

Hyosung Chemical Corporation and Subsidiary

**Consolidated Financial Statements
December 31, 2021 and 2020**

Hyosung Chemical Corporation and Subsidiary

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December 31, 2021 and 2020

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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 statements of financial position as at December 31, 2021 and 2020, and the consolidated statements of profit or loss, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of Hyosung Chemical Corporation and its subsidiary as at December 31, 2021 and 2020, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS).

Basis for Opinion

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

Emphasis of Matter

Without modifying our opinion, we draw attention to Note 3 to the consolidated financial statements of the Group. Note 3 to the consolidated financial statements describes 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 independence and 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 compared current year actual results with the prior year forecast.
- We evaluated the reasonableness of key assumptions used in estimating value in use.
- We examined the accuracy of value in use calculations.

Other Matters

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

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

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

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

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

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

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

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

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

to continue as a going concern.

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

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is Youngseok Bae, Certified Public Accountant.

Seoul, Korea

March 8, 2022

<p>This report is effective as of March 8, 2022, 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.</p>
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Hyosung Chemical Corporation and Subsidiary
Consolidated Statements of Financial Position
December 31, 2021 and 2020

<i>(in Korean won)</i>	Notes	2021	2020
Assets			
Current assets			
Cash and cash equivalents	4,8,9	₩ 34,797,251,561	₩ 10,181,377,491
Trade and other receivables	4,7,8,11	327,974,480,633	222,338,573,348
Other financial assets	4,5,8,12	756,420,271	54,023,757,848
Other current assets	13	33,081,937,710	6,043,720,153
Other intangible assets	17	7,343,879	-
Inventories	14	401,004,350,414	143,161,585,501
		<u>797,621,784,468</u>	<u>435,749,014,341</u>
Non-current assets			
Long-term trade and other receivables	4,8,11	3,408,717,260	3,467,217,642
Property, plant and equipment	15,16,18,38	2,188,121,887,709	1,923,347,651,339
Intangible assets	17	33,970,502,392	23,126,250,265
Investments in associates	19	16,188,675,846	15,715,666,399
Other non-current financial assets	4,5,8,10,12	1,042,817,499	916,741,656
Other non-current assets	13,23	5,217,087,277	5,685,506,136
Deferred tax assets	24	10,631,926,966	9,356,986,691
		<u>2,258,581,614,949</u>	<u>1,981,616,020,128</u>
Total assets		<u>₩ 3,056,203,399,417</u>	<u>₩ 2,417,365,034,469</u>
Liabilities			
Current liabilities			
Trade and other payables	4,8,21	₩ 438,810,249,618	₩ 295,090,408,141
Borrowings	4,7,8,22,38	582,591,694,757	303,763,960,039
Other financial liabilities	8,12,16	4,250,708,286	4,107,228,508
Current tax liabilities	24	39,421,732,107	15,735,276,890
Other current liabilities	25,39	18,089,532,599	8,841,258,751
		<u>1,083,163,917,367</u>	<u>627,538,132,329</u>
Non-current liabilities			
Long-term trade and other payables	4,8,21	13,269,714,535	13,185,579,107
Long-term borrowings	4,8,22,38	1,437,382,100,580	1,356,428,635,032
Other non-current financial liabilities	8,12,16	7,637,639,449	10,726,160,469
Other non-current liabilities	25	13,295,302,650	7,133,398,082
		<u>1,471,584,757,214</u>	<u>1,387,473,772,690</u>
Total liabilities		<u>2,554,748,674,581</u>	<u>2,015,011,905,019</u>
Equity			
Share capital	26	15,950,630,000	15,950,630,000
Share premium		327,697,938,702	327,697,938,702
Retained earnings	27	138,223,210,823	67,606,964,768
Other components of equity	28	19,582,945,311	(8,902,404,020)
Equity attributable to owners of the Parent Company		<u>501,454,724,836</u>	<u>402,353,129,450</u>
Non-controlling interest		-	-
Total equity		<u>501,454,724,836</u>	<u>402,353,129,450</u>
Total liabilities and equity		<u>₩ 3,056,203,399,417</u>	<u>₩ 2,417,365,034,469</u>

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, 2021 and 2020

<i>(in Korean won)</i>	Notes	2021	2020
Revenue	6,20,29	₩ 2,452,990,221,917	₩ 1,817,189,980,493
Cost of sales	20,30,31	<u>2,203,715,657,379</u>	<u>1,664,136,962,492</u>
Gross profit		249,274,564,538	153,053,018,001
Selling, general and administrative expenses	30,31,32	78,919,257,707	71,922,307,554
Research and development expenses	30,31	<u>21,782,796,209</u>	<u>20,203,161,536</u>
Operating profit		148,572,510,622	60,927,548,911
Other income	33	7,430,881,227	7,007,583,184
Other expenses	33	3,066,998,233	17,879,224,228
Finance income	34	31,025,551,826	47,307,607,380
Finance expenses	34	69,917,154,387	95,611,415,800
Share of net profit of associates accounted for using the equity method		<u>325,813,059</u>	<u>1,669,254,074</u>
Profit before income tax		114,370,604,114	3,421,353,521
Income tax expense	24	<u>43,956,293,060</u>	<u>15,037,841,449</u>
Profit (loss) for the year		<u>₩ 70,414,311,054</u>	<u>₩ (11,616,487,928)</u>
Profit (loss) is attributable to:			
Owners of the Parent Company		₩ 70,414,311,054	₩ (11,616,487,928)
Non-controlling interests		-	-
		<u>₩ 70,414,311,054</u>	<u>₩ (11,616,487,928)</u>
Earnings (loss) per share attributable to the equity holders of the Parent Company			
Basic earnings (loss) per share	35	₩ 22,158	₩ (3,656)

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, 2021 and 2020

<i>(in Korean won)</i>	Notes	2021	2020
Profit (loss) for the year		₩ 70,414,311,054	₩ (11,616,487,928)
Other comprehensive income (loss)			
<i>Items that will not be reclassified to profit or loss</i>			
Remeasurements of net defined benefit liabilities	23,24	113,111,724	(3,075,121,630)
Share of remeasurements of net defined benefit liabilities of associates	19	143,655,690	12,694,357
Gain on valuation of financial assets at fair value through other comprehensive income	12	11,642,880	-
<i>Items that may be subsequently reclassified to profit or loss</i>			
Share of other comprehensive income (loss) of associates		294,895,697	(22,995,643)
Overseas operations translation gain (loss)		<u>28,123,978,341</u>	<u>(21,764,424,628)</u>
Other comprehensive income (loss) for the year, net of tax		<u>28,687,284,332</u>	<u>(24,849,847,544)</u>
Total comprehensive income (loss) for the year		<u>₩ 99,101,595,386</u>	<u>₩ (36,466,335,472)</u>
Total comprehensive income (loss) for the year is attributable to:			
Owners of the Parent Company		₩ 99,101,595,386	₩ (36,466,335,472)
Non-controlling interest		-	-
		<u>₩ 99,101,595,386</u>	<u>₩ (36,466,335,472)</u>

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, 2021 and 2020

(in Korean won)

	Attributable to owners of the Parent Company						
	Share capital	Share premium	Retained Earnings	Other Components of Equity	Total	Non-controlling Interest	Total Equity
Balance at January 1, 2020	₩ 15,950,630,000	₩ 327,697,938,702	₩ 98,174,854,969	₩ 12,885,016,251	₩ 454,708,439,922	₩ -	₩ 454,708,439,922
Total comprehensive income							
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	<u>₩ 15,950,630,000</u>	<u>₩ 327,697,938,702</u>	<u>₩ 67,606,964,768</u>	<u>₩ (8,902,404,020)</u>	<u>₩ 402,353,129,450</u>	<u>₩ -</u>	<u>₩ 402,353,129,450</u>
Balance at January 1, 2021	₩ 15,950,630,000	₩ 327,697,938,702	₩ 67,606,964,768	₩ (8,902,404,020)	₩ 402,353,129,450	₩ -	₩ 402,353,129,450
Total comprehensive income							
Profit for the year	-	-	70,414,311,054	-	70,414,311,054	-	70,414,311,054
Remeasurements of net defined benefit liabilities	-	-	113,111,724	-	113,111,724	-	113,111,724
Share of remeasurements of net defined benefit liabilities of associates	-	-	143,655,690	-	143,655,690	-	143,655,690
Gain on valuation of financial assets at fair value through other comprehensive income	-	-	-	11,642,880	11,642,880	-	11,642,880
Share of other comprehensive income(loss) of associates	-	-	(54,832,413)	349,728,110	294,895,697	-	294,895,697
Overseas operations translation gain	-	-	-	28,123,978,341	28,123,978,341	-	28,123,978,341
Balance at December 31, 2021	<u>₩ 15,950,630,000</u>	<u>₩ 327,697,938,702</u>	<u>₩ 138,223,210,823</u>	<u>₩ 19,582,945,311</u>	<u>₩ 501,454,724,836</u>	<u>₩ -</u>	<u>₩ 501,454,724,836</u>

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, 2021 and 2020

<i>(in Korean won)</i>	Note	2021	2020
Cash flows from operating activities			
Cash generated from operations	37	₩ 124,163,508,044	₩ 234,515,319,807
Income taxes paid		(21,544,778,118)	(23,437,491,883)
Interest paid		(34,393,704,208)	(43,139,203,419)
Interest received		149,260,016	179,930,147
Dividends received		291,355,000	222,311,350
Net cash inflow from operating activities		<u>68,665,640,734</u>	<u>168,340,866,002</u>
Cash flows from investing activities			
Decrease in short-term guarantees		1,000,000,000	203,165,053
Collection of long-term loans		243,642,518	237,306,430
Decrease in long-term guarantees		253,704,104	446,618,065
Proceeds from disposal of short-term financial instruments		54,917,189,313	1,657,576,417
Proceeds from disposal of derivative financial assets		27,963,676	8,809,605,173
Proceeds from disposal of long-term financial instruments		-	487,400,000
Proceeds from disposal of property, plant and equipment		295,745,770	201,847,336
Proceeds from disposal of intangible assets		1,200,000,000	-
Receipt of government grants		346,468,089	-
Increase in short-term guarantees		(311,055,766)	-
Increase in long-term loans		(340,000,000)	(740,066,434)
Increase in long-term guarantees		(67,901,844)	(287,708,200)
Payments for short-term financial instruments		-	(852,500,029)
Increase in prepaid expenses		(22,497,538,129)	(3,852,609,000)
Payments for property, plant and equipment		(328,270,453,977)	(555,757,980,514)
Payments for intangible assets		(13,405,907,799)	(123,047,781)
Payments for investments in associates		-	(3,541,386,756)
Payments for derivative financial liabilities		(729,070,682)	(426,672,760)
Payments for financial assets at fair value through other comprehensive income		(103,158,000)	-
Net cash outflow from investing activities		<u>(307,440,372,727)</u>	<u>(553,538,453,000)</u>
Cash flows from financing activities			
Proceeds from short-term borrowings		1,411,384,020,028	2,580,781,860,816
Proceeds from long-term borrowings		282,864,728,900	440,228,889,320
Proceeds from issuance of bonds		20,867,968	193,345,846,994
Repayments of short-term borrowings		(1,274,041,282,004)	(2,423,501,475,679)
Repayments of long-term borrowings		(12,500,000,000)	(220,540,000,000)
Repayments of bonds		(98,000,000,000)	(120,000,000,000)
Repayments of current portion of borrowings		(43,614,540,000)	(74,275,260,000)
Payments of dividends		-	(15,888,975,000)
Repayments of lease liabilities		(3,428,140,924)	(3,390,683,041)
Net cash inflow from financing activities		<u>262,685,653,968</u>	<u>356,760,203,410</u>
Effects of exchange rate changes on cash and cash equivalents		704,952,095	(7,440,319,694)
Net increase (decrease) in cash and cash equivalents		<u>24,615,874,070</u>	<u>(35,877,703,282)</u>
Cash and cash equivalents at the beginning of the year		<u>10,181,377,491</u>	<u>46,059,080,773</u>
Cash and cash equivalents at the end of the year		<u>₩ 34,797,251,561</u>	<u>₩ 10,181,377,491</u>

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

Hyosung Chemical Corporation and Subsidiary

Notes to the Consolidated Financial Statements

December 31, 2021 and 2020

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, 2021, the Company has plants in Yongyeon, Gumi, Oksan and Daejeon, etc. In addition, the Company has a subsidiary in Vietnam.

As at December 31, 2021, 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	6.70
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.	5,193	0.08
Others	1,778,809	55.76
Treasury shares	12,331	0.39
	3,190,126	100.00

1.1 Consolidated Subsidiary

Details of the consolidated subsidiary as at December 31, 2021 and 2020, are as follows:

	Location	Ownership interest held by the Group (%)		Closing month	Main business
		2021	2020		
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, 2021 and 2020, is as follows:

(in millions of
Korean won)

Subsidiary	2021					
	Assets	Liabilities	Equity	Sales	Loss for the year	Total comprehensive loss
Hyosung Vina Chemicals Co., Ltd.	₩ 1,844,696	₩ 1,550,802	₩ 293,894	₩ 345,048	₩ (60,504)	₩ (32,380)

Hyosung Chemical Corporation and Subsidiary
Notes to the Consolidated Financial Statements
December 31, 2021 and 2020

(in millions of
Korean won)

Subsidiary	2020						
	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)	

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 (Hangeul) 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 consolidated 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 consolidated 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.

Hyosung Chemical Corporation and Subsidiary

Notes to the Consolidated Financial Statements

December 31, 2021 and 2020

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, 2021.

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

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. A lessee that makes this election shall account for any change in lease payments resulting from the rent concession the same way it would account for the change applying this Standard if the change were not a lease modification. The amendment does not 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 (Phase 2 amendments)

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 amendment does not have a significant impact on the financial statements.

2.2.2 New standards and interpretations not yet adopted by the Group

The following new accounting standards and interpretations have been published that are not mandatory for December 31, 2021 reporting periods and have not been early adopted by the Group.

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

The amendments update a reference of definition of assets and liabilities to be recognized in a business combination 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 clarifies 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.

(b) 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

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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.

(c) 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.

(d) 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 includes 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 is in review for the impact of these amendments on the financial statements.

(e) New Standard: Korean IFRS 1117 Insurance Contract

Korean IFRS 1117 *Insurance Contracts* replaces Korean IFRS 1104 *Insurance Contracts*. This Standard estimates future cash flows of an insurance contract and measures insurance liabilities using discount rates applied with assumptions and risks at the measurement date. The entity recognizes insurance revenue on an accrual basis including services (insurance coverage) provided to the policyholder by each annual period. In addition, investment components (Refunds due to termination/maturity) repaid to a policyholder even if an insured event does not occur, are excluded from insurance revenue, and insurance financial income or expense and the investment income or expense are presented separately to enable users of the information to understand the sources of income or expenses. This Standard should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted for entities that applied Korean IFRS 1109 *Financial Instruments*. The Group is in review for the impact of this new standard on the financial statements.

(f) Korean IFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies

The amendments to Korean IFRS 1001 define and require entities to disclose their material accounting policies. The IASB amended IFRS Practice Statement 2 *Disclosure of Accounting Policies* to provide guidance on how to apply the concept of materiality to accounting policy disclosures.

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The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the financial statements.

(g) Korean IFRS 1008 Accounting policies, changes in accounting estimates and errors - Definition of Accounting Estimates

The amendments define accounting estimates and clarify how to distinguish them from changes in accounting policies. 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

(h) Korean IFRS 1012 Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction

The amendments include an additional condition to the exemption to initial recognition of an asset or liability that a transaction does not give rise to equal taxable and deductible temporary differences at the time of the transaction. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the financial statements.

(i) 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

(j) Amendment to Korean IFRS 1116 - Covid-19 - Related Rent Concessions beyond June 30, 2021

The application of the 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, is extended to lease payments originally due on or before June 30, 2022. The amendment should be applied for annual periods beginning on or after April 1, 2021, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

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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 recorded 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

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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.

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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

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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 11 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.

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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 22).

(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:

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	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

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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*, emission permits that are allocated free of charge from the government are measured at zero, and emission permits purchased are recognized at acquisition cost by including any directly attributable

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costs incurred during the normal course of business. Emission permits are carried at cost less accumulated impairment losses, and those to be submitted to the government within one year from the end of reporting period are classified as current assets.

Emission obligation is a present obligation of submitting the allowances to the government. 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 emission obligations to be settled within one year from the end of the reporting period are classified as current liabilities.

The Group derecognizes the emission permits when the emission allowance is disposed or submitted to the government or becomes unable to be disposed or submitted, and accordingly, the future economic benefits are no longer expected to be probable. The Group derecognizes the emission obligations when the Group submits the emission permits to the government. The emission permits and emission 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.

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

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

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

2.19 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

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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

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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.

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(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 2021 were approved for issue by the Board of Directors on January 26, 2022 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 2021, 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, 2021. 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 15).

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(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 24).

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 11).

(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 23).

(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

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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	
		2021	2020
USD	Strengthened	₩ (10,465)	₩ (6,649)
	Weakened	10,465	6,649
EUR	Strengthened	(120)	(204)
	Weakened	120	204
JPY	Strengthened	174	(36)
	Weakened	(174)	36
VTN	Strengthened	(3,187)	(2,585)
	Weakened	3,187	2,585
Others	Strengthened	-	(17)
	Weakened	-	17

(b) Price risk

The Group is exposed to equity securities price risk arises from investments held by the Group that are classified as at fair value through other comprehensive income in the consolidated statement of financial position.

The Group's equity investments are publicly traded and are included in the KOSPI index.

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The table below summarizes the impact of increases/decreases of this index on the Group's equity and post-tax profit for the year. The analysis is based on the assumption that the equity index has increased/decreased by 10% with all other variables held constant.

<i>(in millions of Korean won)</i>		Impact on equity	
		2021	2020
KOSPI	Increase 10%	₩	5 ₩ -
	Decrease 10%		(5) -

(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.

<i>(in millions of Korean won)</i>		Impact on post-tax profit	
		2021	2020
Increase		₩	(14,447) ₩ (8,276)
Decrease			14,447 8,276

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 11 for more information about credit risk.

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The maximum exposure to credit risk as at December 31, 2021 and 2020, is as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Cash and cash equivalents ¹	₩	34,776	₩	10,155
Trade and other receivables		327,974		222,339
Other financial assets		756		54,023
Long-term trade and other receivables		3,409		3,467
Other non-current financial assets		1,043		917

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 its 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, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021			
	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
Trade and other payables	₩ 438,810	₩ 13,270	₩ -	₩ 452,080
Borrowings (including interest expense)	817,923	614,523	-	1,432,446
Derivative instruments ¹	535	-	-	535
Lease liabilities	3,715	7,860	686	12,261
Total	<u>₩ 1,260,983</u>	<u>₩ 635,653</u>	<u>₩ 686</u>	<u>₩ 1,897,322</u>

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.

<i>(in millions of Korean won)</i>	2020			
	Less than 1 year	Between 1 and 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	<u>₩ 612,451</u>	<u>₩ 1,508,680</u>	<u>₩ 2,378</u>	<u>₩ 2,123,509</u>

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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, 2021 and 2020, is as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Total borrowings	₩	2,019,974	₩	1,660,193
Less: cash and cash equivalents		<u>(34,797)</u>		<u>(10,181)</u>
Net debt		1,985,177		1,650,012
Total equity		<u>501,455</u>		<u>402,353</u>
Total capital	₩	<u>2,486,632</u>	₩	<u>2,052,365</u>
Gearing ratio		79.83%		80.40%

5. Fair Value of Financial Instruments

During the year ended December 31, 2021, there have been no significant changes in the business and economic environment affecting the fair value of the Group's financial assets and liabilities.

5.1 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).

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- 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, 2021 and 2020, are as follows:

(in millions of Korean won)

	2021			
	Level 1	Level 2 ¹	Level 3	Total
Assets				
Financial assets at fair value through profit or loss (derivative financial assets)	₩ -	₩ 45	₩ -	₩ 45
Financial assets at fair value through other comprehensive income (available-for-sale securities)	45	-	-	45
Total	₩ 45	₩ 45	₩ -	₩ 90
Liabilities				
Financial liabilities at fair value through profit or loss (derivative financial liabilities)	₩ -	₩ 536	₩ -	₩ 536
Total	₩ -	₩ 536	₩ -	₩ 536

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)

	2020			
	Level 1	Level 2 ¹	Level 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.

5.1.1 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, 2021.

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5.1.2. 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, 2021, are as follows:

(in millions of Korean won)

	2021					Level 3 Range of inputs (weighted average)
	Fair value	Level	Valuation techniques	Inputs		
Derivatives						
Assets	₩ 45	2	Market approach	Exchange rate, discount rate and others		N/A
Liabilities	536	2	Market approach	Exchange rate, discount rate and others		N/A

5.1.3 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 11).

6. 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, 2021 and 2020, are as follows:

(in millions of Korean won)	2021		2020	
Korea	₩	862,728	₩	691,500
North America		79,565		24,486
Asia		939,948		781,907
Europe		494,568		273,109
South America		16,712		10,807
Africa		50,811		29,405
Others		8,658		5,976
	₩	<u>2,452,990</u>	₩	<u>1,817,190</u>

There is no key customer who contributes more than 10% of the Group's revenue for the year ended December 31, 2021 and 2020.

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7. 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, 2021 and 2020. 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 11, 21 and 38).

Details of transferred financial assets that are not derecognized in their entirety as at December 31, 2021 and 2020, are as follows:

(in millions of Korean won)

	Loans and receivables			
	2021		2020	
Carrying amount of assets	₩	73,680	₩	72,708
Carrying amount of the associated liabilities		(73,680)		(72,708)
Net position	₩	-	₩	-

8. 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, 2021 and 2020, are as follows:

(in millions of Korean won)

	2021			
	Financial instruments at amortized cost	Financial assets measured at FVTPL	Financial assets measured at FVTOCI	Total
Assets				
Cash and cash equivalents	₩ 34,797	₩ -	₩ -	₩ 34,797
Trade and other receivables	304,368	23,606	-	327,974
Other financial assets	-	756	-	756
Long-term trade and other receivables	3,409	-	-	3,409
Other non-current financial assets	998	-	45	1,043
	<u>₩ 343,572</u>	<u>₩ 24,362</u>	<u>₩ 45</u>	<u>₩ 367,979</u>

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(in millions of Korean won)

	2021			
	Financial liabilities at amortized cost	Other financial liabilities	Financial liabilities measured at FVTPL	Total
Liabilities				
Trade and other payables	₩ 429,237	₩ -	₩ -	₩ 429,237
Borrowings	506,475	76,117	-	582,592
Other financial liabilities	-	3,715	536	4,251
Long-term trade and other payables	13,270	-	-	13,270
Long-term borrowings	1,437,382	-	-	1,437,382
Other non-current financial liabilities	-	7,638	-	7,638
	<u>₩ 2,386,364</u>	<u>₩ 87,470</u>	<u>₩ 536</u>	<u>₩ 2,474,370</u>

(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
	<u>₩ 272,109</u>	<u>₩ 18,819</u>	<u>₩ 290,928</u>

(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	-	3,378	729	4,107
Long-term trade and other payables	13,186	-	-	13,186
Long-term borrowings	1,356,429	-	-	1,356,429
Other non-current financial liabilities	-	10,726	-	10,726
	<u>₩ 1,895,123</u>	<u>₩ 87,450</u>	<u>₩ 729</u>	<u>₩ 1,983,302</u>

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(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, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021	2020
Financial assets measured at amortized cost:		
Interest income	₩ 209	₩ 236
Gain on foreign currency translation	3,588	2,476
Loss on foreign currency translation	(806)	(4,194)
Reverse of bad debt expenses (bad debt expense)	(151)	(304)
Financial liabilities measured at amortized cost:		
Interest expense	(33,356)	(42,453)
Gain on foreign currency translation	852	8,270
Loss on foreign currency translation	(5,365)	(12,532)
Other financial liabilities		
Interest expense	(805)	(1,071)
Gain on foreign currency translation	200	1,770
Loss on foreign currency translation	(1,248)	(644)
Financial assets/liabilities at FVTPL		
Gain (loss) on transaction (profit or loss for the year)	8,930	(1,425)
Loss on valuation (profit or loss for the year)	(489)	(969)
Financial assets/liabilities at FVTOCI		
Gain on valuation (other comprehensive income)	12	-

9. Cash and Cash Equivalents

Cash and cash equivalents as at December 31, 2021 and 2020, consist of:

<i>(in millions of Korean won)</i>	2021	2020
Cash on hand	₩ 21	₩ 26
Bank deposits	34,776	10,155
	<u>₩ 34,797</u>	<u>₩ 10,181</u>

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10. Restricted Financial Instruments

Restricted financial instruments as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	Description	2021		2020	
Other non-current financial assets	Checking account deposits	₩	15	₩	15

11. Trade and Other Receivables

Details of trade and other receivables as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021					
	Receivable amount		Provision for impairment		Book amount	
Trade receivables	₩	216,115	₩	(1,378)	₩	214,737
Other receivables		113,259		(22)		113,237
Long-term other receivables		3,409		-		3,409
	₩	<u>332,783</u>	₩	<u>(1,400)</u>	₩	<u>331,383</u>

<i>(in millions of Korean won)</i>	2020					
	Receivable amount		Provision for impairment		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
	₩	<u>227,188</u>	₩	<u>(1,382)</u>	₩	<u>225,806</u>

The Group has transferred trade receivables amounting to ₩ 73,680 million (2020: ₩ 72,708 million) to banks in exchange for cash as at December 31, 2021. 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 7 and 21).

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Details of other receivables as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Other receivables				
Non-trade receivables	₩	111,800	₩	46,155
Short-term loans		12		4
Deposits provided		1,424		2,110
Accrued income		-		1
		<u>113,236</u>		<u>48,270</u>
Long-term other receivables				
Long-term loans		1,406		1,364
Deposits provided		2,003		2,103
		<u>3,409</u>		<u>3,467</u>
	₩	<u>116,645</u>	₩	<u>51,737</u>

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.

<i>(in percentage)</i>	2021	2020
Discount rate	1.60%~3.36%	1.60%~4.00%

The aging analysis of trade and other receivables as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021						
	Receivables not past due	Past due but not impaired				Impaired	Total
		Up to 3 months	4 to 6 months	7 to 12 months	Over 12 months		
Trade receivables	₩ 162,009	₩ 50,188	₩ 1,194	₩ 1,132	₩ 425	₩ 1,167	₩ 216,115
Loss allowance provision	(17)	(12)	(34)	(54)	(94)	(1,167)	(1,378)
Expected loss rate	0.01%	0.02%	2.85%	4.80%	22.18%	100%	0.64%
	<u>161,992</u>	<u>50,176</u>	<u>1,160</u>	<u>1,078</u>	<u>331</u>	<u>-</u>	<u>214,737</u>
Other receivables	113,237	-	-	-	-	22	113,259
Loss allowance provision	-	-	-	-	-	(22)	(22)
	<u>113,237</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>113,237</u>
Long-term other receivables	3,409	-	-	-	-	-	3,409
	<u>₩ 278,638</u>	<u>₩ 50,176</u>	<u>₩ 1,160</u>	<u>₩ 1,078</u>	<u>₩ 331</u>	<u>₩ -</u>	<u>₩ 331,383</u>

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<i>(in millions of Korean won)</i>	2020							Total
	Receivables not past due	Past due but not impaired				Impaired		
		Up to 3 months	4 to 6 months	7 to 12 months	Over 12 months			
Trade receivables	₩ 135,868	₩ 37,737	₩ 177	₩ 205	₩ 248	₩ 1,194	₩ 175,429	
Loss allowance 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%	
	<u>135,859</u>	<u>37,730</u>	<u>173</u>	<u>191</u>	<u>116</u>	<u>-</u>	<u>174,069</u>	
Other receivables	47,879	391	-	-	-	22	48,292	
Loss allowance provision	-	-	-	-	-	(22)	(22)	
	<u>47,879</u>	<u>391</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>48,270</u>	
Long-term other receivables	3,467	-	-	-	-	-	3,467	
	<u>₩ 187,205</u>	<u>₩ 38,121</u>	<u>₩ 173</u>	<u>₩ 191</u>	<u>₩ 116</u>	<u>₩ -</u>	<u>₩ 225,806</u>	

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, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021			
	Beginning balance	Bad debt expense	Others	Ending balance
Trade receivables and long-term other receivables	₩ 1,360	₩ 151	₩ (133)	₩ 1,378
Other receivables and long-term other receivables	22	-	-	22
	<u>₩ 1,382</u>	<u>₩ 151</u>	<u>₩ (133)</u>	<u>₩ 1,400</u>

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<i>(in millions of Korean won)</i>	2020			
	Beginning balance	Bad debt expense	Others	Ending balance
Trade receivables and long-term other receivables	₩ 1,056	₩ 304	₩ -	₩ 1,360
Other receivables and long-term other receivables	22	-	-	22
	<u>₩ 1,078</u>	<u>₩ 304</u>	<u>₩ -</u>	<u>₩ 1,382</u>

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 32). 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 33). Receivables for which an impairment provision was recognized are written off against the provision when there is no expectation of recovering additional cash.

12. Other Financial Assets and Liabilities

Other financial assets and liabilities as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021	2020
Other financial assets		
Short-term financial assets	₩ 711	₩ 53,996
Long-term financial assets	997	917
Derivative financial assets	45	28
Financial assets at fair value through other comprehensive income	46	-
	<u>1,799</u>	<u>54,941</u>
Less: current portion	(756)	(54,024)
	<u>₩ 1,043</u>	<u>₩ 917</u>
Other financial liabilities		
Lease liabilities	₩ 11,353	₩ 14,104
Derivative financial liabilities	535	729
	<u>11,888</u>	<u>14,833</u>
Less: current portion	(4,251)	(4,107)
	<u>₩ 7,637</u>	<u>₩ 10,726</u>

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, 2021. The Group recognizes gain or loss on valuation of derivatives in profit or loss.

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Details of financial assets at fair value through other comprehensive income as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Listed equity securities				
Kakao Bank Co.,Ltd	₩	46	₩	-

Changes in financial assets at fair value through other comprehensive income for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Beginning balance	₩	-	₩	-
Additions		31		-
Disposal		-		-
Gain on valuation (other comprehensive income)		15		-
Ending balance	₩	46	₩	-

Changes in gain on financial assets at fair value through other comprehensive income for the years ended December 31, 2021, are as follows:

<i>(in millions of Korean won)</i>	2021			
	Beginning balance	Other comprehensive income	Profit or loss	Ending balance
Before tax	₩	-	₩ 15	₩
Tax effect		-	(3)	(3)
After tax	₩	-	₩ 12	₩

Valuation of derivative financial assets and liabilities as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
	Assets	Liabilities	Assets	Liabilities
Current derivative financial assets and liabilities				
Currency swap	₩	-	₩	19
Forward exchange		45		536
	₩	45	₩	536
			₩	9
			₩	729
	₩	45	₩	28
			₩	729

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13. Other Assets

Details of other assets as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Other current assets				
Advance payments	₩	17,235	₩	2,098
Prepaid expenses		15,847		3,946
		<u>33,082</u>		<u>6,044</u>
Other non-current assets				
Long-term prepaid expenses		96		2,250
Other investment assets		5,121		3,435
		<u>5,217</u>		<u>5,685</u>
	₩	<u>38,299</u>	₩	<u>11,729</u>

14. Inventories

Details of inventories as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021			2020		
	Cost	Provision	Book amount	Cost	Provision	Book amount
Merchandise	₩ 2,369	₩ (55)	₩ 2,314	₩ 2,330	₩ (12)	₩ 2,318
Finished goods	167,799	(9,056)	158,743	78,128	(2,353)	75,775
Semi-finished goods	11,316	(159)	11,157	7,066	(135)	6,931
Raw materials	143,859	(187)	143,672	25,064	(157)	24,907
Sub-materials	30,465	(1,503)	28,962	15,968	(639)	15,329
Supplies	4,246	(262)	3,984	3,145	(380)	2,765
Packaging	2,569	(107)	2,462	1,235	(34)	1,201
Goods in transit	49,710	-	49,710	13,935	-	13,935
	<u>₩ 412,333</u>	<u>₩ (11,329)</u>	<u>₩ 401,004</u>	<u>₩ 146,871</u>	<u>₩ (3,710)</u>	<u>₩ 143,161</u>

Inventories recognized as an expense for the year ended December 31, 2021 amount to ₩ 2,097,804 million (2020: ₩ 1,593,445 million), which is included in 'cost of sales'. Also, the Group recognized loss on valuation of inventories amounting to ₩ 7,619 million (2020: reversal of provisions for inventories ₩ 1,496 million) for the year ended December 31, 2021, which is included in the statement of profit or loss within 'cost of sales'.

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15. Property, Plant and Equipment

Details of property, plant and equipment as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021			2020		
	Cost	Accumulated depreciation ¹	Book amount	Cost	Accumulated depreciation ¹	Book amount
Land	₩ 138,770	₩ -	₩ 138,770	₩ 138,770	₩ -	₩ 138,770
Building	210,125	(49,865)	160,260	199,176	(44,918)	154,258
Structures	674,369	(65,710)	608,659	360,967	(55,243)	305,724
Machinery	2,616,064	(1,511,800)	1,104,264	1,995,388	(1,368,214)	627,174
Vehicles	6,144	(5,148)	996	5,749	(4,637)	1,112
Tools and equipment	92,266	(62,421)	29,845	75,154	(54,765)	20,389
Others	49,059	(2,697)	46,362	30,935	(235)	30,700
Construction in progress	33,726	-	33,726	576,785	-	576,785
Machinery in transit	239	-	239	101	-	101
Right-of-use assets	68,839	(3,838)	65,001	72,136	(3,802)	68,334
	<u>₩ 3,889,601</u>	<u>₩ (1,701,479)</u>	<u>₩ 2,188,122</u>	<u>₩ 3,455,161</u>	<u>₩ (1,531,814)</u>	<u>₩ 1,923,347</u>

¹ Accumulated impairment losses and government grants are included.

Changes in property, plant and equipment for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021						
	Beginning balance	Additions	Disposal ¹	Depreciation and others ²	Transfers ³	Others (F/X change)	Ending balance
Land	₩ 138,770	₩ -	₩ -	₩ -	₩ -	₩ -	₩ 138,770
Buildings	154,258	121	-	(4,884)	8,660	2,105	160,260
Structures	305,724	-	(18)	(10,022)	296,768	16,207	608,659
Machinery	627,174	1,742	(68)	(160,447)	614,764	21,099	1,104,264
Vehicles	1,112	-	-	(511)	394	1	996
Tools and equipment	20,389	680	(9)	(7,828)	16,417	196	29,845
Others	30,700	3,473	-	(3,733)	15,862	60	46,362
Construction in progress	576,785	312,363	-	-	(918,780)	63,358	33,726
Machinery in transit	101	18,581	-	-	(18,443)	-	239
Right-of-use assets	68,334	1,339	(414)	(6,095)	268	1,569	65,001
	<u>₩ 1,923,347</u>	<u>₩ 338,299</u>	<u>₩ (509)</u>	<u>₩ (193,520)</u>	<u>₩ 15,910</u>	<u>₩ 104,595</u>	<u>₩ 2,188,122</u>

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

² Others include loss of other tangible assets of ₩ 160 million and supplies expenses for process of ₩ 3,572 million.

³ Transfers include transfer of construction in progress and machinery in transit transferred to property,

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plant and equipment, transfers between property, plant and equipment and intangible assets, and others.

(in millions of
Korean won)

	2020										
	Beginning balance	Additions	Disposal ¹	Depreciation and others ²	Transfers ³	Impairment loss ⁴	Others (F/X change)	Ending balance			
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			
	<u>₩ 1,448,333</u>	<u>₩ 681,777</u>	<u>₩ (956)</u>	<u>₩ (179,394)</u>	<u>₩ 59,649</u>	<u>₩ (9,800)</u>	<u>₩ (76,262)</u>	<u>₩ 1,923,347</u>			

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

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

³ Transfers include ₩ 4,153 million of accumulated loss of other property, plant and equipment transferred to provision for loss, ₩ 1,701 million of prepaid expenses related to acquisitions on property, plant and equipment as at December 31, 2020 transferred to other property, plant and equipment, ₩ 11,395 million of construction in progress transferred to intangible assets, and ₩ 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 ₩ 9,800 million is recognized, included in 'other expenses' in the statement of profit or loss.

Depreciation includes ₩ 186,002 million (2020: ₩ 171,341 million) in manufacturing costs, ₩ 3,471 million (2020: ₩ 3,672 million) in 'selling, general and administrative expenses' and ₩ 541 million (2020: ₩ 804 million) in 'research and development expenses'.

Certain amounts of the property, plant and equipment are provided as collaterals to financial institutions for borrowings (Note 38).

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.

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As at December 31, 2021, the balance of government grants related to asset acquisition is ₩ 610 million (2020: ₩ 436 million), and there is no balance of liabilities related to government grants (2020: ₩ 89 million).

Fair value of land as at December 31, 2021, is ₩ 165,669 million (2020: ₩ 157,479 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)

The Group performed impairment test on CGUs of POK business and Hyosung Vina Chemical 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, 2021, are as follows:

	POK business	Hyosung Vina Chemical
Sales growth rate	0.0 ~ 59.6%	0.0 ~ 252.1%
Gross margin	-5.8 ~ 20.1%	-0.4 ~ 13.4%
Perpetual growth rate	0.0%	1.0%
Discount rate	15.13%	8.28%

As a result, the book amounts of cash generating unit are not expected to exceed the recoverable amounts.

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

	Impairment	
	POK business	Hyosung Vina Chemical
Decrease in perpetual growth rate by 0.5%pt	₩ -	-
Increase in discount rate by 0.5%pt	-	-

During the year, the Group has capitalized borrowing costs amounting to ₩ 23,249 million on property, plant and equipment that are qualifying assets. The capitalization rate of borrowings used to determine the amount of borrowing costs to be capitalized is 3.5%.

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16. Leases

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

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

<i>(in millions of Korean won)</i>	2021		2020	
Right-of-use assets ¹				
Real estate	₩	5,012	₩	8,146
Land		56,567		54,053
Water		254		-
Facility equipment		11		32
Vehicles		580		378
Others		2,577		5,725
	₩	65,001	₩	68,334

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

<i>(in millions of Korean won)</i>	2021		2020	
Lease liabilities ¹				
Current	₩	3,715	₩	3,378
Non-current		7,638		10,726
	₩	11,353	₩	14,104

¹ Included in 'other 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 ₩ 1,339 (2020: ₩ 13,765 million) for the year ended December 31, 2021.

(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:

<i>(in millions of Korean won)</i>	2021		2020	
Depreciation of right-of-use assets				
Real estate	₩	3,318	₩	2,953
Land		2,236		938
Water		16		-
Facility equipment		21		6
Vehicles		311		268

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<i>(in millions of Korean won)</i>	2021		2020	
Others		192		41
	₩	6,094	₩	4,206
Interest expense (included in financial cost)	₩	203	₩	143
Expense relating to short-term leases and leases of low-value assets (included in 'cost of sales' and 'selling, general and administrative expenses')		4,108		4,200

The total cash outflow for leases in 2021 was ₩ 7,906 million (2020: ₩ 7,591 million).

17. Intangible Assets

Changes in intangible assets for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021			
	Industrial rights	Other intangible assets¹	Membership	Total
Beginning balance	₩ 1,602	₩ 14,324	₩ 7,200	₩ 23,126
Additions	69	15,850	-	15,919
Disposals	-	(2,506)	(1,200)	(3,706)
Amortization	(366)	(2,393)	-	(2,759)
Transfers and others ²	-	(73)	-	(73)
Others (F/X change)	-	1,471	-	1,471
Ending balance	₩ 1,305	₩ 26,673	₩ 6,000	₩ 33,978

¹ Facility usage rights and etc. are included.

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

<i>(in millions of Korean won)</i>	2020			
	Industrial rights	Other intangible assets¹	Membership	Total
Beginning balance	₩ 1,969	₩ 63,903	₩ 7,200	₩ 73,072
Additions	48	75	-	123
Amortization	(415)	(706)	-	(1,121)
Transfers and others ²	-	(43,597)	-	(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.

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Amortization of ₩ 2,171 million (2020: ₩ 477 million) is included in manufacturing costs, ₩ 253 million (2020: ₩ 279 million) in 'research and development expenses', and ₩ 335 million (2020: ₩ 365 million) in 'selling, general and administrative expenses'

18. Insurance Coverage

As at December 31, 2021, property, plant and equipment are insured, and details of insurance are as follows:

<i>(in millions of Korean won)</i>	Insured assets	Book amount	Insured amount	Insurance company
Package insurance	Property, plant and equipment	₩ 2,221,588	₩ 6,604,907	Samsung Fire and Marine Insurance Co., Ltd. and others

19. Investments in Associates

Details of investments in associates as at December 31, 2021 and 2020, are as follows:

	Percentage of ownership (%)		Location	Reporting month
	2021	2020		
Shinwha Intertek Corp. ¹	20%	20%	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, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021					
	Beginning	Acquisition (disposal)	Valuation of equity method			Ending
			Gain on equity method investments	Other comprehensive income	Others ¹	
Shinwha Intertek Corp.	₩ 15,716	₩ -	₩ 326	₩ 474	₩ (327)	₩ 16,189

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	2020					
	Beginning	Acquisition (disposal)	Valuation of equity method			Ending
			Gain on equity method investments	Other comprehensive income	Others ²	
Shinwha Intertek Corp.	₩ 10,738	₩ 3,541	₩ 699	₩ (10)	₩ 748	₩ 15,716

¹ The Group recognized dividends received and adjustments of legal reserves amounting to ₩ (-) 291 million and ₩ (-) 36 million, respectively, for the year ended December 31, 2021.

² Group recognized bargain purchase gain due to purchase of additional shares and dividends received amounting to ₩ 970 million and ₩ (-) 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, 2021 and 2020, are as follows:

(in millions of
Korean won)

	2021								
	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Operating income from continuing operations	Other comprehen- sive income	Total comprehen- sive income	Dividends received from associates
Shinwha Intertek Corp.	₩ 68,277	₩ 105,700	₩ 64,582	₩ 8,923	₩ 246,413	₩ 1,177	₩ 474	₩ 1,651	₩ 291

(in millions of
Korean won)

	2020								
	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Operating income from continuing operations	Other comprehen- sive income	Total comprehen- sive income	Dividends received from associates
Shinwha Intertek Corp.	₩ 66,672	₩ 104,730	₩ 72,655	₩ 645	₩ 255,628	₩ 2,883	₩ 82	₩ 2,965	₩ 222

Details of adjustments from financial information of associates to the book amount of investments in associates as at December 31, 2021 and 2020, are as follows:

(in millions of
Korean won)

	2021						
	Net assets (a)	Percentage of ownership (b)	Interests in net assets (axb)	Goodwill	Inter-group transactions	Others	Book amount
Shinwha Intertek Corp.	₩ 100,472	20.00%	₩ 20,094	₩ -	₩ -	₩ (3,905)	₩ 16,189

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(in millions of Korean won)	2020						
	Net assets (a)	Percentage of ownership (b)	Interests in net assets (axb)	Goodwill	Inter-group transactions	Others	Book amount
Shinwha Intertek Corp.	₩ 98,102	20.00%	₩ 19,619	₩ -	₩ -	₩ (3,903)	₩ 15,716

Fair value of marketable investments in associates as at December 31, 2021 and 2020, is as follows:

(in millions of Korean won)	2021			
	Number of shares	Market price per share (in Korean won)	Fair value	Book value
Shinwha Intertek Corp.	5,827,100	₩ 3,055	₩ 17,802	₩ 16,189

(in millions of Korean won)	2020			
	Number of shares	Market price per share (in Korean won)	Fair value	Book value
Shinwha Intertek Corp.	5,827,100	₩ 3,285	₩ 19,142	₩ 15,716

20. Related Party Transactions

Details of associates and other related parties as at December 31, 2021, are as follows:

Significant Influence over the Group

Location	Related party
Domestic	Hyosung Corporation

Associates

Location	Related party
Domestic	Shinwha Intertek Corp.

Other related parties

Location	Related party
Domestic	Galaxia Device Co., Ltd., GALAXIA ELECTRONICS CO., LTD., Hyosung Trans World Co., Ltd . ¹ , Kongduk Development Co., Ltd., THE CLASS H YOSUNG, THE PREMIUM HYOSUNG Co., Ltd., Dong Ryung Co., Ltd.,

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Location	Related party
	Shin Dong Jin Co., Ltd., A-Seung Automotive Group, Trinity Asset Management Co., Ltd, Hyosung Premier Motors Corporation, ASC Co. Ltd., Hyosung GoodSprings, Inc., HYOSUNG TNS INC., atmplus, Inc, NAUTILUS HYOSUNG CMS INC, Forza Motors Korea Corp., HYOSUNG FMS INC. and others
China	Huizhou Galaxia Device Electronics., Co.Ltd, Weihai newsolim Electronics., Co.Ltd, Qingdao Galaxia Device Electronics., Co.Ltd, Tianjin Galaxia Device Electronics., Co.Ltd, DONGGUAN SHINWHA INTERTEK CORP., SHINWHA INTERTEK(SUZHOU), DNS Technology Co., Ltd and others
Asia	Galaxia Japan, VINA ASC AUTOMOTIVE COMPANY LIMITED, Hyosung (H.K) LIMITED and others
Europe	Hyosung RUS and others
America	Hyosung Holdings USA, Inc., Hyosung Mexico S. de R.L. de C.V., and others
Others	Hyosung Resource (Australia) PTY Ltd. and others

¹ Hyosung Trans World Co., Ltd was excluded from the related parties due to the merger with Hyosung Corporation in February 2021.

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, Somevit Corporation, Hyosung ITX. CO., LTD, HYOSUNG INFORMATION SYSTEMS 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 Spandex (Zhuhai) Co. 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, 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 Resource (Australia) PTY Ltd., 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

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Monopoly Regulation and Fair Trade Act.

Sales and purchases with related parties for the years ended December 31, 2021 and 2020, are as follows:

(in millions of Korean won)

		2021							
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	₩	6	₩	125,248	₩	-	₩	-
Associates	Shinwha Intertek Corp.		11,869		113		-		-
Other related parties	Shin Dong Jin Co., Ltd.		-		97		-		37
	Kongduk Development Co., Ltd.		-		8		-		-
	Hyosung Trans World Co., Ltd. ³		-		5,310		-		-
	Hyosung Holdings USA		7,208		32		-		-
	Others		-		1,067		17		-
			<u>7,208</u>		<u>6,514</u>		<u>17</u>		<u>37</u>
Others	Hyosung TNC Corporation		224,615		94,542		-		-
	Hyosung Heavy Industries Corporation		-		2,154		13,309		-
	Hyosung Advanced Materials Corporation		-		356		-		-
	Hyosung Japan Co., Ltd.		68,078		18		-		-
	Hyosung NEW Material & High Technology (Quzhou) Co., Ltd		8,523		-		-		-
	Hyosung International(HK) Ltd.		13,307		-		-		-
	Hyosung Chemical Fiber(Jiaxing) Co., Ltd.		4,209		35,824		-		-
	Others		2,191		6,461		281		115
			<u>320,923</u>		<u>139,355</u>		<u>13,590</u>		<u>115</u>
		₩	<u>340,006</u>	₩	<u>271,230</u>	₩	<u>13,607</u>	₩	<u>152</u>
									<u>126</u>

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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.

² Interest expense recognized in accordance with lease contracts of buildings is ₩ 126 million for the year ended December 31, 2021.

³ It represented the transaction amounts before the merger with Hyosung Corporation in February 2021.

(in millions of
Korean won)

		2020					
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	
		<u>4,474</u>	<u>44,667</u>	<u>946</u>	<u>5,475</u>	<u>59</u>	
Others	Hyosung TNC Corporation	130,800	69,951	-	2,769	44	
	Hyosung Heavy Industries Corporation	171	685	6,938	-	-	
	Hyosung Advanced 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	<u>2,553</u>	<u>4,267</u>	<u>1,758</u>	<u>42</u>	<u>1</u>	

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Related party	2020				
	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
	221,499	106,116	8,696	2,811	45
	₩ 243,008	₩ 178,719	₩ 9,888	₩ 8,286	₩ 104

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.

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

Outstanding balances arising from sales/purchases of goods and services as at December 31, 2021 and 2020, are as follows:

(in millions of
Korean won)

	Related party	2021				
		Trade receivables	Other receivables ¹	Trade payables	Other payables ¹	Lease liabilities ²
Significant influence over the Group	Hyosung Corporation	₩ -	₩ 52	₩ 347	₩ 26,637	₩ -
Associates	Shinwha Intertek Corp.	1,417	-	-	-	-
Other related parties	Shin Dong Jin Co., Ltd.	-	1,122	-	-	2,444
	Kongduk Development Co., Ltd.	-	151	-	-	360
	PT.Hyosung Jakarta	-	-	-	35	-
	Hyosung Holdings USA	2,647	-	-	2	-
	Others	-	-	1	200	-
		2,647	1,273	1	237	2,804
Others	Hyosung TNC Corporation	22,648	524	9,144	935	1,880
	Hyosung Heavy Industries Corporation ³	-	-	242	6,623	-
	Hyosung Advanced Materials Corporation	-	366	38	-	-
	Hyosung Chemical Fiber(Jiaying) Co., Ltd.	1,787	-	7,743	-	-
	Hyosung Japan Co.,	3,834	-	10	-	-

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		2021				
Related party	Trade receivables	Other receivables ¹	Trade payables	Other payables ¹	Lease liabilities ²	
Ltd.		-		-		
Hyosung NEW Material & High Technology (Quzhou) Co., Ltd	499	-	-	-	-	
Hyosung Chemical (Jiaxing) Co., Ltd.	656	18	-	-	-	
Others	1,922	8	-	1,160	149	
	<u>31,346</u>	<u>916</u>	<u>17,177</u>	<u>8,718</u>	<u>2,029</u>	
	₩ 35,410	₩ 2,241	₩ 17,525	₩ 35,592	₩ 4,833	

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 ₩ 4,833 million as at December 31, 2021.

³ The Group recognized ₩ 6,000 million of memberships for Hyosung Heavy Industries Corporation as memberships.

(in millions of
Korean won)

		2020				
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.	-	1,343	-	220	4,646
	Kongduk Development Co., Ltd.	-	-	-	-	860
	Hyosung Trans World Co., Ltd.	-	-	2,850	6,296	-
	Hyosung Holdings USA	-	-	-	110	-
	Others	-	-	476	93	-
		<u>-</u>	<u>1,343</u>	<u>3,326</u>	<u>6,719</u>	<u>5,506</u>
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	-	-

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Related party	2020				
	Trade receivables	Other receivables ¹	Trade payables	Other payables ¹	Lease liabilities ²
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, 2021.

³ 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, 2021, are as follows:

(in millions of
Korean won)

Related party	2021				
	Borrowing transactions		Contributions in cash	Acquisition of shares	
	Borrowings ¹	Repayments ¹			
Other related parties	Shin Dong Jin Co., Ltd.	₩ 37	₩ 2,239	₩ -	₩ -
	Gongdeok Gyeongwoo Development Corporation	-	500	-	-
		37	2,739	-	-
Others	Hyosung TNC Corporation	-	515	-	-
	KB Wise Star Professional Investment Private Real Estate Investment Trust #11	113	29	-	-
		113	544	-	-
	₩ 150	₩ 3,283	₩ -	₩ -	

¹ The Group recognized additional lease liabilities amounting to ₩ 150 million due to lease contract of the office as at December 31, 2021. The repayments of lease liabilities and interest expense amount to ₩ 3,283 million and ₩ 126 million, respectively, for the year ended December 31, 2021.

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<i>(in millions of Korean won)</i>		2020									
		Borrowing transactions		Dividends paid	Dividends received	Acquisition of shares					
Related party	Borrowings	Repayments ²									
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		2,645		294		-		-		-
	KB Wise Star 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.

² The Group additionally recognized right-of-use assets and lease liabilities amounting to ₩ 936 million and ₩ 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 ₩ 340 million and ₩ 8 million, respectively, for the year ended December 31, 2020.

³ The Group recognized right-of-use assets and lease liabilities amounting to ₩ 2,769 million and ₩ 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 ₩ 294 million and ₩ 44 million, respectively, 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, 2021 and 2020, consists of:

<i>(in millions of Korean won)</i>	2021		2020	
Salaries and other short-term employee benefits	₩	1,155	₩	917
Post-employment benefits		93		117
	₩	1,248	₩	1,034

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There are no payment guarantees provided by the Group to the related parties as at December 31, 2021.

There are no collaterals provided by the Group to the related parties as at December 31, 2021.

21. Trade Payables and Other Payables

Trade payables and other payables as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Trade payables	₩	235,034	₩	146,214
Other payables		203,776		148,876
Long-term other payables		13,270		13,186
	₩	<u>452,080</u>	₩	<u>308,276</u>

Details of other payables as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Other payables				
Non-trade payables	₩	171,090	₩	133,250
Accrued expenses		30,141		14,257
Withholdings		2,488		1,312
Deposits received		57		57
		<u>203,776</u>		<u>148,876</u>
Long-term other payables				
Non-trade payables		2		2
Accrued expenses		1,263		1,477
Deposits received		12,004		11,707
		<u>13,269</u>		<u>13,186</u>
	₩	<u>217,045</u>	₩	<u>162,062</u>

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.

<i>(in percentage)</i>	2021	2020
Discount rate	1.20%~2.50%	1.80%~2.50%

The fair value of trade and other payables are similar to the book amount as at December 31, 2021.

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22. Borrowings

Borrowings as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Short-term borrowings	₩	263,594	₩	119,000
Borrowings on trade receivables sales ¹		76,117		73,346
Long-term borrowings		1,187,946		878,041
Debentures		492,317		589,806
		<u>2,019,974</u>		<u>1,660,193</u>
Less: current portion		<u>(582,592)</u>		<u>(303,764)</u>
	₩	<u>1,437,382</u>	₩	<u>1,356,429</u>

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 7 and 38)

The Group provides a part of the Group's property, plant and equipment as collateral for the above borrowings. (Notes 15 and 38)

Details of carrying amount of short-term borrowings as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>		Latest maturity date	Annual interest rate (2021) (%)		
Creditor				2021	2020
Short-term borrowings denominated in Korean won					
General loan	NongHyup Bank and others	2022-01-07	2.38~2.53%	₩ 7,900	₩ 85,300
Others	Shinhan Bank and others	2022-11-09	3.40~3.51%	7,742	5,757
Short-term borrowings denominated in foreign currency					
General loan	Vietcom Bank and others	2022-12-30	1.36~2.16%	247,951	27,943
Borrowings on trade receivables sales	Woori Bank and others	-	-	76,118	73,346
				<u>₩ 339,711</u>	<u>₩ 192,346</u>

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Details of carrying amount of long-term borrowings as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>		Latest maturity date	Annual interest rate (2021) (%)		2021		2020
	Creditor						
Long-term borrowings denominated in Korean won							
General loan	Industrial and Commercial Bank of China and others	2023-03-29	2.48~2.95%	₩	50,000	₩	88,000
Facility loan	-	-	-	-	-	-	12,500
Long-term borrowings denominated in foreign currency							
General loan	Industrial and Commercial Bank of China	2025-12-23	3.01~3.09%		53,348		5,440
Facility loan	Korea Development Bank and others	2023-07-07	2.21%		1,084,598		772,101
					<u>1,187,946</u>		<u>878,041</u>
Less: current portion					(48,000)		(13,440)
				₩	<u>1,139,946</u>	₩	<u>864,601</u>

Details of carrying amount of debentures as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>		Latest maturity date	Annual interest rate (2021) (%)		2021		2020
Public bond	259-2	-	-	₩	-	₩	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		117,000
Public bond	4-2	2025-02-19	2.74%		67,000		67,000
Private bond	5	2023-09-22	2.42%		10,000		10,000
					<u>493,000</u>		<u>591,000</u>
Discount on debentures					(683)		(1,194)
Less: current portion					(194,881)		(97,978)
				₩	<u>297,436</u>	₩	<u>491,828</u>

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23. Net Defined Benefit Liabilities

Details of net defined benefit liabilities recognized in the consolidated statements of financial position as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Present value of defined benefit obligations	₩	68,443	₩	65,126
Fair value of plan assets ¹		<u>(73,564)</u>		<u>(68,562)</u>
Net defined benefit liabilities (assets)	₩	<u>(5,121)</u>	₩	<u>(3,436)</u>

¹ The contributions to the National Pension Fund of ₩ 34 million (2020: ₩ 34 million) are included in the fair value of plan assets as at December 31, 2021.

The amounts of defined benefit plan recognized in the consolidated statements of income for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Current service cost	₩	8,201	₩	7,838
Interest expense		1,449		1,199
Interest income		<u>(1,744)</u>		<u>(1,423)</u>
Total expense included in employee benefit	₩	<u>7,906</u>	₩	<u>7,614</u>

Line items including total expense of defined benefit plan in the consolidated statements of income for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Cost of sales	₩	5,269	₩	4,959
Selling, general and administrative expenses		2,531		2,599
Research and development expenses		<u>106</u>		<u>56</u>
	₩	<u>7,906</u>	₩	<u>7,614</u>

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Movements in the defined benefit obligations for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Beginning balance	₩	65,126	₩	56,437
Current service cost		8,201		7,838
Interest expense		1,449		1,199
Benefit payments		(4,722)		(4,547)
Remeasurements:				
Change in demographic assumptions		(1,431)		-
Change in financial assumptions		(1,278)		2,118
Experience adjustments		1,615		1,442
Transfer from (to) associates		(517)		639
Ending balance	₩	<u>68,443</u>	₩	<u>65,126</u>

Movements in the fair value of plan assets for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Beginning balance	₩	68,562	₩	58,374
Interest income		1,744		1,423
Employer's contributions		7,900		12,300
Benefit payments		(3,265)		(3,727)
Remeasurements		(944)		(497)
Transfer from (to) associates		(433)		689
Ending balance	₩	<u>73,564</u>	₩	<u>68,562</u>

Plan assets as at December 31, 2021 and 2020, consist of:

<i>(in millions of Korean won)</i>	2021		2020	
	Amount	Portion (%)	Amount	Portion (%)
Fixed interest financial instruments	₩ 66,768	90.8	₩ 57,280	83.5
Deposits and others	6,796	9.2	11,282	16.5
	<u>₩ 73,564</u>	<u>100.0</u>	<u>₩ 68,562</u>	<u>100.0</u>

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Remeasurements of net defined benefit liabilities recognized as other comprehensive income (expenses) for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Before income tax effects	₩	149	₩	(4,057)
Income tax effects		(36)		981
After income tax effects	₩	113	₩	(3,076)

Accumulated remeasurements of net defined benefit liabilities recognized as retained earnings is ₩ 9,737 million (2020: ₩ 9,850 million) as at December 31, 2021.

The significant actuarial assumptions as at December 31, 2021 and 2020, are as follows:

<i>(in percentage)</i>	2021		2020	
Discount rate		2.98%		2.49%
Salary growth rate		3.22%		2.93%

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	8.45% Decrease / 9.94% Increase
Salary growth rate	1.0% Increase/Decrease	9.82% Increase / 8.51% 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, 2022, are ₩ 7,660 million and the expected balance of plan assets is ₩ 78,406 million as at December 31, 2022.

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The expected maturity analysis of undiscounted pension benefits as at December 31, 2021, is as follows:

<i>(in millions of Korean won)</i>		Less than 1 year		Between 1~2 years		Between 2~5 years		Over 5 years		Total
Pension benefits	₩	4,971	₩	6,395	₩	18,782	₩	115,467	₩	145,615

The weighted average duration of the defined benefit obligations is 9.38 years.

The expense recognized in the current period in relation to defined contribution plan was ₩ 1,421 million (2020: ₩ 1,064 million).

24. Tax Expense and Deferred Tax

Income tax expense for the years ended December 31, 2021 and 2020, consists of:

<i>(in millions of Korean won)</i>		2021		2020
Current tax				
Current tax on profit for the year	₩	47,280	₩	18,011
Claim for tax return and others		(2,009)		(263)
		<u>45,271</u>		<u>17,748</u>
Deferred tax				
Decrease in temporary differences		(1,315)		(2,710)
		<u>(1,315)</u>		<u>(2,710)</u>
Income tax expense	₩	<u>43,956</u>	₩	<u>15,038</u>

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:

<i>(in millions of Korean won)</i>		2021		2020
Profit before income tax expense	₩	114,371	₩	3,421
Tax at domestic tax rates applicable to profits in the respective countries		41,711		13,287
Income tax effects:				
- Income not subject to tax		(41)		(3)
- Expenses not deductible for tax purposes		415		192
- Claim for tax return and others		(1,957)		(407)
- Tax credits		(697)		(712)
- Effect of the tax system for recirculation of corporate income		4,525		1,524

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<i>(in millions of Korean won)</i>		2021		2020
- Others		-		1,157
Income tax expense	₩	43,956	₩	15,038

The tax effect relating to components of other comprehensive income (expenses) for the years ended December 31, 2021 and 2020, is as follows:

<i>(in millions of Korean won)</i>		2021			2020		
		Before tax	Tax effect	After tax	Before tax	Tax effect	After tax
Remeasurements of net defined benefit liabilities	₩	(149)	₩ 36	₩ (113)	₩ 4,057	₩ (982)	₩ 3,075
Overseas operations translation gain (loss)		(28,124)	-	(28,124)	25,789	(4,024)	21,765
Gain on valuation of financial assets at fair value through other comprehensive income		(15)	4	(11)	-	-	-
	₩	(28,288)	₩ 40	₩ (28,248)	₩ 29,846	₩ (5,006)	₩ 24,840

The analysis of deferred tax assets and deferred tax liabilities as at December 31, 2021 and 2020, is as follows:

<i>(in millions of Korean won)</i>		2021		2020
Deferred tax assets				
Deferred tax assets to be recovered after more than 12 months	₩	37,001	₩	34,214
Deferred tax assets to be recovered within 12 months		3,423		2,596
		40,424		36,810
Deferred tax liabilities				
Deferred tax liabilities to be recovered after more than 12 months		(28,944)		(27,448)
Deferred tax liabilities to be recovered within 12 months		(848)		(5)
		(29,792)		(27,453)
Deferred tax assets, net	₩	10,632	₩	9,357

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The movements in the deferred income tax account for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Beginning balance	₩	9,357	₩	1,641
Tax charged to the statement of profit or loss		1,315		2,710
Tax charged to components of other comprehensive income		(40)		5,006
Ending balance	₩	<u>10,632</u>	₩	<u>9,357</u>

The movement in deferred tax assets and liabilities for the years ended December 31, 2021 and 2020, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

<i>(in millions of Korean won)</i>	2021			
	Beginning balance	Profit or loss	Other comprehensive income	Ending balance
Deferred tax liabilities				
Surplus on revaluation of land	₩ (11,133)	₩ -	₩ -	₩ (11,133)
Defined benefit pension plan assets	(16,255)	(1,503)	(36)	(17,794)
Others	(65)	(800)	-	(865)
	<u>(27,453)</u>	<u>(2,303)</u>	<u>(36)</u>	<u>(29,792)</u>
Deferred tax assets				
Post-employment benefit obligation	15,244	1,062	-	16,306
Provision for receivables in excess of tax limit	84	(84)	-	-
Government grants	21	124	-	145
Loss on valuation of inventories	617	1,087	-	1,704
Impairment loss on property, plant and equipment	16,866	-	-	16,866
Accrued compensated absence	785	166	-	951
Long-term employment allowance	357	(51)	-	306
Others	2,836	1,314	(4)	4,146
	<u>36,810</u>	<u>3,618</u>	<u>(4)</u>	<u>40,424</u>
	₩ 9,357	₩ 1,315	₩ (40)	₩ 10,632

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

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, 2021, which are deductible temporary difference related to investments in associates amounting to ₩ 21,262 million (2020: ₩ 21,262 million) and the accumulated deficit of Hyosung Vina Chemicals Co., Ltd.

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25. Other Liabilities

Details of other liabilities as at December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Other current liabilities				
Unearned revenues ¹	₩	9,278	₩	-
Provision for greenhouse gas emission ²		76		2,960
Other provisions		-		1
Advances from customers		8,736		5,880
		<u>18,090</u>		<u>8,841</u>
Other non-current liabilities				
Unearned revenues		996		1,292
Provision for loss		12,240		5,782
Provision for restoration		59		59
		<u>13,295</u>		<u>7,133</u>
	₩	<u>31,385</u>	₩	<u>15,974</u>

¹ In relation to the performance obligation satisfied over time, contract liabilities of ₩ 8,607 million are included.

² 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. (Note 39)

Changes in provisions for the year ended December 31, 2021, are as follows:

<i>(in millions of Korean won)</i>	Greenhouse gas emission		Loss		Restoration		Others		Total	
Beginning balance	₩	2,960	₩	5,782	₩	59	₩	1	₩	8,802
Profit or loss:		(2,884)		6,458		-		(1)		3,573
Additional provisions		76		6,511		-		-		6,587
Used during the year		(2,960)		(53)		-		(1)		(3,014)
Ending balance	₩	<u>76</u>	₩	<u>12,240</u>	₩	<u>59</u>	₩	<u>-</u>	₩	<u>12,375</u>
Current	₩	76	₩	-	₩	-	₩	-	₩	76
Non-current		-		12,240		59		-		12,299

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

<i>(in millions of Korean won)</i>	Greenhouse gas emission		Loss		Restoration		Others		Total	
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

26. 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 ₩ 5,000 per share. There is no change in share capital for the year ended December 31, 2021.

27. Retained Earnings

Retained earnings as at December 31, 2021 and 2020, consist of:

<i>(in millions of Korean won)</i>	2021		2020		Remark
Legal reserves	₩	1,907	₩	1,907	1
Retained earnings before appropriation		136,316		65,700	
	₩	138,223	₩	67,607	

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 a resolution of the shareholders' meeting).

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Changes in retained earnings for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Beginning	₩	67,607	₩	98,175
Profit (loss) for the year		70,414		(11,617)
Remeasurements of net defined benefit liabilities		257		(3,062)
Annual dividends		-		(15,889)
Loss on valuation of investments in associates		(55)		-
Ending	₩	<u>138,223</u>	₩	<u>67,607</u>

28. Other Components of Equity

Other components of equity as at December 31, 2021 and 2020, consist of:

<i>(in millions of Korean won)</i>	2021		2020	
Other capital surplus	₩	1,268	₩	1,268
Treasury shares ¹		(1,843)		(1,843)
Changes in equity from applying the equity method		1,182		833
Overseas operations translation gain (loss)		18,964		(9,160)
Gain on valuation of financial assets at fair value through other comprehensive income		12		-
	₩	<u>19,583</u>	₩	<u>(8,902)</u>

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

29. Revenue

Details of revenue for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Revenue from contracts with customers	₩	2,445,437	₩	1,810,991
Performance obligation satisfied at a point in time		2,351,520		1,778,143
Performance obligation satisfied over time		93,917		32,848
Revenue from other sources: rental and sub-lease rental income		7,553		6,199
	₩	<u>2,452,990</u>	₩	<u>1,817,190</u>

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30. Expenses by Nature

Cost of sales, selling, general and administrative expenses and research and development expenses by nature for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Changes in inventories of finished goods and work in process and others	₩	(87,193)	₩	13,811
Sales of merchandise		51,907		39,911
Raw materials and consumables used		1,508,001		1,098,779
Employee benefits expenses (Note 31)		126,909		108,174
Depreciation and amortization		196,279		176,938
Electricity expense		133,211		125,761
Export expense		134,880		66,620
Fuel expense		21,000		14,125
Service expense		19,195		17,976
Outsourcing expense		5,557		3,767
Other expenses		194,672		90,400
Total ¹	₩	<u>2,304,418</u>	₩	<u>1,756,262</u>

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

31. Employee Benefits Expenses

Employee benefits expenses for the years ended December 31, 2021 and 2020, consist of:

<i>(in millions of Korean won)</i>	2021		2020	
Salaries	₩	104,563	₩	87,664
Employee welfare benefits		13,019		11,832
Pension costs – defined contribution plans (Note 23)		1,421		1,064
Pension costs – defined benefit plans (Note 23)		7,906		7,614
	₩	<u>126,909</u>	₩	<u>108,174</u>

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32. Selling, General and Administrative Expenses

Selling, general and administrative expenses for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Salaries	₩	28,395	₩	25,023
Post-employment benefits		2,817		2,733
Employee welfare benefits		3,114		2,900
Training		469		371
Service expenses		3,210		2,921
Transportation		550		733
Communications		504		519
Taxes and dues		1,380		1,294
Rental expenses		687		662
Depreciation		3,470		3,669
Amortization		335		365
Bad debt expenses		151		304
Advertising expenses		225		182
Commission expenses		16,203		13,926
Export expenses		13,086		11,213
Others		4,323		5,107
	₩	78,919	₩	71,922

33. Other Income and Other Expenses

Details of other income and other expenses for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Other operating income				
Rental income	₩	298	₩	292
Gain on disposal of property, plant and equipment		275		199
Gain on disposal of leased assets		1		22
Miscellaneous gains		6,857		6,494
		7,431		7,007
Other operating expenses				
Donations		911		470
Loss on disposal of property, plant and equipment		74		171
Loss on disposal of lease assets		4		1

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<i>(in millions of Korean won)</i>	2021	2020
Impairment loss on property, plant and equipment	-	9,800
Miscellaneous expenses	2,078	7,437
	<u>3,067</u>	<u>17,879</u>
	₩ 4,364	₩ (10,872)

34. Finance Income and Expenses

Details of finance income and expenses for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021	2020
Finance income		
Interest income		
- Financial assets at amortized costs	₩ 209	₩ 236
Gain on foreign currency transactions	15,854	26,653
Gain in foreign currency translation	4,638	12,516
Gain on derivative transactions	10,278	7,894
Gain on valuation of derivatives	45	9
Others	2	-
	<u>31,026</u>	<u>47,308</u>
Finance expenses		
Interest income		
- Financial liabilities at amortized costs	33,356	42,453
- Other financial liabilities	805	1,071
Loss on foreign currency transactions	23,588	21,692
Loss on foreign currency translation	7,419	17,370
Loss on derivative transactions	1,348	9,319
Loss on valuation of derivatives	536	978
Others	2,865	2,728
	<u>69,917</u>	<u>95,611</u>
	₩ (38,891)	₩ (48,303)

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

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35. Earnings (Loss) Per Share

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

<i>(in millions of Korean won)</i>	2021		2020	
Profit(loss) attributable to the ordinary equity holders ¹	₩	70,414	₩	(11,616)
Weighted average number of ordinary shares outstanding ²		3,177,795		3,177,795
Earnings(loss) per share <i>(in Korean won)</i>	₩	22,158	₩	(3,656)

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

² Weighted average number of ordinary shares outstanding for the year ended December 31, 2021, 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. Dividends

The dividends in respect of the year ended December 31, 2019, amounting to a total dividend of ₩ 15,889 million was paid in 2020. There are no dividends in respect of the year ended December 31, 2021.

37. Statement of Cash Flows

Details of cash generated from operations for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Profit before income tax	₩	114,371	₩	3,421
Adjustments for:				
Interest income and expenses		33,956		43,288
Loss on foreign currency translation		2,781		4,854
Loss on valuation of derivatives		491		969
Depreciation and amortization		192,547		176,938
Gain on disposition of property, plant and equipment and investment property		(201)		(28)
Impairment loss on property, plant and equipment and intangible assets		-		9,800
Bad debt expense and other bad debt expense		151		304
Post-employment benefits		7,906		7,614
Gain on investments in associates		(326)		(1,669)
Provision for loss on valuation of inventories (reversal)		7,619		(1,496)
Valuation and scrap loss of inventories		1,074		4,149

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<i>(in millions of Korean won)</i>	2021	2020
Others	17,635	11,395
Changes in operating assets and liabilities:		
Increase in trade receivables	(36,142)	(33,474)
Increase in inventories	(260,358)	(20,240)
Increase in other receivables	(59,459)	(42,163)
Decrease (increase) in other assets	(5,710)	87,294
Increase in trade payables	80,641	17,175
Increase (decrease) in other payables	36,630	(20,446)
Payment of defined benefit liabilities	(1,542)	(870)
Payment of plan assets	(7,900)	(12,300)
Cash generated from operations	<u>₩ 124,164</u>	<u>₩ 234,515</u>

Changes in liabilities arising from financial activities for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021					
	Short-term borrowings	Current portion of long-term borrowings	Debentures	Long-term borrowings	Lease liabilities	Total
Beginning balance	₩ 192,346	₩ 111,418	₩ 491,828	₩ 864,601	₩ 14,104	₩ 1,674,297
Cash flows	137,343	(43,615)	21	270,365	(3,428)	360,686
Gain on foreign currency translation	657	-	-	-	-	657
Amortization of discount on debentures	-	-	490	-	-	490
Effect of non-cash transactions	9,365	175,078	(194,903)	4,980	677	(4,803)
Ending balance	<u>₩ 339,711</u>	<u>₩ 242,881</u>	<u>₩ 297,436</u>	<u>₩ 1,139,946</u>	<u>₩ 11,353</u>	<u>₩ 2,031,327</u>

<i>(in millions of Korean won)</i>	2020					
	Short-term borrowings	Current portion of long-term borrowings	Debentures	Long-term borrowings	Lease liabilities	Total
Beginning balance	₩ 43,021	₩ 142,896	₩ 395,956	₩ 759,893	₩ 4,706	₩ 1,346,472
Cash flows	157,280	(194,275)	193,346	219,689	(3,391)	372,649
Gain (loss) on foreign currency translation	(486)	5,669	-	2,746	-	7,929
Amortization of discount on debentures	-	-	542	-	-	542
Effect of non-cash transactions	(7,469)	157,128	(98,016)	(117,727)	12,789	(53,295)
Ending balance	<u>₩ 192,346</u>	<u>₩ 111,418</u>	<u>₩ 491,828</u>	<u>₩ 864,601</u>	<u>₩ 14,104</u>	<u>₩ 1,674,297</u>

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Details of major transactions without cash inflows and outflows for the years ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>		2021		2020
Transfer of construction in progress	₩	937,224	₩	559,034
Transfer of borrowings and bonds to current portion		131,463		157,128
Acquisition of right-of-use assets		1,339		13,765

38. Contingencies and Commitments

(1) There are no notes provided as collateral as at December 31, 2021.

(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 ₩ 2,225,391 million. Also, the Group entered into trade receivables discount agreements with a limit of ₩ 3,150 million as at December 31, 2021. The Group must maintain the Parent Company's Debt-Equity Ratio under 400% regarding USD 925 million of syndicated loans and USD 70 million of other operating funds. For USD 925 million of syndicated loan, the Group has an obligation to supplement the access financing in case of non-compliance with following covenants:

Syndicated loans	Covenants	Year	Ratio
USD 710 million	Maintaining the subsidiary's net debt/EBITDA ratio at the end of each year	2021	4.8:1
		2022	4:1
		2023	3:1
		2024	2:1
		2025	2:1
USD 215 million	Maintaining the subsidiary's net debt/EBITDA ratio at the end of each year	2022	4:1
		2023	3:1
		2024	2:1
		2025	2:1

In 2021, regarding USD 710 million of syndicated loans, the Group violated the maintenance of the subsidiaries' net debt/EBITDA ratio as at December 31, 2021, but received the waiver consents from the lender in relation to this violation.

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(3) Guarantees provided by others

Details of payment guarantees provided by others as at December 31, 2021, are as follows:

<i>(in millions of Korean won)</i>	Guaranteed amount		Details
Kookmin Bank	₩	36,513	Performance guarantee and others
Woori Bank		35,565	Performance guarantee and others
Shinhan Bank		20,154	Performance guarantee and others
Nonghyup Bank		91,871	Performance guarantee and others
Hana Bank		5,928	Performance guarantee and others
Seoul Guarantee Insurance Company		63,681	Performance guarantee and others
Vietin Bank		982	Performance guarantee and others
	₩	<u>254,694</u>	

(4) Assets pledged as collaterals

Details of assets pledged as collaterals as at December 31, 2021, are as follows:

<i>(in millions of Korean won)</i>	Related borrowings	Executed amount of agreement	Provided to
Property, plant and equipment	-	420,000	Korea Development Bank
Property, plant and equipment	4,143	60,000	Woori Bank
Property, plant and equipment	5,000	55,000	Shinhan Bank
Property, plant and equipment	94,840	94,840	Vietcom Bank and others
Trade receivables	76,117	76,117	Woori Bank and others
Short-term financial instruments	-	711	Nonghyup Bank and others
Long-term financial instruments	-	982	Vietcom Bank
	₩	<u>180,100</u>	₩
		<u>707,650</u>	

(5) Pending lawsuits

There are no pending lawsuits as at December 31, 2021.

(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.

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(7) Purchase agreements of property, plant and equipment

The Group decided to expand the PP polymerization facilities and NF3 Oksan plant in September 2021. Details of purchase agreements of the property, plant, and equipment as at December 31, 2021, are as follows:

		2021
Contract amount	₩	71,637
Amount paid		15,489
Amount payable		22

39. Greenhouse Gas Emission Permits and Obligations

The quantities of emission permits which are allocated free of charge for the 3rd planning period (2021~2025) are as follows.

<i>(in tCO₂-eq)</i>	2021	2022	2023	2024	2025	Total
Allocation with nil consideration	860,616	860,616	860,616	852,555	852,555	4,286,958

The Group's free allocation of emission rights and the estimated quantity of greenhouse gas emission as at December 31, 2021, are as follows:

<i>(in tCO₂-eq, in millions of Korean won)</i>	2021			
	2020		2021	
	Quantity	Amount³	Quantity	Amount³
Beginning balance	-	₩ -	-	₩ -
Free allocation	748,305	-	860,616	-
Provision	(26,379)	-	-	-
Purchases ¹	140,000	2,513	2,156	-
Submission to the government ²	(861,517)	(2,506)	(863,181)	(7)
Carryforward	(409)	(7)	409	7
Ending balance	-	₩ -	-	₩ -

¹ The actual quantity of emissions purchased is written for 2020, and the expected quantity of emissions to purchase is written for 2021. The emission rights purchased by the Group is 140,000 tCO₂-eq for the year ended December 31, 2021.

² The actual quantity of emissions submitted is written for 2020, and the expected quantity of emissions to submit is written for 2021. The expected emissions as at December 31, 2021 is 863,181 tCO₂-eq.

³ The amounts of emission rights purchased are included in other intangible assets.

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

<i>(in tCO₂-eq, in millions of Korean won)</i>	2020			
	2019		2020	
	Quantity	Amount³	Quantity	Amount³
Beginning balance	-	₩ -	-	₩ -
Free allocation	747,499	-	748,187	-
Provision	26,379	-	(26,379)	-
Purchases ¹	56,000	1,204	128,678	-
Submission to the government ²	(829,878)	(1,204)	(850,486)	-
Carryforward	-	-	-	-
Ending balance	-	₩ -	-	₩ -

Changes in provisions for the year ended December 31, 2021 and 2020, are as follows:

<i>(in millions of Korean won)</i>	2021		2020	
Beginning balance	₩	2,960	₩	-
Profit or loss:		(2,884)		2,960
Additional provisions		76		2,960
Used during the year		(2,960)		-
Ending balance	₩	76	₩	2,960
Current	₩	76	₩	2,960
Non-current		-		-

40.Events after the Reporting Period

(a) Establishment of new subsidiary

On January 14, 2022, the Group contributed ₩ 23,764 million (USD 20 million) to Hyosung Film(Quzhou) Co., Ltd, a 100% subsidiary newly established on January 6, 2022.