortized cost. A
gain or loss on a debt investment that is subsequently measured at amortized cost and is not
part of a hedging relationship is recognized in profit or loss when the asset is derecognized or

impaired. Interest income from these financial assets is included in '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 'other income or expenses' and impairment losses are presented in 'other expenses'.
- 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 'other income or expenses' 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 and 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.

(d) Recognition and Derecognition

Regular way purchases and sales of financial assets are recognized or derecognized on trade-date, the date on which the Group commits to purchase or sell the asset. Financial assets are

derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

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

(e) Offsetting of financial instruments

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

2.6 Derivative Instruments

Derivatives are initially recognized at fair value on the date 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 as 'other non-operating income (expenses)' or 'finance income (costs)' based on the nature of transactions. The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognized directly in other comprehensive income and the ineffective portion of the gain or loss on the hedging instrument is recognized in 'finance income (expenses)'. The effective portion of changes in the fair value of derivatives, previously deferred in other comprehensive income, is reclassified from capital to profit or loss on the time of repayment and when interest expenses are recognized.

2.7 Trade Receivables

Trade receivables are recognized initially at the amount of consideration that is unconditional, unless they contain significant financing components when they are recognized at fair value. Trade receivables are subsequently measured at amortized cost using the effective interest method, less loss allowance. (Note 9)

2.8 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the following method:

Type of inventory

Finished goods and work in process
Raw materials, merchandise and supplies
Materials in transit

Costing method

Weighted-average method Moving-weighted average method Specific identification method

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

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

2.10 Property, Plant and Equipment

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

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

	Useful lives
Buildings	13 - 60 years
Structures	2 - 50
Machinery	2 - 18
Vehicles	2 - 10
Tools, furniture and fixtures	2 - 30
Molds	8

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

2.11 Borrowing Costs

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

2.12 Government Grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions. Government grants related to assets are presented in the statement of financial position either by deducting the grant in arriving at the carrying amount of the asset, and government grants related to costs are deferred and recognized in the profit or loss over the period necessary to match them with the costs that they are intended to compensate.

2.13 Intangible Assets

Goodwill is measured as described in Note 2.3.(a), and carried at cost less accumulated impairment losses.

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

Software development costs that are internally generated by the Group are recognized as intangible assets when the criteria including technical feasibility and probability of generating future economic benefits are met. Membership rights are regarded as intangible assets with indefinite useful life and not amortized 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 lives

Industrial property rights	5 - 10 years
Other intangible assets and others	3 - 50
Brand and customer relationship	5 - 20

2.14 Investment Property

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

2.15 Impairment of Non-financial Assets

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

2.16 Trade and Other Payables

These amounts represent liabilities for goods and services provided to the Group prior to the end of reporting period which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition. Trade and other payables are presented as current liabilities, unless payment is not due within 12 months after the reporting period. They are recognized initially at their fair value and

subsequently measured at amortized cost using the effective interest method.

2.17 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.

2.18 Financial Guarantee Contracts

Financial guarantee contracts are recognized as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value, subsequently at the higher of following and recognized in the statement of financial position within 'other financial liabilities'.

- the amount determined in accordance with the expected credit loss model under Korean IFRS 1109 Financial Instruments and
- the amount initially recognized less, where appropriate, the cumulative amount of income recognized in accordance with Korean IFRS 1115 Revenue from Contracts with Customers

2.19 Provisions

Provisions for service warranties, make good obligation, and legal claims are recognized when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably

estimated. Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the end of the reporting period, and the increase in the provision due to the passage of time is recognized as interest expense.

2.20 Current and Deferred Tax

The tax expense for the period consists of current and deferred tax. Current 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 tax expense of 2020 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.

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 where the entity has a legally enforceable right to offset and intends either to settle on a net basis.

2.21 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 has been paid. The contribution is recognized as employee benefit expense when they are due.

A defined benefit plan is a pension plan that is not a defined contribution plan. Generally, post-employment benefits are payable after the completion of employment, and the benefit amount depended on the employee's age, periods of service or salary levels. The liability recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms approximating to the terms of the related obligation. Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in the period in which they occur, directly in other comprehensive income.

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

(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.

2.22 Revenue Recognition

(a) Identification of performance obligation

For the product sales contract, the Group separates contracts to identify a performance obligation from service rendered, apart from sales of goods or products. The Group determines standard warranty coverage periods per product and customer considering warranty periods required by law and others when entering into contracts with customers for the sales of products. If the Group provides an extended warranty beyond the standard warranty coverage period or a customer has the option to purchase an additional warranty separately, the warranty is recognized as revenue by identifying a separate performance obligation.

(b) Performance obligation at point in time

Revenue from sale of goods is recognized when products are delivered to the purchaser. Delivery occurs when the goods have been transferred to the specific location, the risks of obsolescence and loss have been transferred to the purchaser, and either the purchaser has accepted the goods

in accordance with the sales contract, the acceptance provisions have lapsed, or the Group has objective evidence that all criteria for acceptance have been satisfied.

The products are often sold with volume discounts and customers have a right to return faulty products. Accumulated experience is used to estimate and provide for the discounts and returns. The volume discounts are assessed based on anticipated annual purchases. The Group recognizes provisions for product warranties based on reasonable expectation reflecting warranty obligation rates incurred historically.

(c) Significant financial components

In general, the period between when the Group transfers a promised good or service to a customer and when the customer pays for that good or service is one year or less. In this case, the Group applies a practical expedient that does not adjust the promised amount of consideration for the effects of a significant financing component.

2.23 Leasees

(a) Lessor

Lease income from operating leases where the Group is a lessor is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognized as expense over the lease term on the same basis as lease income. The respective leased assets are included in the statement of financial position based on their nature.

(b) Lessee

The Group leases various warehouses, equipment, cars and others. Lease contracts are typically made for fixed periods 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 standalone prices. However, for leases of real estate for which the Group is lessee, the Group applies the practical expedient which has elected not to separate lease and non-lease components and instead accounts for these as a single lease component.

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.

The Group determines the lease term as the non-cancellable period of a lease, together with both (a) periods covered by an option to extend the lease if the lessee is reasonably certain to exercise that option; and (b) periods covered by an option to terminate the lease if the lessee is reasonably certain not to exercise that option. When the lessee and the lessor each has the right to terminate the lease without permission from the other party, the Group should consider a termination penalty

in determining the period for which the contract is enforceable.

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

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

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 corporation, a subsidiary of the Group, which does not have recent
 third-party financing, and
- makes adjustments specific to the lease, for example term, country, currency and security.

If a readily observable amortizing loan rate is available to the individual lessee (through recent financing or market data) which has a similar payment profile to the lease, then the Group uses that rate as a starting point to determine the incremental borrowing rate.

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.

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 without a purchase option. Low-value assets comprise IT-equipment and small items of office furniture.

2.24 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.

2.25 Approval of Issuance of the Financial Statements

The consolidated financial statements 2020 were approved for issue by the Board of Directors on March 12, 2021 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 (Note 19).

(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. The new tax system is effective for three years from 2015. Accordingly, the measurement of current and deferred income tax is affected by the tax effects from the new 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 36).

(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 provisions 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 43).

(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 25).

(f) Provisions

The Group recognizes provision for warranty on products sold. The Group accrues provision for warranty based on the best estimate of amounts necessary to settle future and existing claims. The amounts are estimated based on past experience (Note 22).

(g) Valuation of inventories

Inventories are stated at the lower of cost and net realizable value. Estimates of net realizable value are based on the most reliable evidence available at the time the estimates are made, of the amount the inventories are expected to realize. These estimates take into consideration fluctuations of price or cost directly relating to past experience, current market conditions and events occurring after the end of the period to the extent that such events confirm conditions existing at the end of the period (Note 10).

(h) 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 17)

(i) Impact of Coronavirus disease 2019 ("COVID-19")

During 2020, the spread of Coronavirus disease 2019 ("COVID-19") has a material impact on the global economy. It may have a negative impact; such as, decrease in productivity, decrease or delay in sales, collection of existing receivables and others. Accordingly, it may have a negative impact on the financial position and financial performance of the Group.

Significant accounting estimates and assumptions applied in the preparation of the consolidated financial statements can be adjusted depending on changes in the uncertainty from COVID-19. Also, the ultimate effect of COVID-19 to the Group's business, financial position and financial performance cannot presently be determined.

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 consolidated financial statements. The Group is not subject to any externally imposed capital requirements.

The debt ratios as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)	2020		2019
Total liabilities	₩ 3,246,400	,366 ₩	2,977,390,790
Total equity	7,412,147	,522	7,187,217,114
Debt ratio	43.	80%	41.43%

- (b) The significant accounting policies and methods (including recognition, measurement and related gain and loss recognition) adopted for the Group's financial assets, financial liabilities and equity are detailed in Note 2. Financial instrument category for financial assets and financial liabilities at the end of the reporting period are detailed in Note 6.
- (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 these risks. The use of derivatives is decided in the observance of the Group's polices approved by the Board of 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 purpose of speculation.

The finance department of the Group reports the details quarterly to Financial Risk Management Committee that monitors 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.

2) Market risk

The Group's activities are mainly exposed to financial risks of changes in currency and interest rates. The Group makes various derivative contracts to manage the interest rate risk and foreign currency rate risk.

a) Foreign currency risk management

The Group is exposed to foreign exchange risk arising from foreign currency transactions. Currency exposures are managed within approved policy parameters by utilizing currency forward contracts.

The sensitivity analysis includes outstanding monetary items denominated in foreign currencies, and foreign exchange translations are adjusted based on assumption that Korean won has weakened/strengthened by 10% at the end of the reporting period. The sensitivity analysis includes monetary items denominated in foreign currencies.

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

(in thousands of Korear	n won)	2020		2019			
Weakened	₩	86,429,969	₩	64,500,5	13		
Strengthened		(86,429,969)		(64,500,51	13)		

In order to reduce the impact of changes in exchange rates on future cash flows, the Group entered into foreign currency forward contracts. The outstanding forward contracts as at December 31, 2020 are as follows:

(in thousands of THB, MYR, USD)	Maturity date	Selling currency (A)	Selling amount	Contract exchange rate(B/A)	Buying Currency (B)	Contractual inflow amount
MUFG and others	2021-05-12	THB	90,230	31	USD	2,913
JPM-MY and others	2021-06-30	MYR	41,466	4	USD	9,961

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.

The table below summarizes the impact of increases/decreases of interest rate in borrowings with floating interest rate on the Group's pre-tax profit for the year. The analysis is based on the assumption that the interest rate has increased/decreased by 10 basis point with all other variables held constant.

(in thousa	nds of	Impact on profit before tax							
Korean won)		-	2020	2019					
10 bp	Increase	₩	214,091	₩	447,802				
	Decrease		(214,091)		(447,802)				

The Group is applying cash flow hedge accounting by entering into currency swap contracts, which uses fixed exchange rates when repaying the principal of foreign debentures. The outstanding currency swap contract at December 31, 2020 is as follows:

(in thousands of USD)	Contract amount	Agreed Interest rate (%)	Payment interest rate – (KRW) (%)	Receipt interest rate (USD) (%)	Contract date	Contract maturity
Korea Develop Bank	USD 300,000	1061.5~1071.9	2.61~2.64	3.50	2018-01-25 ~2018-01-30	2023-01-30
SMBC	USD 100,000	1226.0	1.17	Libor (3M) +1.17%	2020-05-15	2023-05-15

For currency rate swap contracts, losses on valuation of derivatives amount to \W5,538,152 thousand (Note 8) after applying the tax effect, and gains on valuation of derivatives amounting \W491,496 thousand is recognized in profit or loss for the year ended December 31, 2020.

In addition, the Group entered into an interest rate swap contract to hedge the risk of interest rate fluctuations related to borrowings from overseas subsidiaries, and the details of the derivative contract are as follows:

(in thousands of USD)	Contract date	Expiration date	Contracted amount (USD)	Interest rate (received) (%)	Interest rate (paid (%)
Credit Agricole	2020-07-01	2023-04-17	80,000	3M Libor	1.25

c) Other price risks

The Group is exposed to equity securities 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 equity securities price has increased/decreased by 5%, the Group's other comprehensive income would be increased/decreased by ₩1,959,023 thousand (2019: ₩1,970,711 thousand) due to changes in financial assets at fair value.

3) Credit risk management

Credit risk refers to risk of financial losses to the Group when the counterpart defaults on the

obligations of the contracts. The Group has adopted a policy of only dealing with creditworthy counterparties and obtaining sufficient collateral, where appropriate, as a means of mitigating the risk of financial loss from defaults. The Group only deals with the customers rated higher than investment grade by the independent credit rating agencies. If those grades are not available, customers' credit is evaluated upon their other financial information, sales figures and other factors posted publicly. The Group regularly monitors customers' credit ratings, checks on the credit risk exposure and readjusts deposit or aggregate amount of transactions. The aggregate risks are allocated to total portfolio of approved customers for diversification effect that are reviewed and approved annually by Financial Risk Management Committee.

Credit ratings of trade receivables are evaluated constantly and credit guarantee contracts are made, if necessary. The maximum exposure to credit risk is not disclosed as the book amount of financial assets exposed to credit risk are the best presentation of the maximum exposure to credit risk.

4) 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. Note 41 explains details of unused balances of credit facility agreements entered through the Group's discretion to reduce the liquidity risk.

a) Details of liquidity and interest rate risk

The table below discloses remaining contractual maturity of non-derivative financial liabilities and derivatives which will be settled net in cash in detail. Derivatives which will be settled net in cash consist of interest swap contract to manage interest risk of the Group. The table below is prepared based on undiscounted cash flow of non-derivative financial liabilities. Contractual maturity is based on the earliest day when the payment can be claimed to the Group.

(in thousands of Korean	2020											
won)			Contractual cash			Residual amount						
	Во	ook amount	unt flows		W	Within 1 year 1 to 2 years		2 to 5 years		Over 5 years		
Trade payables	₩	369,877,209	₩	369,877,209	₩	369,877,209	₩	-	₩	-	₩	-
Non-trade payables		298,776,511		298,776,511		298,776,511		-		-		-
Accrued expenses		293,879,305		293,879,305		293,879,305		-		-		-
Dividends payable		23,299		23,299		23,299		-		-		-
Leasehold deposits												
received		30,786,439		32,937,678		3,116,268		1,703,438	28,11	7,972		-
Short-term borrowings		473,600,182		474,132,829		474,132,829		-		-		-
Long-term borrowings		163,200,000		169,080,640		2,352,256		2,352,256	164,37	6,128		-
Debentures		733,071,261		781,589,638		17,213,505		17,213,505	747,16	2,628		-
Lease liabilities		349,140,066		410,356,250		60,316,344		13,033,014	138,28	1,241		198,725,651
	₩	2,712,354,272	₩	2,830,653,359	₩ .	1,519,687,526	₩	34,302,213	₩ 1,077,93	7,969	₩	198,725,651

(in thousands of Korean	2019											
won)			Co	ntractual cash				Residual	amo	unt		
	Вс	ook amount		flows	W	ithin 1 year	1 t	o 2 years	2	to 5 years	Over 5	years
Trade payables	₩	348,487,484	₩	348,487,484	₩	348,487,484	₩	-	₩	-	₩	-
Non-trade payables		276,751,745		276,751,745		276,751,745		-		-		-
Accrued expenses		258,552,547		258,552,547		258,552,547		-		-		-
Dividends payable		20,584		20,584		20,584		-		-		-
Leasehold deposits												
received		2,860,871		2,860,871		2,543,147		317,724		-		-
Short-term borrowings		710,936,751		712,369,247		712,369,247		-		-		-
Long-term borrowings		104,024,000		106,010,090		59,236,247		46,773,843		-		-
Debentures		595,252,876		634,081,212		263,225,965		12,156,900		358,698,347		-
Lease liabilities		308,777,722		368,342,567		47,206,873		148,930,316		172,205,378		-
	₩	2,605,664,580	₩	2,707,476,347	₩	1,968,393,839	₩ 2	208,178,783	₩	530,903,725	₩	_

As at December 31, 2020, gross settlement contracts consist of currency forward contract, which will be settled within 11 months. This contract is not included in above table and non-discounted contractual cash inflow/outflow from the contract is as follows:

(in thousands of Korean won)		2020	2019		
Contractual cash inflow	₩	14,007,690 ₩	213,137,205		
Contractual cash outflow		14,454,543	210,640,116		

5. Fair Value

For the year ended December 31, 2020, there were no changes in business environment and economic environment that have significant impacts on the fair value of assets and liabilities of the Group.

5.1 Fair Value of Financial Instruments by Category

Carrying amount and fair value of financial instruments by category as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020			2019			
		Carrying amount	Fair value		Carrying amount		Fair value	
Financial assets								
Financial assets at fair value								
through other								
comprehensive income	₩	39,697,511	₩	39,697,511	₩	40,314,271	₩	40,314,271
Financial assets at fair value		553,188,099		553,188,099		8,140,000		8,140,000

(in thousands of Korean won)	202	0	2019			
	Carrying amount	Carrying Fair value amount Fair va				
through profit or loss						
Financial derivative assets	14,191,707	14,191,707	32,931,747	32,931,747		
Financial liabilities						
Debentures	733,071,261	749,444,230	595,252,876	618,096,646		
Long-term borrowings	163,200,000	169,060,755	104,024,000	104,024,000		
Financial derivative liabilities	14,915,562	14,915,562	1,200,706	1,200,706		

Financial assets including trade and non-trade receivables, and financial liabilities at amortized cost except for debentures and long-term borrowings whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

5.2 Fair value Hierarchy

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

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

Fair value hierarchy classifications of the financial instruments that are measured at fair value or its fair value is disclosed as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)	2020						
	Level 1	Level 2	Level 3	Total			
Recurring fair value							
measurements							
Equity instruments at fair							
value through other							
comprehensive income	₩ 39,697,511 ₩	- ₩	- ₩	39,697,511			
Financial assets at fair value							
through profit or loss	-	540,757,099	12,431,000	553,188,099			
Financial derivative assets	-	14,191,707	-	14,191,707			
Financial derivative liabilities	-	14,915,562	-	14,915,562			
Debentures	-	749,444,230	-	749,444,230			
Long-term borrowings	-	169,060,755	-	169,060,755			
<i>"</i>							
(in thousands of Korean won)		2019					
	Level 1	Level 2	Level 3	Total			
Recurring fair value measurements							
Equity instruments at fair value through other	₩ 40,314,271 ₩	∀ - ₩	- ₩	40,314,271			

(in thousands of Korean won)		2019		
comprehensive income				
Financial assets at fair value				
through profit or loss	-	-	8,140,000	8,140,000
Financial derivative assets	-	32,931,747	-	32,931,747
Financial derivative liabilities	-	1,200,706	-	1,200,706

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 instrument during the reporting period.

5.4 Valuation Technique and the Inputs

Valuation techniques and inputs used in level 2 and level 3 fair value measurements are as follows:

2020

			2020	
(in thousands of Korean won)	Fair value	Level	Valuation techniques	Inputs
Financial derivative assets				
Currency swap	₩ 14,191,680	2	Discounted cash flow model	Discount rate, exchange rate
Currency forward contract	27	2	Discounted cash flow model	Discount rate, exchange rate
Financial derivative liabilities				
Currency swap	13,266,161	2	Discounted cash flow model	Discount rate, exchange rate
Currency forward contract	1,391,947	2	Discounted cash flow model	Discount rate, exchange rate Underlying asset price, credit risk
Interest rate swap	257,455	2	Option pricing model	adjusted discount rate, underlying asset variability
Financial assets at fair value throu	ugh other comprehen	sive incon	ne	
MMDA and others	540,757,099	2	Discounted cash flow model	Discount rate, exchange rate
Beneficiary certificates	12,431,000	3	Transaction costs	-
Borrowings				
Debentures	749,444,230	2	Discounted cash flow model	Credit risk adjusted discount rate
Long-term borrowings	169,060,755	2	Discounted cash flow model	Credit risk adjusted discount rate
			2019	
(in thousands of Korean won)	Fair value	Level	Valuation techniques	Inputs
Financial derivative assets				
Currency swap	₩ 28,787,418	2	Discounted cash flow model	Discount rate, exchange rate
Currency forward contract	4,144,329	2	Discounted cash flow model	Discount rate, exchange rate
Financial derivative liabilities				
Currency forward contract	1,200,706	2	Discounted cash flow model	Discount rate, exchange rate
Financial assets at fair value throu	ugh other comprehen	sive incon	ne	
Beneficiary certificates	8,140,000	3	Transaction costs	-
Borrowings				

Debentures	618,096,646	2	Discounted cash flow model	Credit risk adjusted discount rate
Long-term borrowings	104,116,384	2	Discounted cash flow model	Credit risk adjusted discount rate

6. Financial Instrument by Category

6.1 Carrying Amounts of Financial Instruments by Category

Categorizations of financial assets and liabilities as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)

			2020		2019
Financial assets					
Other financial assets	Financial derivative assets	₩	14,191,707	₩	32,931,747
Financial assets at fair value through other comprehensive income	Financial assets at fair value through other comprehensive income		39,697,511		40,314,271
Financial assets at fair value through profit or	Financial assets at fair value through profit or loss				
loss	value through profit or loss		553,188,099		8,140,000
Financial assets at	Cash and cash equivalents		1,060,864,709		877,600,276
amortized cost	Short-term financial assets		239,826,957		33,134,195
	Trade receivables (current)		1,211,167,806		1,257,025,698
	Trade receivables (non-				
	current)		26,305,798		3,462,263
	Non-trade receivables				
	(current)		99,913,992		117,375,414
	Non-trade receivables (non-				
	current)		36,449,464		15,492,364
	Accrued income		3,301,367		2,464,930
	Deposits provided (current)		2,994,679		2,601,026
	Deposits provided (non-				
	current)		79,153,717		11,300,731
	Short-term loans		2,497,415		14,682,866
	Long-term loans		3,759,076		5,743,251
	Long-term financial assets		257,000		17,000
		₩	3,373,569,297	₩	2,422,286,032

(in thousands of Korean won)

			2020		2019
Financial liabilities					
Other financial					
liabilities	Financial derivative liabilities	₩	14,915,562	₩	1,200,706
Financial liabilities	Trade payables		369,877,209		348,487,484
at amortized cost	Non-trade payables		298,776,511		276,751,745
	Accrued expenses ²		229,087,737		212,675,486

Dividends payable		23,299		20,584
Borrowings (current)		314,460,042		755,446,937
Borrowings (non-current)		896,271,261		391,595,044
Leasehold deposits received				
(current)		3,116,268		2,543,147
Leasehold deposits received				
(non-current)		27,670,171		317,724
Facility guarantee deposits		440,000		426,800
Non-controlling interests		3,518,026		4,750,000
Collateral loan on trade				
receivables1		159,140,140		263,171,646
Other financial liabilities		20,631,939		20,631,939
	₩	2,337,928,165	₩	2,278,019,242

¹ The associated liability is measured in such a way that the net carrying amount of the transferred asset and the associated liability is the amortized cost of the rights and obligations retained by the transferred asset is measured at amortized cost.

6.2 Net Gains or Losses by Category of Financial Instruments

Net gains or losses on each category of financial instruments for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)

	2020			2019
Financial derivative assets, liabilities				
Gains (losses) on valuation of derivatives	₩	(1,436,756)	₩	3,974,672
Losses on transaction of derivatives		(4,031,910)		(43,982,060)
Cash flow hedges (after tax other				
comprehensive income)		5,538,152		6,246,556
Equity instruments at fair value through other				
comprehensive income				
Gains (losses) on valuation (after tax other				
comprehensive income)		6,631,507		(5,967,847)
Debt instruments at fair value through other				
comprehensive income				
Losses on valuation		(87,556)		(1,949)
Debt instruments at fair value through profit or loss				
Gains on valuation		10,855		-
Financial assets at amortized cost				
Interest income		14,800,167		14,075,343
Gains (losses) on foreign currency transaction		(11,858,803)		105,540,974
Gains (losses) on foreign currency translation		(30,759,782)		284,128
Impairment loss		(13,245,486)		(6,356,557)

² Payables related to employee benefits are excluded.

inancial liabilities at amortized cost				
Interest expense		(37,579,501)		(47,715,834)
Losses on foreign currency transaction		(8,636,428)		(46,937,260)
Gains on foreign currency translation		7,145,955		4,025,436
	₩	(73,509,586)	₩	(16,814,398)

7. Financial Assets

7.1 Financial Assets at Fair Value through Profit or Loss

(a) Equity instruments at fair value through profit or loss

There are no equity instruments at fair value through profit or loss held by the Group as at December 31, 2020.

(b) Debt instruments at fair value through profit or loss

Debt instruments at fair value through profit or loss as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020	2019		
Current					
MMDA and others	₩	406,933,099	₩	-	
Non-current					
MMDA and others		133,824,000		-	
Beneficiary certificates		12,431,000		8,140,000	
	₩	553,188,099	₩	8,140,000	

7.2 Financial Assets at Fair Value through Other Comprehensive Income

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

Equity instruments at fair value through other comprehensive income as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)	2020	2019		
Non-current				
Listed shares and others ¹	₩	39,697,511	₩	40,314,271
	₩	39,697,511	₩	40,314,271

¹ Upon disposal of these equity investments, the accumulated other comprehensive income for

these equity investments is reclassified to retained earnings and is not reclassified to profit or loss.

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

There are no debt instruments at fair value through other comprehensive income held by the Group as at December 31, 2020. Upon disposal of the debt instruments, the accumulated other comprehensive income is reclassified to profit or loss.

8. Derivative Financial Instruments

Details of derivative financial instruments not applying hedge accounting as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		20			2019			
	As	ssets	L	iabilities		Assets	L	iabilities
Interest rate swap	₩	-	₩	257,455	₩	-	₩	-
Currency forward contracts		27		1,391,947		4,144,329		1,200,706
	₩	27	₩	1,649,402	₩	4,144,329	₩	1,200,706

Details of derivative financial instruments applying cash flow hedge accounting as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020			2019			
		Assets		Liabilities		Assets	Liabilities	•
Cash flow hedges (currency swap) ¹	₩	14,191,680	₩	13,266,161	₩	28,787,418	₩	_

¹ As a result of applying cash flow hedge accounting, recognized in other comprehensive income after tax for the years ended December 31, 2020 and 2019 is as follows:

(in thousands of Korean won)			2020				
	Changes in value of derivative (after tax)		Line items in the statements of profit or loss	Reclassified amount in profit or loss (after tax)		other o	nized amount in comprehensive income after tax)
	₩	(21,081,547)	Interest expense and Foreign exchange differences	₩	26,619,699	₩	5,538,152

(in thousands of Korean won)			2019				
	Changes in value of derivative (after tax)		Line items in the statements of profit or loss	Reclassified amount in profit or loss (after tax)		Recognized amount in other comprehensive income (after tax)	
			Interest expense and Foreign exchange				
	₩	15,041,878	differences	₩	(8,795,322)	₩	6,246,556

9. Trade and Other Receivables

(in thousands of Korean won)

Details of trade and other receivable as at December 31, 2020 and 2019, are as follows:

	Gross amount			Less: loss allowance	Net amount		
O							
Current		4 007 074 000	\ A /	(40 504 000)	\ A /	4 0 4 4 4 0 7 0 0 0	
Trade receivables	₩	1,227,671,828	₩	(16,504,022)	₩	1,211,167,806	
Non-trade receivables		100,323,026		(409,034)		99,913,992	
Accrued income		3,301,367		-		3,301,367	
	₩	1,331,296,221	₩	(16,913,056)	₩	1,314,383,165	
Non-Current		_		_		_	
Trade receivables	₩	29,066,572	₩	(2,760,774)	₩	26,305,798	
Non-trade receivables		36,449,464		-		36,449,464	
	₩	65,516,036	₩	(2,760,774)	₩	62,755,262	
(in thousands of Korean won)				2019			
				Less: loss			
	G	ross amount		allowance		Net amount	
Current	G	ross amount		allowance		Net amount	
Current Trade receivables			₩		₩		
Trade receivables	G ₩	1,265,490,381	₩	(8,464,683)	₩	1,257,025,698	
Trade receivables Non-trade receivables		1,265,490,381 117,480,491	₩		₩	1,257,025,698 117,375,413	
Trade receivables		1,265,490,381	₩	(8,464,683)	₩	1,257,025,698	
Trade receivables Non-trade receivables	₩	1,265,490,381 117,480,491 2,464,930		(8,464,683) (105,078)		1,257,025,698 117,375,413 2,464,930	
Trade receivables Non-trade receivables Accrued income	₩	1,265,490,381 117,480,491 2,464,930		(8,464,683) (105,078)		1,257,025,698 117,375,413 2,464,930	
Trade receivables Non-trade receivables Accrued income Non-Current	₩	1,265,490,381 117,480,491 2,464,930 1,385,435,802	₩	(8,464,683) (105,078)	₩	1,257,025,698 117,375,413 2,464,930 1,376,866,041	
Trade receivables Non-trade receivables Accrued income Non-Current Trade receivables	₩	1,265,490,381 117,480,491 2,464,930 1,385,435,802 3,462,263	₩	(8,464,683) (105,078)	₩	1,257,025,698 117,375,413 2,464,930 1,376,866,041 3,462,263	

Movements on the provision for impairment of trade receivables and other receivables for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020	
		Non-trade	_
	Trade receivables	receivables	Total

Beginning balance Net impairment loss Write-offs Exchange differences	₩	8,464,683 12,943,195 (3,741,721)	₩	105,078 302,291 -	₩	8,569,761 13,245,486 (3,741,721)
Exchange differences		(1,162,135)		1,664		(1,160,471)
Ending balance	₩	16,504,022	₩	409,033	₩	16,913,055

(in thousands of Korean won)	2019							
	Trad	e receivables		Non-trade receivables		Total		
Beginning balance	₩	9,156,936	₩	107,211	₩	9,264,147		
Net impairment loss		1,923,931		(2,373)		1,921,558		
Write-offs		(2,586,098)		240		(2,585,858)		
Exchange differences		(30,086)		-		(30,086)		
Ending balance	₩	8,464,683	₩	105,078	₩	8,569,761		

Credit risk and loss allowance

The above trade and other receivables are measured at amortized cost. Changes in loss allowance of trade and other receivables for the year ended December 31, 2020 are not significant. The Group considers changes in credit ratings of trade receivables from the commencement date of the credit granting to the end of the reporting period in determining the recoverability of the trade receivables.

10. Inventories

Details of inventories as at December 31, 2020 and 2019 are as follows:

(in thousands of	D	ecember 31, 2020	2020				
Korean won)	Acquisition cost	Inventory valuation	Inventory valuation allowance	Exchange differences	Valuation loss (reversal)		
Finished goods	₩ 1,100,893,002	₩ 1,082,369,982	₩ 18,523,019	₩ 233,663	₩ (5,036,918)		
Merchandise	37,292,375	37,292,375	-	-	-		
Work in process	39,548,819	39,548,819	-	-	-		
Raw materials	236,289,050	236,289,050	-	-	-		
Supplies	41,251,175	41,251,175	-	-	-		
Materials in transit	126,013,399	126,013,399					
	₩ 1,581,287,820	₩ 1,562,764,800	₩ 18,523,019	₩ 233,663	₩ (5,036,918)		
(in thousands of		December 31, 201	9	2019			
Korean won)	Acquisition cost	Inventory valuation	Inventory valuation allowance	Exchange differences	Valuation loss (reversal)		
Finished goods	₩ 1,202,329,616	₩ 1,179,003,342	₩ 23,326,274	₩ 1,071,531	₩ 14,300,429		

Merchandise	35,512,831	35,512,831		-		-	-
Work in process	43,797,863	43,797,863		-		-	-
Raw materials	314,012,980	314,012,980		-		-	-
Supplies	43,890,567	43,890,567		-		-	-
Materials in transit	109,175,891	109,175,891				_	
	₩ 1,748,719,748	₩ 1,725,393,474	₩	23,326,274	₩	1,071,531	₩ 14,300,429

The Group recognizes loss from inventory valuation and inventory shrinkage as expenses in the year in which the loss occurs. In addition, reversal of inventory write-downs due to an increase in the net realizable value of inventory assets is deducted from cost of sales recognized as an expense in the year in which the reversal occurs.

11. Other Financial Assets

Details of other financial assets as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		20	20			20	19	
		Current	N	on-current		Current	N	on-current
Loans Guarantee deposits	₩	2,497,415	₩	3,759,076	₩	14,682,866	₩	5,743,251
provided Financial derivative		2,994,679		79,153,717		2,601,026		11,300,731
assets		27		14,191,680		4,144,329		28,787,418
Lease receivables		3,441,746		37,822,721		5,708,690		31,548,799
	₩	8,933,867	₩	134,927,194	₩	27,136,911	₩	77,380,199

Movements on the provision for impairment of loans for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Beginning Balance Additional provisions	₩	5,000,000	₩	565,000
(reversed)		(3,000,000)		4,435,000
Ending Balance	₩	2,000,000	₩	5,000,000

12. Other Assets

Details of other assets as at December 31, 2020 and 2019, are as follows:

(in thousands of				
Korean won)	2	2020	2	019
	Current	Non-current	Current	Non-current

Advance payments Prepaid expenses Net defined benefit	₩	7,317,830 22,173,146	₩	- 17,393,125	₩	8,587,700 20,177,604	₩	49,093,050 21,960,167
assets		-		11,262,412		-		49,364
Others		27,297,866		127,908		44,818,615		147,218
	₩	56,788,842	₩	28,783,445	₩	73,583,919	₩	71,249,799

13. Investment in Associates

Details of the Group's investment in associates as at December 31, 2020 and 2019, are as follows:

(in thousands of					20	20
Korean won)	Closing month	Location	Number of shares	Percentage of ownership (%)	Acquisition cost	Book amount
Hanon Systems Co., Ltd. ^{1,2}	December	Korea	104,031,000	19.49	₩ 1,061,740,386	₩ 1,069,108,719
Peaches Group Korea Co., Ltd. ^{2,3}	December	Korea	1,311	8.43	520,827	520,827
Daemyeong Tech Won Co., Ltd.	December	Korea	980	49.00	1,147,000	934,394
TOWNZ Co., Ltd. ²	December	Korea	2,200	18.00	220,000	220,000
				_	₩ 1,063,628,213	₩ 1,070,783,940
(in thousands of					20	19
Korean won)	Closing month	Location	Number of shares	Percentage of ownership (%)	Acquisition cost	Book amount
Hanon Systems Co., Ltd. ^{1,2}	December	Korea	104,031,000	19.49	₩ 1,061,740,386	₩ 1,104,583,999
Peaches Group Korea Co., Ltd. ^{2,3}	December	Korea	1,311	6.26	519,412	519,412
Daemyeong Tech Won Co., Ltd.	December	Korea	980	49.00	1,147,000	1,147,000
				-	₩ 1,063,406,528	₩ 1,106,250,141

 $^{^1}$ As at December 31, 2020, the fair value of marketable investment in associates is \$1,690,503,750 thousand (2019: \$1,159,945,650 thousand).

² Even though the Group's equity interest in this entity is less than 20%, the investment was classified as investment in associates as the Group has authority to most of the associate's business operation (election of directors, etc.) by contract between shareholders.

³ As a redeemable convertible preference share, with the ability to exercise significant influence, it was classified as investment in associates. However, as a debt instrument, the equity method of accounting is not applied.

The table below provides summarized financial information for those associates that are material to the Group and received dividends from the associates.

(in thousands of				2020			
Korean won)	Assets	Liabilities	Equity	Sales	Profit (loss) for the year	Total comprehensive income (loss)	Dividend received
Hanon Systems Co., Ltd. Daemyeong Tech	₩ 7,807,411,034	₩ 5,567,975,657	₩ 2,239,435,377	₩ 6,872,832,577	₩ 113,459,525	₩ 46,889,698	₩ 29,544,804
Won Co., Ltd.	2,129,985	224,727	1,905,258	1,634,867	(431,631)	(431,631)	-
(in thousands of				2019			
Korean won)	Assets ¹	Liabilities ¹	Equity ¹	Sales	Profit (loss) for the year	Total comprehensive income (loss)	Dividend received
Hanon Systems Co., Ltd. Daemyeong Tech	₩ 7,082,369,013	₩ 4,744,866,816	₩ 2,337,502,197	₩ 7,154,152,589	₩ 322,613,423	₩ 354,824,443	₩ 33,289,920
Won Co., Ltd.	4,395,186	2,058,513	2,336,673	-	(2,258)	(2,258)	-

¹ Amounts of assets, liabilities and equity as at December 31, 2019

Details of the valuation of equity-accounted investees of the Group as at December 31, 2020 and 2019, are as follows:

(in thousands of				202	0			
Korean won)		Share of profit			Exchange			
		of associates			differences on			
		accounted for	Net defined		translating			
	Beginning	using the equity	benefit	Cash flow	foreign			
	balance	method	liabilities	hedges	operations	Dividend	Others	Ending balance
Hanon Systems								
Co., Ltd.	₩ 1,104,583,999	₩ 5,403,260	₩ (4,511,547)	₩ 4,147,215	₩ (13,189,792)	₩ (29,544,804)	₩ 2,220,388	₩ 1,069,108,719
Peaches Group								
Korea Co., Ltd.	519,142	-	-	-	-	-	1,685	520,827
Daemyeong Tech								
Won Co., Ltd.	1,147,000	(212,606)	-	-	-	-	-	934,394
TOWNZ Co., Ltd.							220,000	220,000
	₩ 1,106,250,141	₩ 5,190,654	₩ (4,511,547)	₩ 4,147,215	₩ (13,189,792)	₩ (29,544,804)	₩ 2,442,073	₩ 1,070,783,940
(in thousands of				201	9			
(in thousands of Korean won)		Share of profit		201	9 Exchange			
•		Share of profit of associates		201				
•		-	Net defined	201	Exchange			
•	Beginning	of associates	Net defined benefit	201 Cash flow	Exchange differences on			Ending
•	Beginning balance	of associates accounted for			Exchange differences on translating	Dividend	Others	Ending balance
•		of associates accounted for using the equity	benefit	Cash flow	Exchange differences on translating foreign	Dividend	Others	•
Korean won)		of associates accounted for using the equity	benefit liabilities	Cash flow	Exchange differences on translating foreign operations	Dividend ₩ (33,289,920)		•
Korean won) Hanon Systems	balance	of associates accounted for using the equity method	benefit liabilities	Cash flow hedges	Exchange differences on translating foreign operations			balance
Korean won) Hanon Systems Co., Ltd.	balance	of associates accounted for using the equity method	benefit liabilities	Cash flow hedges	Exchange differences on translating foreign operations			balance
Hanon Systems Co., Ltd. Peaches Group	balance	of associates accounted for using the equity method	benefit liabilities	Cash flow hedges	Exchange differences on translating foreign operations		₩ 296,270	balance ₩ 1,104,583,999
Hanon Systems Co., Ltd. Peaches Group Korea Co., Ltd.	balance	of associates accounted for using the equity method	benefit liabilities	Cash flow hedges	Exchange differences on translating foreign operations		₩ 296,270	balance ₩ 1,104,583,999

14. Investment in Subsidiaries

The summarized financial information of the subsidiaries as at and for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020				
				Profit (loss)		
	Assets	Liabilities	Sales	for the year		
Hankook Tire America Corp.	₩ 923,537,938	₩ 549,222,341	₩ 1,508,421,494	₩ 5,103,477		
Hankook Tire Canada Corp.	61,103,742	39,022,086	126,954,235	(473,798)		
Hankook Tire DE Mexico, S.A. DE						
C.V.	64,287,926	60,711,151	121,298,495	(33,375)		
Hankook Tire de Colombia Ltda.	10,230,987	8,177,395	24,080,922	546,402		
Hankook Tire Manufacturing	077 400 477	000 044 050	000 004 400	(44.040.000)		
Tennessee LP	677,162,477	633,811,959	260,284,106	(11,340,029)		
Hankook Tire America Holdings I,	4 000 045			(202)		
LLC	1,892,315	-	-	(362)		
Hankook Tire America Holdings II,	106 127 107			(262)		
LLC Hankook Tire Latin America	186,437,487	-	-	(362)		
Distribution Center, S.A.	16,947,853	19,882,816	31,519,178	(1,830,798)		
Hankook Tire Latam, S.A.	232,618	114,203	530,801	30,372		
Hankook Tire Europe Holdings B.V.	792,166,974	3,427	330,001	242,927,440		
Hankook Tire Netherlands B.V.	142,235,370	112,590,456	236,560,891	4,589,679		
Hankook Tyre U.K. Ltd.	133,994,617	112,441,131	194,249,340	2,704,693		
Hankook Reifen Deutschland GmbH	217,461,906	180,767,117	521,948,880	(4,088,997)		
Hankook Tire France S.A.R.L.	105,086,237	89,548,085	206,816,938	832,130		
Hankook Tire Italia S.R.L.	153,422,366	136,384,545	160,645,348	(1,686,807)		
Hankook Espana S.A.	66,141,698	47,172,430	104,704,256	1,731,090		
Hankook Tire Europe GmbH	470,555,606	314,658,536	23,900,032	8,638,706		
Hankook Tire Hungary Ltd.	1,149,235,698	122,749,033	746,676,803	172,631,055		
Hankook Tire Budapest	.,,,	,,		,00.,000		
Kereskedelmi Kft	47,027,191	35,672,048	77,018,363	1,256,667		
Hankook Tire Rus LLC	51,724,923	47,576,805	133,921,035	1,485,381		
Hankook Tire Sweden AB	54,619,981	52,105,513	68,047,229	99,191		
Hankook Lastikleri A.S.	39,114,022	42,111,540	98,019,021	(2,589,393)		
Hankook Tire Polska Sp. z o.o.	39,983,348	33,739,251	86,549,912	(156,094)		
Hankook Tire Ceska Republika s.r.o.	19,609,174	15,144,717	48,085,232	46,660		
Hankook Tire Ukraine LLC	726,054	204,242	1,386,113	106,420		
Hankook Tire Japan Corp.	12,001,209	11,149,470	31,338,720	548,422		
Hankook Tyre Australia Pty. Ltd.	37,589,709	28,090,573	89,221,625	3,139,014		
PT. HANKOOK TIRE INDONESIA	614,918,432	80,404,612	398,695,130	21,305,585		
Hankook Tire Thailand Co., Ltd.	9,493,841	7,449,189	21,611,462	31,476		
Hankook Tires India Ilp.	725,202	593,256	3,288,492	(402,626)		
Hankook Tire Malaysia SDN.BHD.	9,609,595	15,562,361	27,307,351	910,756		
Hankook Tire Singapore PTE., Ltd.	157,705,458	149,483,831	2,823,334	914,939		
Hankook Tyre Australia Retail Pty.,						
Ltd ¹	118,965,309	58,881,505	27,101,528	1,931,187		
Hankook Tire China Co., Ltd.	1,278,639,810	106,404,431	535,222,920	32,973,655		
Jiangsu Hankook Tire Co., Ltd.	662,551,587	86,654,520	451,164,172	25,789,216		
Shanghai Hankook Tire Sales Co.,						
Ltd.	766,924,367	726,453,610	796,210,387	15,737,549		
Chongqing Hankooktire Co., Ltd.	417,947,186	250,738,266	310,127,680	7,027,112		

(in thousands of Korean won)		2020	1	
				Profit (loss)
	Assets	Liabilities	Sales	for the year
Beijing Jielun Trading Company Co.,				
Ltd.	1,429,019	1,572,546	35,199,064	59,345
Hankook Precision Works Co., Ltd.				
(formerly, MK Technology)	129,220,873	15,259,388	105,021,818	19,420,940
MK Mold (Jiaxing) Co., LTD.	16,535,147	2,214,711	16,148,480	2,866,738
MK Technology (CHONGQING)				
Mould Co., Ltd.	1,589,577	39,338	1,091,233	84,175
Model Solution Co., Ltd.	42,770,149	19,325,601	55,018,463	1,731,209
ModelSolution Inc.	863,890	857,545	3,434,222	(7,740)
Hankook Engineering Works				
(formerly, Daehwa Engineering &				
Machinery Co., Ltd.)	48,160,800	13,634,495	46,024,037	(2,397,692)
Hankook Donggeurami Partners				,
Co., Ltd.	1,805,251	1,382,488	5,174,769	117,920
KCG 1 Private Equity Fund limited				
partnership	17,786,237	1,477	-	840,839
Reifen-Muller KG	232,598,721	190,481,961	322,636,737	1,154,824
Reifen-Muller GmbH & Co.				
Runderneuerungswerk KG	23,843,694	2,100,622	20,319,393	4,232,445
RM Verwaltungs GmbH	202,152	103,778	856,934	26,057
RU Verwaltungs GmbH	132,365	57,994	398,883	20,566
Hankook Tire D.O.O. Beograd	331,819	450,897	1,101,169	57,501
Hankook Tire Austria GmbH	26,138,951	29,825,079	23,276,807	(2,625,792)
Hankook Tire Middle East and Africa				,
FZE	11,897,741	15,731,248	33,094,627	(1,864,154)
Hankook Tire Vietnam. Co., Ltd.	1,570,802	792,435	4,449,308	(57,405)
PT. HANKOOK TIRE SALES				,
INDONESIA	10,981,015	10,435,077	31,006,510	715,302
TNA Co., Ltd.	4,284,494	2,192,981	1,983,910	117,361
•				•

¹ Financial information including JAX Quickfit Franchising Systems Unit Trust., JAX Quickfit Franchising Systems Pty Ltd., JAX Quickfit Properties Pty Ltd., which are 100% owned by Hankook Tyre Australia Retail Pty., Ltd.

(in thousands of Korean won)		2019					
	Assets	Liabilities	Sales	Profit (loss) for the year			
Hankook Tire America Corp.	₩ 1,005,348,130	₩ 624,792,022	₩ 1,701,358,270	₩ (11,956,017)			
Hankook Tire Canada Corp.	68,603,366	45,273,229	149,835,807	427,563			
Hankook Tire DE Mexico, S.A. DE							
C.V.	78,324,712	73,605,680	119,647,605	1,411,073			
Hankook Tire de Colombia Ltda.	13,647,253	11,998,764	42,436,892	347,411			
Hankook Tire Manufacturing							
Tennessee LP	737,451,435	680,316,455	309,044,918	(48,281,707)			
Hankook Tire America Holdings I,							
LLC	1,893,261	-	-	(358)			
Hankook Tire America Holdings II,							
LLC	186,438,433	-	-	(358)			
Hankook Tire Latin America							
Distribution Center, S.A.	26,984,203	28,311,149	44,452,046	(265,306)			
Hankook Tire Latam, S.A.	209,295	113,084	371,238	•			
Hankook Tire Europe Holdings B.V.	545,323,457	4,341	-	170,152,227			
Hankook Tire Netherlands B.V.	126,954,737	102,661,354	270,874,418	•			
Hankook Tyre U.K. Ltd.	138,192,707	119,040,071	212,375,808				
Hankook Reifen Deutschland GmbH	286,121,429	246,512,165	473,618,159				
Hankook Tire France S.A.R.L.	82,040,003	67,807,489	213,739,284				
Hankook Tire Italia S.R.L.	138,561,567	120,443,038	181,279,767				
Hankook Espana S.A.	56,184,809	39,465,475	141,665,078				
Hankook Tire Europe GmbH	491,774,159	344,752,931	22,976,832				
Hankook Tire Hungary Ltd.	1,263,036,346	110,098,269	766,160,205	134,696,813			
Hankook Tire Budapest	47.040.040	00.040.000	00.450.044	(004 500)			
Kereskedelmi Kft	47,649,312	36,812,699	90,153,841	(294,562)			
Hankook Tire Rus LLC	72,984,704	70,000,543	151,469,030	,			
Hankook Tire Sweden AB	29,988,146	27,774,301	46,844,155	,			
Hankook Lastikleri A.S.	43,149,541	44,078,456	69,423,299	,			
Hankook Tire Polska Sp. z o.o.	36,300,263	29,635,924	85,151,560				
Hankook Tire Ceska Republika s.r.o.		24,349,619	79,956,337				
Hankook Tire Ukraine LLC	893,687	392,295	1,325,269				
Hankook Tire Japan Corp.	15,283,557	14,565,151	31,192,336	862,762			
Hankook Tyre Australia Pty. Ltd.	50,341,717	43,929,512	93,035,735	1,078,261			
PT. HANKOOK TIRE INDONESIA	634,743,169	84,166,428	455,856,996	10,101,574			
Hankook Tire Thailand Co., Ltd.	6,428,449	4,288,381	21,735,761	1,621,102			
Hankook Tires India Ilp.	3,281,866	2,741,241	4,762,653				
Hankook Tire Malaysia SDN.BHD.	10,014,476	17,165,747	29,610,558	, ,			
Hankook Tire Singapore PTE., Ltd.	170,742,238	162,890,871	4,648,959	1,689,369			
Hankook Tyre Australia Retail Pty.,	114 172 200	E7 006 72E	24 604 404	1 610 174			
Ltd	114,173,290	57,896,735	21,681,484	1,618,174			
Hankook Tire China Co., Ltd.	1,009,142,574	111,283,925	589,389,508				
Jiangsu Hankook Tire Co., Ltd.	621,706,072	85,810,570	488,767,849	13,216,327			
Shanghai Hankook Tire Sales Co.,	615 227 007	E00 00E 726	000 630 545	15 170 100			
Ltd.	615,227,987	590,005,736	808,638,545				
Chongqing Hankooktire Co., Ltd.	472,867,694	312,814,377	344,371,575	11,320,994			
Beijing Jielun Trading Company Co.,		0.047.000	20 750 000	(4.49.660)			
Ltd.	2,019,032	2,217,338	38,756,000	(148,666)			
Hankook Precision Works Co., Ltd.	117 140 204	10 640 047	111 000 040	12 710 000			
(formerly, MK Technology)	117,140,381	12,648,947	111,892,816	13,718,962			

(in thousands of Korean won)				
	Assets	Liabilities	Sales	Profit (loss) for the year
MK Mold (Jiaxing) Co., LTD.	23,242,899	2,060,362	17,758,680	4,093,963
MK Technology (CHONGQING)				
Mould Co., Ltd.	1,486,946	29,682	2,573,131	169,481
Model Solution Co., Ltd.	45,174,156	20,360,668	60,564,179	7,603,316
ModelSolution Inc.	1,582,356	1,566,784	3,508,579	(1,248,135)
Hankook Engineering Works				
(formerly, Daehwa Engineering &				
Machinery Co., Ltd.)	45,459,468	10,218,249	46,906,373	(6,784,659)
Hankook Donggeurami Partners				
Co., Ltd.	1,706,417	1,401,575	4,991,142	(173,802)
KCG 1 Private Equity Fund limited				
partnership	23,418,855	1,975	-	737,769
Reifen-Muller KG	239,869,354	198,479,134	294,801,425	(2,708,060)
Reifen-Muller GmbH & Co.				
Runderneuerungswerk KG	25,738,129	21,461,900	20,569,584	4,522,239
RM Verwaltungs GmbH	157,761	87,508	236,163	30,467
RU Verwaltungs GmbH	160,873	108,596	268,599	19,953
Hankook Tire D.O.O. Beograd	279,230	449,924	410,096	(184,229)
Hankook Tire Austria GmbH	11,032,213	12,075,997	1,603,638	(1,062,737)
Hankook Tire Middle East and Africa				
FZE	21,858,130	23,642,682	19,723,022	(2,379,089)
Hankook Tire Vietnam. Co., Ltd. PT. HANKOOK TIRE SALES	1,119,822	235,304	177,108	(172,489)
INDONESIA	12,064,575	11,833,623	10,353,375	11,993

15. Property, Plant and Equipment

Details of the book amount of property, plant and equipment as at December 31, 2020 and 2019, are as follows:

(ın tnousan	as or
Korean wor	1)

Korean won)			20	20		
	Ac	quisition cost	Accumulated depreciation	Accumulated impairment loss	В	Book amount
Land	₩	414,008,721	₩ -	₩ -	₩	414,008,721
Buildings		2,094,151,382	(608,691,924)	(6,581,832)		1,478,877,626
Structures		122,913,361	(70,433,668)	-		52,479,693
Machinery and equipment		4,928,107,449	(4,002,834,614)	-		925,272,835
Vehicles		111,755,837	(71,988,603)	-		39,767,234
Tools, furniture and						
fixtures		1,335,233,113	(892,820,375)	(1,549,276)		440,863,462
Machinery in transit		7,301,846	-	-		7,301,846
Construction in progress		146,962,339	-	-		146,962,339
Operating lease		29,453	(13,976)	-		15,477
Right-of-use assets		466,307,538	(70,249,581)			396,057,957
	₩	9,626,771,039	₩ (5,717,032,741)	₩ (8,131,108)	₩	3,901,607,190

(in thousands of Korean won)			20	19		
	Ac	quisition cost	Accumulated depreciation	Accumulated impairment loss	Е	Book amount
Land	₩	397,854,036	₩ -	₩ -	₩	397,854,036
Buildings		2,123,682,070	(563,498,299)	(6,582,035)		1,553,601,736
Structures		125,234,536	(68,600,707)	-		56,633,829
Machinery and equipment		4,947,875,290	(3,758,675,408)	-		1,189,199,882
Vehicles		104,629,430	(57,314,774)	-		47,314,656
Tools, furniture and						
fixtures		1,268,175,370	(845,951,438)	(1,962,103)		420,261,829
Machinery in transit		6,817,866	-	-		6,817,866
Construction in progress		162,393,982	-	-		162,393,982
Operating lease		7,772	(1,706)	-		6,066
Right-of-use assets		311,642,162	(40,225,368)			271,416,794
	₩	9,448,312,514	₩ (5,334,267,700)	₩ (8,544,138)	₩	4,105,500,676

Changes in property, plant and equipment for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of 2020 Korean won) Exchange Acquisition Disposal Beginning balance Depreciation Others 1 differences **Ending balance** Land¹ 397,854,036 34,430,361 ₩ (12,794,716) (5,480,960)414,008,721 Buildings 1,553,601,737 14,157,514 (635,552)(59,403,290) 2,371,264 (31,214,047)1,478,877,626 Structures 56,633,829 191,914 (184,547) (4,553,202) 504,260 (112,561) 52,479,693 Machinery and equipment 1,189,199,881 34,823,607 (1,380,767)(355,565,900)76,511,408 (18,315,394)925,272,835 4,570,134 (899,509) (12,452,792) 2,479,036 39,767,234 Vehicles 47,314,655 (1,244,290)Tools, furniture and 420,261,830 440,863,462 (15,835,880)(114,574,598) 84,981,027 (6,152,187)fixtures 72,183,270 Machinery in transit 6,817,867 6,074,006 (66, 256)(5,480,849)(42,922)7,301,846 Construction in (91,103) progress 162,393,981 152,912,226 (88,960)(168, 163, 805)146,962,339 Operating lease 6,066 21,681 (12,270)15,477 Right-of-use assets 271,416,794 156,578,787 (15,726,983) (55,346,019) 33,543,213 5,592,165 396,057,957 475,943,500 ₩ (34,818,454) ₩ (601,908,071) ₩ 13,950,838 ₩ (57,061,299) ₩ 4,105,500,676 ₩ 3,901,607,190

¹ Account transfers of land-use rights recognized as intangible assets to property, plant and equipment and account transfers of property, plant and equipment to assets held for sale are included.

Change in Beginning Beginning balance after Beginning balance after Acquisition Disposal Dis	(in thousands of									
Land W 403,234,312 W 403,234,312 W 403,234,312 W 269,598 W (6,251,231) W - W 76 W 601,281 01,595,001,737 01,595,001,737 01,595,001,737 01,595,001,737 01,595,001,737 01,595,33,180 01,387,444,958	Korean won)	,				2019				
Land W 403,234,312 W			_	-						
Land W 403,234,312 W - W 403,234,312 W 403,234,312 W 269,598 W (6,251,231) W - W 76 W 601,281 W 397,854,036 Buildings 1,711,661,341 (114,240,881) 1,597,420,460 2,950,441 (8,911,017) (59,027,240) 1,881,878 19,287,215 1,553,601,737 Structures 59,533,180 - 59,533,180 1,473,757 (47,783) (5,271,360) 438,743 507,292 56,633,829 Machinery and equipment 1,387,444,958 - 1,387,444,958 46,518,268 (7,131,800) (362,573,070) 93,860,908 31,080,617 1,189,199,881 Vehicles 48,991,624 - 48,991,624 7,555,214 (609,725) (11,440,038) 1,555,715 1,261,865 47,314,655 Tools, furniture and fixtures 450,474,947 - 450,474,947 49,579,088 (14,443,682) (115,333,700) 44,314,539 5,670,638 420,261,830 Machinery in transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856		Beginning	accounting	balance after					Exchange	
Buildings 1,711,661,341 (114,240,881) 1,597,420,460 2,950,441 (8,911,017) (59,027,240) 1,881,878 19,287,215 1,553,601,737 Structures 59,533,180 - 59,533,180 1,473,757 (47,783) (5,271,360) 438,743 507,292 56,633,829 Machinery and equipment 1,387,444,958 - 1,387,444,958 46,518,268 (7,131,800) (362,573,070) 93,860,908 31,080,617 1,189,199,881 Vehicles 48,991,624 - 48,991,624 7,555,214 (609,725) (11,440,038) 1,555,715 1,261,865 47,314,655 Tools, furniture and fixtures 450,474,947 - 450,474,947 49,579,088 (14,443,682) (115,333,700) 44,314,539 5,670,638 420,261,830 Machinery in transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794 assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794		balance	policies	adjustment	Acquisition	Disposal	Depreciation	Others	differences	Ending balance
Structures 59,533,180 - 59,533,180 1,473,757 (47,783) (5,271,360) 438,743 507,292 56,633,829 Machinery and equipment 1,387,444,958 - 1,387,444,958 46,518,268 (7,131,800) (362,573,070) 93,860,908 31,080,617 1,189,199,881 Vehicles 48,991,624 - 48,991,624 7,555,214 (609,725) (11,440,038) 1,555,715 1,261,865 47,314,655 Tools, furniture and fixtures 450,474,947 - 450,474,947 49,579,088 (14,443,682) (115,333,700) 44,314,539 5,670,638 420,261,830 Machinery in transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	Land	₩ 403,234,312	₩ -	₩ 403,234,312	₩ 269,598	₩ (6,251,231)	₩ -	₩ 76	₩ 601,281	₩ 397,854,036
Machinery and equipment 1,387,444,958 - 1,387,444,958 46,518,268 (7,131,800) (362,573,070) 93,860,908 31,080,617 1,189,199,881 Vehicles 48,991,624 - 48,991,624 7,555,214 (609,725) (11,440,038) 1,555,715 1,261,865 47,314,655 Tools, furniture and fixtures 450,474,947 - 450,474,947 49,579,088 (14,443,682) (115,333,700) 44,314,539 5,670,638 420,261,830 Machinery in transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease (1,706) 7,772 - 6,606 Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	Buildings	1,711,661,341	(114,240,881)	1,597,420,460	2,950,441	(8,911,017)	(59,027,240)	1,881,878	19,287,215	1,553,601,737
equipment 1,387,444,958 - 1,387,444,958 46,518,268 (7,131,800) (362,573,070) 93,860,908 31,080,617 1,189,199,881 Vehicles 48,991,624 - 48,991,624 7,555,214 (609,725) (11,440,038) 1,555,715 1,261,865 47,314,655 Tools, furniture and fixtures 450,474,947 - 450,474,947 49,579,088 (14,443,682) (115,333,700) 44,314,539 5,670,638 420,261,830 Machinery in transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - 153,856,454 - 153,856,454 (14,426,828) (15,155) - (1,706) 7,772 - 6,066 Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	Structures	59,533,180	-	59,533,180	1,473,757	(47,783)	(5,271,360)	438,743	507,292	56,633,829
Vehicles 48,991,624 - 48,991,624 7,555,214 (609,725) (11,440,038) 1,555,715 1,261,865 47,314,655 Tools, furniture and fixtures 450,474,947 - 450,474,947 49,579,088 (14,443,682) (115,333,700) 44,314,539 5,670,638 420,261,830 Machinery in transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - - - - - (1,706) 7,772 - 6,066 Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	Machinery and									
Tools, furniture and fixtures 450,474,947 - 450,474,947 49,579,088 (14,443,682) (115,333,700) 44,314,539 5,670,638 420,261,830 Machinery in transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - 0 - 0 - 0 - (1,706) 7,772 - 6,066 Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	equipment	1,387,444,958	-	1,387,444,958	46,518,268	(7,131,800)	(362,573,070)	93,860,908	31,080,617	1,189,199,881
and fixtures 450,474,947 - 450,474,947 49,579,088 (14,443,682) (115,333,700) 44,314,539 5,670,638 420,261,830 Machinery in transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - - - - - (1,706) 7,772 - 6,066 Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	Vehicles	48,991,624	-	48,991,624	7,555,214	(609,725)	(11,440,038)	1,555,715	1,261,865	47,314,655
Machinery in transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - - - - - (1,706) 7,772 - 6,066 Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	Tools, furniture									
transit 10,029,816 - 10,029,816 9,107,347 (49,232) - (12,340,051) 69,987 6,817,867 Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	and fixtures	450,474,947	-	450,474,947	49,579,088	(14,443,682)	(115,333,700)	44,314,539	5,670,638	420,261,830
Construction in progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - - - - - (1,706) 7,772 - 6,066 Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	Machinery in									
progress 153,856,454 - 153,856,454 147,268,284 (15,155) - (138,655,014) (60,588) 162,393,981 Operating lease - - - - - (1,706) 7,772 - 6,066 Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	transit	10,029,816	-	10,029,816	9,107,347	(49,232)	-	(12,340,051)	69,987	6,817,867
Operating lease - - - - - - 6,066 Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	Construction in									
Right-of-use assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	progress	153,856,454	-	153,856,454	147,268,284	(15,155)	-	(138,655,014)	(60,588)	162,393,981
assets - 295,494,528 295,494,528 22,434,100 (436,198) (51,559,227) - 5,483,591 271,416,794	Operating lease	-	-	-	-	-	(1,706)	7,772	-	6,066
	Right-of-use									
₩ 4 225 226 632 ₩ 181 253 647 ₩ 4 406 480 270 ₩ 287 156 007 ₩ (37 805 823) ₩ (605 206 341) ₩ (8 935 434) ₩ 63 901 898 ₩ 4 105 500 676	assets	-	295,494,528	295,494,528	22,434,100	(436,198)	(51,559,227)	-	5,483,591	271,416,794
11 7,220,221 11 101,200,071 11 7,700,700,213 11 201,100,031 11 (01,030,020) 11 (000,200,041) 11 (0,300,404) 11 00,301,030 11 4,100,000,010		₩ 4,225,226,632	₩ 181,253,647	₩ 4,406,480,279	₩ 287,156,097	₩ (37,895,823)	₩ (605,206,341)	₩ (8,935,434)	₩ 63,901,898	₩ 4,105,500,676

Line items including depreciation in the statements of profit or loss for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Cost of sales Selling and administrative expenses	₩	493,936,812	₩	498,820,312
(including research and development cost)		107,971,259		106,386,029
	₩	601,908,071	₩	605,206,341

Pledged assets as collaterals

As at December 31, 2020, a certain portion of the Group's property, plant and equipment (land, buildings and machinery) is pledged as collaterals for its credit line and others (Note 41).

16. Assets Held for Sale

On December 18, 2020, the Group decided to sell the Busan Logistics Center by approval of management, and as a result, the assets for sale are recorded as held for sale. The sales transaction is expected to be completed by December 2021.

(in thousands of Korean won)		2020	2019	
Disposal group				
Land	₩	37,734,720	₩	-

17. Lease

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

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

(in thousands of Korean won)		2020		2019
Right-of-use assets¹				
Land	₩	42,685,992	₩	10,373,752
Buildings		335,968,239		241,992,296
Machinery and equipment		5,408,833		5,848,058
Tools, furniture and fixtures		4,839,424		5,503,159
Vehicles		7,604,401		8,362,312
	₩	396,506,889	₩	272,079,577

 $^{^{1}}$ Included in the line item 'Property, plant and equipment', and 'Investment properties' in the statement of financial position (Notes 15 and 18). Additions to the right-of-use assets during the 2020 financial year were \forall 156,578,787 thousand.

(in thousands of Korean won)		2020		2019
Lease liabilities ¹				
Current	₩	54,729,684	₩	43,523,736
Non-current		294,410,383		265,253,986
	₩	349,140,066	₩	308,777,722

¹ Included in the line item 'borrowings' in the statement of financial position.

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

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

(in thousands of Korean won)		2020		2019
Depreciation of right-of-use assets				
Land	₩	362,101	₩	376,711
Buildings		48,889,169		45,745,518
Machinery and equipment		1,204,107		1,022,043
Tools, furniture and fixtures		433,081		349,294
Vehicles		4,457,560		4,244,566
	₩	55,346,018	₩	51,738,132
Interest expense relating to lease liabilities				
(included in finance costs)	₩	10,081,627	₩	9,648,818
Expense relating to short-term leases		3,751,935		1,866,192
Expense relating to leases of low-value assets		1,665,428		1,237,363
Expense relating to variable lease payments				
not included in lease liabilities		79,823,418		71,832,804

The total cash outflow for leases in 2020 is $\mbox{$W$}$ 148,971,843 thousand (2019: $\mbox{$W$}$ 129,361,927 thousand).

(c) 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)		2020		2019
Total minimum lease payments				
Within one year	₩	60,316,344	₩	45,526,496
Later than one year but not later than five years		151,314,255		146,962,784
Later than five years		198,725,651		165,605,015
		410,356,250		358,094,296
Unearned finance expense		61,216,185		49,316,576
Net minimum lease payments				
Within one year		54,729,684		43,523,736
Later than one year but not later than five years		133,646,752		133,295,929
Later than five years		160,763,630		131,958,054
	₩	349,140,065	₩	308,777,720

(d) As at December 31, 2020, total future minimum sublease receipts under non-cancellable subleases amount to \forall 42,213,190 thousand. The lease agreements do not include terms of renewal or purchase options, and there are no other restrictions imposed under lease

arrangements relating to dividends, additional debt and further leasing.

(e) Details of the lease receivables at the end of the reporting period are as follows:

(in thousands of Korean won)	2020			2019
Lease receivables_buildings	₩	41,264,468	₩	37,257,488

(f) The present value of the minimum lease payment and the gross investment amount of the lease receivables provided as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)

2020

				Present value of
		Gross investment	n	ninimum lease payment
Within one year	₩	4,249,374	₩	3,441,746
Later than one year but not				
later than five years		27,763,361		22,804,926
Later than five years		17,199,968		15,017,796
	₩	49,212,702	₩	41,264,468
				·
(in thousands of Korean won)			2019	9
(in thousands of Korean won)			2019	9
(in thousands of Korean won)			2019	9 Present Value of
(in thousands of Korean won)		Gross investment		
(in thousands of Korean won) Within one year	₩	Gross investment 6,222,646		Present Value of
	₩	6,222,646	n	Present Value of ninimum lease payment 6,133,147
Within one year	₩		n	Present Value of ninimum lease payment
Within one year Later than one year but not	₩	6,222,646	n	Present Value of ninimum lease payment 6,133,147

(g) Details of the unearned finance income at the end of the reporting period are as follows:

(in thousands of Korean won)		2020	2019		
Lease gross investment	₩	49,212,702	₩	43,715,832	
Lease net investment					
Present value of minimum lease payment Present value of unguaranteed residual		41,264,468		37,257,488	
values				<u>-</u>	
		41,264,468		37,257,488	
Unearned finance income	₩	7,948,235	₩	6,458,344	

18. Investment Properties

(in thousands of Korean

Details of investment properties as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)	2020									
,	Α	cquisition cost		ccumulated epreciation	Book amount					
Land	₩	88,620,040	₩	-	₩	88,620,040				
Buildings		50,139,884		(25,272,133)		24,867,751				
Right-of-use assets		841,994		(393,062)		448,932				
	₩	139,601,918	₩	(25,665,195)	₩	113,936,723				
(in thousands of Korean won)				2019						
	Α	cquisition cost		ccumulated epreciation	Вс	ook amount				
Land	₩	75,838,560	₩	-	₩	75,838,560				
Buildings		40,293,826		(17,774,143)		22,519,683				
Right-of-use assets		841,688		(178,905)		662,783				
	₩	116,974,074	₩	(17,953,048)	₩	99,021,026				

Changes in investment properties for the years ended December 31, 2020 and 2019, are as follows:

won)		Beginnir	ng baland	ce Ad	quisi	tion	Depr	eciation	Others		Ending balance			
Land		₩	75,838,5	60 +	₩	-	₩	-	₩	12,781,4	180	₩	88,620,	040
Buildings			22,519,6	83		34,517		(1,010,330)		3,323,8	381		24,867,	751
Right-of-use assets			662,7	83		<u> </u>		(213,010)		(8	41)		448,	932
		₩	99,021,0	26	₩	34,517	₩	(1,223,340)	₩	16,104,5	520	₩ 1	13,936,	723
(in thousands of Korean won)		Beginning		ange in		Beginning		2019				2 4		Ending
		balance		counting olicies		alance after adjustment	,	Acquisition	Depreciation			Others balan		balance
Land	₩	83,287,54	.9 ₩	-	₩	83,287,549) ∀	<i>†</i> -	₩	-	₩	(7,448,990)) ₩	75,838,560
Buildings		24,052,71	9	-		24,052,719)	63,453	(1	,009,926)		(586,563	3)	22,519,683
Right-of-use assets			<u>-</u>	742,814		742,814	<u> </u>	98,874	((178,905)			<u> </u>	662,783
	₩	107,340,26	8 ₩	742,814	₩	108,083,082	2 +	₩ 162,327	₩ (1	188,831)	₩	(8,035,553	3) ₩	99,021,026

2020

Fair value of investment properties as at December 31, 2020 is ₩224,044,444 thousand.

For the year ended December 31, 2020, rental income from investment property is $\mbox{$\,\mathbb{W}$}$ 4,103,457 thousand (2019: $\mbox{$\,\mbox{$\,W$}$}$ 2,870,396 thousand), and operating expenses from property that generated rental income are $\mbox{$\,\mbox{$\,W$}$}$ 1,011,814 thousand (2019: $\mbox{$\,\mbox{$\,W$}$}$ 841,651 thousand).

19. Intangible Assets

Details of intangible assets as at December 31, 2020 and 2019, are as follows:

(in thousands of				20	20			
Korean won)	Acquisition cost			ccumulated mortization		cumulated airment loss	Вс	ook amount
Industrial rights Other intangible assets Goodwill	₩	17,252,224 137,501,929 155,332,604	₩	(13,577,880) (111,004,481)	₩	- (28,557) (5,855,920)	₩	3,674,343 26,468,891 149,476,684
Customer value and others Construction in progress		110,945,713 4,975,679		(24,396,835)		- -		86,548,878 4,975,679
	₩	426,008,149	₩	(148,979,196)	₩	(5,884,477)	₩	271,144,476
(in thousands of				2	2019			
Korean won)	Acc	uisition cost	-	ccumulated mortization		cumulated airment loss	Вс	ook amount
Industrial rights	₩	14,704,295	₩	(12,393,625)	₩	-	₩	2,310,670
Other intangible assets Goodwill		134,555,350 153,006,019		(100,787,685)		(42,724) (5,672,380)		33,724,941 147,333,639
Land-use rights		69,758,908		(12,175,300)		(5,072,500)		57,583,608
Customer value and others		108,343,034		(14,354,067)		-		93,988,967
Construction in progress		5,574,468						5,574,468

Changes in intangible assets for the years ended December 31, 2020 and 2019, are as follows:

(139,710,677)

485,942,074 ₩

340,516,293

(5,715,104) ₩

(in thousands of								2020						
Korean won)	В	eginning									E	kchange		Ending
	I	oalance	Ac	quisition	D	isposal	sal Amortization		Others		differences		balance	
Industrial rights	₩	2,310,669	₩	780,485	₩	<u>-</u>	₩	(1,194,726)	₩	1,778,036	₩	(121)	₩	3,674,343
Other intangible														
assets		33,724,941		2,705,218		(224,537)		(12,580,377)		2,652,098		191,548		26,468,891
Goodwill	•	147,333,639		-		-		-		-		2,143,045	•	149,476,684
Land-use rights ¹		57,583,608		-		-		(926,352)	(57,471,201)		813,945		-
Brand and customer														
relationship		93,988,967		-		-		(9,691,170)		-		2,251,081		86,548,878
Construction in														
progress		5,574,468		3,854,014		(161,025)				(4,320,420)		28,642		4,975,679
	₩3	340,516,292	₩	7,339,717	₩	(385,562)	₩	(24,392,625)	₩ (57,361,487)	₩	5,428,140	₩ 2	271,144,475

¹Land-use rights recognized as intangible assets were transferred to property, plant and equipment.

(in thousands of				2019				
Korean won)	Beginning				Exchange	Ending		
	balance	Acquisition	Disposal	Amortization	Others	differences	balance	
Industrial rights	₩ 2,597,813	₩ 254,459	₩ (9,420)	₩ (1,133,274)	₩ 600,419	₩ 672	₩ 2,310,669	
Other intangible								
assets	38,605,696	3,228,705	(932,988)	(12,622,432)	5,171,311	274,649	33,724,941	
Goodwill	146,086,379	-	-	-	-	1,247,260	147,333,639	
Land-use rights	58,032,900	=	=	(2,000,063)	=	1,550,771	57,583,608	
Brand and customer								
relationship	105,255,897	-	-	(9,488,314)	(2,668,260)	889,644	93,988,967	
Construction in								
progress	4,807,752	3,906,568	(126,156)	<u> </u>	(3,024,057)	10,361	5,574,468	
	₩ 355,386,437	₩ 7,389,732	₩ (1,068,564)	₩ (25,244,083)	₩ 79,413	₩ 3,973,357	₩ 340,516,293	

Impairment Tests for Goodwill

Goodwill is allocated to each of the CGUs identified for each consolidated entity. Details of goodwill of each consolidated entity as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Manufacture and sales of tires	₩	27,632,207	₩	27,632,207
Distribution of tires		79,517,249		77,374,204
Non-tire business		42,327,228		42,327,228
	₩	149,476,684	₩	147,333,639

Goodwill impairment reviews are undertaken annually. As a result of impairment test, it is considered that the carrying value of cash generating units does not exceed the recoverable amount.

The recoverable amounts of all cash-generating units have been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on a business plan approved by management covering five-years. Cash flows beyond the five-years are extrapolated using the estimated long-term growth rates stated below. The growth rate does not exceed the long-term average growth rate included in the related industry report.

Management determined the estimated pre-tax cash flow based on past performance and its expectations of market development. Value in use is measured by applying the discount rates reflecting specific risks relating to the relevant industry in which they operate. The key assumptions used as at December 31, 2020, are as follows:

(in percentage, %)	Annual growth rate for sales	Discount rate	Long-term growth rate
Manufacture and sales of tires	5.42	7.80	1.00
Distribution of tires	2.14 ~ 6.61	5.60 ~ 11.56	1.50 ~ 2.00
Non-tire business	6.26	8.68	1.00

The results of the sensitivity analysis for impairment assessment according to changes in discount rate and long-term growth rate are as follows:

(in thousands of Korean won)			Amount of impairment						
	Manufacture sales of ti		Distribu	ition of tires	Non-tire business				
0.5% increase of discount rate	₩	_	₩	1,218,784	₩	-			
0.5% decrease of long-term growth rate	.,	_		-		-			

20. Trade and Other Payables

Details of trade and other payables as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Trade payables Non-trade payables	₩	369,877,209 298,776,511	₩	348,487,484 276,751,745
Accrued expenses		293,879,305		258,552,547
Dividends payable		23,298		20,584
	₩	962,556,323	₩	883,812,360

21. Borrowings

Details of borrowings as at December 31, 2020 and 2019, are as follows:

n
ı

won)		20	20			20	19			
		Current		Non-current		Current	N	on-current		
Short-term borrowings	₩	430,080,182	₩	-	₩	710,936,751	₩	-		
Long-term borrowings		43,520,000		163,200,000		57,712,000		46,312,000		
Lease liabilities		54,729,683		294,410,383		43,523,736		265,253,986		
Debentures				733,071,261		249,969,832		345,283,044		
	₩	528,329,865	₩	1,190,681,644	₩	1,062,142,319	₩	656,849,030		

Details of short-term borrowings as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)	Lender	Annual interest rate (%)		2020		2019
General loans Transfer of trade	BMG and others	2.19	₩	225,524,111	₩	392,912,665
receivables1	Woori Bank and others	4.272		159,140,140		263,171,646
Usance	SMBC and others	0.61		45,415,931		54,852,440
			₩	430,080,182	₩	710,936,751

¹ As transfer of trade receivables does not meet derecognition criteria, financial liabilities are recognized and secured by the Group's trade receivables (Note 41(4)).

Details of long-term borrowings of the Group as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)			Annual	20)20	20	19
	Lender	Maturity date	interest rate (%)	Current	Non-current	Current	Non-current
Long-term							
borrowings in	KEB Hana						
local currency	Bank	2020.5.16	-	₩ -	₩ -	₩ 11,400,000	₩ -
Long-term							
borrowings in	BTMU and		1.25 ~				
foreign currency	others	2023.4.17	1.98	43,520,000	163,200,000	46,312,000	46,312,000
				₩43,520,000	₩163,200,000	₩ 57,712,000	₩ 46,312,000

² The weighted average borrowing interest rate on financial liabilities recognized in connection with the transfer of trade receivables.

Details of debentures as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)			Annual _		202	20	20^	19
	Issue date	Payment date	interest rate(%)	Current		Non-current	Current	Non-current
The 83-2nd								
debentures	2015.03.12	2020.03.12	2.23	₩	-	₩ -	₩ 250,000,000	₩ -
The 84-1st								
debentures	2020.03.05	2023.03.05	1.38		-	150,000,000	-	-
The 84-2nd								
debentures	2020.03.05	2025.03.05	1.48		-	150,000,000	-	-
Long-term								
debentures in								
foreign currency	2018.01.30	2023.01.30	3.50		-	326,400,000	-	347,340,000
Shogun bond	2020.05.15	2023.05.15	1.39		-	108,800,000	-	-
Less: discount or	n borrowings		_		_	(2,128,739)	(30,168)	(2,056,956)
			_	₩		₩ 733,071,261	₩ 249,969,832	₩ 345,283,044

22. Provisions

Changes in provisions for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)			2020		
ŕ	Beginning balance	Recognized in profit or loss	Used during the year	Exchange differences	Ending balance
Provision for product liabilities Provision for product	₩ 8,049,365	₩ 1,474,322	₩ (2,141,280)	₩ -	₩ 7,382,407
warranties	61,345,989	19,517,678	(18,015,247)	(48,683)	62,799,737
Other provisions	669,062	76,674	(69,490)	11,626	687,872
	₩ 70,064,416	₩ 21,068,674	₩ (20,226,017)	₩ (37,057)	₩ 70,870,016
(in thousands of Korean won)			2019		
	Beginning balance	Recognized in profit or loss	Used during the year	Exchange differences	Ending balance
Provision for product liabilities Provision for product	₩ 9,231,830	₩ (651,690)	₩ (530,775)	₩ -	₩ 8,049,365
warranties	55,181,785	25,373,800	(19,223,159)	13,563	61,345,989
Other provisions	8,754,730	104,026	(8,192,221)	2,527	669,062
•	111	14/ 04 000 400		144 40 000	W 70.004.440
	₩ 73,168,345	₩ 24,826,136	₩ (27,946,155)	₩ 16,090	₩ 70,064,416

Details of emission rights received free of charge for each reporting period and greenhouse gas emission estimated by the Group at December 31, 2020 and 2019, are as follows:

(unit: tCO2-eq)	2018	2019 ²	2020 ³
At January 1 Allocation with nil	51,555	45,258	-
consideration	504,902	495,322	495,590
Disposal	-	(50,000)	-
Carried from	-	425	(425)
Surrendered to the			
government ¹	(511,199)	(491,005)	(491,005)
Carry forward	45,258	<u> </u>	4,160
At December 31	45,258		4,160

¹ The quantity of surrendered to the government for the year ended December 31, 2019 is actual and settled, and for 2020 is an estimation.

23. Other Financial Liabilities

Details of other financial liabilities as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		20	20			20	19	
		Current	N	on-current		Current	N	on-current
Leasehold deposits received	₩	3,116,268	₩	27,670,171	₩	2,543,147	₩	317,724
Financial derivative liabilities Financial liabilities to non-controlling		1,391,947		13,523,615		1,200,706		-
interests ¹ Other financial		-		3,518,026		-		4,750,000
liabilities ²		-		20,631,940		-		20,631,939
Others				440,000				426,800
	₩	4,508,215	₩	65,783,752	₩	3,743,853	₩	26,126,463

¹ As the term of KCG 1 Private Equity Fund limited partnership the Group invested in is limited, non-controlling interests were classified as financial liabilities.

² The quantity of surrendered to the government for the year ended December 31, 2019 was 491,005 tCO2eq in September 2020. And the shortage compared to the allocated amount of emissions was carried from 2020.

³ Considering that the quantity of surrendered to the government for 2020 is the same as the previous year, it is expected that the allocation will not be exceeded.

² The Group recognized an obligation to purchase its share capital as financial liabilities upon the acquisition of Model Solution Co., Ltd. and the related amount was deducted from other paid-in capital (Note 41).

24. Other Liabilities

Details of other liabilities as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		20	20			20	19	
		Current	N	on-current		Current	N	on-current
Advance received	₩	147,217,502	₩	-	₩	22,790,022	₩	-
Withholdings		41,005,240		-		30,012,858		-
Unearned revenue ¹ Long-term employee		18,606,549		66,892,115		16,189,077		68,556,913
liabilities		-		23,788,514		-		20,710,356
Others		1,825,791		2,660,790		768,632		1,442,382
	₩	208,655,082	₩	93,341,419	₩	69,760,589	₩	90,709,651

¹ Chongqing Hankooktire Co., Ltd. and Hankook Tire Manufacturing Tennessee LP of the Group received government grants from state and local governments for the purpose of providing land free-of charge and subsidies for acquisition of tangible assets and recognized the grants as deferred revenue.

25. Net Defined Benefit Liabilities

25.1 Defined Benefit Plan

Amounts recognized in statements of comprehensive income regarding defined pension plans for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Current service cost	₩	56,177,610	₩	53,618,590
Net Interest cost		1,166,779		372,633
	₩	57,344,389	₩	53,991,223

Details of net defined benefit liabilities (assets) recognized in the statements of financial position as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Present value of defined benefit obligations	₩	476,188,762	₩	470,879,296
Fair value of plan assets ¹		(471,840,065)		(458,420,675)
Net defined benefit liabilities	₩	4,348,697	₩	12,458,621

¹ The contributions to the National Pension Fund of \forall 6,437 thousand are included in the fair value of plan assets as at December 31, 2020 (2019: \forall 6,912 thousand).

Movements in the defined benefit liabilities and the fair value of plan assets for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)				2020		
		Present value of defined benefit obligations		Fair value of plan assets		Total
Beginning balance	₩	470,879,296	₩	(458,420,675)	₩	12,458,621
Current service cost Interest expense (income)		56,177,610 13,621,478		(12,454,699)		56,177,610 1,166,779
Pomogouromento:		69,799,088		(12,454,699)		57,344,389
Remeasurements: Return on plan assets (excluding amounts included in net interest) Actuarial loss (gain) from change in demographic assumptions		-		3,512,247		3,512,247
Actuarial gain from change in		_		_		
financial assumptions Actuarial gain from experience		(26,654,228)		-		(26,654,228)
adjustments		(1,175,683)		-		(1,175,683)
•		(27,829,911)		3,512,247		(24,317,664)
Employers' contributions		-		(43,858,616)		(43,858,616)
Benefit payments Others (affiliate transfer effect		(36,728,683)		38,865,716		2,137,033
included)		68,972		515,962		584,934
Ending balance	₩	476,188,762	₩	(471,840,065)	₩	4,348,697
(in thousands of Korean won)				2019		
		Present value of defined benefit obligations		Fair value of plan assets		Total
Beginning balance	₩	426,292,800	₩	(414,385,213)	₩	11,907,587
Current service cost		53,618,590		-		53,618,590
Interest expense (income)		13,152,274		(12,779,641)		372,633
, , ,		66,770,864		(12,779,641)		53,991,223
Remeasurements: Return on plan assets (excluding amounts included in net interest) Actuarial loss from change in demographic assumptions		633,854		3,685,755		3,685,755 633,854
Actuarial loss from change in financial assumptions		18,182,131		_		18,182,131
Actuarial gain from experience adjustments		(2,599,548)				(2,599,548)

		16,216,437		3,685,755		19,902,192
Employers' contributions		-		(66,483,448)		(66,483,448)
Benefit payments		(36,012,286)		29,091,240		(6,921,046)
Others (affiliate transfer effect included)		(2,388,519)		2,450,632		62,113
Ending balance	₩	470,879,296	₩	(458,420,675)	₩	12,458,621

The significant actuarial assumptions used in defined benefit obligations assessment as at December 31, 2020 and 2019, are as follows:

(in percentage, %)	2020	2019
Discount rate	2.39 ~7.75	2.14 ~ 8.25
Salary growth rate	3.0 ~ 10.0	3.0 ~ 10.0

While holding all other assumptions constant, if significant actuarial assumptions vary within a reasonable range, the effects on the defined benefit obligations are as follows.

(in thousands of Korean won)	thousands of Korean won)			
		Increase		Decrease
1% change of discount rate	₩	(45,292,911)	₩	53,276,423
1% change of salary growth rate		52,576,275		(45,621,197)
(in thousands of Korean won)		20	19	
(in thousands of Korean won)		20 Increase	19	Decrease
(in thousands of Korean won) 1% change of discount rate	₩		₩	Decrease 55,270,613

Plan assets as at December 31, 2020 and 2019, consist of:

(in thousands of Korean	2020			2019)	
won)		Amount	Composition		Amount	Composition
Debt instruments	₩	471,445,527	99.92%	₩	432,054,794	94.25%
Cash and cash equivalents		388,101	0.08%		95,681	0.02%
Others		6,437	0.00%		26,270,200	5.73%
	₩	471,840,065	100.00%	₩	458,420,675	100.00%

The Group reviews the funding level on an annual basis and has a policy of eliminating deficit from the fund. Expected contributions to post-employment benefit plans for the year ending December 31, 2021 are \forall 66,417,485 thousand (2019: \forall 66,400,545 thousand).

The expected maturity analysis of undiscounted pension benefits as at December 31, 2020, is as follows:

(in thousands of						2020		
Korean won)	Less	than 1 year	Betw	veen 1 and 2 years	Betw		Over 5 years	Total
Pension benefits	₩	19.480.307	₩	33.593.346	₩	81.706.096 ₩	⁺ 570,725,704 ₩	705.505.453

The weighted average duration of the defined benefit obligation is 10.65 years (2019: 11.15 years).

25. 2 Defined Contribution Plan

The expense recognized in the current year in relation to defined contribution plan was \forall 2,778,656 thousand (2019: \forall 2,565,180 thousand).

26. Share Capital

Details of share capital as at December 31, 2020 and 2019, are as follows:

(in Korean won, except for number of shares)		2020	2019		
Authorized (in shares)		250,000,000		250,000,000	
Par value	₩	500	₩	500	
Outstanding (in shares):					
Ordinary shares		123,875,069		123,875,069	
Share capital:					
Ordinary shares	₩	61,937,534,500	₩	61,937,534,500	

27. Other Paid-in Capital

Details of other paid-in capital as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Share premium	₩	2,993,465,738	₩	2,993,465,738
Other capital surplus		(20,631,939)		(20,631,939)
Treasury shares ¹		(44,848,719)		(1,088,018)
	₩	2,927,985,080	₩	2,971,745,781

¹ After acquiring 22,388 treasury shares through a spin-off in 2012, the Group additionally acquired 1,863,928 shares in 2020. Further appropriation of them is not determined.

28. Retained Earnings and Dividends

Details of retained earnings as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)	2020	2019
Legal reserve:		
Surplus reserve	₩ 35,298,014	₩ 38,847,014
	35,298,014	38,847,014
Voluntary reserve:		
Dividend equalization reserve	80,000,000	70,000,000
Director's retirement bonus reserve	5,000,000	5,000,000
Voluntary reserve	83,000,000	72,000,000
	168,000,000	147,000,000
Unappropriated retained earnings	4,461,967,062	4,157,856,606
	₩ 4,665,265,076	₩ 4,343,703,620

Dividend distributed to the Parent Company's ordinary shareholders amounted to $\mbox{$\%$}$ 68,118,975 thousand (2019: $\mbox{$\%$}$ 55,733,706 thousand) for the year ended December 31, 2019, was paid in April 2020. Dividend distributed to non-controlling interests is $\mbox{$\%$}$ 5,138,188 thousand (2019: $\mbox{$\%$}$ 4,597,423 thousand), which was paid in April 2020.

29. Other Components of Equity

(in thousands of

Changes in other components of equity for the years ended December 31, 2020 and 2019, are as follows:

(III tilousarius oi					
Korean won)			2020		
Noted World	Beginning balance	Increase (decrease) ¹	Reclassification to profit or loss	Reclassification to non-controlling interests	Ending balance
Gain (loss) on valuation of financial assets at fair value through other comprehensive income	₩ (13,108,353)	₩ 3,442,289	₩ -	₩ 1.702	₩ (9,664,362)
Cash flow hedge Exchange differences on translating foreign	814,308	(21,081,547)	26,619,699	-	6,352,460
operations Share of other comprehensive income of associates	(207,043,698)	(64,080,952) (5,683,825)	-	3,710,829	(267,413,821) (6,967,063)
income of associates			₩ 26.619.699	₩ 3.712.531	· · · · · · · · · · · · · · · · · · ·
	₩ (220,620,981)	₩ (87,404,035)	₩ 26,619,699	₩ 3,712,531	₩ (277,692,786)

¹ The amount of tax effect is deducted.

(in thousands of Korean won)			2019			
,	Beginning Increase balance (Decrease) ¹		Reclassification to profit or loss	Reclassification to non-controlling interests	Ending balance	
Gain (loss) on valuation of financial assets at fair value through other comprehensive income	₩ (7,142,902)	₩ (5,967,847)	₩ -	₩ 2,396	₩ (13,108,353)	
Cash flow hedge Exchange differences on translating foreign	(5,432,248)	15,041,878	(8,795,322)	-	814,308	
operations Share of other comprehensive income of associates	(244,060,142)	37,196,134 6,124,556	-	(179,690)	(207,043,698)	
income of associates	₩ (264,043,086)	₩ 52,394,721	₩ (8,795,322)	₩ (177,294)	(1,283,238) ₩ (220,620,981)	

¹ The amount of tax effect is deducted.

30. Sales and Cost of Sales

Details of sales for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)	2020			2019
Sales of goods	₩	6,318,869,057	₩	6,760,422,634
Sale of finished goods		6,683,366,707		7,173,521,127
Sale discount		(51,666,524)		(54,487,377)
Sales incentive		(312,831,126)		(358,611,116)
Rendering of services		134,202,728		122,845,943
Rental sales		2,425,589		2,204,822
Service sales		131,777,139		120,641,121
	₩	6,453,071,785	₩	6,883,268,577

Details of cost of sales for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Cost of finished goods sold	₩	4,474,485,691	₩	4,858,968,007
Cost of service sales		81,660,555		90,454,681
Custom duties reimbursed		(3,083,960)		(4,434,712)
Loss (reversal) on valuation of inventories and				
others		(3,002,436)		16,129,155
	₩	4,550,059,850	₩	4,961,117,131

31. Selling and Administrative Expenses

Details of selling and administrative expenses for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Salaries	₩	245,024,900	₩	236,984,332
Post-employment benefits		13,127,112		14,554,727
Service expenses		36,783,713		35,928,992
Employee welfare benefits		44,618,260		44,181,915
Utility expenses		4,949,433		5,560,337
Supplies expenses		3,012,461		2,529,950
Repairs expenses		7,530,404		6,648,741
Test expenses		14,286,124		15,934,434
Overseas branch maintenance expenses		7,484,048		9,181,796
Travel expenses		6,480,730		14,364,553
Training expenses		891,763		1,954,744
Communication expenses		3,473,731		3,873,209
Entertainment expenses		1,991,747		3,384,744
Vehicles maintenance expenses		4,166,550		4,897,776
Publication expenses		1,046,384		1,211,180
Commission fees		78,643,555		71,930,409
Rental expenses		8,657,265		4,506,023
Depreciation of property, plant and equipment		80,553,308		80,034,295
Depreciation of investment property		1,219,378		1,185,722
Amortization of intangible assets		21,460,050		23,003,621
Insurance		11,655,906		10,657,913
Taxes and dues		24,006,712		24,537,785
Impairment loss on receivables		12,943,195		1,923,931
Conference expenses		972,045		1,095,680
Brand loyalty expenses		32,967,684		51,331,462
SSC service fee		6,187,379		7,004,768
Travel and transportation expenses		146,954,098		163,506,177
Advertising		133,394,056		196,978,609
Other export expenses		10,959,654		12,779,390
Packing charges		7,802,963		8,131,460
Sales damage expenses		20,992,000		24,722,110
Foreign market development expenses		3,712		72,003
Storage charges		97,133,268		95,707,232
Other expenses		2,624,610		2,910,415
	₩	1,093,998,198	₩	1,183,210,435

32. Finance Income

Details of finance income for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020	2019		
Interest income	₩	16,316,992	₩	15,809,414	
Gains on valuation of derivatives		3,951,365		5,176,426	
Gains on transaction of derivatives		-		2,100	
Gains on foreign currency translation		14,070,694		18,965,958	
Gains on foreign currency transaction		66,195,457		41,458,087	
Others		73,488		2,002	
	₩	100,607,996	₩	81,413,987	

33. Finance Costs

Details of finance costs for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)	2020			2019	
Interest expense	₩	47,464,093	₩	57,331,267	
Loss on disposal of debt instruments at fair value					
through other comprehensive income		87,556		1,949	
Losses on valuation of derivatives		4,891,468		-	
Losses on transaction of derivatives		4,076,782		43,705,526	
Losses on foreign currency transaction		62,392,561		61,301,329	
Losses on foreign currency translation		18,445,285		7,781,205	
Other		58,123		_	
	₩	137,415,868	₩	170,121,275	

34. Other Non-operating Income

Details of other non-operating income for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)	2020		2019	
Dividend income	₩	1,438,139	1,328,434	
Commission income		2,582,942	3,678,879	
Rental income		1,838,713	725,767	
Gains on foreign currency translation		28,205,795	17,990,936	
Gains on foreign currency transaction		140,488,051	115,451,680	
Gains on disposal of property, plant and				
equipment		3,790,884	24,386,988	
Gain on disposal of investment properties		-	31,099,041	

Gains on insurance settlements		244,986		319,451
Gains on transaction of derivatives		692,867		268,916
Gains on valuation of derivatives		30		753
Other		27,728,497		18,760,520
	₩	207,010,904	₩	214,011,365

35. Other Non-operating Expenses

Details of other non-operating expenses for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Donation	₩	1,252,161	₩	1,678,200
Losses on foreign currency transaction		163,268,699		66,494,532
Losses on foreign currency translation		43,308,015		25,323,585
Losses on disposal of trade receivables		53,393		31,504
Losses on disposal of investment property		-		69,881
Losses on disposal of property, plant and				
equipment		9,657,798		14,042,536
Impairment loss on property, plant and equipment		-		6,558,511
Losses on abandonment of property, plant and				
equipment		141		5
Losses on disposal of intangible assets		115,504		33,356
Impairment loss on intangible assets		4,500		-
Losses on valuation of derivative instruments		496,683		1,202,508
Losses on derivative instruments transactions		647,995		547,549
Other impairment losses		302,291		4,432,626
Other		6,288,958		4,943,256
	₩	225,396,138	₩	125,358,049

36. Tax Expense and Deferred Tax

Income tax expense for the years ended December 31, 2020 and 2019, consists of:

	2020		2019
₩	190,916,822	₩	139,574,467
	(21,183,774)		19,909,147
	23,329,673		785,561
₩	193,062,721	₩	160,269,175
		₩ 190,916,822 (21,183,774) 23,329,673	₩ 190,916,822 ₩ (21,183,774) 23,329,673

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:

(in thousands of Korean won)		2020	2019		
Profit before income tax expense	₩	578,268,103	₩	589,883,709	
Tax calculated at statutory tax rates applicable to profits in the respective countries)	130,974,271		135,911,884	
Tax effects of:					
Income not subject to tax		(5,613,392)		(5,179,333)	
Expenses not deductible for tax purposes		3,445,788		3,630,505	
Effect of tax credit and reduction		(1,850,632)		(1,122,079)	
Additional payment (refunds) of income taxes		73,070,765		(9,711,014)	
Others		(6,964,079)		36,739,211	
Subtotal		62,088,450		24,357,292	
Income tax expense	₩	193,062,721	₩	160,269,176	
Effective tax rate		33.4%		27.2%	

The tax effect relating to components of other comprehensive income for the years ended December 31, 2020 and 2019, is as follows:

(in thousands of				2020				2019					
Korean won)	В	efore tax		Tax effect		After tax		Before tax	T	ax effect		After tax	
Remeasurements of net defined benefit liabilities Remeasurements of net defined benefit liabilities of	₩	24,317,664	₩	(6,743,904)	₩	17,573,760	₩	(19,902,193)	₩	5,382,970	₩	(14,519,223)	
associates Gain (loss) on valuation of financial assets at fair value through other comprehensive		(4,347,892)		928,139		(3,419,753)		(1,945,912)		486,478		(1,459,434)	
income		8,527,267		(1,895,760)		6,631,507		(7,957,129)		1,989,282		(5,967,847)	

Cash flow hedge	7,325,360	(1,787,208)	5,538,152	8,615,939	(2,369,383)	6,246,556
Exchange differences on translating foreign operations Share of other comprehensive	(64,080,952)	-	(64,080,952)	37,196,133	-	37,196,133
income of associates	(7,559,283)	1,875,458	(5,683,825)	8,166,075	(2,041,519)	6,124,556
	₩ (35,817,836)	₩ (7,623,275)	₩ (43,441,111)	₩ 24,172,913	₩ 3,447,828	₩ 27,620,741

The analysis of deferred tax assets and liabilities as at December 31, 2020 and 2019, is as follows:

(in thousands of Korean won)		2020		2019
Deferred tax asset(liabilities) to be recovered(settled) within 12 months Deferred tax asset(liabilities) to be recovered(settled) after more	₩	18,885,101	₩	23,115,297
than 12 months		143,691,665		124,410,448
	₩	162,576,766	₩	147,525,745

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:

(in thousands of	2020									
Korean won)		Beginning balance	Statement of profit or loss		Other comprehensive income		Ending balance			
Property, plant and equipment	₩	25,279,803	₩	5,226,754	₩	-	₩	30,506,557		
Inventories		1,687,680		(57,897)		-		1,629,783		
Accrued income		(109,243)		(97,759)		-		(207,002)		
Derivatives		137,309		(41,973)		(1,787,208)		(1,691,872)		
Long-term employee benefit		5,024,014		255,700		-		5,279,714		
Other Provision		17,226,651		(2,102,362)		-		15,124,289		
Post-employment benefit obligation		(2,427,469)		4,846,685		(6,895,628)		(6,895,628) (4,4		(4,476,412)
Accrued expense		7,915,515		5,575,149		-		13,490,664		
Advanced depreciation provision for non- depreciable assets		(15,797,870)		1,847,099		-		(13,950,771)		
Advanced depreciation provision for depreciable assets		(244,598)		51,156		-		(193,442)		
Gains and losses on foreign currency translation		216		(21)		-		195		
Others		9,602,318		2,693,219		(1,895,760)		10,399,777		
Deferred tax asset(liabilities) of subsidiaries		42,068		9,276,751		24,120,947		33,439,766		
Deferred tax asset(liabilities) related with consolidation adjustment		65,778,352		(6,288,727)		3,849,338		63,338,963		
	₩	114,114,746	₩	21,183,774	₩	17,391,689	₩	152,690,209		

Tax credit and tax reduction		33,411,000		(23,329,673)		(194,770)	9,886,557
	₩	147,525,746	₩	(2,145,899)	₩	17,196,919	₩ 162,576,766
(in thousands of Korean won)		Beginning balance		20 tatement of rofit or loss	-	Other mprehensive income	Ending balance
Property, plant and equipment	₩	16,048,443	₩	9,231,360	₩	-	₩ 25,279,803
Inventories		1,385,235		302,444		-	1,687,680
Accrued income		(55,504)		(53,738)		-	(109,243)
Derivatives		3,079,606		(572,914)		(2,369,383)	137,309
Long-term employee benefit		4,594,612		429,402		-	5,024,014
Other Provision		16,920,504		306,147		-	17,226,651
Post-employment benefit obligation		(3,913,172)		(3,168,089)		4,653,792	(2,427,469)
Accrued expense Advanced depreciation provision for non-		6,886,378		1,029,137		-	7,915,515
depreciable assets Advanced depreciation provision for		(16,658,884)		861,014		-	(15,797,870)
depreciable assets Gains and losses on foreign currency		(274,780)		30,182		-	(244,598)
translation		216		-		-	216
Others Deferred tax asset(liabilities) of		6,374,887		964,674		2,262,757	9,602,318
subsidiaries Deferred tax asset(liabilities) related with		30,328,608		(31,432,083)		1,145,543	42,068
consolidation adjustment		61,888,795		2,163,317		1,726,240	65,778,352
	₩	126,604,944	₩	(19,909,147)	₩	7,418,949	₩ 114,114,746
Tax credit and tax reduction		33,018,900		(785,561)		1,177,661	33,411,000
	₩	159,623,844	₩	(20,694,708)	₩	8,596,610	₩ 147,525,746

Details of unrecognized taxable temporary differences as deferred tax liabilities as at December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020	2019	Remarks
Investments in subsidiaries	₩	2,832,240,484	₩ 2,636,876,801	No plan to dispose the investments

37. Expenses by Nature

Expenses by nature for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Changes in inventories:				
Finished goods	₩	94,853,816	₩	(126,844,641)
Work in process		4,249,044		(695,842)
Supplies		2,639,392		(5,975,669)
Raw materials		77,723,930		10,514,095
Purchase of raw materials and others		2,264,636,534		2,687,549,936
Employees benefits		1,007,180,549		1,082,674,944
Depreciation ¹		603,131,411		606,395,172
Amortization		24,392,625		25,244,083
Commission fees		129,172,509		131,234,700
Others		1,616,821,419		1,929,206,969
	₩	5,824,801,229	₩	6,339,303,746

¹ Depreciation of investment properties are included.

38. Earnings per Share

The basic and diluted earnings per share for the years ended December 31, 2020 and 2019, are computed as follows:

(in Korean won)	2020	2019
Profit for the year attributable to the ordinary equity holders of the Parent Company Weighted-average number of ordinary shares	₩ 372,337,205,172	₩ 419,513,114,714
outstanding (in shares) ¹	122,810,025	123,852,681
Basic and diluted earnings per share ²	₩ 3,032	₩ 3,387

¹ Weighted average number of ordinary shares outstanding is calculated considering outstanding ordinary shares divided by outstanding period, excluding number of treasury shares.

² Basic and diluted earnings per share are the same because there is no potentially dilutive ordinary share issued by the Group.

39. Operating Segment Information

The Group has a single operating segment subject to Korean IFRS 1108 Segment Reporting; therefore, no operating segment information is disclosed.

The Group is mainly operating in five geographical regions. Net sales information by geographical region for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean

won)	2020)	2019)
	Amount	Ratio	Amount	Ratio
North America	₩ 1,680,089,605	26.04%	₩ 1,927,416,583	28.00%
South and Central America	230,078,544	3.57%	251,818,105	3.66%
Asia, except Korea	1,240,854,799	19.23%	1,304,057,291	18.95%
Europe	2,437,777,476	37.78%	2,479,166,025	36.02%
Korea	864,271,361	13.39%	920,810,573	13.38%
	₩ 6,453,071,785	100.00%	₩ 6,883,268,577	100.00%

There is no external customer, who contributes more than 10% of the Group's total revenue for the years ended December 31, 2020 and 2019.

At the end of the reporting period, non-current assets broken down by location of the assets are shown as follows:

(in thousands of Korean won)		2020 ¹	2020 ¹			
North America	₩	512,083,539	₩	593,469,884		
South and Central America		2,432,366		2,773,947		
Asia, except Korea		1,310,254,823		1,518,428,807		
Europe		628,698,709		675,179,849		
Korea		1,862,002,398		1,826,435,305		
	₩	4,315,471,835	₩	4,616,287,792		

¹ Financial assets, deferred tax assets and investment in associates are excluded from non-current assets.

40. Cash Flow Information

Details of cash generated from operations for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Adjustments:				
Income tax expense	₩	193,062,721	₩	160,269,175
Gain on investments in associates		(5,190,653)		(45,972,850)
Interest income		(16,316,992)		(15,809,414)
Interest expense		47,464,093		57,331,267
Dividend income		(1,438,139)		(1,328,434)
Gains on foreign currency translation		(42,276,489)		(36,956,895)
Losses on foreign currency translation		61,753,299		33,104,790
Gains on foreign currency transaction		(46,624,940)		-
Losses on foreign currency transaction		22,632,941		-
Losses on disposal of debt instruments at fair				
value through other comprehensive income		97,801		64
Gains on valuation of equity instruments at fair				
value through profit or loss		(21,099)		-
Losses (gains) on valuation of inventories		(5,036,918)		14,300,429
Losses on abandonment of inventories		2,236,950		2,197,773
Losses on disposal of trade receivables		53,393		31,504
Impairment loss on trade receivables		12,943,195		1,923,931
Other impairment loss		(2,697,709)		4,432,626
Gains on disposal of property, plant and				
equipment		(3,790,883)		(24,386,988)
Losses on disposal of property, plant and				
equipment		9,657,798		14,042,536
Losses on abandonment of property, plant and				
equipment		141		5
Impairment loss on property, plant and				
equipment		-		6,558,511
Losses on disposal of intangible assets		115,504		33,356
Reversal of impairment loss of intangible assets		(9,417)		(68,333)
Gains on disposal of investment properties		-		(31,099,041)
Loss on disposal of investment properties		-		69,881
Depreciation of property, plant and equipment		601,908,071		605,206,341
Depreciation of investment properties		1,223,340		1,188,831
Amortization of intangible assets		24,392,625		25,244,083
Casualty loss		4,701		95,419
Increase in other provisions		76,674		104,026
Sales damage expense		20,992,000		24,722,110
Employee welfare benefit		6,234,332		4,352,203
Post-employment benefit		57,344,389		53,991,223
Gains on valuation of derivatives		(3,951,394)		(5,177,179)

Losses on valuation of derivatives Gains on transaction of derivatives Losses on transaction of derivatives Others		5,388,151 (692,867) 4,724,777 859,324		1,202,508 (271,016) 44,253,076
	₩	945,118,720	₩	893,585,518
(in thousands of Korean won)		2020		2019
Changes in operating assets and liabilities:				
Increase in trade receivables	₩	(20,113,338)	₩	(19,420,291)
Increase in other receivables		(24,254,123)		(19,086,358)
Decrease (increase) in inventories		114,633,008		(101,675,265)
Decrease (increase) in other financial assets		(600,175)		157,766
Decrease in other assets		7,345,319		3,337,836
Increase (decrease) in trade payables		56,094,297		(112,199,044)
Increase in other payables		53,350,358		28,502,689
Decrease in provision		(20,231,298)		(27,575,414)
Decrease in other financial liabilities		-		(1,080,250)
Increase (decrease) in other liabilities		15,605,497		(12,632,535)
Payment of post-employment benefits		(36,910,526)		(35,706,305)
Increase in plan assets		(4,486,237)		(37,596,614)
	₩	140,432,782	₩	(334,973,785)

The principal non-cash transaction for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020	2019		
Transfer of construction in progress and others to intangivle assets and property, plant and					
equipment	₩	172,484,225	₩	138,655,014	
Transfer of loans to property, plant and equipment		13,793,168		-	
Changes in non-trade payables in relation to					
acquisition of fixed assets		3,980,467		(9,375,792)	
Capitalized borrowing costs		3,186,055		1,886,890	
Increase in right-of-use assets		156,578,787		318,770,316	
Increase in lease liabilities		100,095,376		241,129,402	
Reclassification of current portion of lease					
liabilities		54,729,684		43,523,736	
Reclassification of current portion of borrowings		43,520,000		307,919,769	
Reclassification of land to held for sale		37,734,720		-	
Transfer of land-use rights to property, plant and					
equipment		57,471,201		-	

Changes in liabilities arising from financial activities for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of							L	easehold						
Korean won)	Short-term	Long-term						deposits	Non	-controlling		Dividend		
	borrowings ¹	borrowings	D	ebentures	Lea	se Liabilities	1	received	i	interests	1	payables		Total
At January 1, 2020	₩ 768,648,751	₩ 46,312,000	₩	595,252,876	₩	308,777,721	₩	2,768,871	₩	4,750,000	₩	20,584	₩	1,726,530,803
Exchange differences	(31,409,886)	(16,596,500)		(34,597,686)		5,691,576		(220,537)		-		-		(77,133,033)
Cash flows	(307,158,683)	177,004,500		171,765,592		(63,731,062)		30,389,344		(1,756,600)		(73,254,447)		(66,741,356)
Amortization cost for														
debentures	-	-		650,479		-		(2,151,239)		-		-		(1,500,760)
Lease contract	-	-		-		100,095,376		-		-		-		100,095,376
Other (Declared														
dividends and														
others)	-	-		-		(1,693,545)		-		524,626		73,257,162		72,088,243
Transfer	43,520,000	(43,520,000)		-		-		-		-		-		-
At December 31, 2020	₩ 473,600,182	₩ 163,200,000	₩	733,071,261	₩	349,140,066	₩	30,786,439	₩	3,518,026	₩	23,299	₩	1,753,339,273

¹ Includes current portion of long-term borrowings.

(in thousands of Korean won)					Non-		
	Short-term	Long-term		Lease	controlling	Dividend	
	borrowings ¹	borrowings	Debentures	Liabilities	interests	payables	Total
At January 4, 2040							
At January 1, 2019	₩ 843,802,336	₩ 206,118,628	3 ₩ 582,461,150) ₩ 114,837,416	₩ 4,750,000	₩ 17,978	₩ 1,751,987,508
Changes in accounting policy	(9,566,788)	(105,270,628) -	217,473,990	-	-	102,636,574
Exchange differences	6,434,894	3,488,800	11,975,686	7,639,167	-	-	29,538,547
Cash flows	(130,046,491)			(54,425,568)	-	(60,331,129)	(244,803,188)
Amortization cost for							
debentures	-		- 816,040	-	-	-	816,040
Other (Declared dividends and							
others)	-		-	- 23,252,716	-	60,333,735	83,586,451
Transfer	58,024,800	(58,024,800) -		-	-	-
At December 31, 2019	₩ 768,648,751	₩ 46,312,000	₩ 595,252,876	308,777,721	₩ 4,750,000	₩ 20,584	₩ 1,723,761,932

¹ Includes current portion of long-term borrowings.

41. Contingencies and Commitments

Pledged assets as collaterals

As at December 31, 2020, a certain portion of the Group's land, buildings, machinery and equipment is pledged as collaterals for borrowings as follows:

(in thousands of Korean won, USD, CNY and RUB)	Pledged assets	Pledg	ed amounts
The Korea Development Bank and others	Land, buildings, machinery and short-term financial assets	KRW USD	274,020,000 153.200
		CNY	276,270
		RUB	60,000

Buildings, inventories, machinery and others are insured against a general liability insurance policy.

The beneficial interest of insurance for buildings and machinery is pledged as collateral for the Group's borrowings (The Korea Development Bank: \(\pm\)133,000,000 thousand and USD 110,000 thousand; Woori Bank: \(\pm\)138,140,000 thousand and USD 43,200 thousand; Hana Bank: \(\pm\)2,880,000 thousand; Bank of China: CNY 276,270 thousand; Alfa-Nedvizhimost LLC: RUB 60,000 thousand).

The Group is insured against potential future claims that may occur under the Product Liability Act in the Republic of Korea that was effective since July 1, 2002, which penalizes a manufacturer or seller when a product is defective and causes injury or damage to a person or property. The Group recognizes the best estimate amounting to $\mbox{$W7,382,407$}$ thousand, which is expected to be paid, as provision for product liabilities (Note 22).

For the purpose of providing tires in India and UN Corp., the Group provided a payment guarantee to Bureau of Indian Standards through Shinhan Bank New Delhi branch for up to USD 70,000 and provide a guarantee to UN Corp. through Shinhan Bank GS Tower branch for up to USD 144,792.

Transfer of trade receivables

Trade receivables that are transferred to financial institutions, but not matured, at the end of the reporting period, are as follows:

(in thousands of Korean won)		2020		2019		
Collateral loan on trade receivables	₩	159.140.140	₩	263.171.646		

The Group recognized trade receivables with recourse which were transferred to financial institutions, but not yet matured as short-term borrowings (Note 21).

Purchase agreement

At the end of the reporting period, the Group has purchase agreements on raw rubber materials with several suppliers, including Southland, which are usually renewed annually. In addition, the Group has supply contracts with Hankook & Company Co., Ltd. (formerly, Hankook Technology Group Co., Ltd.), one of its related parties, to be provided trademark license and business support and to provide administrative work including finance, accounting, and legal affairs. Moreover, at the end of the reporting period, the Group has a long-term contract with Hankook Networks Co,.Ltd., one of its related parties, to be provided with maintenance service for the Group's information system.

Financing arrangements

Details of the Group's financing arrangements at the end of the reporting period, are as follows:

(in thousands of Korean won)			2020		2019
Comprehensive limit agreements on discount trade receivable in foreign	Used	₩	691,705,810	₩	645,933,505
currencies and others	Unused		3,322,467,850		3,597,341,435
		₩	4,014,173,660	₩	4,243,274,940

Seoul Guarantee Insurance Co., Ltd. has provided guarantee amount to \$14,426,337 thousand (2019: \$12,185,285 thousand) for performance guarantee and others.

Pending litigations

As at December 31, 2020, the Group has five pending lawsuits in relation to overtime charges and related additional wage claims with current or retired employees, and the lawsuits are in process of second trial as they were reversed and remanded from third trial during the year. As a result of second trial, the Group recognized the principal obligated for the payment as other provisions amounting to \text{\text{W137,485}} thousand, and this amount is subject to change as a result of litigation.

Additionally, the Group has many outstanding cases as a defendant or as a plaintiff. The ultimate outcome of these cases cannot be predicted reasonably. Management does not expect the outcome of the cases will have a material effect on the Group's financial position.

Co-investment agreement of shares acquisition

The Group acquired 104,031,000 shares of Hanon Systems Co., Ltd. (19.49% of ownership) from VIHI LLC, the largest shareholder of Hanon Systems Co., Ltd.

- a) Details of Shares Purchase Agreement
 - Seller: Visteon Corp. and VIHI LLC
 - Purchaser: Hahn & Co. Auto Holdings LLC and Hankook Tire & Technology Co., Ltd.
 - Contract date: 2014.12.17

- Closing date of deal: 2015.06.10
- Number of shares to be purchased per purchaser
 - (i) Hahn & Co. Auto Holdings LLC: 269,569,000 shares (50.50% of ownership)
- (ii) Hankook Tire & Technology Co., Ltd.: 104,031,000 shares (19.49% of ownership)
- b) Contract between shareholders

The purchasers above, the Group and Hahn & Co. Auto Holdings LLC entered into a contract between shareholders that includes the followings:

- Hahn & Co. Auto Holdings LLC's drag-along right
- The Group's right of first refusal
- The Group's tag-along right

Agreements related to shares acquisition

The Group acquired 140,735 shares (75% of ownership) of Model Solution Co., Ltd. from Monet Holdings (45,035 shares) and Laird Holding Limited (95,700 shares), shareholders of Model Solution Co., Ltd. In addition, the Group entered into a contract between shareholders with Monet Holdings in relation to investments in Model Solution Co., Ltd.

- a) Details of Shares of Purchase Agreement
 - Seller: Laird Holding Limited, Monet Holdings (Domestic PEF)
 - Purchaser: Hankook Tire & Technology Co., Ltd.
 - Contract date: 2018. 05. 31

b) Contract between shareholders

Туре	Name of related parties
Limit on transfer of shares	 Hankook Tire & Technology Co., Ltd. requires prior written consent if transfer of shares will not maintain the largest shareholder status, but, except for Model Solution Co., Ltd. after 1 year from IPO. Monet Holdings is limited to transfer the shares to a company of the same business area or a competitor without prior consent of Hankook Tire & Technology Co., Ltd.
Tag-along right	Monet Holdings has tag-along right for the transfer of rights of Hankook Tire & Technology Co., Ltd., but except for the transfer of shares that are less than 15% of total issued shares to strategic investors who engage in business with strategic objectives and synergies or the transfer of shares that maintain largest shareholder status within 1 year after IPO of Model Solution Co., Ltd
Right of first refusal	Hankook Tire & Technology Co., Ltd. has right of first refusal if Monet Holdings sells the shares to a third party.
Drag-along right	Monet Holdings has a drag-along right requesting to sell jointly all shares held by Hankook Tire & Technology Co., Ltd. on the same terms and conditions as Model Solution Co., Ltd. if Hankook Tire & Technology Co., Ltd. deliberately avoids IPO of Model Solution.

Put option ¹	If IPO is not made within an agreed period, Monet Holdings has a put option to sell all shares of Hankook Tire & Technology Co., Ltd. held by Monet Holdings and its selling price is the number of shares held by Monet Holdings multiplied by the amount that selling price of a share
	determined in shares of purchase agreement concluded on May 31, 2018.

¹ The Group recognized present value of exercise price of put option related to above shares of purchase agreement as financial liabilities and deducted the same amount from its own equity.

42. Related Party Transactions

Details of related parties as at December 31, 2020, are as follows:

Туре	Name of related parties
Individuals	Yang-Rai Cho, Hyun-Shick Cho, Hyun-Bum Cho
Holding company ¹	Hankook & Company Co., Ltd. (formerly, Hankook Technology Group Co., Ltd.)
Holding company's subsidiaries and associates ²	Hankook Atlas BX Co., Ltd. (formerly, Atlas BX Co., Ltd.), Atlas BX Motorsports Co., Ltd., Hankook Atlasbx America Corporation, Hankook Car & Life Co., Ltd., HK Motors Co., Ltd., Han Automobile.Co, Hankook Networks Co., Ltd., Hankook Networks America Inc., Wavers Co., Ltd.
Domestic associates	Hanon Systems Co., Ltd., Peaches Group Korea Co., Ltd., Daemyeong Tech Won Co., Ltd., TOWNZ Corp.
Other related parties ³	Shin-Yang Tourist Development, Shin-Yang World Leisure, FWS Investment Advisory, Daehwa Eng' & Machinery Jiaxing Co., Ltd., Arum Electronics Co., Ltd. (formerly, YKT Co., Ltd.), Seil Hwangyeong Co., Ltd., Doowon Holdings Co., Ltd., Arum Dentistry Co., Ltd., Janji Co., Ltd.

¹ The entity has a significant influence on the Group.

² In the case of Wavers Co., Ltd., it was listed as a subsidiary of the holding company, but it was not included in the affiliated companies under the Fair Trade Act as of the end of the reporting period, subject to the suspension of affiliate transfers until June 27, 2026 by the Fair Trade Commission. On April 1, 2020, HK Motors Co., Ltd. merged with JAX Motors Co., Ltd. and after the merger, the surviving company's name is HK Motors Co., Ltd..

³ 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.

Transactions between the Group and related parties for the years ended December 31, 2020 and 2019, are as follows:

a) Sales and others

(in thousands of Korean won)	von)			2020						2019			
	Sales		Others			Total	S	ales		Others		Total	
Hankook & Company Co., Ltd. (formerly, Hankook Technology													
Group Co., Ltd.)	₩	71,841	₩	683,590	₩	755,431	₩	85,360	₩	1,555,610	₩	1,640,970	
Hankook Atlas BX Co.		-		1,940,031		1,940,031		36		1,034,839		1,034,875	
Hankook Car & Life Co., Ltd.		150,953		78,162		229,115		-		177,742		177,742	
Hankook Networks Co., Ltd.		7,603		547,653		555,256		688		52,189		52,877	
Daehwa Eng'& Machinery Jiaxing													
Co., Ltd.		-		392,337		392,337		-		394,504		394,504	
Hanon Systems Co., Ltd.		19,878		-		19,878		26,188		-		26,188	
Atlasbx America Corporation		-		38,468		38,468		-		56,107		56,107	
Anothen Geumsan Co., Ltd. ¹		1,380		-		1,380		713		-		713	
Atlas BX Motorsports Co., Ltd		-		483,121		483,121		112,572		-		112,572	
HK Motors Co., Ltd.		_		8,645		8,645		_		2,314		2,314	
Han Automobile.Co,		_		-		_		77		_		77	
Arum Dentistry Co., Ltd.		_		_		_		561		-		561	
Doowon Holdings Co., Ltd.				2,400		2,400						-	
	₩	251,655	₩	4,174,407	₩	4,426,062	₩	226,195	₩	3,273,305	₩	3,499,500	

¹ Anothen Geumsan Co., Ltd. is excluded from related parties for the year ended December 31, 2020.

b) Purchases and others

(in thousands of Korean won)		2020		2019					
	Purchases	Others ¹	Total	Purchases	Others ¹	Total			
Hankook & Company Co., Ltd. (formerly, Hankook Technology									
Group Co., Ltd.) ²	₩ -	₩ 38,149,109	₩ 38,149,109	₩ - ₩	58,995,261 ₩	58,995,261			
Hankook Atlas BX Co.	4,346,974	-	4,346,974	4,701,212	2,394	4,703,606			
Atlas BX Motorsports Co., Ltd	-	1,096,034	1,096,034	-	1,032,419	1,032,419			
HK Motors Co., Ltd.	-	249,511	249,511	-	4,683,598	4,683,598			
Hankook Car & Life Co., Ltd.	1,066	56,211	57,277	-	597	597			
Hankook Networks Co., Ltd.	-	30,572,065	30,572,065	-	24,964,572	24,964,572			
Hankook Networks America, Inc.	-	905,310	905,310	-	907,058	907,058			
Daehwa Eng'& Machinery Jiaxing									
Co., Ltd.	-	12,668,643	12,668,643	-	13,896,139	13,896,139			
Shin-Yang Tourist Development	-	-	-	-	34,109	34,109			
Daemyeong Tech Won Co., Ltd.	-	834,384	834,384	-	-	-			
Wavers Co., Ltd.	-	415,000	415,000	-	-	-			
Peaches Group Korea Co., Ltd.	-	4,500	4,500	-	-	-			

(in thousands of Korean won)		2020			2019	
	Purchases	Others ¹	Total	Purchases	Others ¹	Total
Anothen Geumsan Co., Ltd. ³	3,550,149	-	3,550,149	-	-	-
TOWNZ Corp.	-	220,000	220,000	-	-	-
Arum Dentistry Co., Ltd.	-	179,000	179,000	_	-	_
	₩ 7,898,189	₩ 85,349,767	₩ 93,247,956	₩ 4,701,212	₩ 104,516,147	₩ 109,217,359

¹ Sales rebates and other paid to related parties, which are sales deductible items, are presented as purchases and others.

Outstanding balances of receivables and payables as at December 31, 2020 and 2019, are as follows:

a) Receivables and others

(in thousands of Korean won)			2020		2019					
	Trade receivables		Non-trade receivables	Total	Trade receivables		Non-trade receivables	Total		
Hankook & Company Co., Ltd. (formerly, Hankook Technology										
Group Co., Ltd.)	₩	7,542	₩ 10,551,196	₩ 10,558,738	₩	9,004	₩ 2,730,589	₩ 2,739,593		
Hankook Atlas BX Co.		-	626,011	626,011		-	321,022	321,022		
Hankook Car & Life Co., Ltd.		-	12,186	12,186		-	10,141	10,141		
Hankook Networks Co., Ltd.		847	17,471	18,318		678	14,923	15,601		
Daehwa Eng'& Machinery										
Jiaxing Co., Ltd.		-	272,044	272,044		-	301,140	301,140		
Shin-Yang Tourist Development		-	400,000	400,000		-	400,000	400,000		
Hanon Systems Co., Ltd.		1,107		1,107						
	₩	9,496	₩ 11,878,908	₩ 11,888,404	₩	9,682	₩ 3,777,815	₩ 3,787,497		

b) Payables and others

(in thousands of Korean won)		2020		2019					
	Trade payable	Non-trade payables	Total	Trade payable	Non-trade payables	Total			
Hankook & Company Co., Ltd. (formerly, Hankook									
Technology Group Co., Ltd.)	₩ -	₩ 25,336,584	₩ 25,336,584	₩ -	₩ 17,242,460	₩ 17,242,460			
Hankook Atlas BX Co.	831,876	15,667,214	16,499,090	2,418,970	191,028	2,609,998			
Atlas BX Motorsports Co., Ltd	-	106,966	106,966	-	26,398	26,398			
HK Motors Co., Ltd.	-	162,800	162,800	-	1,243,932	1,243,932			
Hankook Car & Life Co., Ltd.	-	5,327	5,327						
Hankook Networks Co., Ltd.	60,772	11,663,186	11,723,958	-	7,372,115	7,372,115			

² The Group entered into service supporting agreement and trademark license agreement with Hankook & Company CO., LTD. (formerly, Hankook Technology Group Co., Ltd)

³ Anothen Geumsan Co., Ltd. is excluded from related parties for the year ended December 31, 2020.

(in thousands of Korean won)				2020			2019					
	Trade	e payable		Non-trade payables		Total	Trade payable	Non-trade payables	Total			
Shin-Yang Tourist Development		-		33,367		33,367	-	82,583	82,583			
Hankook Networks America Inc.		-		77,776		77,776	-	39,423	39,423			
Daehwa Eng'& Machinery												
Jiaxing Co., Ltd.		-		1,458,106		1,458,106	-	1,748,351	1,748,351			
Daemyeong Tech Won Co., Ltd.		_		89,740		89,740						
	₩	892,648	₩	54,601,066	₩	55,493,714	₩ 2,418,970	₩ 27,946,290	₩ 30,365,260			

Fund transactions with related parties for the years ended December 31, 2020 and 2019, are as follows:

Dividend income/paid and contributions in cash with related parties for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of 2020										
Korean won)					Co	llection of			Co	ntributions
		Dividend	ı	Payment of		lease	Rep	ayments of	in	cash and
	Name of entity	income		dividend	re	ceivables	leas	e liabilities	others	
	Hankook & Company									
Holding	Co., Ltd. (formerly,									
Company	Hankook Technology									
	Group Co., Ltd).	₩	- ₩	20,897,777	₩	320,078	₩	982,146	₩	-
	Hanon Systems Co.,									
	Ltd.	29,544,80	4	-		-		-		-
	Daemyeong Tech									
Associates	Won Co., Ltd.		-	-		-		-		-
	Peaches Group									
	Korea Co., Ltd.,		-	-		-		-		1,685
	TOWNZ Corp.		-	-		-		-		220,000
Others	Shin-Yang Tourist									
Others	Development		<u> </u>					50,400		<u>-</u>
		₩ 29,544,80	4 ₩	20,897,777	₩	320,078	₩	1,032,546	₩	221,685

(in thousands of					2	2019			
Korean won)		Dividend	k	P	ayment of	Rep	ayments of	Contr	ibutions in
Parent Company	Name of entity Hankook & Company Co., Ltd. (formerly, Hankook Technology	income		•	dividend		e liabilities	cash	and others
	Group Co., Ltd). Hanon Systems Co.,	₩	-	₩	16,833,895	₩	2,807,268	₩	-
Ai-t	Ltd. Daemyeong Tech	33,289	,920		-		-		-
Associates	Won Co., Ltd. Peaches Group Korea		-		-		-		1,147,000
	Co., Ltd.,		-		-		-		519,142

0.11	TOWNZ Corp. Shin-Yang Tourist		-		-		-		-
Others	Development						16,800		<u>-</u>
		₩	33,289,920	₩	16,833,895	₩	2,824,068	₩	1,666,142

Receipt of leasehold deposits and others, for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of			2020					20	019		
Korean won)	Name of entity		Receipt/ collection	Repayment/ payment		Receipt/ collection		•	Repaymen paymen		
	Hankook & Company										
Holding company	Co., Ltd. (formerly, Hankook Technology										
	Group Co., Ltd.)	₩	11,545,890	₩		- +	₩	34,200	₩	-	
Holding company's	Hankook Networks										
associate	Co., Ltd.,		5,474,300			-		-		-	
Holding company's	Hankook Atlas BX Co.,										
subsidiary	Ltd.		14,080,000					_			
		₩	31,100,190	₩		_ +	₩	34,200	₩		

Compensations for key management for the years ended December 31, 2020 and 2019, are as follows:

(in thousands of Korean won)		2020		2019
Salaries	₩	16,996,153	₩	10,442,280
Post-employment benefits		2,158,870		1,540,649
Long-term employee benefits		50,168		40
	₩	19,205,191	₩	11,982,969

43. Credit Risk

The Group is exposed to credit risk when the following payments are not made from the counterparty by the payment date.

- Payment of trade receivables within the payment terms by customer.
- Contractual cash flows of debt instruments measured at amortized cost
- Contractual cash flow of debt instruments at fair value through other comprehensive income

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.

Other financial assets measured at amortized cost

All of the other 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 loss. Management considers '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.