Hyosung Chemical Corporation and Subsidiary

Consolidated Financial Statements 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 of and Shareholders of Hyosung Chemical Corporation

Opinion

We have audited the accompanying consolidated financial statements of Hyosung Chemical Corporation and its subsidiary (collectively referred to as the "Group") which comprise the consolidated statement of financial position as at December 31, 2020, and the consolidated statement of profit or loss, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year 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 Hyosung Chemical Corporation and its subsidiary as at December 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS).

Basis for Opinion

We conducted our audit 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 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 Matter

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.

(1) Impairment assessment on cash-generating units

Why we determined this matter as Key Audit Matter

A cash generating unit (CGU) is tested for impairment if events or changes in circumstances indicate that it might be impaired. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use.

The Group determined that there is an indication of asset impairment in POK(POLYKETONE) segment's CGU. We focused on this area due to the significant size of this CGU and because the assessment of the 'value in use' of the Group's CGU involves management's judgements on the future results of the business and on the discount rates applied to future cash flow forecast. The Group engaged an independent external expert to assist the Group in valuation of the fair value of the POK(POLYKETONE) segment's CGU.

How our audit addressed the Key Audit Matter

Key audit procedures we have performed in relation to the impairment assessment on the CGU are as follows:

- We evaluated the appropriateness of determination of the CGU of the Group and the book amount of the CGU.
- We evaluated the eligibility of the external expert hired by the Group to assess the value in use.
- We evaluated the adequacy of the valuation model used in estimating value in use.
- We confirmed the consistency of the cash flow forecasts and the approved forecasts by management.
- We evaluated the reasonableness of key assumptions used in estimating value in use.
- We examined the accuracy of value in use calculations.

Other Matters

The consolidated financial statements of the Group for the year ended December 31, 2019, were audited by another auditor who expressed an unqualified opinion on those statements on March 9, 2020.

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.

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 Youngseok Bae, Certified Public Accountant.

Seoul, Korea March 10, 2021

This report is effective as of March 10, 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.

Hyosung Chemical Corporation and Subsidiary Consolidated Statements of Financial Position December 31, 2020 and 2019

(in Korean won)	Notes	2020	2019
Assets			
Current assets			
Cash and cash equivalents	4,7,8	₩ 10,181,377,491	₩ 46,059,080,773
Trade and other receivables	4,6,7,10	222,338,573,348	150,972,646,883
Other financial assets	4,7,11	54,023,757,848	5,726,939,782
Other current assets	12	6,043,720,153	115,789,568,296
Inventories	13	143,161,585,501	127,510,171,001
		435,749,014,341	446,058,406,735
Non-current assets			
Long-term trade and other receivables	4,7,10	3,467,217,642	4,947,322,294
Property, plant and equipment	14,15,17,37	1,923,347,651,339	1,448,333,094,443
Intangible assets	16	23,126,250,265	73,072,331,903
Investments in associates	18	15,715,666,399	10,737,638,205
Other non-current financial assets	4,7,9,11	916,741,656	73,868,500,669
Other non-current assets	12,22	5,685,506,136	1,990,886,026
Deferred tax assets	23	9,356,986,691	4,508,317,959
		1,981,616,020,128	1,617,458,091,499
Total assets		₩ 2,417,365,034,469	₩ 2,063,516,498,234
Liabilities			
Current liabilities			
Trade and other payables	4,7,21	₩ 295,090,408,141	₩ 219,881,693,604
Borrowings	4,6,7,20,37	303,763,960,039	185,915,655,777
Other financial liabilities	7,11,15	4,107,228,508	1,193,029,121
Current tax liabilities	23	15,735,276,890	20,442,749,505
Other current liabilities	24	8,841,258,751	3,887,327,210
		627,538,132,329	431,320,455,217
Non-current liabilities			
Long-term trade and other payables	4,7,21	13,185,579,107	12,518,989,095
Long-term borrowings	4,7,20,37	1,356,428,635,032	1,155,850,180,753
Net defined benefit liabilities	22	-	-
Deferred tax liabilities	23	-	2,867,617,709
Other non-current financial liabilities	7,11,15	10,726,160,469	4,668,452,728
Other non-current liabilities	24	7,133,398,082	1,582,362,810
		1,387,473,772,690	1,177,487,603,095
Total liabilities		2,015,011,905,019	1,608,808,058,312
Equity			
Share capital	25	15,950,630,000	15,950,630,000
Share premium		327,697,938,702	327,697,938,702
Retained earnings	26	67,606,964,768	98,174,854,969
Other components of equity	27	(8,902,404,020)	12,885,016,251
Equity attributable to owners of the Parent Company		402,353,129,450	454,708,439,922
Non-controlling interest		<u> </u>	
Total equity		402,353,129,450	454,708,439,922
Total liabilities and equity		₩ 2,417,365,034,469	₩ 2,063,516,498,234

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

Hyosung Chemical Corporation and Subsidiary Consolidated Statements of Profit or Loss Years Ended December 31, 2020 and 2019

(in Korean won)	Notes		2020		2019
Revenue	5,28	₩	1,817,189,980,493	₩	1,812,470,395,896
Cost of sales	29,30		1,664,136,962,492		1,568,884,840,997
Gross profit			153,053,018,001		243,585,554,899
Selling, general and administrative expenses Research and development expenses	29,30,31 29,30		71,922,307,554 20,203,161,536		68,705,193,390 20,993,052,234
Operating profit			60,927,548,911		153,887,309,275
Other income Other expenses Finance income Finance expenses Share of net profit of associates accounted for using the equity method Profit before income tax Income tax expense	32 32 33 33 18		7,007,583,184 17,879,224,228 47,307,607,380 95,611,415,800 1,669,254,074 3,421,353,521 15,037,841,449		3,973,011,293 6,312,312,023 43,762,300,670 89,349,315,217 4,052,766,909 110,013,760,907 22,190,312,628
Profit (loss) for the year Profit (loss) is attributable to: Owners of the Parent Company Non-controlling interests		₩	(11,616,487,928) (11,616,487,928) 	₩	87,823,448,279 87,823,448,279 - 87,823,448,279
Earnings (losses) per share attributable to the equity holders of the Parent Company Basic earnings (losses) per share	34	₩	(3,656)	₩	27,637

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

Hyosung Chemical Corporation and Subsidiary Consolidated Statements of Comprehensive Income Years Ended December 31, 2020 and 2019

(in Korean won)	Notes		2020		2019
Profit (loss) for the year Other comprehensive income (loss)		₩	(11,616,487,928)	₩	87,823,448,279
Items that will not be reclassified to profit or loss					
Remeasurements of net defined benefit liabilities	22,23		(3,075,121,630)		(4,764,235,627)
Share of remeasurements of net defined benefit liabilities of associates			12,694,357		9,245,635
Items that may be subsequently reclassified to profit or loss			(00.00=0.00)		(
Share of other comprehensive income of associates			(22,995,643)		(15,945,710)
Overseas operations translation gain (loss)		-	(21,764,424,628)		7,585,481,674
Other comprehensive income (loss) for the year, net of tax			(24,849,847,544)		2,814,545,972
Total comprehensive income (loss) for the year		₩	(36,466,335,472)	₩	90,637,994,251
Total comprehensive income (loss) for the year is attributable to:					
Owners of the Parent Company		₩	(36,466,335,472)	₩	90,637,994,251
Non-controlling interest			<u>.</u>		-
		₩	(36,466,335,472)	₩	90,637,994,251

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

Hyosung Chemical Corporation and Subsidiary Consolidated Statements of Changes in Equity Years Ended December 31, 2020 and 2019

(in Korean won)		Attributable to owners of the Parent Company												
		Share capital		Share premium		Retained Earnings		Other Components of Equity		Total	No	on-controlling Interest		Total Equity
Balance at January 1, 2019 Total comprehensive income	₩	15,950,630,000	₩	327,697,938,702	₩	18,284,191,681	₩	5,315,480,287	₩	367,248,240,670	₩	-	₩	367,248,240,670
Profit for the year		-		-		87,823,448,279		-		87,823,448,279		-		87,823,448,279
Remeasurements of net defined benefit liabilities		-		-		(4,764,235,627)		-		(4,764,235,627)		-		(4,764,235,627)
Share of remeasurements of net defined benefit liabilities of associates		-		-		9,245,635		-		9,245,635		-		9,245,635
Share of other comprehensive income(loss) of associates		-		-		-		(15,945,710)		(15,945,709)		-		(15,945,709)
Annual dividends		-		-		(3,177,795,000)		-		(3,177,795,000)		-		(3,177,795,000)
Overseas operations translation gain		<u>-</u>						7,585,481,674		7,585,481,674				7,585,481,674
Balance at December 31, 2019	₩	15,950,630,000	₩	327,697,938,702	₩	98,174,854,969	₩	12,885,016,251	₩	454,708,439,922	₩		₩	454,708,439,922
Balance at January 1, 2020 Total comprehensive income	₩	15,950,630,000	₩	327,697,938,702	₩	98,174,854,969	₩	12,885,016,251	₩	454,708,439,922	₩	-	₩	454,708,439,922
Loss for the year		_		-		(11,616,487,928)		_		(11,616,487,928)		_		(11,616,487,928)
Remeasurements of net defined benefit liabilities		-		-		(3,075,121,630)		_		(3,075,121,630)		_		(3,075,121,630)
Share of remeasurements of net defined benefit liabilities of associates		-		-		12,694,357		_		12,694,357		_		12,694,357
Share of other comprehensive income(loss) of associates		-		-		-		(22,995,643)		(22,995,643)		-		(22,995,643)
Annual dividends		-		-		(15,888,975,000)		-		(15,888,975,000)		-		(15,888,975,000)
Overseas operations translation loss		-		-		-		(21,764,424,628)		(21,764,424,628)		-		(21,764,424,628)
Balance at December 31, 2020	₩	15,950,630,000	₩	327,697,938,702	₩	67,606,964,768	₩	(8,902,404,020)	₩	402,353,129,450	₩	-	₩	402,353,129,450

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

Hyosung Chemical Corporation and Subsidiary Consolidated Statements of Cash Flows

Years Ended December 31, 2020 and 2019

(in Korean won)	Note		2020		2019
Cash flows from operating activities					
Cash generated from operations	36	₩	234,515,319,807	₩	204,725,208,267
Income taxes paid		•	(23,437,491,883)	• • •	(5,553,589,642)
Interest paid			(43,139,203,419)		(36,099,832,842)
Interest received			179,930,147		177,410,350
Dividends received			222,311,350		-
Net cash inflow from operating activities			168,340,866,002		163,249,196,133
Cash flows from investing activities					
Decrease in short-term guarantees			203,165,053		-
Collection of long-term loans			237,306,430		-
Decrease in long-term guarantees			446,618,065		-
Proceeds from disposal of short-term financial instruments			1,657,576,417		-
Proceeds from disposal of derivative financial assets			8,809,605,173		-
Proceeds from disposal of long-term financial instruments			487,400,000		140,719,996
Proceeds from disposal of property, plant and equipment			201,847,336		7,322,219
Proceeds from disposal of intangible assets			-		654,819,821
Receipt of government grants			-		427,000,000
Increase in short-term guarantees			-		(362,409,142)
Increase in long-term loans			(740,066,434)		(387,690,000)
Increase in long-term guarantees			(287,708,200)		(27,684,832)
Payments for short-term financial instruments			(852,500,029)		(3,554,923,904)
Payments for long-term financial instruments			-		(67,741,851,786)
Increase in prepaid expenses			(3,852,609,000)		-
Payments for property, plant and equipment			(555,757,980,514)		(480,888,745,165)
Payments for intangible assets			(123,047,781)		(671,315,846)
Payments for investments in associates			(3,541,386,756)		-
Payments for derivative financial liabilities			(426,672,760)		<u>-</u>
Net cash outflow from investing activities			(553,538,453,000)		(552,404,758,639)
Cash flows from financing activities					
Proceeds from short-term borrowings			2,580,781,860,816		2,638,458,583,190
Proceeds from long-term borrowings			440,228,889,320		487,289,094,300
Proceeds from issuance of bonds			193,345,846,994		299,000,000,000
Repayments of short-term borrowings			(2,423,501,475,679)		(2,852,046,518,060)
Repayments of long-term borrowings			(220,540,000,000)		(93,755,125,000)
Repayments of bonds			(120,000,000,000)		(120,000,000,000)
Repayments of current portion of borrowings			(74,275,260,000)		-
Payments of dividends			(15,888,975,000)		(3,177,795,000)
Repayments of lease liabilities			(3,390,683,041)		(4,083,856,314)
Net cash inflow from financing activities			356,760,203,410		351,684,383,116
Effects of exchange rate changes on cash and cash equivalents			(7,440,319,694)		4,272,438,571
Net decrease in cash and cash equivalents			(35,877,703,282)		(33,198,740,819)
Cash and cash equivalents at the beginning of the year			46,059,080,773		79,257,821,592
Cash and cash equivalents at the end of the year		₩	10,181,377,491	₩	46,059,080,773

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

1. General Information

Hyosung Chemical Corporation (the "Company") and its subsidiary (collectively referred to as the "Group") was spun off on June 1, 2018, from Hyosung Corporation to engage in chemical related business.

As at December 31, 2020, the Company has plants in Yongyeon, Gumi, Oksan and Daejeon, etc. In addition, the Company has a subsidiary in Vietnam.

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

	Number of shares	Percentage of ownership (%)
Hyosung Corporation	643,481	20.17
Seok-Rae Cho	213,849	6.7
Hyun-Joon Cho	279,355	8.76
Hyun-Sang Cho	233,663	7.32
Gwang-Ja Song	23,445	0.73
Yang-Rae Cho, etc.	2,755	0.08
Others	1,793,578	56.24
	3,190,126	100.00

1.1 Consolidated Subsidiary

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

		Ownership held by the (%)	Group		
	Location	2020	2019	Closing month	Main business
Hyosung Vina Chemicals Co., Ltd.	Vietnam	100	100	December	Manufacturing PP/DH

1.2 Summarized Financial Information of Consolidated Subsidiary

Summarized financial information of consolidated subsidiary as at and for the years ended December 31, 2020 and 2019, is as follows:

(in millions of Korean won)			2	020		
Subsidiary	Assets	Liabilities	Equity	Sales	Loss for the year	Total comprehensive loss
Hyosung Vina Chemicals Co., Ltd.	₩ 1,255,294	₩ 929,020	₩ 326,274	₩ 176,680	₩ (54,395)	₩ (80,184)

(in millions of Korean won)			2	2019		
Subsidiary	Assets	Liabilities	Equity	Sales	Loss for the year	Total comprehensive income
Hyosung Vina Chemicals Co., Ltd.	₩ 782,237	′ ₩ 497,549	₩ 284,688	₩	- ₩ (4,986)	₩ 5,021

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 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 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 amendments allow to apply the exceptions in relation the application of hedge accounting while uncertainties arising from interest rate benchmark reform exist. The exceptions require the Group assumes that the interest rate benchmark on which the hedged items and the hedging instruments are based on is not altered as a result of interest rate benchmark reform, when determining whether the expected cash flows are highly probable, whether an economic relationship between the hedged item and the hedging instrument exists, and when assessing the hedging relationship is highly effective. The amendments do not have a significant impact on the financial statements.

2.2.2 New standards and interpretations not yet adopted by the Group

The following new accounting standards and interpretations have been published that are not mandatory for December 31, 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 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 is in review for the impact of these amendments 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. 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.

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.

(b) Associates

Associates are entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting, after initially being recognized at cost. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. If the Group's share of losses of an associate equals or exceeds its interest in the associate (including long-term interests that, in substance, form part of the Group's net investment in the associate), the Group discontinues recognizing its share of further losses. After the Group's interest is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate. If there is an objective evidence of impairment for the investment in the associate, the Group recognizes the difference between the recoverable amount of the associate and its book amount as impairment loss. If an associate uses accounting policies other than those of the Group for like transactions and events in similar circumstances, if necessary, adjustments shall be made to make the associate's accounting policies conform to those of the Group when the associate's financial statements are used by the Group in applying the equity method.

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 Parent Company'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.

(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,
- · equity is translated at the historical exchange rate, and
- · all resulting exchange differences are recognized in other comprehensive income.

Goodwill and fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation 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.

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

(b) Measurement

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

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 'finance 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 'finance 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.

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

(c) Impairment

The Group assesses on a forward-looking basis the expected credit losses associated with its debt instruments carried at amortized cost and fair value through other comprehensive income. The impairment methodology applied depends on whether there has been a significant increase in credit risk. For trade receivables and lease receivables, the Group applies the simplified approach, which requires expected lifetime credit losses to be recognized from initial recognition of the receivables. (Note 10 provides more detail of how the Group determines there has been a significant increase in credit risk.)

(d) Recognition and Derecognition

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

If a transfer does not result in derecognition because the Group has retained substantially all the risks and rewards of ownership of the transferred asset, the Group continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received. The Group classified the financial liability as "borrowings" in the statement of financial position (Note 20).

(e) Offsetting of financial instruments

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

2.6 Derivative Instruments

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

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.

2.8 Inventories

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

2.9 Property, Plant and Equipment

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

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

Useful lives

Buildings	40 years
Structures	20 - 40
Machinery	8 - 10
Vehicles	5
Tools and equipment	5
Right-of-use assets	1 - 36
Others	5

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

2.10 Borrowing Costs

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

2.11 Government Grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions. Government grants related to assets are presented in the statement of financial position by deducting the grant in arriving at the carrying amount of the asset, and government grants related to income are deferred and later deducted from the related expense.

2.12 Intangible Assets

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.

Membership rights that have an indefinite useful life are not subject to amortization because there is no foreseeable limit to the period over which the assets are expected to be utilized. The Group amortizes intangible assets with a limited useful life using the straight-line method over the following periods:

	Useful lives
Industrial rights	5 - 10 years
Facility usage rights	10
Other intangible assets	5 - 10

2.13 Impairment of Non-financial Assets

Intangible assets that have an indefinite useful life are not subject to amortization and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. 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 that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

2.14 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.

2.15 Financial Liabilities

(a) Classification and measurement

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

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 and other payables', and 'borrowings' in the statement of financial position.

(b) Derecognition

Financial liabilities are removed from the statement of financial position when it is extinguished; for example, when the obligation specified in the contract is discharged or cancelled or expired or when the terms of an existing financial liability are substantially modified. The difference between the carrying amount of a financial liability extinguished or transferred to another party and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

2.16 Greenhouse Gas Emission Permits and Obligations

With enforcement of *The Act on the Allocation and Trading of Greenhouse Gas Emission Permits*, the allowances that are received free of charge from the government are measured at zero while allowances purchased are measured at acquisition cost and stated net of accumulated impairment loss. Emissions obligations are measured as the sum of the carrying amount of the allocated allowances that will be submitted to the government and the best estimate of expenditure required to settle the obligation at the end of reporting period for any excess emission. The allowances and emissions obligations are classified as 'intangible assets' and 'provisions', respectively, in the statement of financial position.

2.17 Provisions

Provisions for restoration and others 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.

2.18 Current and Deferred Tax

The tax expense for the period consists of current and deferred tax. Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

The current income tax expense is measured at the amount expected to be paid to the taxation authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation, and considers whether it is probable that a taxation authority will accept an uncertain tax treatment. The Group measures its tax balances either based on the most likely amount or the expected value, depending on which method provides a better prediction of the resolution of the uncertainty.

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting profit nor taxable profit or loss.

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

The Group recognizes a deferred tax liability all taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint arrangements, except to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. In addition, The Group recognizes a deferred tax asset for all deductible temporary differences arising from such investments to the extent that it is probable the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset when the Group has a legally enforceable right to offset and intends either to settle on a net basis, or to realize the assets and settle the liability simultaneously.

2.19 Employee Benefits

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

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

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

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

The Group provides 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.

2.20 Revenue Recognition

The Group manufactures and sells a variety of products and merchandises including polypropylene, TPA, film, NF3, optical film and polyketone.

Sales are recognized when control of products and merchandises has transferred, being when the products and the merchandises are delivered to the customer and there is no unfulfilled obligation that could affect the customer's acceptance of the products and the merchandises. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred to the customer, and either the customer has accepted the products 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. Also, when the Group exports products and merchandises under the terms of Incoterms Group C, the Group identifies the transportation service as a separate performance obligation since the transportation service is carried out after the control of products and merchandises has been transferred to the customer.

2.21 Leases

(a) Lessee

The Group leases various offices, warehouses, vehicles, facilities and others. Lease contracts are typically made for fixed periods, but may have extension options or termination options as described in (b) below.

Contracts may contain both lease and non-lease components. The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices. 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 (i) periods covered by an option to extend the lease if the lessee is reasonably certain to exercise that option; and (ii) 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 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 expense. The finance expense 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 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.

(b) Extension and termination options

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

(c) Residual value guarantees

To optimize lease costs during the contract period, the Group sometimes provides residual value guarantees in relation to leases.

2.22 Segment Reporting

The Group has a single operating segment in accordance with Korean IFRS 1108 *Operating Segments*.

2.23 Approval of Issuance of the Financial Statements

The consolidated financial statements 2020 were approved for issue by the Board of Directors on January 29, 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) 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. The Group has not identified any risks that could impact the financial performance or position of the Group as at December 31, 2020. It has sufficient working capital and undrawn financing facilities to support smooth operating activities and ongoing investments. However, 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.

(b) Impairment of assets

The Group considers value-in-use when calculating recoverable amount for the impairment test of cash generating units (CGU). The value-in-use is calculated by discounting estimated future cash flows of CGU with the appropriate discount rate (Note 14).

(c) 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 (Note 23).

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.

(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 10).

(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 22).

(f) Lease

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

4. Financial Risk Management

4.1 Financial Risk Factors

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

Risk management is carried out under policies approved by the management committee within the Board of Directors. The committee reviews and approves written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and investments exceeding liquidity.

4.1.1 Market Risk

(a) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk, primarily the US dollar, Euro, Japanese Yen and Vietnamese Don. Foreign exchange risk arises from future commercial transactions, recognized assets liabilities and net investments in foreign operations.

Management has set up a policy to require operations to manage their foreign exchange risk against their functional currency.

The Group has certain investments in foreign operations, whose net assets are exposed to foreign

currency translation risk.

The table below summarizes the impact of weakened/strengthened Korean won by 10% against foreign currencies on the Group's pre-tax profit for the period, with all other variables held constant.

(in millions	of Korean won)	Impact on post-tax profit					
		2020			2019		
USD	Strengthened	₩	(6,649)	₩	(23,478)		
	Weakened		6,649		23,478		
EUR	Strengthened		(204)		489		
	Weakened		204		(489)		
JPY	Strengthened		(36)		59		
	Weakened		36		(59)		
VTN	Strengthened		(2,585)		-		
	Weakened		2,585		-		
Others	Strengthened		(17)		-		
	Weakened		17		-		

(b) Price risk

The Group is not exposed to price risk as the Group does not hold equity securities measured at fair value in the consolidated statement of financial position.

(c) Interest rate risk

Interest rate risk is defined as the risk that the interest income or expenses arising from deposits and borrowings will fluctuate due to changes in future market interest rate. The interest rate risk mainly arises through floating rate deposits and borrowings. The objective of the Group's interest rate risk management lies in maximizing corporate value by minimizing uncertainty in interest rates fluctuations and net interest expense.

The Group holds fixed and floating interest rate borrowings and is exposed to interest rate risk from the floating interest rate borrowings. The Group's management reviews interest rate fluctuation periodically and manages the interest rate risk by repaying or refinancing the borrowings.

The table below summarizes the impact of increase/decrease of interest rate by 100 basis points on the Group's pre-tax profit for the period, with all other variable held constant.

(in millions of Korean won)	Impact on post-tax profit					
Increase	2	2020	2019			
	₩	(8,276)	₩	(6,648)		
Decrease		8,276		6,648		

4.1.2 Credit Risk

Credit risk is managed on a group basis. Credit risk arises from cash and cash equivalents, financial assets and outstanding receivables, etc. If customers are independently rated, these ratings are used. Otherwise, if there is no independent rating, risk control assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. The compliance with credit limit is regularly monitored by line management. See Note 10 for more information about credit risk.

The maximum exposure to credit risk as at December 31, 2020 and 2019, is as follows:

(in millions of Korean won)	:	2020	2019		
Cash and cash equivalents ¹	₩	10,155	₩	46,059	
Trade and other receivables		222,339		150,973	
Other financial assets		54,023		5,727	
Long-term trade and other receivables		3,467		4,947	
Other non-current financial assets		917		73,869	

¹ Difference from 'Cash and cash equivalents' in the consolidated statements of financial position represents cash on hand.

4.1.3 Liquidity Risk

The Group monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on tis undrawn committed borrowing facilities at all times so that the Group does not breach borrowing limits or covenants (where applicable) on any of its borrowing facilities. The Group's liquidity forecast comprehensively considers short-term and long-term financing plan, compliance of covenants, and target financial ratios.

Details of the Group's liquidity risk analysis as at December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020								
	Les	ss than 1 year		tween 1 I 5 years		Over 5 years		Total	
Trade and other payables	₩	295,090	₩	13,186	₩	-	₩	308,276	
Borrowings (including interest expense)		313,094		1,486,155		-		1,799,249	
Derivative instruments ¹		729		-		-		729	
Lease liabilities		3,538		9,339		2,378		15,255	
Total	₩	612,451	₩ ′	1,508,680	₩	2,378	₩	2,123,509	

¹ Trading portfolio derivative instruments are included at their fair value within the less than 1 year time bucket. This is because the contractual maturities are not essential to understand the timing of the cash flows. These contracts are managed on a net fair value basis rather than by maturity date.

(in millions of Korean won)	2019									
	Less than 1 year		Between 1 and 5 years		Over 5 years		Total			
Trade and other payables	₩	219,882	₩	12,519	₩	-	₩ 232,401			
Borrowings (including interest expense)		220,744		832,034		492,083	1,544,861			
Derivative instruments ¹		1,156		-		-	1,156			
Lease liabilities		37		4,308		745	5,090			
Total	₩	441,819	₩	848,861	₩	492,828	₩ 1,783,508			

¹ Trading portfolio derivative instruments are included at their fair value within the less than 1 year time bucket. This is because the contractual maturities are not essential to understand the timing of the cash flows. These contracts are managed on a net fair value basis rather than by maturity date.

4.2 Capital Risk Management

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

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The Group monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is total borrowings (including 'short and long-term borrowings' as shown in the consolidated statement of financial position) less cash and cash equivalents. Total capital is 'equity' as shown in the consolidated statement of financial position plus net debt.

The gearing ratio as at December 31, 2020 and 2019, is as follows:

(in millions of Korean won)		2020	2019		
Total borrowings	₩	1,660,193	₩	1,341,766	
Less: cash and cash equivalents		(10,181)		(46,059)	
Net debt		1,650,012		1,295,707	
Total equity		402,353		454,708	
Total capital	₩	2,052,365	₩	1,750,415	
Gearing ratio		80.40%		74.02%	

4.3 Fair Value of Financial Instruments

During the year ended December 31, 2020, there have been no significant changes in the business and economic environment affecting the fair value of the Group's financial assets and liabilities.

4.3.1 Fair Value Hierarchy

Items that are measured at fair value of 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 that an entity can access at the measurement date (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 as at December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020								
	Level 1			Level 3	vel 3 Total				
Assets Financial assets at fair value through profit or loss (derivative financial assets)	₩	- ₩	28	₩	- ₩	28			
Total	₩	- ₩	28	₩	- ₩	28			
Liabilities Financial liabilities at fair value through profit or loss (derivative financial liabilities)	₩	- ₩	729	₩	- ₩	729			
Total	₩	- ₩	729	₩	- ₩	729			

¹ The Group uses market approach as valuation technique for derivative financial assets and liabilities classified as level 2 in fair value hierarchy. Inputs are exchange rates and others.

(in millions of Korean won)	2019								
	Level 1	Level 1 Level 2 ¹		Level 3		Total			
Assets Financial assets at fair value through profit or loss (derivative financial assets) Total	₩	<u>-</u> -	₩	9,806 9,806	₩	<u>-</u>	₩	9,806 9,806	
Liabilities Financial liabilities at fair value through profit or loss (derivative financial liabilities)	_₩	<u>-</u>	₩	1,156	_₩	_	₩	1,156	
Total	₩		₩	1,156	₩	-	₩	1,156	

¹ The Group uses market approach as valuation technique for derivative financial assets and liabilities classified as level 2 in fair value hierarchy. Inputs are exchange rates and others.

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

There were no transfers between fair value hierarchy levels for the year ended December 31, 2020.

4.3.3 Valuation Techniques and the Inputs

Valuation techniques and inputs used in fair value measurements categorized within Level 2 of the fair value hierarchy as at December 31, 2020, are as follows:

(in millions of Korean won)					2020	
		air alue	Level	Valuation techniques	Inputs	Level 3Range of inputs (weighted average)
Derivatives						
Assets	₩	28	2	Market approach	Exchange rate, discount rate and others	N/A
Liabilities		729	2	Market approach	Exchange rate,	N/A

4.3.4 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 10).

5. Segment Information

The Group has a single operating segment in accordance with Korean IFRS 1108 Segment Reporting.

Details of revenue broken down by location of the customers for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020			2019
Korea	₩	691,500	₩	806,153
North America		24,486		30,272
Asia		781,907		662,955
Europe		273,109		274,239
South America		10,807		6,427
Africa		29,405		24,749
Others		5,976		7,675
	₩	1,817,190	₩	1,812,470

There is no key customer who contributes more than 10% of the Group's revenue for the year ended December 31, 2020. Information on key customer who contributed more than 10% of the Group's revenue for the year ended December 31, 2019, is as follows:

(in millions of Korean won)	2019					
	Reven	ue amount	Revenue %			
Hyosung TNC Corporation	₩	238,054	13.13%			

6. Transfer of Financial Assets

Under factoring arrangement, the Group sells trade receivables at a discount to the financial institutions for the years ended December 31, 2020 and 2019. The Group may retain an obligation to compensate a financial institution for debtors' failure to make payment when they become due, an obligation known as a 'recourse obligation'. Recourse obligations related to the sales of receivables with recourse are accounted for as collateralized borrowings (Notes 10, 20 and 37).

Details of transferred financial assets that are not derecognized in their entirety as at December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	Loans and receivables						
		2020		2019			
Carrying amount of assets	₩	72,708	₩	33,420			
Carrying amount of the associated liabilities		(72,708)		(33,600)			
Net position	₩	-	₩	(180)			

7. Financial Instruments by Categories

(a) Carrying Amounts of Financial Instruments by Category

Carrying amounts of financial assets and liabilities by category as at December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020							
	Financial instruments at amortized cost		Financial assets measured at FVTPL		Total			
Assets								
Cash and cash equivalents	₩	10,181	₩	-	₩	10,181		
Trade and other receivables		203,548		18,791		222,339		
Other financial assets		53,996		28		54,024		
Long-term trade and other receivables		3,467		-		3,467		
Other non-current financial assets		917				917		
	₩	272,109	₩	18,819	₩	290,928		

(in millions of Korean won)	2020									
	Financial liabilities at amortized cost		Other financial liabilities		Financial liabilities measured at FVTPL			Total		
Liabilities										
Trade and other payables	₩	295,090	₩	-	₩	-	₩	295,090		
Borrowings		230,418		73,346		-		303,764		
Other financial liabilities Long-term trade and other		-		3,378		729		4,107		
payables		13,186		-		-		13,186		
Long-term borrowings Other non-current financial		1,356,429		-		-		1,356,429		
liabilities				10,726				10,726		
	₩	1,895,123	₩	87,450	₩	729	₩	1,983,302		

(in millions of Korean won)	2019							
	Financial instruments at amortized cost		Financial assets measured at FVTPL		Total			
Assets								
Cash and cash equivalents	₩	46,059	₩	-	₩	46,059		
Trade and other receivables		150,973		-		150,973		
Other financial assets		3,998		1,729		5,727		
Long-term trade and other receivables		4,947		-		4,947		
Other non-current financial assets		65,791		8,077		73,868		
	₩	271,768	₩	9,806	₩	281,574		

(in millions of Korean won)		2019									
	Financial liabilities at amortized cost		Other financial liabilities		Financial liabilities measured at FVTPL	Total					
Liabilities											
Trade and other payables	₩	219,307	₩	575	₩ -	₩	219,882				
Borrowings		152,271		33,645	-		185,916				
Other financial liabilities Long-term trade and other		-		37	1,156		1,193				
payables		12,519		-	_		12,519				
Long-term borrowings Other non-current financial		1,155,850		-	-		1,155,850				
liabilities		-		4,668			4,668				
	₩	1,544,652	₩	34,220	₩ 1,156	₩	1,580,028				

(b) 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 millions of Korean won)	2020	2019		
Financial assets measured at amortized cost:				
Interest income	₩ 236	₩ 190		
Gain on foreign currency translation	2,476	2,661		
Loss on foreign currency translation	(4,194)	(2,432)		
Reverse of bad debt expenses (bad debt expense)	(304)	66		
Financial liabilities measured at amortized cost:				
Interest expense	(42,453)	(35,039)		
Gain on foreign currency translation	8,270	11,625		
Loss on foreign currency translation	(12,532)	(15,165)		
Other financial liabilities ¹ :				
Interest expense	(1,071)	(1,476)		
Gain on foreign currency translation	1,770	230		
Loss on foreign currency translation	(644)	(1,191)		
Financial assets/liabilities at FVTPL				
Gain (loss) on transaction (profit or loss for the year)	(1,425)	2,217		
Gain (loss) on valuation (profit or loss for the year)	(969)	6,195		

¹ Other financial liabilities include financial liabilities that are related to transfer transactions of financial assets not derecognized in their entirety. Such financial liabilities are not subject to application of financial liability categorization.

8. Cash and Cash Equivalents

Cash and cash equivalents as at December 31, 2020 and 2019, consist of:

(in millions of Korean won)		2020	2019			
Cash on hand	₩	26	₩	24		
Bank deposits		10,155		46,035		
	₩	10,181	₩	46,059		

9. Restricted Financial Instruments

Restricted financial instruments as at December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	20)20	2019			Description
Other non-current financial assets	₩	15	₩		15	Checking account deposits

10. Trade and Other Receivables

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

(in millions of Korean won)	2020									
		eceivable amount		vision for pairment	Book amount					
Trade receivables	₩	175,429	₩	(1,360)	₩	174,069				
Other receivables		48,292		(22)		48,270				
Long-term other receivables		3,467		-		3,467				
	₩	227,188	₩	(1,382)	₩	225,806				
(in millions of Korean won)	2019									
		eceivable amount		vision for pairment	Вос	ok amount				
Trade receivables	₩	144,058	₩	(1,056)	₩	143,002				
Other receivables		7,992		(22)		7,970				
Long-term other receivables		4,947				4,947				
	₩	156,997	₩	(1,078)	₩	155,919				

The Group has transferred trade receivables amounting to $\forall 72,708$ million (2019: $\forall 33,600$ million) to banks in exchange for cash as at December 31, 2020. The Group may retain an obligation to compensate a bank for debtors' failure to make payment when they become due; therefore, the transaction has been accounted for as a collateralized borrowing (Notes 6 and 20).

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

(in millions of Korean won)	2	020	2019		
Other receivables					
Non-trade receivables	₩	46,155	₩	7,375	
Accrued income		1		3	
Short-term loans		4		-	
Deposits provided		2,110		592	
		48,270		7,970	
Long-term other receivables					
Long-term loans		1,364		879	
Deposits provided		2,103		4,068	
		3,467		4,947	
	₩	51,737	₩	12,917	

The fair value of long-term trade and other receivables is calculated by discounting nominal value of expected future cash inflows at a discount rate which reflects credit risk.

(in percentage)	2020	2019
Discount rate	1.60%~4.00%	1.60%~4.00%

The aging analysis of trade and other receivables as at December 31, 2020 and 2019, are as follows:

(in millions of								2020							
Korean won)		_													
	Receivables not past due		Up to 3 months			4 to 6 months		7 to 12 months		Over 12 months		Impaired		Total	
Trade receivables Loss allowance	₩	135,868	₩	37,737	₩	177	₩	205	₩	248	₩	1,194	₩	175,429	
provision		(9)		(7)		(4)		(14)		(132)		(1,194)		(1,360)	
Expected loss rate		0.01%		0.02%		2.26%		6.83%		53.23%		100%		0.78%	
		135,859		37,730		173		191		116		_		174,069	
Other receivables Loss allowance		47,879		391		-		-		-		22		48,292	
provision						-		_				(22)		(22)	
		47,879		391		_								48,270	
Long-term other receivables		3,467			·						ī		-	3,467	
	₩	187,205	₩	38,121	₩	173	₩	191	₩	116	₩		₩	225,806	

(in millions of							20	19						
Korean won)														
	Receivables not past due		Up to 3 months		4 to 6 months		7 to 12 months		Over 12 months		Impaired		Total	
Trade receivables Other	₩	134,420	₩	8,016	₩	395	₩	-	₩	418	₩	809	₩	144,058
receivables Long-term other		7,992		-		-		-		-		-		7,992
receivables		4,947												4,947
	₩	147,358	₩	8,016	₩	395	₩	-	₩	418	₩	809	₩	156,997

The above amounts do not reflect the present value discount and provisions for impairment.

Individually impaired receivables mainly relate to customers that are experiencing unexpected economic difficulties. The Group expects that a portion of their receivables will be recovered. If the Group determines that no objective evidence of impairment exists for an individually assessed receivable, it collectively assesses them for impairment. The collective impairment assessment is calculated based on credit loss information from sales and related payment data for 24 months as of the end of the reporting period.

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

(in millions of						2	2020					
Korean won)	Beginning balance		Bad debt expense		Reversal of bad debt expense		Changes in scope of consolidation		Others		Ending balance	
Trade receivables and long-term other receivables Other receivables and long-term other receivables	₩	1,056	₩	304	₩	-	₩	-	₩	-	₩	1,360
	₩	1,078	₩	304	₩	-	₩	-	₩	-	₩	1,382
(in millions of						2	2019					
Korean won)	Beginning balance		Bad debt expense		Reversal of bad debt expense		Changes in scope of consolidation		Others		Ending balance	
Trade receivables and long-term other receivables Other receivables and long-term other receivables	₩	1,122	₩	(66)	₩	-	₩	-	₩		₩	1,056
	₩	1,144	₩	(66)	₩		₩		₩		₩	1,078

Provision for impaired trade receivables and unused amounts reversed are included in the consolidated statement of profit or loss within 'selling, general and administrative expenses' (Note 31). Provision for impaired other receivables and unused amounts reversed are included in the consolidated statement of profit or loss within 'other income and expenses' (Note 32). Receivables for which an impairment provision was recognized are written off against the provision when there is no expectation of recovering additional cash.

11. Other Financial Assets and Liabilities

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

	2020	2019		
₩	53,996	₩	3,998	
	917		65,791	
	28		9,806	
	54,941		79,595	
	(54,024)		(5,726)	
₩	917	₩	73,869	
	_		_	
₩	14,104	₩	4,705	
	729		1,156	
	14,833		5,861	
	(4,107)		(1,193)	
₩	10,726	₩	4,668	
	₩	₩ 53,996 917 28 54,941 (54,024) ₩ 917 ₩ 14,104 729 14,833 (4,107)	₩ 53,996 ₩ 917 28 54,941 (54,024) ₩ 917 ₩ ₩ 14,104 ₩ 729 14,833 (4,107)	

The Group has entered into currency swap contracts to hedge the risk of foreign currency exchange rate fluctuations relating to borrowings as at December 31, 2020. The Group recognizes gain or loss on valuation of derivatives in profit or loss.

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

(in millions of Korean won)		20)20		2019				
		Assets	Lia	Liabilities		Assets		Liabilities	
Current derivative financial assets and liabilities									
Currency swap	₩	19	₩	-	₩	1,709	₩	-	
Forward exchange		9		729		20		1,156	
		28		729		1,729		1,156	
Non-current derivative financial assets and liabilities									
Currency swap		<u>-</u>		_		8,077		<u>-</u>	
		_		-		8,077		-	
	₩	28	₩	729	₩	9,806	₩	1,156	

12.Other Assets

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

(in millions of Korean won)		2020	2019			
Other current assets						
Advance payments	₩	2,098	₩	108,757		
Prepaid expenses		3,946		7,033		
		6,044		115,790		
Other non-current assets						
Long-term prepaid expenses		2,250		54		
Other investment assets		3,435		1,937		
		5,685		1,991		
	₩	11,729	₩	117,781		

13.Inventories

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

(in millions of				2020					20	019				
Korean won)		Cost	Pr	ovision		Book mount		Cost Pr		Cost Provis		Provision		Book mount
Merchandise	₩	2,330	₩	(12)	₩	2,318	₩	2,779	₩	-	₩	2,779		
Finished goods Semi-finished		78,128		(2,353)		75,775		85,308		(3,881)		81,427		
goods		7,066		(135)		6,931		15,580		(489)		15,091		
Raw materials		25,064		(157)		24,907		10,468		(123)		10,345		
Sub-materials		15,968		(639)		15,329		13,541		(638)		12,903		
Supplies		3,145		(380)		2,765		2,414		(38)		2,376		
Packaging		1,235		(34)		1,201		756		(37)		719		
Goods in transit		13,935				13,935		1,871				1,871		
	₩	146,871	₩	(3,710)	₩	143,161	₩	132,717	₩	(5,206)	₩	127,511		

Inventories recognized as an expense for the year ended December 31, 2020 amount to $\mbox{$W$}$ 1,593,445 million (2019: $\mbox{$W$}$ 1,511,776 million), which is included in 'cost of sales'. Also, the Group recognized reversal of provisions for inventories amounting to $\mbox{$W$}$ 1,496 million (2019: $\mbox{$W$}$ 4,329 million) for the year ended December 31, 2020, which is included in the statement of profit or loss within 'cost of sales'.

14. Property, Plant and Equipment

/in millions of

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

(in millions of			2020								
Korean won)		Cost	Accumulated depreciation ¹	Book	amount		Cost	Accumulated depreciation ¹	а	Book mount	
Land	₩	138,770	₩ -	₩	138,770	₩	138,770	₩ -	₩	138,770	
Building		199,176	(44,918)		154,258		174,191	(40,293)		133,898	
Structures		360,967	(55,243)		305,724		180,351	(47,411)		132,940	
Machinery		1,995,388	(1,368,214)		627,174		1,719,922	(1,217,256)		502,666	
Vehicles		5,749	(4,637)		1,112		5,461	(4,452)		1,009	
Tools an equipment	ıd	75,154	(54,765)		20,389		61,142	(48,079)		13,063	
Others		30,935	(235)		30,700		15,751	(3,841)		11,910	
Construction in progress	in	576,785	-		576,785		509,296	-		509,296	
Machinery in transit	İ	101	-		101		80	-		80	
Right-of-use assets		72,136	(3,802)		68,334		7,737	(3,036)		4,701	
	₩	3,455,161	₩ (1,531,814)	₩ 1,	923,347	₩	2,812,701	₩ (1,364,368)	₩	1,448,333	

¹ Accumulated impairment losses are included.

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

(in millions of								20	20							
Korean won)													(Others		
		ginning				-4		preciation	_			airment	(F/X		Ending 	
	b	alance	A	dditions	Dis	sposal ¹	ar	nd others ²	Tr	ansfers ³		loss ⁴	С	hange)	b	alance
Land	₩	138,770	₩	-	₩	-	₩	-	₩	-	₩	_	₩	-	₩	138,770
Buildings		133,898		257		-		(4,661)		27,660		-		(2,896)		154,258
Structures		132,940		-		-		(8,095)		202,427		-		(21,548)		305,724
Machinery		502,666		1,129		(171)		(150,381)		313,184		(9,800)		(29,453)		627,174
Vehicles		1,009		-		(4)		(526)		633		-		-		1,112
Tools and equipment		13,063		162		-		(7,175)		15,130		-		(791)		20,389
Others		11,910		17,285		-		(4,350)		5,855		-		-		30,700
Construction in																
progress		509,296		634,647		-		-		(545,721)		-		(21,437)		576,785
Machinery in transit		80		14,532		-		-		(14,511)		-		-		101
Right-of-use assets		4,701		13,765		(781)		(4,206)		54,992		=		(137)		68,334
	₩	1,448,333	₩	681,777	₩	(956)	₩	(179,394)	₩	59,649	₩	(9,800)	₩	(76,262)	₩ .	1,923,347

¹ Disposal of right-of-use assets include effect of lease contract changes.

² Others include loss of other tangible assets of $\forall 772$ million and supplies expenses for process of $\forall 3,577$ million.

 $^{^3}$ Transfers include $\mbox{$W$}$ 4,153 million of accumulated loss of other property, plant and equipment transferred to provision for loss, $\mbox{$W$}$ 1,701 million of prepaid expenses related to acquisitions on property, plant and equipment as at December 31, 2019 transferred to other property, plant and equipment, $\mbox{$W$}$ 11,395 million of construction in progress transferred to intangible assets, and $\mbox{$W$}$ 54,992 million of intangible assets transferred to right-of-use asset of land.

 $^{^4}$ Due to cumulative operating losses, impairment test on POK business was performed, and impairment loss amounting to $\forall 9,800$ million is recognized, included in 'other expenses' in the statement of profit or loss.

(in millions of										2019								
Korean won)													Eff	fect of				
		ginning				Depreciation			nsfers	sfers Government		t accounting		Others (F/X		Ending		
	b	alance	Add	ditions	Dis	posal	and	l others1	hers ¹ and others ²		others ² grants		cha	anges³	cł	nange)	b	alance
Land	₩	138,770	₩	-	₩	-	₩	-	₩	-	₩	-	₩	-	₩	-	₩	138,770
Buildings		137,602		-		-		(4,167)		463		-		-		-		133,898
Structures		136,045		-		-		(4,508)		1,403		-		-		-		132,940
Machinery		604,803		1,764		-		(131,024)		27,550		(427)		-		-		502,666
Vehicles		1,351		-		(4)		(529)		191		-		-		-		1,009
Tools and equipment		15,638		161		(3)		(6,240)		3,507		-		-		-		13,063
Others		9,772		5,619		-		(3,481)		-		-		-		-		11,910
Construction in progress		73,191		472,055		-		-		(31,521)		-		-		(4,429)		509,296
Machinery in transit		383		1,290		-		-		(1,593)		-		-		-		80
Right-of-use assets				7,467		(253)		(4,124)						1,611		-		4,701
	₩	1,117,55 5	₩	488,356	₩	(260)	₩	(154,073)	₩	-	₩	(427)	₩	1,611	₩	(4,429)	₩	1,448,333

¹ Others include loss of other tangible assets of \forall 1,222 million and supplies expenses for process of \forall 2,259 million.

Depreciation includes \forall 171,341 million (2019: \forall 136,504 million) in manufacturing costs, \forall 3,672 million (2019: \forall 3,466 million) in 'selling, general and administrative expenses' and \forall 804 million (2019: \forall 844 million) in 'research and development expenses'.

Certain amounts of the property, plant and equipment are provided as collaterals to financial institutions for borrowings (Note 37).

Government grants

The Group entered into development agreements with Korea Evaluation Institute of Industrial Technology and others for various national research projects, including development of materials related to Polyketone and High-Purity Hydrogen Chloride.

As at December 31, 2020, the balance of government grants related to asset acquisition is \forall 436 million (2019: \forall 886 million), and the balance of liabilities related to government grants is \forall 89 million (2019: \forall 71 million).

Fair value of land as at December 31, 2020, is \$\text{\psi}\$ 157,479 million (2019: \$\text{\psi}\$ 156,420 million) and the fair value is estimated based on the value determined by the Korean government, which is announced for property tax assessment purposes, etc.

Impairment Test on Cash Generating Unit (CGU)

² Transfers include transfer of construction in progress, transfer of machinery in transit, and transfer between property, plant and equipment and intangible assets.

³ Effect of accounting changes includes the amount of right-of use assets with implementation of Korean IFRS 1116 Leases.

The Group performed impairment test on CGU of POK business that had an indication of impairment, and cash flows were estimated assuming that COVID-19 will end within the estimated period upon measurement of value-in use. In addition, when estimating the recovery rate, the recovery period and the discount rate of cash flows, the industry characteristics and historical data of the CGU were comprehensively considered. The assumptions applied for the estimate of value-in-use of CGU as at December 31, 2020, are as follows:

POK business

Sales growth rate	0.0 ~ 76.3%
Gross margin	-8.1 ~ 24.6%
Perpetual growth rate	0.0%
Discount rate	11.6%

As a result, the book amount of property, plant and equipment exceeded the recoverable amount, and impairment loss of \forall 9,800 million was recognized on the allocated property, plant, and equipment of the CGU.

The expected impairment loss upon fluctuation in perpetual growth rate and discount rate are as follows:

	ımpa	irment
Decrease in perpetual growth rate by 0.5%pt	₩	(2,874)
Increase in discount rate by 0.5%pt		(4,172)

15.Leases

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

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

(in millions of Korean won)		2020	2019		
Right-of-use assets ¹					
Real estate	₩	8,146	₩	3,542	
Facility equipment		32		22	
Vehicles		378		407	
Land		54,053		58,885	
Others		5,725		730	
	₩	68,334	₩	63,586	

¹ Included in 'property, plant and equipment' in the consolidated statements of financial position.

(in millions of Korean won)		2020		2019
Lease liabilities ¹				
Current	₩	3,378	₩	37
Non-current		10,726		4,669
	₩	14,104	₩	4,706

¹ Included in 'other non-current financial liabilities' in the consolidated statements of financial position.

Additions to right-of-use assets due to new contracts and changes in lease contracts amount to $\mbox{$\forall $13,765$}$ million for the year ended December 31, 2020.

(b) Amount recognized in the consolidated statements of profit or loss

The amounts recognized in the consolidated statements of profit or loss in relation to leases are as follows:

(in millions of Korean won)		2020		2019		
Depreciation of right-of-use assets						
Real estate	₩	2,953	₩	2,242		
Land		938		-		
Facility equipment		6		3		
Vehicles		268		121		
Others		41		23		
	₩	4,206	₩	2,388		
Interest expense (included in financial cost)	₩	143	₩	205		
Expense relating to short-term leases and leases of low-value assets (included in 'cost of sales' and						
'selling, general and administrative expenses')		4,200		3,627		

The total cash outflow for leases in 2020 was ₩ 7,591 million.

16.Intangible Assets

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

(in millions of	2020										
Korean won)		dustrial ights	Oth	ner intangible assets ¹	Ме	mbership	Total				
Beginning balance Additions	₩	1,969 48	₩	63,903 75	₩	7,200 -	₩	73,072 123			
Disposals Amortization		- (41E)		(706)		-		- (4 404)			
Transfers and others ²		(415)		(706) (43,597)		-		(1,121) (43,597)			
Others (F/X change)		-		(5,351)		-		(5,351)			
Ending balance	₩	1,602	₩	14,324	₩	7,200	₩	23,126			

¹ Facility usage rights and etc. are included.

² Transfers include transfers between property, plant and equipment and intangible assets, etc.

(in millions of	2019								
Korean won)	Ir	ndustrial rights	Oth	er intangible assets ¹	Mer	mbership		Total	
Beginning balance	₩	2,315	₩	64,630	₩	7,200	₩	74,145	
Additions		108		563		-		671	
Disposals		-		(668)		-		(668)	
Amortization		(454)		(2,753)		-		(3,207)	
Others (F/X change)		-		2,131		-		2,131	
Ending balance	₩	1,969	₩	63,903	₩	7,200	₩	73,072	

¹ Facility usage rights and etc. are included.

Amortization of \forall 477 million (2019: \forall 259 million) is included in manufacturing costs, \forall 279 million (2019: \forall 314 million) in 'research and development expenses', and \forall 365 million (2019: \forall 2,634 million) in 'selling, general and administrative expenses'

17.Insurance Coverage

As at December 31, 2020, property, plant and equipment are insured, and details of insurance are as follows:

(in millions of Korean won)	Insured assets		Book amount		ired amount	Insurance company	
Package insurance	Property, plant and equipment	₩	1,272,214	₩	4,250,121	Samsung Fire and Marine Insurance Co., Ltd. and others	

18.Investments in Associates

Details of investments in associated as at December 31, 2020 and 2019, are as follows:

	Percentage of	f ownership (%)		
	2020	2019	Location	Reporting month
Shinwha Intertek Corp. ¹	20%	15.26%	Korea	December 31

¹ The Group acquired an additional 4% of shares in March 2020 to meet the holding company requirements of Hyosung Corporation, and the percentage of ownership changed from 15.26% to 20% as at December 31, 2020.

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

(in millions of	2020											
Korean won)						Valua	tion	of equity met	hod			
	Beç	ginning	-	sition osal)	m	ain on equity nethod estments	con	Other nprehensive loss	Ot	hers ¹	E	nding
Shinwha Intertek Corp.	₩	10,738	₩	3,541	₩	699	₩	(10)	₩	748	₩	15,716
(in millions of	2019											
Korean won)						Valua	tion	of equity met	hod			
	Beç	ginning	•	sition osal)	m	ain on equity nethod estments	con	Other nprehensive loss	Ot	hers ²	E	nding
Shinwha Intertek Corp.	₩	6,692	₩	-	₩	1,378	₩	(7)	₩	2,675	₩	10,738

¹ The Group recognized bargain purchase gain due to purchase of additional shares and dividends

received amounting to $\forall 970$ million and $\forall 222$ million, respectively, for the year ended December 31, 2020.

Summary of condensed financial information of associates, details of adjustments from the book amount of investments in associates, and dividends received from associates as at and for the years ended December 31, 2020 and 2019, are as follows:

(in millions of										2020								
Korean won)		urrent ssets		n-current assets		urrent		-current pilities	R	evenue	inco	erating me from ntinuing erations	comp	ther orehens ncome	com	Total prehens income	Divid receive assoc	d from
Shinwha Intertek Corp.	₩	66,672	₩	104,730	₩	72,655	₩	645	₩	255,628	₩	2,883	₩	82	₩	2,965	₩	222
(in millions of Korean won)		urrent	Non	n-current	Cı	urrent	Non-	current		2019	incor	erating ne from		her rehens		otal orehen	Divide	
		ssets		issets		oilities		ilities	Re	venue		rations	-	come		ncome	associ	
Shinwha Intertek Corp.	₩	71,065	₩	112,363	₩	82,706	₩	4,778	₩	254,429	₩	16,076	₩	24	₩	8,845	₩	-

Details of adjustments from financial information of associates to the book amount of investments in associates as at December 31, 2020 and 2019, are as follows:

(in millions of						2020				
Korean won)	Ne	t assets (a)	Percentage of ownership (b)	ne	erests in t assets (axb)	Goodwill	Inter-group transactions	Others		Book mount
Shinwha Intertek Corp.	₩	98,102	20.00%	₩	19,619	₩ -	. ₩ -	₩ (3,903)	₩	15,716
(in millions of						2019				
Korean won)	Ne	t assets (a)	Percentage of ownership (b)	ne	erests in t assets (axb)	Goodwill	Inter-group transactions	Others		Book mount
Shinwha Intertek Corp.	₩	95,944	15.26%	₩	14,641	₩ -	- ₩ -	₩ (3,903)	₩	10,738

² Reversal of impairment loss was recognized in investments in associates as at December 31, 2019 after valuation of fair value less costs to sell.

Fair value of marketable investments in associates as at December 31, 2020 and 2019, is as follows:

(in millions of Korean won)	2020									
	Number of shares	Market pri share (in Korean	Fai	r value	Book value					
Shinwha Intertek Corp.	5,827,100	₩	3,285	₩	19,142	₩	15,716			
(in millions of Korean won) 2019										
	Market pri share (in Korean	e .	Fai	r value	Воо	k value				
Shinwha Intertek Corp.	4.446.227	₩	3.880	₩	17.251	₩	10.738			

19. Related Party Transactions

China

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

Significant Influence over the Group

Olgrinicant innacine	e over the Group
Location	Related party
Domestic	Hyosung Corporation
Associates	
Location	Related party
Domestic	Shinwha Intertek Corp.
Other related partie	es ·
Location	Related party
Domestic	Galaxia Device Co., Ltd., Galaxia Micro Payments Co., Ltd., GALAXIA E LECTRONICS CO.,LTD., Kongduk Development Co., Ltd., THE CLASS H YOSUNG, THE PREMIUM HYOSUNG Co., Ltd., Dong Ryung Co., Ltd., Shin Dong Jin Co., Ltd., A-Seung Automotive Group, Trinity Asset Manag ement Co., Ltd, Hyosung Premier Motors Corporation, ASC Co. Ltd, Hyosung GoodSprings, Inc., Hyosung Trans World Co., Ltd., HYOSUNG TNS INC., atmplus,Inc, NAUTILUS HYOSUNG CMS INC., Forza Motors Korea Corp., HYOSUNG FMS INC. and others
	Huizhou Galaxia Device Electronics., Co.Ltd, Weihai newsolim Electronics.,

INTERTEK(SUZHOU), DNS Technology Co., Ltd and others

Co.Ltd, Qingdao Galaxia Device Electronics., Co.Ltd, Tianjin Galaxia Device

Electronics., Co.Ltd, DONGGUAN SHINWHA INTERTEK CORP., SHINWHA

Asia	Galaxia Japan, VINA ASC AUTOMOTIVE COMPANY LIMITED, Hyosung
ASIA	(H.K) LIMITED and others
Europe	SHINWHA INTERTEK SLOVAKIA S.R.O, Hyosung RUS and others
America	HICO America Sales & Tech., Hyosung Holdings USA, Inc., Hyosung Mexico
America	S. de R.L. de C.V., and others
Others	Hyosung Resource (Australia) PTY Ltd. and others

Others1

Location	Related party
Domestic	Hyosung Heavy Industries Corporation, Hyosung Advanced Materials Corporation, Hyosung TNC Corporation, CHINHUNG INTERNATIONAL INC., Taebaek Wind Power Co., Ltd., Pyeongchang Wind Power Co., Ltd., Galaxia SM, INC., Galaxia Moneytree Co., Ltd., THE KWANGJUILBO, Some sevit Corporation, Hyosung ITX. CO., LTD, HYOSUNG INFORMATION S YSTEMS CO.,LTD and others
China	GST Automotive Safety(Changshu) Co. Ltd, Hyosung Spandex (Jiaxing) Co., Ltd., Hyosung Chemical Fiber(Jiaxing) Co., Ltd., Hyosung Spandex (Quzhou) Co., Ltd., Hyosung Chemicals(Jiaxing) Co., Ltd., Hyosung International Trade(Jiaxing) Co., Ltd., Hyosung Spandex (GuangDong) Co., Hyosung NEW Material & High Technology(Quzhou) Co., Ltd and others
Asia	GST China Investment Limited, Hyosung (H.K) LIMITED, Hyosung (Taiwan) Corporation, HYOSUNG INDIA Pvt Ltd, Hyosung Corporation India Private Limited., Hyosung DongNai Co, LTD, Hyosung International(HK) Ltd., Hyosung Japan Co., Ltd., Hyosung Singapore PTE Ltd., PT. HYOSUNG JAKARTA, Hyosung Vietnam Co., Ltd., HYOSUNG T&D INDIA Pvt Ltd,
America	Global Safety Textiles U.S. Holdings, Inc., GST Automotive Safety Components International LLC, Nautilus Hyosung America Inc., GST Safety Textiles Mexico S. de R.L. de C.V, HICO America Sales & Tech., Hyosung Holdings USA, Inc., Hyosung Mexico S. de R.L. de C.V., Hyosung Mexico CITY S.A de C.V. and others
Europe	Global Safety Textiles GmbH, Green Plan Energy(Wellingborough) Limited, GST Automotive Safety Poland Sp.z.oo, GST Global GmbH, Hyosung Europe SRL, Hyosung Istanbul TEKSTIL LTD.STI, Hyosung Luxembourg S.A and others
Others	GST Automotive Safety South Africa(Proprietary) Limited, Hyosung South Africa (PTY) LTD. and others

¹ Although the entities are not related parties of the Group in accordance with Korean IFRS 1024, the entities belong to the large enterprise group that the Group also belongs to in accordance with the Monopoly Regulation and Fair Trade Act.

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

(in millions of		2020								
Korean won)	Related party	Sales and others ¹	Purchases and others ¹	Acquisition of property, plant and equipment and intangible assets	Acquisition of right-of-use assets	Interest expense ²				
Significant influence over the Group	Hyosung Corporation	₩ 9	₩ 27,915	₩ 246	₩ -	₩ -				
Associates	Shinwha Intertek Corp.	17,026	21	-	-	-				
Other related parties	Shin Dong Jin Co., Ltd.	-	105	-	4,539	50				
	Kongduk Development Co., Ltd.	-	100	-	936	8				
	Hyosung Trans World Co., Ltd.	-	42,941	-	-	-				
	Hyosung Holdings USA	4,474	315	-	-	-				
	Others		1,206	946		1				
		4,474	44,667	946	5,475	59				
Others	Hyosung TNC Corporation	130,800	69,951	-	2,769	44				
	Hyosung Heavy Industries Corporation Hyosung Advanced	171	685	6,938	-	-				
	Materials Corporation	-	430	-	-	-				
	Hyosung Japan Co., Ltd.	53,076	14	-	-	-				
	Hyosung NEW Material & High Technology (Quzhou) Co., Ltd	16,475	-	-	-	-				
	Hyosung International(HK) Ltd.	16,289	-	-	-	-				
	Hyosung Chemical Fiber(Jiaxing) Co., Ltd.	2,135	30,769	-	-	-				
	Others	2,553	4,267	1,758	42	1				
		221,499	106,116	8,696	2,811	45				
		₩ 243,008	₩ 178,719	₩ 9,888	₩ 8,286	₩ 104				

² Interest expense recognized in accordance with lease contracts of buildings is ₩ 104 million for the year ended December 31, 2020.

(in millions of	2019						
Korean won)	Related party		Sales and others ¹		chases and others ¹	Acquisition of property, plant and equipment and intangible assets	
Significant influence over the Group	Hyosung Corporation	₩	8	₩	29,364	₩ -	
Associates	Shinwha Intertek Corp.		12,690		-	-	
Other related parties	Hyosung Trans World co., Ltd.		-		36,323	-	
	Shin Dong Jin Co., Ltd.		-		476	-	
	Hyosung GoodSprings, Inc.		671		144	220	
	Hyosung Holdings USA		2,050		169	-	
	Others				176	203	
			2,721		37,288	423	
Others	Hyosung TNC Corporation		238,054		88,426	-	
	Hyosung Heavy Industries Corporation		-		272	24,416	
	Hyosung Advanced Materials Corporation		-		345	-	
	Hyosung Japan Co., Ltd.		52,614		74	-	
	Hyosung Chemical Fiber (Jiaxing) Co., Ltd.		2,620		24,203	-	
	Hyosung International(HK) Ltd.		11,828		-	-	
	Others		11,782		4,888	599	
			316,898		118,208	25,015	
		₩	332,317	₩	184,860	₩ 25,438	

¹ Sales, other income, interest income and others are included in sales and others. Purchase of raw materials, selling, general and administrative expenses, other expenses and others are included in purchases and others.

¹ Sales, other income, interest income and others are included in sales and others. Purchase of raw materials, selling, general and administrative expenses, other expenses and others are included in purchases and others.

Outstanding balances arising from sales/purchases of goods and services as at December 31, 2020 and 2019, are as follows:

(in millions of		2020								
Korean won)	Related party	Trade receivables	Other receivables ¹	Trade payables	Other payables ¹	Lease liabilities ²				
Significant influence over the Group	Hyosung Corporation	₩ -	₩ 371	₩ 86	₩ 2,505	₩ -				
Associates	Shinwha Intertek Corp.	2,732	-	-	-	-				
Other related parties	Shin Dong Jin Co., Ltd. Kongduk	-	1,343	-	220	4,646				
	Development Co., Ltd.	-	-	-	-	860				
	Hyosung Trans World Co., Ltd.	-	-	2,850	6,296	-				
	Hyosung Holdings USA	-	-	-	110	-				
	Others	-	-	476	93	-				
			1,343	3,326	6,719	5,506				
Others	Hyosung TNC Corporation	14,864	524	6,672	614	2,395				
	Hyosung Heavy Industries Corporation ³	-	386	-	314	-				
	Hyosung Advanced Materials Corporation	-	366	36	-	-				
	Hyosung Chemical Fiber(Jiaxing) Co., Ltd.	458	107	3,526	-	-				
	Hyosung Japan Co., Ltd.	1,440	-	165	-	-				
	Hyosung NEW Material & High Technology (Quzhou) Co., Ltd	4,912	-	-	-	-				
	Hyosung Chemical (Jiaxing) Co., Ltd.	526	18	-	-	-				
	Others	189	8	102	901	37				
		22,389	1,409	10,501	1,829	2,432				
		₩ 25,121	₩ 3,123	₩ 13,913	₩ 11,053	₩ 7,938				

¹ Non-trade receivables, advance payments, guarantee deposits and others are included in other receivables. Non-trade payables, deposits received, provisions for restoration and others are included in other payables.

 $^{^2}$ The balance of lease liabilities recognized in accordance with lease contracts of buildings amount to $\,$ 7,938 million as at December 31, 2020.

 $^{^3}$ The Group recognized $\mbox{$orall T}$,200 million of memberships for Hyosung Heavy Industries Corporation as memberships.

(in millions of		2019								
Korean won)		Trade	Other							
,	Related party	receivables	receivables ¹	Trade payables	Other payables ¹					
Significant influence over the Group	Hyosung Corporation	₩ 1	₩ 55	₩ 261	₩ 2,398					
Associates	Shinwha Intertek Corp.	2,580	-	-	-					
Other related parties	Hyosung Holdings USA	65	-	-	14					
	Shin Dong Jin Co., Ltd.	-	1,722	-	3,451					
	Kongduk Development Co., Ltd.	-	116	-	278					
	Hyosung Trans World Co., Ltd.	-	-	2,060	4,257					
	Others	-	692	-	193					
		65	2,530	2,060	8,193					
Others	Hyosung TNC Corporation	5,300	526	7,056	712					
	Hyosung Heavy Industries Corporation ²	-	1,619	1,886	2,217					
	Hyosung Advanced Materials Corporation	-	366	33	-					
	Hyosung Chemical Fiber (Jiaxing) Co., Ltd.	723	-	3,712	-					
	Hyosung Japan Co., Ltd.	3,614	-	289	6					
	Hyosung Neochem (Quzhou) Co., Ltd.	432	-	-	-					
	Hyosung Chemical (Jiaxing) Co., Ltd.	1,199	-	-	-					
	Others		142	33	783					
		11,268	2,653	13,009	3,718					
		₩ 13,914	₩ 5,238	₩ 15,330	₩ 14,309					

¹ Non-trade receivables, loans, accrued income and others are included in other receivables. Non-trade payables, deposits received and others are included in other payables.

 $^{^2}$ The Group recognized $\,\,\,\,\,\,\,\,$ 7,200 million of memberships for Hyosung Heavy Industries Corporation as memberships.

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

(in millions of				2020			
Korean won)		Borrowing	transactions		Dividends	Acquisition of	
	Related party	Borrowings	Repayments ²	Dividends paid	received	shares	
Significant influence over the Group	Hyosung Corporation	₩ -	₩ -	₩ 3,217	₩ -	₩ -	
Associates	Shinwha Intertek Corp.1	-	-	-	222	3,541	
Other related parties	Shin Dong Jin Co., Ltd.	4,405	2,285	-	-	-	
·	Kongduk Development Co., Ltd. ²	914	340	-	-	-	
	Gongdeok Gyeongwoo Development Corporation	-	27	-	-	-	
		5,319	2,652	-	-	-	
Others	Hyosung TNC Corporation ³ KB Wise Star	2,645	294	-	-	-	
	Professional Investment Private Real Estate Investment Trust #11	40	3	-	-	-	
		2,685	297				
		₩ 8,004	₩ 2,949	₩ 3,217	₩ 222	₩ 3,541	

¹ The Group acquired additional 1,380,873 shares of Shinwha Intertek Corp. for the year ended December 31, 2020.

The compensation paid or payable to key management who are executive directors for employee services for the years ended December 31, 2020 and 2019, consists of:

(in millions of Korean won)		2020		2019
Salaries and other short-term employee benefits	₩	917	₩	767
Post-employment benefits		117		94
	₩	1,034	₩	861

 $^{^2}$ The Group additionally recognized right-of-use assets and lease liabilities amounting to $\mbox{$\,$\psi}$ 936 million and $\mbox{$\,$\mbox{$\,$\psi}$}$ 914 million, respectively, due to change in office lease contract as at December 31, 2020. The repayments of lease liabilities and interest expense amount to $\mbox{$\,$\mbox{$\,$\psi}$}$ 340 million and $\mbox{$\,$\mbox{$\,$\mbox{$\,$\mbox{$\,$\mbox{$\,$}\mbox{$\,$\mbox{$\,$}\mbox{$\,$}\mbox{$\,$}\mbox{$\,$\mbox{$\,$}\mbox{$\,$}\mbox{$\,$\mbox{$\,$}\mbox{$\,$}\mbox{$\,$\mbox{$\,$}\mbox{$\,$}\mbox{$\,$}\mbox{$\,$\mbox{$\,$}\mbox{$\,$}\mbox{$\,$}\mbox{$\,$}\mbox{$\,$\mbox{$\,$}\mbox{$$

³ The Group recognized right-of-use assets and lease liabilities amounting to $\mbox{$W$}$ 2,769 million and $\mbox{$W$}$ 2,645 million, respectively, due to lease contract of the plant as at December 31, 2020. The repayments of lease liabilities and interest expense amount to $\mbox{$W$}$ 294 million and $\mbox{$W$}$ 44 million, respectively, for the year ended December 31, 2020.

There are no payment guarantees provided by the Group to the related parties as at December 31, 2020.

There are no collaterals provided by the Group to the related parties as at December 31, 2020.

20.Borrowings

Borrowings as at December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020			2019
Short-term borrowings	₩	119,000	₩	9,421
Borrowings on trade receivables sales ¹		73,346		33,600
Long-term borrowings		878,041		782,827
Debentures		589,806		515,918
		1,660,193		1,341,766
Less: current portion		(303,764)		(185,916)
	₩	1,356,429	₩	1,155,850

¹ The Group sells trade receivables in foreign currency to financial institutions and accounts for as collateralized borrowings for transactions in which the Group has recourse to pay the relevant amount to the bank when the sales customers go bankrupt. (Notes 6 and 37)

The Group provides a part of the Group's property, plant and equipment as collateral for the above borrowings. (Notes 14 and 37)

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

(in millions of Korean won)	Creditor	Latest maturity date	Annual interest rate (2020) (%)		2020		2019
Short-term borrowin	gs denominated in Kore	an won					
General loan	Korea Development Bank and others	2021-11-12	1.89~2.47%	₩	85,300	₩	9,421
Others	Shinhan Bank and others	2021-11-09	2.61~2.72%		5,757		-
Short-term borrowin	gs denominated in forei	gn currency					
General loan	KEB Hana Bank and others	2021-04-14	1.35~1.50%		27,943		33,600
Borrowings on trade receivables sales	Woori Bank and others	-	-		73,346		-
				₩	192,346	₩	43,021

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

(in millions of Korean won)	Creditor	Latest maturity date	Annual interest rate (2020) (%)		2020		2019
Long-term borrowings	s denominated in Kore	an won					
General loan	Industrial and Commercial Bank of China and others	2023-03-29	2.36~2.48%	₩	88,000	₩	51,000
Facility loan	Korea Development Bank and others	2023-07-27	2.93~3.60%		12,500		75,000
Long-term borrowings	s denominated in forei	gn currency					
General loan	KEB Hana Bank	2021-03-04	1.75%		5,440		176,340
Facility loan	Korea Development Bank and others	2025-12-23	3.08~3.13%		772,101		480,487
					878,041		782,827
Less: current portion					(13,440)		(22,934)
				₩	864,601	₩	759,893

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

(in millions of Korean wo	n)		Annual				
		Latest	interest rate				
		maturity date	(%)		2020		2019
Public bond	256-3	2020-02-25	-	₩	-	₩	50,000
Public bond	257-2	2020-06-26	-		-		70,000
Public bond	259-2	2021-04-25	3.43%		98,000		98,000
Private bond	1	2022-03-08	3.19%		30,000		30,000
Public bond	2-1	2022-05-10	2.55%		85,000		85,000
Public bond	2-2	2024-05-10	3.03%		50,000		50,000
Public bond	3-1	2022-12-02	2.49%		80,000		80,000
Public bond	3-2	2024-12-03	2.89%		54,000		54,000
Public bond	4-1	2023-02-17	2.47%		117,000		-
Public bond	4-2	2025-02-19	2.74%		67,000		-
Private bond	5	2023-09-22	2.42%		10,000		
					591,000		517,000
Discount on debentures					(1,194)		(1,082)
Less: current portion					(97,978)		(119,962)
				₩	491,828	₩	395,956

21. Trade Payables and Other Payables

Trade payables and other payables as at December 31, 2020 and 2019, are as follows:

(in millions of Korean won)		2020	2019		
Trade payables	₩	146,214	₩	132,026	
Other payables		148,876		87,855	
Long-term other payables		13,186		12,519	
	₩	308,276	₩	232,400	

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

(in millions of Korean won)	2020			2019
Other payables				
Non-trade payables	₩	133,250	₩	74,700
Accrued expenses		14,257		11,094
Withholdings		1,312		2,004
Deposits received		57		57
		148,876		87,855
Long-term other payables				
Non-trade payables		2		2
Accrued expenses		1,477		1,099
Deposits received		11,707		11,418
		13,186		12,519
	₩	162,062	₩	100,374

The fair value of long-term other payables is calculated by discounting nominal value of expected future cash inflows at a discount rate which reflects credit risk.

(in percentage)	2020	2019
Discount rate	1.80%~2.50%	2.10%~2.50%

The fair value of trade and other payables are similar to the book amount as at December 31, 2020.

22.Net Defined Benefit Liabilities

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

(in millions of Korean won)		2020	2019		
Present value of defined benefit obligations	₩	65,126	₩	56,437	
Fair value of plan assets ¹		(68,562)		(58,374)	
Net defined benefit liabilities (assets)	₩	(3,436)	₩	(1,937)	

¹ The contributions to the National Pension Fund of \forall 34 million (2019: \forall 37 million) are included in the fair value of plan assets as at December 31, 2020.

The amounts of defined benefit plan recognized in the consolidated statements of income for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)		2020		2019
Current service cost	₩	7,838	₩	6,890
Interest expense		1,199		1,079
Interest income		(1,423)		(1,231)
Total expense included in employee benefit	₩	7,614	₩	6,738

Line items including total expense of defined benefit plan in the consolidated statements of income for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)		2020		2019
Cost of sales	₩	5,015	₩	2,315
Selling, general and administrative expenses		2,599		4,423
	₩	7,614	₩	6,738

Movements in the defined benefit obligations for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020			2019		
Beginning balance	₩	56,437	₩	44,749		
Current service cost		7,838		6,890		
Interest expense		1,199		1,079		
Benefit payments		(4,547)		(1,936)		
Remeasurements:						
Change in demographic assumptions		-		(154)		
Change in financial assumptions		2,118		3,538		
Experience adjustments		1,442		2,406		
Transfer from (to) associates		639		(135)		
Ending balance	₩	65,126	₩	56,437		

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

(in millions of Korean won)	,	2020	2019		
Beginning balance	₩	58,374	₩	43,239	
Interest income		1,423		1,231	
Employer's contributions		12,300		16,100	
Benefit payments		(3,727)		(1,646)	
Remeasurements		(497)		(495)	
Transfer from (to) associates		689		(55)	
Ending balance	₩	68,562	₩	58,374	

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

(in millions of Korean won)		202	0	2019				
	Δ	Amount	Portion (%)		Amount	Portion (%)		
Deposits	₩	47,883	69.84	₩	40,529	69.43		
Debt instruments		20,679	30.16		17,845	30.57		
	₩	68,562	100.00	₩	58,374	100.00		

Remeasurements of net defined benefit liabilities recognized as other comprehensive income (expenses) for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	:	2019		
Before income tax effects	₩	(4,057)	₩	(6,285)
Income tax effects		981		1,521
After income tax effects	₩	(3,076)	₩	(4,764)

Accumulated remeasurements of net defined benefit liabilities recognized as retained earnings is ₩ 9,850 million (2019: ₩ 6,774 million) as at December 31, 2020.

The significant actuarial assumptions as at December 31, 2020 and 2019, are as follows:

(in percentage)	2020	2019		
Discount rate	2.49%	2.39%		
Salary growth rate	2.93%	2.52%		

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

	Changes in assumption	Impact on defined benefit obligation
Discount rate	1.0% Increase/Decrease	9.6% Decrease / 11.5% Increase
Salary growth rate	1.0% Increase/Decrease	11.3% Increase / 9.6% Decrease

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

Effect of defined benefit obligation on future cash flows

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 $\mbox{$W$}$ 7,760 million and the expected balance of plan assets is $\mbox{$W$}$ 73,587 million as at December 31, 2021.

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

(in millions of Korean won)	Less than 1 Between 1~ year years			В	etween 2~5 years	Over 5 years			Total	
Pension benefits	₩	4,423	₩	5,941	₩	16,207	₩	129,299	₩	155,870

The weighted average duration of the defined benefit obligations is 10.5 years.

The expense recognized in the current period in relation to defined contribution plan was \forall 1,064 million (2019: \forall 838 million).

23. Tax Expense and Deferred Tax

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

(in millions of Korean won)		2020	2019		
Current tax					
Current tax on profit for the year	₩	18,011	₩	21,062	
Claim for tax return and others		(263)		(3,876)	
		17,748		17,186	
Deferred tax					
Increase (decrease) in temporary differences		(2,710)		5,004	
		(2,710)		5,004	
Income tax expense	₩	15,038	₩	22,190	

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 Group as follows:

(in millions of Korean won)		2020	2019
Profit before income tax expense	₩	3,421	₩ 110,014
Tax at domestic tax rates applicable to profits in the respective countries		13,287	26,206
Income tax effects:			
- Income not subject to tax		(3)	-
- Expenses not deductible for tax purposes		192	454
- Claim for tax return and others		(407)	(3,876)
- Tax credits		(712)	(1,005)
- Others		2,681	411

Income tax expense	₩	15,038	₩	22,190

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

(in millions of	2020						2019					
Korean won)	Ве	fore tax	Та	ax effect	Af	ter tax	Be	fore tax	Ta	x effect	Af	er tax
Remeasurements of net defined benefit liabilities Overseas operations	₩	4,057	₩	(982)	₩	3,075	₩	6,285	₩	(1,521)	₩	4,764
translation gain (loss)		25,789		(4,024)		21,765		16,629		(4,024)		12,605

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

(in millions of Korean won)		2020	2019		
Deferred tax assets Deferred tax assets to be recovered after more					
than 12 months	₩	34,214	₩	15,911	
Deferred tax assets to be recovered within 12 months		2,596		16,424	
		36,810		32,335	
Deferred tax liabilities					
Deferred tax liabilities be recovered after more than 12 months Deferred tax liabilities to be recovered within 12		(27,448)		(14,023)	
months		(5)		(16,671)	
		(27,453)		(30,694)	
Deferred tax assets, net	₩	9,357	₩	1,641	

The movements in the deferred income tax account for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2	2020	2019		
Beginning balance	₩	1,641	₩	6,645	
Tax charged to the statement of profit or loss		2,710		(10,549)	
Tax charged to components of other					
comprehensive income		5,006		5,545	
Ending balance	₩	9,357	₩	1,641	

The movement in deferred tax assets and liabilities for the years ended December 31, 2020 and 2019, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

(in millions of Korean won)	2020								
		Beginning balance		Profit or loss		Other comprehensive income		Ending balance	
Deferred tax liabilities									
Surplus on revaluation of land Defined benefit pension plan	₩	(11,133)	₩	-	₩	-	₩	(11,133)	
assets		(13,568)		(3,669)		982		(16,255)	
Others		(5,994)		1,905		4,024		(65)	
		(30,695)		(1,764)		5,006		(27,453)	
Deferred tax assets Post-employment benefit		40.007							
obligation Provision for receivables in excess of tax limit		13,267		1,977 84		-		15,244 84	
Government grants		17		4		_		21	
Loss on valuation of inventories Impairment loss on property,		1,260		(643)		-		617	
plant and equipment		14,496		2,370		-		16,866	
Accrued compensated absence Long-term employment		1,317		(532)		-		785	
allowance		266		91		-		357	
Others		1,713		1,123		-		2,836	
		32,336		4,474				36,810	
	₩	1,641	₩	2,710	₩	5,006	₩	9,357	

(in millions of Korean won)	2019								
	Other								
	Beginning balance	Statement of profit or loss	comprehensive income	Ending balance					
Deferred tax liabilities									
Surplus on revaluation of land Defined benefit pension plan	₩ (11,133)	₩ -	₩ -	₩ (11,133)					
assets	(10,454)	(4,635)	1,521	(13,568)					
Others	(1,749)	(8,268)	4,024	(5,993)					
	(23,336)	(12,903)	5,545	(30,694)					
Deferred tax assets Post-employment benefit									
obligation	10,234	3,033	-	13,267					
Provision for receivables in excess of tax limit	27	(27)	-	-					
Government grants	4	13	-	17					
Loss on valuation of inventories Impairment loss on property,	2,307	(1,047)	-	1,260					
plant and equipment	14,496	-	-	14,496					
Accrued compensated absence Long-term employment	996	321	-	1,317					
allowance	222	44	-	266					
Others	1,695	17		1,712					
	29,981	2,354		32,335					
	₩ 6,645	₩ (10,549)	₩ 5,545	₩ 1,641					

The future possibility of realizing deferred tax assets depends on a number of factors, including the Group's ability to generate taxable income during the period when the temporary differences are realized, the overall economic environment and the industry outlook. The Group periodically reviews these matters, and the Group recognized deferred tax assets for all deductible temporary differences except for deductible temporary differences not realizable as at December 31, 2020, which are deductible temporary difference related to investments in associates amounting to \forall 21,262 million (2019: \forall 21,262 million) and the accumulated deficit of Hyosung Vina Chemicals Co., Ltd.

24.Other Liabilities

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

(in millions of Korean won)		2020		2019
Other current liabilities				
Provision for greenhouse gas emission ¹	₩	2,960	₩	-
Other provisions		1		-
Advances from customers		5,880		3,887
		8,841		3,887
Other non-current liabilities				
Unearned revenues		1,292		1,582
Provision for loss		5,782		-
Provision for restoration		59		
		7,133		1,582
	₩	15,974	₩	5,469

Regarding greenhouse gas emissions, the Group sets provision for expected expenses arising from emissions exceeding the Group's emission rights capacity in a given year. The expected emissions as at December 31, 2020 is 128,678 tCO2-eq.

Changes in provisions for the year ended December 31, 2020, are as follows:

(in millions of Korean won)		reenhouse gas emission		Loss		Loss		Restoration		ers	٦	Γotal
Beginning balance	₩	-	₩	-	₩	-	₩	-	₩	-		
Profit or loss:		2,960		1,628		59		1		4,648		
Additional provisions		2,960		2,135		59		1		5,155		
Used during the year		-		(507)		-		-		(507)		
Transfers		-		4,154		-		-		4,154		
Ending balance	₩	2,960	₩	5,782	₩	59	₩	1	₩	8,802		
Current	₩	2,960	₩	-	₩	-	₩	1	₩	2,961		
Non-current		-		5,782		59		-		5,841		

The Group's free allocation of emission rights and the estimated quantity of greenhouse gas emission as at December 31, 2020, are as follows:

(in tCO2-eq)	2019	2020
Beginning balance	-	-
Free allocation	747,499	748,187
Provision	26,379	(26,379)
Purchases ¹	56,000	128,678
Submission to the government ²	(829,878)	(850,486)
Carryforward	<u> </u>	
Ending balance		-

¹ The actual quantity of emissions purchased is written for 2019, and the expected quantity of emissions to purchase is written for 2020. The emission rights purchased by the Group is 56,000 tCO2-eq for the year ended December 31, 2020.

25. Share Capital

The Group's total number of authorized shares is 200,000,000 shares and the total number of ordinary shares issued is 3,190,126 shares with a par value of $\forall 5,000$ per share. There is no change in share capital for the year ended December 31, 2020.

26. Retained Earnings

Retained earnings as at December 31, 2020 and 2019, consist of:

(in millions of Korean won)		2020		2019	Remark
Legal reserves	₩	1,907	₩	318	1
Retained earnings before appropriation		65,700		97,857	
	₩	67,607	₩	98,175	

¹ The Commercial Code of the Republic of Korea requires the Group to appropriate for each financial period, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its issued share capital. The reserve is not available for cash dividends payment, but may be transferred to share capital or used to reduce accumulated deficit. When the accumulated legal reserves (the sum of capital reserves and earned profit reserves) are greater than 1.5 times the paid-in capital amount, the excess legal reserves may be distributed (in accordance with

² The actual quantity of emissions submitted is written for 2019, and the expected quantity of emissions to submit is written for 2020. The expected emissions as at December 31 ,2020 is 128,678 tCO2-eq.

a resolution of the shareholders' meeting).

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

(in millions of Korean won)	2020			2019		
Beginning	₩	98,175	₩	18,284		
Profit (loss) for the year		(11,617)		87,823		
Remeasurements of net defined benefit liabilities		(3,062)		(4,754)		
Annual dividends		(15,889)		(3,178)		
Ending	₩	67,607	₩	98,175		

27. Other Components of Equity

Other components of equity as at December 31, 2020 and 2019, consist of:

	2020		2019
₩	1,268	₩	1,268
	(1,843)		(1,843)
	833		856
	(9,160)		12,604
₩	(8,902)	₩	12,885
	₩	(1,843) 833 (9,160)	₩ 1,268 ₩ (1,843) 833 (9,160)

¹ The Group holds 12,331 treasury shares due to spin-off in 2018.

28. Revenue

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

(in millions of Korean won)		2020	2019		
Merchandise	₩	45,436	₩	31,471	
Finished goods		1,724,158		1,738,458	
Others		47,596		42,541	
	₩	1,817,190	₩	1,812,470	

29. Expenses by Nature

Cost of sales, selling, general and administrative expenses and research and development expenses by nature for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)		2020	2019		
Changes in inventories of finished goods and work in	₩	(40,400)	144	(54.400)	
process and others	VV	(46,182)	₩	(54,128)	
Sales of merchandise		39,911		28,055	
Raw materials and consumables used		1,098,779		1,094,605	
Employee benefits expenses (Note 30)		108,174		96,087	
Depreciation and amortization		176,938		157,334	
Electricity expense		125,761		114,134	
Export expense		13,048		9,646	
Fuel expense		14,125		10,973	
Service expense		36,214		30,647	
Outsourcing expense		3,767		3,162	
Other expenses		185,727		168,068	
Total ¹	₩	1,756,262	₩	1,658,583	

¹ Total of cost of sales, selling, general and administrative expenses and research and development expenses in the consolidated statements of income.

30.Employee Benefits Expenses

Employee benefits expenses for the years ended December 31, 2020 and 2019, consist of:

(in millions of Korean won)		2020	2019		
Salaries	₩	87,664	₩	79,158	
Employee welfare benefits		11,832		9,353	
Pension costs – defined contribution plans (Note 22)		1,064		838	
Pension costs – defined benefit plans (Note 22)		7,614		6,738	
	₩	108,174	₩	96,087	

31. Selling, General and Administrative Expenses

Selling, general and administrative expenses for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020			2019		
Salaries	₩	25,023	₩	21,049		
Post-employment benefits		2,733		2,433		
Employee welfare benefits		2,900		1,846		
Training		371		581		
Service expenses		2,921		2,712		
Transportation		733		2,409		
Communications		519		448		
Taxes and dues		1,294		1,248		
Rental expenses		662		497		
Depreciation		3,669		3,466		
Amortization		365		2,633		
Bad debt expenses (reversal)		304		(66)		
Advertising expenses		182		1,188		
Commission expenses		13,926		13,469		
Export expenses		11,213		9,646		
Others		5,107		5,146		
	₩	71,922	₩	68,705		

32.Other Income and Other Expenses

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

(in millions of Korean won)	2020			2019		
Other operating income						
Rental income	₩	292	₩	286		
Gain on disposal of property, plant and equipment		199		53		
Gain on disposal of lease assets		22		3		
Miscellaneous gains		6,494		3,631		
		7,007		3,973		
Other operating expenses						
Donations		470		387		
Loss on disposal of property, plant and equipment		171		3		
Loss on disposal of lease assets		1		3		
Impairment loss on property, plant and equipment		9,800		-		
Miscellaneous expenses		7,437		5,919		
		17,879		6,312		
	₩	(10,872)	₩	(2,339)		

33. Finance Income and Expenses

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

(in millions of Korean won)	2020			2019		
Finance income						
Interest income						
- Financial assets at amortized costs	₩	236	₩	190		
Gain on foreign currency transactions		26,653		16,569		
Gain in foreign currency translation		12,516		14,516		
Gain on derivative transactions		7,894		4,828		
Gain on valuation of derivatives		9		7,659		
		47,308		43,762		
Finance expenses				_		
Interest income						
- Financial liabilities at amortized costs		42,453		35,039		
- Other financial liabilities		1,071		1,476		
Loss on foreign currency transactions		21,692		25,839		
Loss on foreign currency translation		17,370		18,788		
Loss on derivative transactions		9,319		2,611		
Loss on valuation of derivatives		978		1,464		
Others		2,728		4,131		
		95,611		89,349		
	₩	(48,303)	₩	(45,587)		

The Group recognizes income and expenses related to exchange differences as finance income and expenses.

34. Earnings (Losses) Per Share

Basic earnings (losses) per ordinary share is calculated as follows:

(in millions of Korean won)		2020		2019
Profit(loss) attributable to the ordinary equity holders ¹ Weighted average number of ordinary shares	₩	(11,616)	₩	87,823
outstanding ²		3,177,795		3,177,795
Earnings(losses) per share (in Korean won)	₩	(3,656)	₩	27,637

¹ Profit(loss) attributable to the ordinary equity holders is equal to profit(loss) for the year.

35. Dividends

The dividends in respect of the year ended December 31, 2019, amounting to a total dividend of \forall 15,889 million was paid in 2020. There are no dividends in respect of the year ended December 31, 2020.

² Weighted average number of ordinary shares outstanding for the year ended December 31, 2020, are 3,177,795 shares. The Group purchased treasury shares of 12,331 as odd shares, which resulted from spin-off, after the Group got re-listed on July 13, 2018.

36.Statement of Cash Flows

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

(in millions of Korean won)		2020	2019		
Profit before income tax	₩	3,421	₩	110,014	
Adjustments for:					
Interest income and expenses		43,288		36,326	
Loss on foreign currency translation		4,854		4,272	
Loss (gain) on valuation of derivatives		969		(6,195)	
Depreciation and amortization		176,938		157,334	
Gain on disposition of property, plant and equipment and investment property		(28)		(105)	
Impairment loss on property, plant and equipment and intangible assets		9,800		-	
Bad debt expense and other bad debt expense (reversal)		304		(66)	
Post-employment benefits		7,614		6,738	
Gain on investments in associates		(1,669)		(1,378)	
Reversal on provision for valuation loss of inventories		(1,496)		-	
Valuation and scrap loss of inventories		4,149		-	
Others		11,395		(4,108)	
Changes in operating assets and liabilities:				,	
Decrease (increase) in trade receivables		(33,474)		29,456	
Decrease (increase) in inventories		(20,240)		452	
Decrease (increase) in other receivables		(42,163)		4,648	
Decrease in other financial assets		-		2,037	
Decrease (increase) in other assets		87,294		(68,419)	
Increase (decrease) in trade payables		17,175		(30,097)	
Decrease in other payables		(20,446)		(22,390)	
Increase in other financial liabilities		-		1,156	
Payment of defined benefit liabilities		(870)		(14,950)	
Payment of plan assets		(12,300)		-	
Cash generated from operations	₩	234,515	₩	204,725	

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

(in millions of						2	2020						
Korean won)	_	nort-term rrowings	p lo	Current ortion of ong-term orrowings	Debe	ntures	Lo	ong-ter rrowin			.ease bilities		Total
Beginning balance	₩	43,021	₩	142,896	₩ 39	95,956	₩	759,8	393	₩	4,706	₩	<i>†</i> 1,346,472
Cash flows Gain (loss) on foreign		157,280		(194,275)	19	93,346		219,6	889		(3,391)	372,649
currency translation Amortization of discount		(486)		5,669		-		2,7	' 46		-		7,929
on debentures Effect of non-cash		-		-		542			-		-		542
transactions		(7,469)		157,128	(9	98,016)		(117,7	<u>727)</u>		12,789		(53,295)
Ending balance	₩	192,346	₩	111,418	₩ 49	91,828	₩	864,6	601	₩	14,104	₩	<i>†</i> 1,674,297
(in millions of						2	019						
Korean won)			(Current po									
	_	short-term orrowings		of long-te borrowin		Debe	entui	res		rrowi			Total
Beginning balance	₩	255,239) †	// 144	,636	₩	217	,551	₩	36	5,260	₩	982,686
Cash flows Gain on foreign currency		(213,588	3)		-		179	,000		39	3,534		358,946
translation		1,370)		-			-			6,199		7,569
Amortization of discount on debentures Effect of non-cash			-		(38)		((595)			-		(633)
transactions				(1	,702)					(5,100)		(6,802)
Ending balance	₩	43,021	<u> </u>	// 142	2,896	₩	395	,956	₩	75	9,893	₩	1,341,766

Details of major transactions without cash inflows and outflows for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)		2020		2019
Transfer of construction in progress	₩	559,034	₩	31,560
Transfer of borrowings and bonds to current portion		157,128		1,702
Acquisition of right-of-use assets		13,765		9,078

37. Contingencies and Commitments

- (1) There are no notes provided as collateral as at December 31, 2020.
- (2) Commitment contracted with financial institutions

The Group entered into agreements such as bank overdrafts, trade bill discounts, open local L/C, general loans and others with financial institutions with a limit of \forall 1,749,122 million. Also, the Group entered into trade receivables discount agreements with a limit of \forall 3,150 million as at December 31, 2020.

(3) Guarantees provided by others

Details of payment guarantees provided by others as at December 31, 2020, are as follows:

(in millions of Korean won)	Guaranteed amount		Details
Kookmin Bank	₩	33,510	Performance guarantee and others
Woori Bank		29,011	Performance guarantee and others
Shinhan Bank		16,741	Performance guarantee and others
Nonghyup Bank		89,223	Performance guarantee and others
Seoul Guarantee Insurance Company		46,697	Performance guarantee and others
Vietin Bank		1,862	Performance guarantee and others
	₩	217,044	

(4) Assets pledged as collaterals

Details of assets pledged as collaterals as at December 31, 2020, are as follows:

(in millions of Korean won)	Related borrowings			ted amount greement	Provided to
Property, plant and equipment	₩	11,357	₩	60,000	Woori Bank
Property, plant and equipment		70,500		420,000	Korea Development Bank
Property, plant and equipment		5,000		55,000	Shinhan Bank
Property, plant and equipment		65,280		65,280	Vietcom Bank and others
Trade receivables		73,346		73,346	Woori Bank and others
Short-term financial instruments		-		54,286	Nonghyup Bank and others
Long-term financial instruments	-			901	Vietcom Bank
	₩	225,483	₩	728,813	

(5) Pending lawsuits

There are no pending lawsuits as at December 31, 2020.

(6) Liability of the Group due to spin-off

The Group spun off by a special resolution of the shareholders in accordance with Paragraph 1 of Article 530-9 of the Commercial Code of Korea. The Group or newly established entity from the spin-off is jointly and severally liable for payables of the company before the spin-off, in accordance with Paragraph 1 of Article 530-9 of the Commercial Code of Korea.