SK specialty Co., Ltd. (Former, SK Materials Co., Ltd.) and its subsidiaries

Consolidated Financial Statements for the period from January 1, 2022 to December 31, 2022 and from December 1, 2021 (date of incorporation) to December 31, 2021 with the Independent Auditor's Report

SK specialty Co., Ltd. (Former, SK Materials Co., Ltd.) and its subsidiaries

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Ernst & Young Han Young 2-4F, 6-8F, Taeyoung Building, 111, Yeouigongwon-ro, Yeongdeungpo-gu, Seoul 07241 Korea

Tel: +82 2 3787 6600 Fax: +82 2 783 5890 ey.com/kr

Independent auditor's report

SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) The Shareholders and Board of Directors

Opinion

We have audited the consolidated financial statements of SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) (the "Company") and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2022 and 2021, and the consolidated statements of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2022 and 2021, 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 ("KIFRS").

Basis for opinion

We conducted our audit in accordance with the Korean Standards on Auditing ("KSA"). 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 that are relevant to our audit of the consolidated financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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 KIFRS, and for such internal control as management determines is necessary to enable the preparation of the 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, or has no realistic alternative but to do so.

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 KSA 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 KSA, 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 Group'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.

March 3, 2023

moth Joung Han Joung

This audit report is effective as of March 3, 2023, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the date of the independent auditor's report to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

SK specialty Co., Ltd.

(Former, SK Materials Co., Ltd.)

and its subsidiaries

Consolidated Financial Statements for the period from January 1, 2022 to December 31, 2022 and from December 1, 2021 (date of incorporation) to December 31, 2021

"The accompanying consolidated financial statements, including all footnotes and disclosures, have been prepared by, and are the responsibility of, the Group."

Kyu-Won Lee Chief Executive Officers SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.)

Headquarter: (Address) 63 Gaheunggongdan-ro, Yeongju-si, Gyeongsangbuk-do Korea (Tel) (+82) 054-630-8114

SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) and its subsidiaries Consolidated Statement of Financial Position as of December 31, 2022 and 2021

(in Korean won) Current assets	Notes		2022	2021
Cash and cash equivalents	4,5,32	₩	41,381,701,157	19,899,841,783
Short-term financial instruments	4,5,32		25,012,315	-,,- , -
Trade accounts receivables	4,6,27,32		67,876,320,076	81,039,767,048
Other current financial assets	4,8,32		3,926,855,958	5,149,585,193
Inventories	7		151,750,272,489	116,598,197,759
Other current assets	9		15,192,600,233	15,211,478,361
	0		280,152,762,228	237,898,870,144
Non-current assets			200,102,102,220	201,000,010,111
Long-term financial instruments	4,5,31		2,000,000	2,000,000
Other non-current financial assets	4,8,32		2,590,195,873	2,527,547,458
Property, plant and equipment	4,0,52		864,199,519,357	780,875,713,443
Right-of-use assets	10		11,937,096,524	10,278,212,537
Investment property	12		40,014,135,004	16,335,278,703
Intangible assets	12		14,789,403,447	9,075,749,511
Deferred tax assets	25		23,563,318,401	22,922,452,988
Net defined benefit assets	17		18,219,436,774	6,746,809,694
Other non-current assets	9		1,748,710,051	1,544,088,020
Other Hon-current assets	9		977,063,815,431	850,307,852,354
Total assets		₩	1,257,216,577,659	1,088,206,722,498
Liabilities Current liabilities				
Trade accounts payables	4,14,27,32	₩	21,727,208,503	13,484,054,886
Short-term borrowings	4,16,32		89,165,331,844	137,468,770,348
Current portion of debentures	4,16,32		30,000,000,000	99,961,199,433
Current lease liabilities	4,11,32		3,365,970,913	2,569,066,353
Other current financial liabilities	14		86,006,351,949	82,109,536,943
Current tax liabilities	14		41,317,873,260	1,627,770,707
Other current liabilities	15		5,255,940,586	1,104,244,476
Strief current habilities	10		276,838,677,055	338,324,643,146
Non-current liabilities			210,030,011,033	330,324,043,140
	1 16 22		40,000,000,000	40,000,000,000
Long-term borrowings Debentures	4,16,32 4,16,32		40,000,000,000 428,943,065,610	40,000,000,000 358,925,015,809
Lease liabilities	4,10,32		4,549,262,077	6,598,082,464
Deferred tax liabilities	4,11,32		4,549,262,077	141,820,039
	15		4,001,489,346	
Other non-current liabilities	15			3,528,144,905
Total liabilities		₩	477,647,260,225 754,485,937,280	409,193,063,217 747,517,706,363
		~ ~	101,100,001,200	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Equity Equity attributable to owners of the Parent Company				
Share capital	18	₩	7,500,000,000	7,500,000,000
Share premium			299,856,599,367	299,856,599,367
Other components of equity	18		23,508,881,440	27,328,629,158
Retained earnings	18		171,705,420,564	5,781,578,371
Recarrou ourningo	10		502,570,901,371	340,466,806,896
Non-controlling interest			159,739,008	222,209,239
Total equity		₩	502,730,640,379	340,689,016,135
Total liabilities and equity		₩	1,257,216,577,659	1,088,206,722,498

The accompanying notes are an integral part of the consolidated financial statements

SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) and its subsidiaries Consolidated Statement of Comprehensive Income for the period from January 1, 2022 to December 31, 2022 and

from December 1	2021	date or incor	poration) t	to December 31.	2021
	,	auto or moor			

(in Korean won)	Notes		2022	2021
Revenue	19,20	₩	842,426,910,682	65,748,035,661
Cost of sales	24		(536,811,339,989)	(45,063,566,235)
Gross profit		₩	305,615,570,693	20,684,469,426
Selling and administrative expenses	21,24		(77,409,946,837)	(10,253,778,379)
Operating income			228,205,623,856	10,430,691,047
Other income	22		2,787,644,334	453,257,827
Other expenses	22		(7,170,509,059)	(1,707,790,289)
Finance income	23		18,357,617,909	434,462,470
Finance costs	23		(30,648,868,595)	(1,656,099,103)
Profit before income tax			211,531,508,445	7,954,521,952
Income tax expense	25		(50,509,766,027)	(2,106,136,881)
Profit for the year		₩	161,021,742,418	5,848,385,071
Profit for the year attributable to:				
Equity holders of the Parent Company			161,019,620,844	5,858,964,864
Non-controlling interests			2,121,574	(10,579,793)
Other comprehensive income(loss)				
Items that will not be reclassified to profit	or loss			
Remeasurements of net defined benefit liability	ties		4,904,221,349	(77,386,493)
Net loss on translation of foreign operations		_	(14,506,905)	(4,271,624)
			4,889,714,444	(81,658,117)
Items that may be subsequently reclassifie	ed to profit or	loss		
Net loss on translation of foreign operations			(3,051,180,622)	(325,754,736)
			(3,051,180,622)	(325,754,736)
Other comprehensive income(loss) for the ye	ar, net of tax	₩	1,838,533,822	(407,412,853)
Total comprehensive income for the year		₩	162,860,276,240	5,440,972,218
Total comprehensive income for the year is	s attributable	to:		
Equity holders of the Parent Company			162,872,661,571	5,455,823,635
Non-controlling interest			(12,385,331)	(14,851,417)
Earnings per share attributable to the equi	ty holders of t	the Pa	arent Company	
Basic earnings per share	26	₩	10,735	391

The accompanying notes are an integral part of the consolidated financial statements.

SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) and its subsidiaries for the period from January 1, 2022 to December 31, 2022 and Consolidated statements of changes in equity

(in Korean won)	Notes		Attributable to	Attributable to equity holders of the Parent Company	Parent Company			
		Share capital	Share premium	Other components of equity	Retained earnings	Total	Non- controlling interest	Total Equity
Balance at December 1, 2021	*	7,500,000,000	299,856,599,367	27,654,383,894		335,010,983,261	237,060,656	335,248,043,917
Total comprehensive income(loss)								
Profit for the year				•	5,858,964,864	5,858,964,864	(10,579,793)	5,848,385,071
Remeasurements of net defined benefit liabilities					(77,386,493)	(77,386,493)		(77,386,493)
Foreign currency translation adjustments				(325,754,736)	•	(325,754,736)	(4,271,624)	(330,026,360)
				(325,754,736)	5,781,578,371	5,455,823,635	(14,851,417)	5,440,972,218
Balance at December 31, 2021	A	7,500,000,000	299,856,599,367	27,328,629,158	5,781,578,371	340,466,806,896	222,209,239	340,689,016,135
Balance at January 1, 2022	*	7,500,000,000	299,856,599,367	27,328,629,158	5,781,578,371	340,466,806,896	222,209,239	340,689,016,135
Total comprehensive income(loss) Profit for the year					161 019 620 844	161 019 620 844	2 121 574	161 021 742 418
Remeasurements of net defined benefit liabilities					4,904,221,349	4,904,221,349		4,904,221,349
Foreign currency translation adjustments			•	(3,051,180,622)		(3,051,180,622)	(14,506,905)	(3,065,687,527)
				(3,051,180,622)	165,923,842,193	162,872,661,571	(12,385,331)	162,860,276,240
Transactions with the owner								
Annual dividends							(50,084,900)	(50,084,900)
Transactions under common control	34			(768,567,096)		(768,567,096)		(768,567,096)
				(768,567,096)		(768,567,096)	(50,084,900)	(818,651,996)
Balance at December 31, 2022	W	7,500,000,000	299,856,599,367	23,508,881,440	171,705,420,564	502,570,901,371	159,739,008	502,730,640,379

SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) and its subsidiaries Consolidated statements of cash flows for the period from January 1, 2022 to December 31, 2022 and from December 1, 2021 (date of incorporation) to December 31, 2021

(in Korean won)	Notes		2022	2021
Cash flows from operating activities				
Cash generated from operations	29	₩	283,552,671,943	(14,180,989,895)
Interest received			579,748,550	62,503,703
Interest paid			(13,756,064,846)	(556,199,924)
Income taxes paid			(12,274,881,610)	(4,352,255)
Net cash inflow from operating activities		₩	258,101,474,037	(14,679,038,371)
Cash flows from investing activities				
Increase in short-term financial instruments		₩	(26,408,691)	-
Purchase of property, plant and equipment			(187,116,726,286)	(19,676,492,897)
Disposal of property, plant and equipment			2,632,368,996	15,742,421
Purchase of Intangible assets			(900,000)	-
Decrease in guarantee deposits			309,043,592	48,225,410
Increase in guarantee deposits			(676,362,184)	-
Decrease in short-term loans			692,858,000	89,303,000
			(46,466,414)	-
Net cash outflow from investing activities		₩	(184,232,592,987)	(19,523,222,066)
Cash flows from financing activities				
Increase in short-term borrowings		₩	354,623,711,766	36,914,768,800
Repayments of short-term borrowings			(403,218,716,686)	(5,500,000,000)
Issuance of debentures			99,442,060,000	-
Redemption of debentures			(100,000,000,000)	-
Repayments of lease liabilities			(3,427,000,545)	(188,955,818)
Dividends paid to common stocks			(50,084,900)	-
Net cash inflow from financing activities		₩	(52,630,030,365)	31,225,812,982
Net increase(decrease) in cash and cash equivalents Cash and cash equivalents at the beginning of the period Effects of exchange rate changes on cash and cash equivalents		₩	21,238,850,685 19,899,841,783 243,008,689	(2,976,447,455) 22,954,428,802 (78,139,564)
Cash and cash equivalents at the end of the period		₩	41,381,701,157	19,899,841,783

The accompanying notes are an integral part of the consolidated financial statements.

1. General Information

(1) General Information about SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) (the "Company" or "Parent Company")

The Parent Company has prepared the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("KIFRS") 1110 *Consolidated Financial Statements*, and its consolidated subsidiaries include SK specialty Jiangsu Co., Ltd.(Former, SK Materials Jiangsu Co., Ltd.) and five other entities(the "Subsidiaries")(SK Specialty Co., Ltd. and its subsidiaries in the "Group").

The Parent Company is newly established on December 1, 2021 from a split-off of the special gas division (except for the holding business division) from the former SK Materials Co., Ltd.. The Parent Company is to produce and sell special gases (NF3, SiH4 and WF6) used in the manufacturing process of semiconductor, Liquid-Crystal Display, industrial gases and solar cells. The headquarters of the parent company is located in Yeong-ju, Korea.

As of December 31, 2022, the share capital of the Parent Company is # 7,500 million (number of shares issued: 15,000,000), and SK Inc. holds 100% ownership of the Parent Company.

Meanwhile, the Parent Company changed its name from SK Materials Co., Ltd. to SK Specialty Co., Ltd. as of June 1, 2022.

SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) and its subsidiaries Notes to the consolidated financial statements for the period from January 1, 2022 to December 31, 2022 and from December 1, 2021 (date of incorporation) to December 31, 2021

(2) Consolidated subsidiaries

Details of the consolidated subsidiaries as of December 31, 2022, are as follows:

Subsidiaries	Location	Percentage of ownership as of December 31, 2022 (%)	Percentage of ownership as of December 31, 2021 (%)	Closing Month	Main Business
SK specialty Jiangsu Co., Ltd. (Former, SK Materials Jiangsu Co., Ltd.)	China	100%	100%	December 31	Manufacturing and sale of special gases
SK specialty Japan Co., Ltd. (Former, SK Materials Japan Co., Ltd.)	Japan	95%	95%	December 31	Sale of special gases
SK specialty Taiwan Co., Ltd. (Former, SK Materials Taiwan Co., Ltd.)	Taiwan	100%	100%	December 31	Sale of special gases
SK specialty (Xi'An) Co., Ltd. (Former, SK Materials (Xian) Co., Ltd.)	China	100%	100%	December 31	Trade and warehouse operation
SK Materials (Shanghai) Co., Ltd. ¹	China	100%	-	December 31	Sale of special gases
Happy Companion Co., Ltd. ¹	Korea	100%	-	December 31	Cleaning services, laundry, and service industries

¹ During the current period, we acquired shares of SK Materials, Ltd., and Happy Companion Co., Ltd., respectively, from our controlling companies SK Inc., for 770 million won and 2,770 million won. Since this transaction corresponds to transactions under the same control, we recognized the book amount on the consolidated financial statements of SK, our controlling company, as the acquisition cost, and the difference between acquisition cost and acquisition cost as other capital items(Note 34).

SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) and its subsidiaries Notes to the consolidated financial statements for the period from January 1, 2022 to December 31, 2022 and from December 1, 2021 (date of incorporation) to December 31, 2021

(3) Summarized financial information of subsidiaries

The summarized financial information for consolidated subsidiaries as of December 31, 2022 and 2021, is as follows:

(in millions of Korean won)							20	022				
_		Assets		Liabilities		Equity		Revenue		Profit (loss) for the year		Comprehen- sive income (loss)
SK specialty Jiangsu Co., Ltd. (Former, SK Materials Jiangsu Co., Ltd.) SK specialty Japan Co., Ltd.	₩	108,371	₩	33,769	₩	74,602	₩	58,317	₩	7,643	₩	5,449
(Former, SK Materials Japan Co., Ltd.) SK specialty Taiwan Co., Ltd.		6,038		2,839		3,199		6,696		42		(248)
(Former, SK Materials Taiwan Co., Ltd.) SK specialty (Xi'An) Co., Ltd.		11,103		5,557		5,546		26,192		1,410		1,190
(Former, SK Materials (Xian) Co., Ltd.)		15,321		6,887		8,434		70,115		1,067		829
SK Materials (Shanghai) Co., Ltd.		3,895		1,172		2,723		11,227		511		387
Happy Companion Co., Ltd.		776		203		573		1,718		138		138
(in millions of Korean won)							2	021				
		Assets		Liabilities		Equity		Revenue		Profit (loss) for the year		Comprehen- sive income (loss)
SK specialty Jiangsu Co., Ltd. (Former, SK Materials Jiangsu Co., Ltd.)	₩	101,391	₩	32,238	₩	69,153	₩	4,155	₩	(1)	₩	(203)
SK specialty Japan Co., Ltd. (Former, SK Materials Japan Co., Ltd.)		7,814		3,367		4,447		547		(212)		(297)
SK specialty Taiwan Co., Ltd. (Former, SK Materials Taiwan Co., Ltd.)		9,803		3,936		5,867		1,602		94		74
SK specialty (Xi'An) Co., Ltd. (Former, SK Materials (Xian) Co., Ltd.)		18,120		9,997		8,123		6,006		64		41

2. Basis of Preparation and Significant Accounting Policies

(1) Basis of preparation

The Group prepares statutory financial statements in Korean in accordance with Korean International Financial Reporting Standards ("KIFRS") enacted by the Act on External Audit of Stock Companies. The accompanying consolidated financial statements have been prepared on a historical cost basis, except for certain non-current assets and financial instruments that are measured at fair value. Historical cost is based on the fair values of the consideration given.

The accompanying consolidated financial statements were approved at the Group's Board of Directors meeting on January 26, 2023.

1) The new standards and interpretations introduced from the current period and the resulting changes in accounting policy are as follows.

KIFRS 1016 Property, plant and equipment (Amendment)

The amendments prohibit deducting the net selling price of goods from the cost before they reach the place and condition necessary to operate the asset in the manner intended by management. Consequently, the entity should recognise in profit or loss the revenue from selling the produced item and the cost of producing the item before using the asset in the intended manner, and apply it retrospectively to the location and condition that management can operate in the intended manner. On the other hand, the application of this amendment has no significant impact on the financial position or management performance of the group.

KIFRS 1037 Provision, Contingent Liabilities, Contingent Assets (Amendment)

The amendments clarified that when identifying a loss-bearing contract, the scope of the cost of performing the contract is the incremental cost of performing the contract and the allocation of other costs directly related to the performance of the contract. The amendments apply to contracts whose performance of all obligations has not been completed on the commencement date of the financial year in which the amendments are applied for the first time, and comparative financial statements are not restatement. On the other hand, the application of this amendment has no significant impact on the financial position or management performance of the group.

KIFRS 1103 Business Combination (Amendment)

The amendments made the definition of assets and liabilities to be recognised in a business combination refer to the revised financial reporting conceptual framework (2018), but added exceptions to apply the Standard to liabilities and contingent liabilities within the scope of KIFRS 1037 'Provisions, Contingencies, Contingencies' and KIFRS 2121 'Burges'. On the other hand, the application of this amendment has no significant impact on the financial position or management performance of the group.

KIFRS 1116 Lease (Amendment)

The amendment extends the application of the Practical Simple Act, which allows rent discounts, etc. not to be assessed as lease changes as a direct result of the global pandemic of COVID-19, to lease reductions that affect lease payments due before June 30, 2022. Such rent discounts must meet the application requirements of the Practical Simple Act, and lessees must consistently apply the Practical Simple Act to contracts with similar characteristics in similar situations. On the other hand, the application of this amendment has no significant impact on the financial position or management performance of the group.

KIFRS 2018-2020 Annual Improvement

This improvement includes some amendments to the first adoption of KIFRS 1101, KIFRS 1109 'Financial Instruments', KIFRS 1116 'Lease', and KIFRS 1041 'Agriculture, Forestry and Fisheries'. On the other hand, the application of this amendment has no significant impact on the financial position or management performance of the group.

2) The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's consolidated financial statements are disclosed below.

KIFRS 1001 Presentation of Financial Statements (Amendment)

The amendments affect only the presentation of liabilities in the statement of financial position and clarify that the classification of liabilities as current or non-current should be based on rights that are in existence at the end of the reporting period and clarify that classification is unaffected by expectations about whether an entity will exercise its right to defer settlement of a liability. The amendments explain that the right exists if the borrowing arrangement is complied with at the end of the reporting period and clarify that settlement refers to the transfer of cash, equity instruments, other assets or services to the counterparty. The amendments are applicable for annual periods beginning on or after January 1, 2023 with earlier application permitted.

KIFRS 1001 Presentation of Financial Statements (Amendment)

The amendments aim to help entities provide accounting policy disclosures that are more useful by replacing the requirement for entities to disclose their 'significant' accounting policies with a requirement to disclose their 'material' accounting policies and adding guidance on how entities apply the concept of materiality in making decisions about accounting policy disclosures. The amendments are applicable for annual periods beginning on or after January 1, 2023 with earlier application permitted.

KIFRS 1001 Presentation of Financial Statements (Amendment)

The amendments required disclosure of the carrying amount and associated gains or losses of a financial liability if all or part of a financial instrument whose exercise price is subject to changes in the issuer's share price is classified as a financial liability. The amendments are applicable for annual periods beginning on or after January 1, 2023 with earlier application permitted.

KIFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors (Amendment)

The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. Also, they clarify how entities use measurement techniques and inputs to develop accounting estimates. The amendments are applicable for annual periods beginning on or after January 1, 2023 with earlier application permitted.

KIFRS 1012 Income Taxes – Narrowing the scope of the initial recognition exception of deferred income taxes (Amendment)

The amendments narrowed the scope of the initial recognition exemption so that it no longer applies to transactions that, on initial recognition, give rise to equal taxable and deductible temporary difference, thus to resolve accounting diversity in the recognizing of deferred tax assets and liabilities. Paragraphs 15 and 24 (initial recognition exemption of deterred income taxes) of KIFRS 1012 were amended to include an additional condition where a deferred tax asset and liability shall be recognized for a temporary difference that arises on initial recognition of an asset or liability in a single transaction if that transaction give rise to equal amounts of taxable and deductible temporary differences. The amendments are applicable for annual periods beginning on or after January 1, 2023 with earlier application permitted.

The Group is reviewing the impact of the above-listed amendments on the consolidated financial statements.

(2) Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries. Control is achieved where the Group 1) has the power over the investee, 2) is exposed, or has rights, to variable returns from its involvement with the investee, and 3) has the ability to use its power to affect its returns. The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

When the Group has less than a majority of the voting rights of an investee, it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the activities of the investee unilaterally. The Group considers all relevant facts and circumstances in assessing whether or not the Group's voting rights in an investee are sufficient to give it power, including:

- The size of the Group's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- Potential voting rights held by the Group, other vote holders or other parties;
- Rights arising from other contractual arrangements; and
- Any additional facts and circumstances that indicate that the Group has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous stockholders' meetings

Income and expenses of subsidiaries acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary. Profit or loss and each component of OCI are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intragroup transactions and related assets and liabilities, income and expenses are eliminated in full on consolidation.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, a gain or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including

goodwill), and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognized in OCI and accumulated in equity, the amounts previously recognized in OCI and accumulated for as if the Company had directly disposed of the relevant assets.

(3) Business combinations

Business combinations are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognized in profit or loss as incurred.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred and the amount recognized for non-controlling interests, and any previous interest held, over the net identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, the Group re-assesses whether it has correctly identified all of the assets acquired and all of the liabilities assumed and reviews the procedures used to measure the amounts to be recognized at the acquisition date. If the re-assessment still results in an excess of the fair value of net assets acquired over the aggregate consideration transferred, then the gain is recognized in profit or loss.

In a business combination achieved in stages, the Group remeasures its entire previously held interests in the acquiree at fair value, and any gain or loss from the remeasurement is recognized in profit or loss or, if appropriate, in other comprehensive income. Changes in the carrying amount of previously held interests in the acquiree that are recognized in other comprehensive income is recognized in the same manner as if those interests were disposed of directly.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognized at that date.

(4) Current versus non-current classification

The Group presents assets and liabilities in the statement of financial position based on current/non-current classification. An asset is current when it is:

• Expected to be realized or intended to be sold or consumed in the normal operating cycle

- Held primarily for the purpose of trading
- Expected to be realized within twelve months after the reporting period
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in the normal operating cycle
- It is held primarily for the purpose of trading
- It is due to be settled within twelve months after the reporting period

• There is no unconditional right to defer the settlement of the liability for at least twelve months after the reporting period

All other liabilities are classified as non-current.

Deferred tax assets and liabilities are classified as non-current assets and liabilities.

(5) Foreign currencies

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

In preparing the consolidated financial statements of the individual entities, transactions in currencies other than the entity's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

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

- Exchange differences on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings,
- Exchange differences on transactions entered into in order to hedge certain foreign currency risks, and

 Exchange differences on monetary items receivable from or payable to a foreign operation for which settlement is neither planned nor likely to occur (therefore forming part of the net investment in the foreign operation), which are recognized initially in OCI and reclassified from equity to profit or loss on disposal or partial disposal of the net investment

For the purpose of presenting the consolidated financial statements, the assets and liabilities of the Group's foreign operations are expressed in Korean won using exchange rates prevailing at the end of the reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuated significantly during that period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognized in OCI and accumulated in equity. On the disposal of a foreign operation, all of the accumulated exchange differences in respect of that operation attributable to the owners of the Group are reclassified to profit or loss.

(6) Cash and cash equivalents

Cash and cash equivalents in the statement of financial position comprise cash at banks and on hand and short-term highly liquid deposits with a maturity of three months or less, that are readily convertible to a known amount of cash and subject to an insignificant risk of changes in value.

(7) Financial assets

1) Classification

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

- Financial assets measured at fair value through profit or loss (FVTPL)
- Financial assets measured at fair value through other comprehensive income (FVOCI), and
- Financial assets measured at amortized cost

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

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

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

2) Measurement

Financial assets are initially measured at fair value, and transaction costs that are directly attributable to the acquisition of financial assets (other than financial assets at fair value through profit or loss) are added to the fair value of the financial assets, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets at fair value through profit or loss are recognized immediately in profit or loss.

The Group considers the hybrid contract which contains embedded derivatives as the entire hybrid contract for the purpose of assessing whether the contractual cashflows represent solely payments of principal and interest on the principal amount outstanding.

① 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:

i) Financial assets measured at 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.

ii) Financial assets measured at FVOCI

Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets cash flows represent solely payments of principal and interest, are measured at fair value through other comprehensive income. Movements in the carrying amount are taken through other comprehensive income, except for the recognition of impairment loss (reversal of impairment loss), interest income and foreign exchange gains and losses which are recognized in profit or loss. When the financial asset is derecognized, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss. Interest rate method. Foreign exchange gains and losses are presented in 'finance income or costs' and impairment losses are presented in 'finance costs'.

iii) Financial assets measured at FVTPL

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 comprehensive income within 'finance income or costs' in the year in which it arises.

② Equity instruments

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

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

3) 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.

4) Recognition and Derecognition

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

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

5) Offsetting of financial instruments

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

(8) Inventories

Inventories are measured at the lower of cost and net realizable value. Cost of inventories are measured under the gross average method. Net realizable value represents the estimated selling price for inventories, less all estimated costs of completion and costs necessary to make the sale.

The Group recorded valuation allowance on a periodic basis and recognized loss from inventory valuation as cost of sales, when significant changes with an adverse effect (an oversupply, an obsolete or decline in the price of goods) on the entity have taken place during the period.

(9) Property, plant and equipment

Land is shown at fair value based on valuations by external independent valuation specialist. Valuations are performed with sufficient regularity to ensure that the fair value of a revalued asset does not differ materially from its carrying amount.

When the carrying amounts of the assets are increased through a revaluation, the revaluation surplus is recorded in OCI and credited to the asset revaluation surplus in equity. However, if there was a revaluation deficit, which was recognized as profit or loss, of the same assets in the past, the revaluation surplus at the extent of previously recognized revaluation deficit is recognized in profit or loss. A revaluation deficit is recognized in the statement of profit or loss and other comprehensive income, except to the extent that it offsets an existing surplus on the same asset recognized in the asset revaluation reserve. Any revaluation surplus of the land, which was recorded in equity, will be replaced with retained earnings when the asset is eliminated.

Depreciation of property, plant and equipment except land is calculated on a straight-line basis over the estimated useful life of the assets, as follows:

	Useful lives
Buildings and structures	20 - 40 years
Machinery	5 - 15 years
Others	5 - 15 years

The Group reviews the depreciation method, the estimated useful lives and residual values of property, plant and equipment at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in an accounting estimate.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

(10) Government Grants

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

(11) Intangible assets

Intangible assets are measured initially at cost and, subsequently, are carried at cost, less accumulated amortization and accumulated impairment losses. The cost of intangible asset acquired in a business combination, separately from goodwill, is its fair value at the acquisition date and shall be carried at its cost less any accumulated amortization and any accumulated impairment losses.

Amortization of intangible assets other than goodwill and membership is calculated on a straightline basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value is zero. However, intangible assets with indefinite useful lives such as Good will are not amortized as there is no foreseeable limit to the period over which the asset is expected to use.

	Useful lives
Industrial property rights	10 years
Others	5 years

The useful lives of intangible assets are assessed as either finite or indefinite. Intangible assets with finite lives are amortized over the useful economic life. The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in an accounting estimate. Intangible assets with indefinite useful lives are not amortized but are tested for impairment annually.

An item of intangible assets is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the intangible assets (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the intangible assets is derecognized.

(12) Impairment of tangible and intangible assets other than goodwill

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets, except for goodwill, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the CGU to which the asset belongs.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually, and whenever there is an indication that the asset may be impaired. Recoverable amount is the higher of fair value, less costs to sell and value in use. If the recoverable amount of an asset (or a CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or the CGU) is reduced to its recoverable amount and the reduced amount is recognized in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or a CGU) is increased to the revised estimate of its recoverable amount, so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset (or the CGU) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

(13) Investment properties

Real estate held to earn rental income or capital gains is classified as investment property. Investment properties are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses.

Subsequent costs are recognized in the carrying amount of an asset or as a separate asset if it is probable that future economic benefits associated with the assets will flow into the Group and the cost of an asset can be measured reliably. Routine maintenance and repairs are expensed as incurred.

The Group does not depreciate the land. Investment properties other than land are depreciated on a straight-line method over the economic useful lives from 20 to 40 years.

The Group reviews the depreciation method, the estimated useful lives and residual values of investment properties at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in an accounting estimate.

(14) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings, pending their expenditure on qualifying assets, is deducted from the borrowing costs eligible for capitalization. All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

(15) Discount (premium) on bonds

Discount (premium) on bonds is presented as a direct deduction from (addition to) the nominal value of the bonds and is amortized using the effective interest rate method over the lives of the bonds.

(16) Leases

At inception of a contract, the Group assesses whether the contract is, or contains, a lease considering if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

1) The Group as a lessee

The Group applied a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognizes a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments.

① Right-of use assets

The Group recognizes right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any re-measurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognized, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received.

	Useful lives
Land and buildings	1 - 50 years
Equipment	7 - 8 years
Vehicles	1 - 5 years

Unless the Group is reasonably certain to obtain ownership of the leased asset at the end of the lease term, the recognized right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term. Right-of-use assets are subject to impairment.

2 Lease liabilities

At the commencement date of the lease, the Group recognizes lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in- substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate. The variable lease payments that do not depend on an index or a rate are recognized as expense in the period on which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the in-substance fixed lease payments or a change in the assessment to purchase the underlying asset.

The Group included lease liabilities as financial liabilities.

③ Short-term lease and leases of low-value assets

The Group applies the short-term lease recognition exemption to its short-term leases of land, buildings, vehicles and others (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of office equipment that are considered of low value (i.e., below \$5,000). Lease payments on short-term leases and leases of low-value assets are recognized as expense on a straight-line basis over the lease term.

2) The Group as a lessor

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Group's net investment in the leases. Finance lease income is using the effective interest rate method on the Group's net investment outstanding in respect of the leases.

Rental income from operating leases is recognized on a straight-line basis over the term of the

relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized on a straight-line basis over the lease term.

(17) Financial liabilities and equity instruments

1) Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement and the definitions of financial liability and an equity instrument.

2) Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Group are recognized as the proceeds are received, net of direct issue costs.

Repurchase of the Group's own equity instruments is recognized and deducted directly in equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Group's own equity instruments.

3) Financial liabilities

All financial liabilities are measured subsequently at amortized cost using the effective interest method or at FVTPL. However, financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies, and financial guarantee contracts issued by the Group, are measured in accordance with the specific accounting policies set out below.

3-1) Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) it is designated as at FVTPL.

A financial liability is classified as held for trading if:

- It has been acquired principally for the purpose of repurchasing it in the near term; or
- On initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- It is a derivative that is not designated and effective as a hedging instrument

A financial liability other than a financial liability held for trading or contingent consideration of an acquirer in a business combination may be designated as at FVTPL upon initial recognition if:

SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) and its subsidiaries Notes to the consolidated financial statements for the period from January 1, 2022 to December 31, 2022 and from December 1, 2021 (date of incorporation) to December 31, 2021

- Such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- The financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group 's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- It forms part of a contract containing one or more embedded derivatives, and KIFRS 1109 permits the entire combined contract to be designated as at FVTPL

Financial liabilities at FVTPL are measured at fair value, with any gains or losses arising on changes in fair value recognized in profit or loss to the extent that they are not part of a designated hedging relationship.

However, for financial liabilities that are designated as at FVTPL, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognized in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. The remaining amount of change in the fair value of liability is recognized in other comprehensive income are not subsequently reclassified to profit or loss; instead, they are transferred to retained earnings upon derecognition of the financial liability.

Gains or losses on financial guarantee contracts issued by the Group that are designated by the Group as at FVTPL are recognized in profit or loss.

3-2) Financial liabilities measured at amortized cost

Financial liabilities that are not (a) contingent consideration of an acquirer in a business combination, (b) held-for-trading, or (c) designated as at FVTPL, are measured subsequently at amortized cost using the effective interest method.

4) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of debt instruments.

Financial guarantee contract liabilities are initially measured at their fair values and, if not designated as at FVTPL, are subsequently measured at the higher of:

- The amount of the loss allowance determined in accordance with KIFRS 1109 (see financial assets above); and
- The amount recognized initially less, where appropriate, cumulative amortization recognized in accordance with KIFRS 1115

5) Derecognition of financial liabilities

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.

(18) Retirement benefit costs

Contributions to defined contribution retirement benefit plans are recognized as an expense when employees have rendered service entitling them to the contributions.

For defined benefit retirement benefit plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each reporting period. Remeasurement, comprising actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected immediately in the consolidated statement of financial position with a charge or credit recognized in OCI in the period in which it occurs. Remeasurement recognized in OCI is reflected immediately in retained earnings and will not be reclassified to profit or loss. Past service cost is recognized in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are composed of service cost (including current service cost and past service cost, as well as gains and losses on curtailments and settlements), net interest expense (income) and remeasurement.

The Group presents the service cost and net interest expense (income) components in profit or loss, and the remeasurement component in OCI. Curtailment gains and losses are accounted for as past service costs.

(19) Other long-term employee benefits

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

(20) Share-based payment arrangements

Share-settled share-based payments granted to employees and similar service providers are measured at the fair value of the equity instrument at the grant date.

The fair value of a share-based payment transaction determined at the grant date is costed on a flat basis over the vesting period based on the group's estimate of the equity instrument to be vesting. At the end of each reporting period, the group is modifying its estimate of the quantity of equity instruments expected to be full. The effect of the correction on the initial estimate is recognised in profit or loss over the remaining vesting period and reflected in other paid-in capital so that the cumulative costs reflect the correction.

Share-settled-based payments granted to counterparts other than employees are measured at the fair value of the goods or services received. However, if the fair value of the goods or services received cannot be reliably estimated, the goods or services received are measured on the basis of the fair value of the equity instruments granted on the date the goods or services are received.

For cash-settled share-based payments, the liability corresponding to the consideration of the goods or services received is initially recognised at fair value. The fair value of the liability is remeasured at the end of each reporting period and at the time of settlement before the liability is settled and the fair value change is recognised in profit or loss during that period. Fair value is recognised as an expense during the vesting period and a corresponding liability is recognised.

(21) Provision

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of past event, it is probable that the Group will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (where the effect of the time value of money is material).

At the end of each reporting period, the remaining provision balance is reviewed and assessed to determine if the current best estimate is being recognized. If the existence of an obligation to transfer economic benefit is no longer probable, the related provision is reversed during the period.

(22) Revenue recognition

The Group operates manufacturing and marketing of special gases(NF3, SiH4, WF6 and others). Revenue from the sale of goods is recognized when the control of goods is transferred to the customer.

(23) Income tax

Income tax expense represents the sum of the tax currently payable and deferred tax. Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in OCI or directly in equity, in which case, the current and deferred tax are also recognized in OCI or directly in equity.

1) Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the consolidated statement of profit or loss and comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

2) Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent it is probable that taxable profits will be available against which those deductible temporary differences can be utilized. Such deferred tax assets and liabilities are not recognized if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent it is probable that there will be sufficient taxable profits against which the benefits of the temporary differences can be utilized and they are expected to reverse in the foreseeable future. The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) and its subsidiaries Notes to the consolidated financial statements for the period from January 1, 2022 to December 31, 2022 and from December 1, 2021 (date of incorporation) to December 31, 2021

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset if, and only if, the Group has a legally enforceable right to set off current tax assets against current tax liabilities, and the deferred tax assets and liabilities relate to income taxes are levied by the same taxation authority on either the same taxable entity or different taxable entities that intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

3) Current tax and deferred tax for the year

Current tax and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in OCI or directly in equity, in which case the current tax and deferred tax are also recognized in OCI or directly in equity. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

(24) Earnings per share

Basic earnings per share (EPS) amounts are calculated by dividing profit for the year attributable to ordinary equity holders of the Group by the weighted average number of ordinary shares outstanding during the year. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of outstanding ordinary shares, adjusted for own shares held, for the effects of all dilutive potential ordinary shares including stock options.

(25) Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date.

Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of KIFRS 1102 Share-based Payment; leasing transactions that are within the scope of KIFRS 1116 Leases; and measurements that have some similarities to fair value, but are not fair value, such as net realizable value in KIFRS 1002 Inventories or value in use in KIFRS 1036 Impairment of Assets.

In addition, for financial reporting purposes, fair value measurements are categorized into Level 1, 2 or 3, based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

Level 1: inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date; Level 2: inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and Level 3: inputs are unobservable inputs for the asset or liability

(26) Emissions Rights and liabilities

The Group accounts for greenhouse gases emission right and the relevant liability as below pursuant to the Act on Allocation and Trading of Greenhouse Gas Emission in Korea since 2015.

① Greenhouse Gases Emission Right

Greenhouse Gases Emission Right consists of emission allowances, which are allocated from the government free of charge or purchased from the market. The cost includes any directly attributable costs incurred during the normal course of business. Emission rights held for the purpose of performing the obligation are classified as intangible asset and are initially measured at cost and after initial recognition are carried at cost less accumulated impairment losses. Emission rights held for short-swing profits are classified as current asset and are measured at fair value with any changes in fair value recognized as profit or loss in the respective reporting period. The Group derecognizes an emission right asset when the emission allowance is unusable, disposed or submitted to government in which the future economic benefits are no longer expected to be probable.

2 Emission liability

Emission liability is a present obligation of submitting emission rights to the government with regard to emission of greenhouse gas. Emission liability is recognized when it is probable that outflows of resources will be required to settle the obligation and the costs required to perform the obligation are reliably estimable. Emission liability is an amount of estimated obligations for emission rights to be submitted to the government for the performing period. The emission liability is measured based on the expected quantity of emission for the performing period in excess of emission allowance in possession and the unit price for such emission rights in the market at the end of the reporting period. The Group derecognizes emission liability when it submits emission rights to the government.

3. Significant accounting judgments, estimates and assumptions

When preparing the consolidated financial statements, management is required to make judgments, estimates and assumptions that affect the reported amount of assets, liabilities, revenues and expenses. Actual results may be different from those estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

(1) Income taxes

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

If certain portion of the taxable income is not used for investments or increase in wages or dividends, the Group is liable to pay additional income tax calculated based on the tax laws. Accordingly, the measurement of current and deferred income tax is affected by the tax effects from the new tax system. As the Group's income tax is dependent on the investments, increase in wages and dividends, there is an uncertainty measuring the final tax effects.

(2) Revaluation of land

The Group measures land at fair value, and changes in the fair value are reflected in other comprehensive income. As of December 31, 2021, land has been reevaluated by former SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) using an independent evaluation agency on March 31, 2021, which was the revaluation base date. The evaluation was performed according to the amount evaluated based on the recent market transaction in accordance with the terms of transactions with independent third parties while applying the published land price standard method which calculates the price according to the current status of the target land based on the standard published land price. There is no significant difference in the revaluation amount of the land between the appraisal amount on December 1, 2021 and the revaluation base date.

(3) Measurement and useful lives of property, plant and equipment or intangible assets

If the Group acquires property, plant and equipment or intangible assets from business combination, it is required to estimate the fair value of these assets at the acquisition date. For estimating the useful lives of tangible and intangible assets, significant management judgment is required.

(4) Impairment of financial assets

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

(5) Defined benefit plan

The Group's defined benefit liabilities is determined based on the actuarial valuation carried out at the end of each annual reporting period. Actuarial assumptions are the Group's best estimates of the variables in determining the cost of providing post-retirement benefits, such as discount rates, rates of expected future salary increases and mortality rates. Significant estimation uncertainty is likely to persist in making such assumptions due to the long-term nature of post-retirement benefit plan.

(6) COVID-19 related matters

To prevent the spread of COVID-19, various prevention and control measures, including restrictions on traveling, are being implemented worldwide, and as a result, the global economy is being affected extensively. In particular, the Group is manufacturing and selling special gases (NF3, SiH4, WF6) used in semiconductor, LCD, and solar cell manufacturing processes as its major businesses, and is exposed to uncertainties in the market due to COVID-19. This may negatively affect productivity, decrease or delay in sales, collection of existing bonds, discount rates and indicators used in various estimates, adversely affecting the consolidated financial position and consolidated financial performance of the Group. The Group has prepared consolidated financial statements by reasonably estimating the impact of COVID-19 on the Group. However, significant uncertainties exist in the estimation of the impact of COVID-19 on the Group.

(7) Uncertainty of the Impact of the Ukraine Crisis

Armed conflict in Ukraine and related international sanctions against Russia, which began in February 2022, may affect companies subject to sanctions, as well as companies directly or indirectly engaged in business with Ukraine or Russia, directly or indirectly exposed to the industry or economy of Ukraine or Russia. There is significant uncertainty in estimating the impact of the Ukraine crisis on the group.
4. Financial Instruments by Category

(1) Financial assets

Categorizations of financial assets as of December 31, 2022 and 2021, are as follows:

(in thousands of						
Korean won)				2022		
		Financial assets at		Financial assets at		
		FVOCI	a	mortized cost		Total
Current assets:						
Cash and cash equivalents	₩	-	₩	41,381,701	₩	41,381,701
Short-term financial instruments		-		25,012		25,012
Trade receivables		28,570,804		39,305,516		67,876,320
Short-term loans		-		437,031		437,031
Other receivables		-		2,973,511		2,973,511
Accrued income		-		25,023		25,023
Guarantee deposits		-		491,291		491,291
		28,570,804		84,639,085		113,209,889
Non-current assets:						
Long-term financial instruments	₩	-	₩	2,000	₩	2,000
Long-term loans		-		1,277,572		1,277,572
Long-term guarantee deposits		-		1,312,624		1,312,624
		-		2,592,196		2,592,196
Total	₩	28,570,804	₩	87,231,281	₩	115,802,085
(in thousands of						
Korean won)				2021		
		Financial		Financial		
		assets at FVOCI	a	assets at mortized cost		Total
Current assets:			-			
Cash and cash equivalents	₩	-	₩	19,899,842	₩	19,899,842
Trade receivables		28,712,183		52,327,584		81,039,767
Short-term loans		-		536,359		536,359
Other receivables		-		3,820,019		3,820,019
Accrued income		-		1,024		1,024
Guarantee deposits		-		792,183		792,183
		28,712,183		77,377,011		106,089,194
Non-current assets:						
Long-term financial instruments	₩	-	₩	2,000	₩	2,000
Long-term loans		-		1,871,101		1,871,101
Long-term guarantee deposits		-		656,446		656,446
		_		2,529,547		2,529,547
Total	₩	28,712,183	₩	79,906,558	₩	108,618,741

(2) Financial liabilities

Categorizations of financial liabilities as of December 31, 2022 and 2021, are as follows:

2022							
		Total					
₩	21,727,209	₩	21,727,209				
	89,165,332		89,165,332				
	30,000,000		30,000,000				
	3,365,971		3,365,971				
	48,691,067		48,691,067				
	37,315,285		37,315,285				
	230,264,864		230,264,864				
	40,000,000		40,000,000				
	428,943,066		428,943,066				
	4,549,262		4,549,262				
	473,492,328		473,492,328				
₩	703,757,192	₩	703,757,192				
	at ₩	Financial liabilities at amortized cost ₩ 21,727,209 89,165,332 30,000,000 3,365,971 48,691,067 37,315,285 230,264,864 40,000,000 428,943,066 4,549,262 473,492,328	Financial liabilities at amortized cost				

(in thousands of Korean won)	2021							
		ancial liabilities amortized cost		Total				
Current liabilities:								
Trade accounts payables	\mathbf{W}	13,484,055	₩	13,484,055				
Short-term borrowings		137,468,770		137,468,770				
Current portion of debentures		99,961,199		99,961,199				
Lease liabilities		2,569,066		2,569,066				
Non-trade account payables		45,375,653		45,375,653				
Accrued expenses		36,733,884		36,733,884				
		335,592,627		335,592,627				
Non-current liabilities:								
Long-term borrowings		40,000,000		40,000,000				
Debentures		358,925,016		358,925,016				
Long-term lease liabilities		6,598,082		6,598,082				
		405,523,098		405,523,098				
Total	₩	741,115,725	₩	741,115,725				

(3) Net Gains or Losses by Category of Financial Instruments

Net gains or losses on each category of financial instruments for the period from January 1, 2022 to December 31, 2022 and from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022							
	Financial assets					Financial liabilities		
		cial assets FVOCI		ortized cost		cial liabilities at ortized cost		Total
Interest income	₩	-	₩	579,749	₩	-	₩	579,749
Interest expense		-		-		(14,545,986)		(14,545,986)
Gains and losses related foreign currency		-		5,361,305		(3,238,791)		2,122,514
Loss on disposal of trade account receivables		(447,528)		-		-		(447,528)
Total	₩	(447,528)	₩	5,941,054	₩	(17,784,777)	₩	(12,291,251)

(in thousands of Korean won)

For one-month period from December 1, 2021 to December 31, 2021

			Fina	incial assets	Financial liabilities					
	as	nancial ssets at FVTPL	-	Financial assets at FVOCI	a	inancial ssets at ortized cost	lia	Financial Ibilities at Prtized cost		Total
Interest income	₩	-	₩	-	₩	134,368	₩	-	₩	134,368
Interest expense		-		-		-		(1,002,109)		(1,002,109)
Gains and losses related foreign currency		-		-		(450,863)		184,911		(265,952)
Loss on disposal of trade account receivables		-		(13,340)		-		-		(13,340)
Others	_	(74,604)		-		-	_	-		(74,604)
Total	₩	(74,604)	₩	(13,340)	₩	(316,495)	₩	(817,198)	₩	(1,221,637)

(4) Fair value hierarchy

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Significance of the inputs

Level 1	Quoted (unadjusted) market prices in active markets for identical assets or liabilities
Level 2	Valuation techniques for which the lowest-level input that is significant to the fair value measurement is directly or indirectly observable
Level 3	Valuation techniques for which the lowest-level input that is significant to the fair value measurement is unobservable

Fair value hierarchy classifications of the financial instruments that are measured at fair value as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022								
	Level 1	Level 2	Level 3	Total					
Financial assets:									
Financial assets at FVOCI									
(trade accounts receivables)	₩ -	₩	- ₩ 28,570,804	₩ 28,570,804					
Total	₩ -	\mathbf{W}	- ₩ 28,570,804	₩ 28,570,804					
(in thousands of Korean won)			2021						
(in thousands of Korean won)			2021						
Financial assets:	Level 1	Level 2	Level 3	Total					
Financial assets at FVOCI									
(trade accounts receivables)	₩ -	₩	- ₩ 28,712,183	₩ 28,712,183					
Total	₩ -	₩	- ₩ 28,712,183	₩ 28,712,183					

The Group determines whether there has been a transfer between levels in the hierarchy of assets and liabilities that are recognized at fair value through re-assessing the categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period. There has been no transfer between levels for the period ended December 31, 2022.

(5) Description of valuation techniques used and key inputs to valuation of financial instruments

Financial instruments using fair value measurements classified as Level 3 as of December 31, 2022 and 2021, and the valuation techniques and inputs used in fair value of these financial instruments are as follows:

① Debt securities

The fair value of debt securities is measured by discounting the future cash flows of debt securities by applying the market interest rate applied to companies with similar creditworthiness as the issuer of debt securities.

② Valuation techniques and inputs used in the recurring fair value measurements categorized within Level 3 of the fair value hierarchy as of December 31, 2022 are as follows:

(in thousands of Korean won)	Fair value	Level	Valuation techniques	Inputs	Range of inputs
Fair value through other comprehensive income					
Trade accounts receivables	₩ 28,570,804	3	Present value technique	Credit risk adjusted discount rate	-

There is no change in valuation techniques used to measure the fair value of financial instruments classified as Level 1, Level 2 and Level 3.

5. Cash and Cash Equivalents and Long-term and Short-term Financial Instruments

(1) Details of cash and cash equivalents

Cash and cash equivalents as of December 31, 2022 and 2021, consist of:

(in thousands of Korean won)	2022		2021	
Cash on hand	₩	1,980	₩	2,115
Demand deposit		41,379,721		19,897,727
Total	₩	41,381,701	₩	19,899,842

(2) Details of long-term financial instruments

Details of long-term financial instruments as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022		2022 2021		Remark
Time deposit	₩	25,012	₩	-	
Deposits for checking accounts		2,000		2,000	Restriction

6. Trade accounts receivables

(1) Details of trade accounts receivables as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022		2021	
Trade accounts receivables	₩	67,876,320	₩	81,039,767
Total	₩	67,876,320	₩	81,039,767

- (2) As of December 31, 2022, the outstanding balance of derecognized trade accounts receivables is amounting to ₩ 15,618 million.(as of December 31, 2021, ₩ 13,732 million) As of December 31, 2022, the Group derecognized the transferred trade accounts receivables from consolidated financial statements as the risk and rewards were substantially transferred to Hana Bank and two other financial institutions.
- (3) When the Group discounts a particular class of trade accounts receivables its portfolio is classified as a sell and collect business model, and the trade accounts receivables portfolio held for collecting the contractual cash flows without discounts is classified as a business model for collecting the contractual cash flows. Trade accounts receivables classified as sell and collect business model are measured at fair value, and gains and losses on valuation are recognized in other comprehensive income.

As of December 31, 2022, the amount which is classified as sell and collect business model and recognized as financial assets at fair value through other comprehensive income is $\forall 28,571$ million(as of December 31, 2021, $\forall 28,712$ million). The amount which is classified as a business model for collecting the contractual cash flows and recognized at amortized cost is $\forall 39,306$ million(as of December 31, 2021, $\forall 58,328$ million).

7. Inventories

Details of Inventories as of December 31, 2022 and 2021, are as follows:

(in thousands of				2022		
Korean won)			Inven	tory valuation		
	Acq	uisition cost	а	llowance	Carr	ying amount
Merchandise	₩	3,710,200	₩	(911,955)	₩	2,798,245
Finished goods		94,236,421		-		94,236,421
Raw materials		15,571,905		-		15,571,905
Work in process		14,520,539		-		14,520,539
Supplies		21,433,491		(137,270)		21,296,221
Materials-in-transit		3,326,941		-		3,326,941
Total	₩	152,799,497	₩	(1,049,225)	₩	151,750,272
(in thousands of				2021		
Korean won)			Inven	tory valuation		
	Acq	uisition cost	а	llowance	Carr	ying amount
Merchandise	₩	4,751,866	₩	-	₩	4,751,866
Finished goods		58,544,105		-		58,544,105
Raw materials		23,690,205		-		23,690,205
Work in process		9,128,512		-		9,128,512
Supplies		18,020,117		-		18,020,117
Materials-in-transit		2,463,393		-		2,463,393
Total	₩	116,598,198	₩	-	₩	116,598,198

The cost of inventories recognized as an expense and included in 'cost of sales' for the period from January 1, 2022 to December 31, 2022 amounts to # 215,943 million.(for one-month period from December 1, 2021 to December 31, 2021 amounts to # 19,745 million) In addition, the inventory valuation losses recognized in the cost of sales for the period from January 1, 2022 to December 31, 2022 amounts to # 1,049 million. There was no inventory valuation losses recognized in the cost of from December 1, 2021 to December 31, 2022 amounts to # 1,049 million. There was no inventory valuation losses recognized in the cost of from December 1, 2021 to December 31, 2021.

8. Other Financial Assets

Details of other financial assets as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022			2021			
Other current financial assets							
Short-term loans	₩	437,031	₩	536,359			
Non-trade accounts receivables		2,973,511		3,820,019			
Accrued income		25,023		1,024			
Guarantee deposits		491,291		792,183			
	₩	3,926,856	₩	5,149,585			
Other non-current financial assets							
Long-term loans	₩	1,277,572	₩	1,871,101			
Long-term Leasehold deposits		1,312,624		656,446			
	₩	2,590,196	₩	2,527,547			
Total	₩	6,517,052	₩	7,677,132			

9. Other Assets

Details of other assets as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022			2021
Other current assets				
Advance payments	₩	1,474,094	₩	4,615,434
Prepaid expenses		1,877,272		1,978,582
Value added tax receivables		11,799,251		8,617,462
Others		41,983		-
	₩	15,192,600	₩	15,211,478
Other non-current assets				
Long-term Prepaid expenses	₩	413,072	₩	-
		1,335,638		1,544,088
	₩	1,748,710	₩	1,544,088
Total	₩	16,941,310	₩	16,755,566

10. Property, Plant and Equipment

(1) Details of property, plant and equipment as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022									
		Acquisition Cost	-	ccumulated epreciation ¹	Net book value					
Land	₩	123,701,725	₩	-	₩	123,701,725				
Buildings and structures		229,797,190		(71,484,500)		158,312,690				
Machinery		1,000,648,012		(708,309,552)		292,338,460				
Others		229,015,070		(121,003,613)		108,011,457				
Construction in progress		181,835,187		-		181,835,187				
Total	₩	1,764,997,184	₩	(900,797,665)	₩	864,199,519				

(in thousands of Korean won)	2021									
		Acquisition Cost	Accumulated depreciation ¹			Net book value				
Land	₩	121,940,981	₩	-	₩	121,940,981				
Buildings and structures		221,594,300		(64,433,340)		157,160,960				
Machinery		952,902,894		(655,062,137)		297,840,757				
Others		206,783,430		(109,235,551)		97,547,879				
Construction in progress		106,385,136		-		106,385,136				
Total	₩	1,609,606,741	₩	(828,731,028)	₩	780,875,713				

¹ Accumulated depreciation, Accumulated impairment losses and government grants are included.

(2) Changes in property, plant and equipment for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022											
		Buildings and				Construction i				 I		
	Land ¹		structures		Machinery		Others		progress		Total	
Beginning net book value	₩ 121,940,981	₩	4 157,160,960	₩	297,840,757	₩	97,547,879	₩	106,385,136	₩	780,875,713	
Acquisition	-		88,228		108,516		581,628		198,669,178		199,447,550	
Business Combination ²	-		-		-		99,673		-		99,673	
Disposal	(56,650)		(256,297)		(2,289,544)		(457,426)		-		(3,059,917)	
Depreciation	-		(7,742,946)		(57,404,692)		(13,914,599)		-		(79,062,237)	
Transfer from construction in progress	6,940,312		9,790,225		54,892,084		21,073,478		(92,696,099)		-	
Transfer to other accounts ³	(5,067,016)		-		-		-		(30,692,623)		(35,759,639)	
Others ⁴	(55,902)		(727,480)		(808,661)		3,080,824		169,595		1,658,376	
Ending net book value	₩ 123,701,725	₩	158,312,690	₩	292,338,460	₩	108,011,457	₩	181,835,187	₩	864,199,519	

¹ Land was revalued on March 31, 2021 by a pre-split former SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) using an external independent valuation specialist. The revaluation was conducted based on 'Standard Public Land Price Evaluation Method' and 'sales comparison approach' according to the conditions of transactions with an independent third party. There is no significant difference in the revaluation amount of the land from the appraisal amount on December 1, 2021, the base date for the split-off. Revaluation surplus, net of deferred tax accounted as $\forall 27,790$ million, was recorded to other comprehensive income and is shown in other components of equity. The historical cost of land amounts to $\forall 87,040$ million as of December 31, 2022.

² This is the amount related to the business combination that occurred during the current period(Note 34).

³ $\forall \forall$ 9,991 million was replaced by intangible assets and $\forall \forall$ 24,436 million was replaced by investment properties are included.

⁴Others include net foreign exchange differences and others.

(in thousands of Korean won)	For one-month period from December 1, 2021 to December 31, 2021									
		Buildings and		Construction in						
	Land ¹	structures	Machinery	Others	progress	Total				
Paginning not back value	₩ 80.671.505	₩ 145.525.685	₩ 296.773.831	₩ 95.322.502	₩ 156,535,731	₩ 774,829,254				
Beginning net book value	00,071,505	- , ,	VV 290,773,031	, - , ,						
Acquisition	-	44,906	-	29,944	18,448,959	18,523,809				
Disposal	-	(28,324)	(7,903)	(1,637)	(15,742)	(53,606)				
Depreciation	-	(629,718)	(5,082,165)	(1,134,680)	-	(6,846,563)				
Transfer from construction in progress	41,283,492	12,361,945	6,249,013	3,328,526	(63,222,976)	-				
Transfer to other accounts ²	-	-	-	-	(5,336,849)	(5,336,849)				
Others ³	(14,016)	(113,534)	(92,019)	3,224	(23,987)	(240,332)				
Ending net book value	₩ 121,940,981	₩ 157,160,960	₩ 297,840,757	₩ 97,547,879	₩ 106,385,136	₩ 780,875,713				

¹ Land was revalued on March 31, 2021 by a pre-split former SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) using an external independent valuation specialist. The revaluation was conducted based on 'Standard Public Land Price Evaluation Method' and 'sales comparison approach' according to the conditions of transactions with an independent third party. There is no significant difference in the revaluation amount of the land from the appraisal amount on December 1, 2021, the base date for the split-off. Revaluation surplus, net of deferred tax accounted as $\forall 27,790$ million, was recorded to other comprehensive income and is shown in other components of equity. The historical cost of land amounts to $\forall 85,279$ million as of December 31, 2021.

² $\forall \forall$ 120 million was replaced by intangible assets and $\forall \forall$ 5,216 million was replaced by investment properties are included.

³Others include net foreign exchange differences and others.

As of December 31, 2022, certain property, plant and equipment of the Group are provided as collateral for the borrowings and others (Note 30).

(3) Line items including depreciation expenses for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022			For one-month period from December 1, 2021 to December 31, 2021		
Cost of sales	₩	72,398,277	₩	6,430,056		
Research and development expenses		2,810,316		98,809		
Selling and administrative expenses		3,853,644		317,698		
Total	₩	79,062,237	₩	6,846,563		

(4) As of December 31, 2022, the fair value of land is classified as Level 3. Valuation techniques and inputs used in the recurring fair value measurements of land as of December 31, 2022, are as follows:

(in thousands of Korean won)		Fair value	Level	Valuation techniques	Inputs
Land	₩	123,701,725	3	Standard public land price evaluation method	Officially assessed land price, Time adjustment, Regional factors, Individual factors, Other factors and others

11. Right-of-use Assets and Lease Liabilities

(1) Details of right-of-use assets as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022								
	A	cquisition Cost		ccumulated epreciation	Net book value				
Properties	₩	9,267,592	₩	(2,506,646)	₩	6,760,946			
Machinery		9,406,663		(4,988,641)		4,418,022			
Vehicle	_	1,364,423		(606,294)		758,129			
Total	₩	20,038,678	₩	(8,101,581)	₩	11,937,097			

(in thousands of Korean won)	2021									
	Acquisition Cost			Accumulated depreciation	Net book value					
Properties	₩	4,508,642	₩	(630,691)	₩	3,877,951				
Machinery		9,406,663		(3,673,136)		5,733,527				
Vehicle		1,091,327		(424,592)		666,735				
Total	₩	15,006,632	₩	(4,728,419)	₩	10,278,213				

(2) Changes in right-of-use assets for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022											
			Business									
	Beginning	Increase	Combination ¹	Depreciation	Other ²	Ending						
Properties	₩ 3,877,951	₩ 2,666,311	₩ 30,905	₩(1,729,621) ₩	∀1,915,400 ₩	6,760,946						
Machinery	5,733,527	-	-	(1,247,160)	(68,345)	4,418,022						
Vehicle	666,735	716,736		(455,974)	(169,368)	758,129						
Total	₩ 10,278,213	₩3,383,047	₩ 30,905	₩ (3,432,755) ₩	¥1,677,687 ₩	11,937,097						

¹ This is the amount related to the business combination that occurred during the current period(Note 34).

² Consists of mid termination and net foreign exchange differences.

(in thousands of Korean won)		For one-month period from December 1, 2021 to December 31, 2021									
	E	Beginning		Increase		Depreciation		Other ¹		Ending	
Properties	₩	4,311,474	₩	1,361,541	₩	(89,382)	₩	(1,705,682)	₩	3,877,951	
Machinery		5,837,457		-		(103,930)		-		5,733,527	
Vehicle		894,968		53,406	_	(62,563)		(219,076)		666,735	
Total	₩	11,043,899	₩	1,414,947	₩	(255,875)	₩	(1,924,758)	₩	10,278,213	

¹ Consists of mid termination and net foreign exchange differences.

(3) The carrying amounts of lease liabilities as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Cash on hand	₩	3,365,971	₩	2,569,066	
Demand deposit		4,549,262		6,598,082	
Total	₩	7,915,233	₩	9,167,148	

(4) Changes in lease liabilities for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022		from Dec	-month period cember 1, 2021 mber 31, 2021	
Beginning	₩	9,167,148	₩	9,777,023	
Increase		3,383,047		1,414,947	
Business Combination ¹		31,236		-	
Interest expenses		217,676		19,159	
Payments		(3,644,677)		(208,115)	
Other ²		(1,239,197)		(1,835,866)	
Ending	₩	7,915,233	₩	9,167,148	

¹ This is the amount related to the business combination that occurred during the current period(Note 34).

² Consists of mid termination and net foreign exchange differences.

The total cash outflow for leases in 2022 and 2021 was ₩ 6,049 million(in 2021, ₩ 347 million).

(5) The consolidated statement of comprehensive income shows the following amounts relating to leases:

(in thousands of Korean won)	2022		2021	
Depreciation of right-of-use assets				
Properties	₩	1,729,621	₩	89,382
Equipment		1,247,160		103,930
Vehicles		455,974		62,563
Total	₩	3,432,755	₩	255,875
Expense relating to short-term leases	₩	2,157,375	₩	69,354
Expense relating to leases of low-value assets that are not short-term leases		246,973		69,660
Interest expense		217,676		19,159

12.Investment properties

(1) Changes in investment properties for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)		For the period from January 1, 2022 to December 31, 2022								
	E	Beginning	Disposal Depreciation		Transfer to other accounts ¹			Ending		
Land	₩	2,435,707	₩	-	₩	-	₩	5,067,016	₩	7,502,723
Buildings		13,899,572		(85,617)		(672,263)		19,369,720		32,511,412
Total	₩	16,335,279	₩	(85,617)	₩	(672,263)	₩	24,436,736	₩	40,014,135

¹ \ 24,436 million was replaced from property, plant and equipment.

(in thousands of Korean won)		For one-month period from December 1, 2021 to December 31, 2021							
	E	Beginning	Dep	Ending					
Land	₩	-	₩	-	₩	2,435,707	₩	2,435,707	
Buildings		11,148,105		(29,275)		2,780,742		13,899,572	
Total	₩	11,148,105	₩	(29,275)	₩	5,216,449	₩	16,335,279	

¹ ₩ 5,216 million was replaced from property, plant and equipment.

(2) The income and expense recognized related to the investment properties for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021 are as follows:

(in thousands of Korean won)	Janua	period from ry 1, 2022 to ber 31, 2022	For one-month period from December 1, 2021 to December 31, 2021		
Rental income	₩	1,165,067	₩	30,350	
Depreciation expense of investment properties		(672,263)		(29,275)	
Ending	₩	492,804	₩	1,075	

(3) As of December 31, 2022, the fair value of investment properties is $\forall 39,814$ million.

13. Intangible Assets

(1) Details of intangible assets as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022							
		Acquisition Cost	Accumulated amortization ¹			Net book value			
Membership	₩	2,217,492	₩	(431,992)	₩	1,785,500			
Software		28,768,104		(15,863,071)		12,905,033			
Others		3,186,033		(3,087,163)		98,870			
Total	₩	34,171,629	₩	(19,382,226)	₩	14,789,403			

¹ Accumulated depreciation and Accumulated impairment losses are included.

(in thousands of Korean won)		2021							
-		Acquisition Cost		Accumulated amortization ¹	Net book value				
Membership	₩	619,721	₩	(317,721)	₩	302,000			
Software		20,371,175		(11,709,357)		8,661,818			
Others		3,177,225		(3,065,294)		111,931			
Total	₩	24,168,121	₩	(15,092,372)	₩	9,075,749			

¹ Accumulated depreciation and Accumulated impairment losses are included.

(2) Changes in intangible assets for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For	the period fro						
	Mer	nbership ¹	Software		Other		Total	
Beginning	₩	302,000	₩	8,661,818	₩	111,931	₩	9,075,749
Acquisition		-		900		-		900
Business Combination ²		-		2,952		-		2,952
Amortization		-		(4,083,822)		(21,868)		(4,105,690)
Impairment loss		(114,271)		-		-		(114,271)
Transfer to other accounts ³		1,597,771		8,393,078		8,807		9,999,656
Other ⁴		-		(69,893)		-		(69,893)
Ending	₩	1,785,500	₩	12,905,033	₩	98,870	₩	14,789,403

¹ The Group classifies membership as intangible assets with indefinite useful lives and does not amortize.

 2 This is the amount related to the business combination that occurred during the current period(Note 34).

³ $\forall \forall$ 9,991 million replaced from property, plant and equipment and $\forall \forall$ 9 million replaced from

advance payments are included.

⁴Other includes net foreign exchange differences and others.

(in thousands of Korean won)	For one-mon			
	Membership ¹	Software	Other	Total
Beginning Amortization	₩ 302,000	₩ 8,812,055 (262,962)	₩ 113,728 (1,797)	₩ 9,227,783 (264,759)
Transfer to other accounts ²	-	120,400	-	120,400
Other ³ Ending	₩ 302,000	(7,675) ₩ 8,661,818	- ₩ 111,931	(7,675) ₩ 9,075,749

¹ The Group classifies membership as intangible assets with indefinite useful lives and does not amortize.

² W 120 million replaced from property, plant and equipment is included.

³Other includes net foreign exchange differences and others.

(3) Line items including amortization expenses for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

Janua	ry 1, 2022 to	For one-month period from December 1, 2021 to December 31, 2021		
₩	509,976	₩	40,371	
	130,612		10,884	
	3,465,102		213,504	
₩	4,105,690	₩	264,759	
	Janua Decem ₩	130,612 3,465,102	January 1, 2022 to December 31, 2022 from Dec to Decer ₩ 509,976 ₩ 130,612 3,465,102	

(4) The Group recognized total research and development costs of ₩ 4,951 million(in 2021, ₩ 344 million) as expenses.

14. Trade Accounts Payables and Other Financial Liabilities

Details of trade accounts payables and other financial liabilities as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Trade accounts payables	₩	21,727,209	₩	13,484,055	
Other current financial liabilities: Non-trade accounts payables		48,691,067		45,375,653	
Accrued expenses		37,315,285		36,733,884	
	₩	86,006,352	₩	82,109,537	
Total	₩	107,733,561	₩	95,593,592	

15. Other Liabilities

Details of other liabilities as of December 31,	2022 an	d 2021, are as fo	llows:	
(in thousands of Korean won)		2022		2021
Other current liabilities				
Withholdings	₩	1,972,624	₩	694,023
Advances		47,177		72,734
Others		3,236,140		337,487
	₩	5,255,941	₩	1,104,244
Other non-current liabilities				
Long-term payables	₩	4,001,489	₩	3,528,145
	₩	4,001,489	₩	3,528,145
Total	₩	9,257,430	₩	4,632,389

16. Borrowings and Debentures

(1) Details of borrowings and debentures as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022							
		Current		Current		Current		on-current
Short-term borrowings long-term borrowings and Debentures:	₩	89,165,332	₩	-				
Long-term borrowings	₩	-	₩	40,000,000				
Debentures		30,000,000		428,943,066				
	₩	30,000,000	₩	468,943,066				
Total	₩	119,165,332	₩	468,943,066				
(in thousands of Korean won)		20	21					
		Current	Ν	on-current				

Short-term borrowings long-term borrowings and Debentures:	₩	137,468,770	₩	-
Long-term borrowings	₩	-	₩	40,000,000
Debentures		99,961,199		358,925,016
	₩	99,961,199	₩	398,925,016
Total	₩	237,429,969	₩	398,925,016

(2) Short-term borrowings

Details of short-term borrowings as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean wo	on)	Latest	Annual interest rate (%)		
Classification	Lender	maturity date	December 31, 2022	2022	2021
Loans for trade finance	Industrial Bank of Korea	Jan. 30, 2023	5.21	₩ 10,000,000	₩ 4,500,000
	Shinhan Bank	Jan. 30, 2023	5.01	10,000,000	-
Export growth fund	The Export- Import Bank of Korea	Aug. 30, 2023	3.86	30,000,000	30,000,000
General loans	Agricultural Bank of China	Oct. 26, 2023	5.04	15,000,000	-
	Sumitomo Mitsui Bank	-	-	-	26,000,000
	Korea Development Bank	-	-	-	50,000,000
	Korea Development Bank (Guangzhou branch of China)	Apr. 17, 2023	5.44	5,102,021	4,750,152
	Korea Development Bank (Guangzhou branch of China)	Jul. 17, 2023	5.28	8,929,884	11,875,378
	Shinhan Bank(Osaka branch of Japan)	Mar. 24, 2023	1.20	953,180	1,030,240
	MUFG Bank (Wuxi branch of China)	Mar. 07, 2023	3.55	9,180,247	9,313,000
Total	,			₩ 89,165,332	₩ 137,468,770

(3) Long-term borrowings

Details of long-term borrowings as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean wo	n)	Latest	Annual interest rate (%)			
Classification	Lender	maturity date	December 31, 2022	2022	2021	
Loans for trade finance	China Everbright Bank	Jun. 24, 2024	CD+1.20	₩ 20,000,000	₩ 20,000,000	
Export growth fund	The Export- Import Bank of Korea	Nov. 03, 2024	1.99	20,000,000	20,000,000	
				₩ 40,000,000	₩ 40,000,000	
Less: Current portion of lo	ng-term borrowings			-	-	
Total				₩ 40,000,000	₩ 40,000,000	

(4) Debentures

Details of debentures as of December 31, 2022 and 2021, are as follows:

Classification Mar. 02, 2023 3.12 W 30,000,000 W 30,000,000 2nd non-guarantee public bonds - - 100,000,000 30,000,0	(in thousands of Korean won)	Latest maturity	Annual interest rate (%)		
2nd non-guarantee public bonds - - 100,000,000 3rd non-guarantee public bonds Jul. 03, 2025 1.93 30,000,000 30,000,000 4th - 1st non-guarantee public bonds Feb. 23, 2024 1.44 230,000,000 230,000,000 4th - 2nd non-guarantee public bonds Feb. 23, 2026 1.75 70,000,000 70,000,000 5th - 1st non-guarantee public bonds May. 30, 2025 3.97 20,000,000 230,000,000 5th - 2nd non-guarantee public bonds May. 30, 2025 3.97 20,000,000 70,000,000 5th - 1st non-guarantee public bonds May. 30, 2025 3.97 25,000,000 100,000,000 5th - 3rd non-guarantee public bonds May. 22, 2025 3.96 55,000,000 1113,785) Less: Present value discounts Less: Current portion of debentures (30,000,000) (1,056,934) (1,113,785) (30,000,000) (99,961,199) (30,000,000) (99,961,199) 100,000,000 100,000,000 100,000,000	Classification	-	· · /	2022	2021
3rd non-guarantee public bonds Jul. 03, 2025 1.93 30,000,000 30,000,000 4th – 1st non-guarantee public bonds Feb. 23, 2024 1.44 230,000,000 230,000,000 4th – 2nd non-guarantee public bonds Feb. 23, 2026 1.75 70,000,000 70,000,000 5th – 1st non-guarantee public bonds May. 30, 2025 3.97 20,000,000 230,000,000 5th – 2nd non-guarantee public bonds May. 30, 2025 3.97 25,000,000 70,000,000 5th – 3rd non-guarantee public bonds May. 22, 2025 3.96 55,000,000 \$\frac{\frac{\pi 460,000,000}{(1,056,934)} (1,113,785)}}{(1,056,934) (1,113,785)} (30,000,000) (99,961,199)	1st non-guarantee public bonds	Mar. 02, 2023	3.12	₩ 30,000,000	₩ 30,000,000
4th – 1st non-guarantee public bonds Feb. 23, 2024 1.44 230,000,000 230,000,000 4th – 2nd non-guarantee public bonds Feb. 23, 2026 1.75 70,000,000 70,000,000 5th – 1st non-guarantee public bonds May. 30, 2025 3.97 20,000,000 230,000,000 5th – 2nd non-guarantee public bonds May. 30, 2025 3.97 25,000,000 25,000,000 5th – 3rd non-guarantee public bonds May. 22, 2025 3.96 55,000,000 1113,785) Less: Present value discounts Less: Current potion of debentures (1,056,934) (1,113,785) (30,000,000) (99,961,199)	2nd non-guarantee public bonds	-	-	-	100,000,000
bonds Feb. 23, 2024 1.44 230,000,000 230,000,000 4th – 2nd non-guarantee public bonds Feb. 23, 2026 1.75 70,000,000 70,000,000 5th – 1st non-guarantee public bonds May. 30, 2025 3.97 20,000,000 230,000,000 5th – 2nd non-guarantee public bonds May. 30, 2025 3.97 25,000,000 25,000,000 5th – 3rd non-guarantee public bonds May. 22, 2025 3.96 55,000,000 # 460,000,000 Less: Present value discounts Less: Current portion of debentures (1,056,934) (1,113,785) (30,000,000) (99,961,199)	3rd non-guarantee public bonds	Jul. 03, 2025	1.93	30,000,000	30,000,000
bonds Feb. 23, 2026 1.75 70,000,000 70,000,000 5th – 1st non-guarantee public bonds May. 30, 2025 3.97 20,000,000 5th – 2nd non-guarantee public bonds May. 30, 2025 3.97 25,000,000 5th – 3rd non-guarantee public bonds May. 22, 2025 3.96 55,000,000 Less: Present value discounts Less: Current portion of debentures (1,056,934) (1,113,785) (30,000,000) (99,961,199)	o 1	Feb. 23, 2024	1.44	230,000,000	230,000,000
bonds May. 30, 2025 3.97 20,000,000 5th – 2nd non-guarantee public bonds May. 30, 2025 3.97 25,000,000 5th – 3rd non-guarantee public bonds May. 22, 2025 3.96 55,000,000 Less: Present value discounts Less: Current portion of debentures (1,056,934) (1,113,785) (30,000,000) (99,961,199)	0 1	Feb. 23, 2026	1.75	70,000,000	70,000,000
bonds May. 30, 2025 3.97 25,000,000 5th – 3rd non-guarantee public bonds May. 22, 2025 3.96 55,000,000 Less: Present value discounts (1,056,934) (1,113,785) Less: Current portion of debentures (30,000,000) (99,961,199)		May. 30, 2025	3.97	20,000,000	
bonds May. 22, 2025 3.96 55,000,000 W 460,000,000 W 460,000,000 W 460,000,000 Less: Present value discounts (1,056,934) (1,113,785) Less: Current portion of debentures (30,000,000) (99,961,199)	e 1	May. 30, 2025	3.97	25,000,000	
Less: Present value discounts (1,056,934) (1,113,785) Less: Current portion of debentures (30,000,000) (99,961,199)	0 1	May. 22, 2025	3.96	55,000,000	
Less: Current portion of debentures (30,000,000) (99,961,199)				₩ 460,000,000	₩ 460,000,000
	Less: Present	value discounts		(1,056,934)	(1,113,785)
Total ₩ 428,943,066 ₩ 358,925,016	Less: Current	portion of debentu	ires	(30,000,000)	(99,961,199)
	Total			₩ 428,943,066	₩ 358,925,016

17. Retirement benefit obligations

The Group operates defined benefit pension plans. The majority of the plans are final salary pension plans, which provide benefit to employees in the form of a guaranteed level of pension payable for life. The level of benefits provided depends on employees' length of service and their salary in the final years leading up to retirement. The majority of benefit payments are from trustee administered funds; however, there are also a number of unfunded plans. Plan assets held in trusts are governed by local regulations and practice in each country.

(1) Components of the retirement benefit obligations

Line items in the statement of financial position arising from the obligations of the Group in relation to the defined benefit retirement benefit plan as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Present value of funded defined benefit obligations	₩	27,822,803	₩	32,263,355	
Fair value of plan assets		(46,042,240)		(39,010,165)	
Net defined benefit liabilities(assets)	₩	(18,219,437)	₩	(6,746,810)	

(2) Changes in net defined benefit liabilities(assets) for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)		For the period from January 1, 2022 to December 31, 2022					
	Present Value of Defined benefit obligations		-			Total	
Beginning	₩	32,263,355	₩	(39,010,165)	₩	(6,746,810)	
Post-employment benefits:							
Current service cost		4,376,639		-		4,376,639	
Interest expense(income)		963,108		(1,169,858)		(206,750)	
	₩	5,339,747	₩	(1,169,858)	₩	4,169,889	
Remeasurements:							
Income from plan assets (Excluding amounts included in the above interest)		-		528,892		528,892	
Actuarial gains and losses from changes in financial assumptions		(7,644,831)		-		(7,644,831)	
Experience adjustments and others		730,234		-		730,234	
	₩	(6,914,597)	₩	528,892	₩	(6,385,705)	
Contributions		-		(8,300,000)		(8,300,000)	
Benefits paid		(2,983,252)		1,778,356		(1,204,896)	
Others		117,550		130,535		248,085	
Ending	₩	27,822,803	₩	(46,042,240)	₩	(18,219,437)	
			-				

	For one-month period from December 1, 2021 to					, 2021 to
(in thousands of Korean won)	December 31, 2021					
	Pres	sent Value of				
	Def	ined benefit	F	Plan assets		Total
	0	bligations				
Beginning	₩	32,697,934	₩	(28,071,214)	₩	4,626,720
Post-employment benefits:						
Current service cost		368,422		-		368,422
Interest expense(income)		80,187		(68,855)		11,332
	₩	448,609	₩	(68,855)	₩	379,754
Remeasurements:						
Income from plan assets		_		102,704		102,704
(Excluding amounts included in the above interest)				102,701		102,101
Actuarial gains and losses from changes in financial assumptions		(248,086)		-		(248,086)
Experience adjustments and others		247,475		-		247,475
	₩	(611)	₩	102,704	₩	102,093
Contributions		-		(11,000,000)		(11,000,000)
Benefits paid		(210,252)		27,200		(183,052)
Others		(672,325)		-		(672,325)
Ending	₩	32,263,355	₩	(39,010,165)	₩	(6,746,810)

(3) Details of fair value of plan assets

Details of plan assets as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Cash and cash equivalents	₩	1,163	₩	16,316	
Time deposit		34,910,328		13,654,388	
Other financial assets		11,130,749		25,339,461	
Total	₩	46,042,240	₩	39,010,165	

(4) Principal assumptions on actuarial valuation as of December 31, 2022 and 2021, are as follows:

	2022	2021
Discount rate	5.37%	3.06%
Salary growth rate	3.00%	3.00%

(5) The sensitivity of the defined benefit obligation to changes in the principal assumptions is as

follows:

(in thousands of Korean won)	Effect on defined benefit obligation					
	Changes in principal assumption	Increase in principal assumption	Decrease in principal assumption			
Discount rate	1.0%	(2,548,795)	2,985,565			
Salary growth rate	1.0%	3,030,090	(2,627,614)			

The above sensitivity analysis are conducted by holding all other assumptions constant. The sensitivity of the defined benefit obligation to changes in principal actuarial assumptions is calculated using the projected unit credit method, the same method applied when calculating the defined benefit obligations recognized on the statement of financial position. The methods and assumptions used in the sensitivity analysis are the same as in the previous period. The weighted average duration of the defined benefit obligation is 10.426 years.

(6) Defined Contribution Plan

The expense recognized for the period from January 1, 2022 to December 31, 2022 in relation to defined contribution plan was $\forall 157 \text{ million}(\text{in } 2021, \forall 27 \text{ million}).$

18. Equity

(1) Issued capital

Details of issued capital as of December 31, 2022 and 2021 are as follows:

(in thousands of Korean won)	2022			2021		
 Number of shares authorized for issue Per share 	₩	50,000,000 shares 500	₩	50,000,000 shares 500		
3. Number of shares issued Ordinary share		15,000,000 shares		15,000,000 shares		
4. Issued capital Ordinary share	₩	7,500,000	₩	7,500,000		

(2) Other components of equity

Details of other components of equity as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022		2021	
Gain on revaluation of land	₩	27,789,760	₩	27,789,760
Gain on translation of foreign operations		(3,376,936)		(325,755)
Other components of equity		(903,943)		(135,376)
Total	₩	23,508,881	₩	27,328,629

(3) Retained earnings

Details of retained earnings as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021
Retained earnings before appropriation	₩	171,705,421	₩	5,781,578

19. Operating Segment Information

(1) The Group operates a single operating segment and provides financial information to the Chief Executive Officer at the corporate level.

Segment	Type of goods and services
Special gases	Manufacturing and marketing of special gases (NF3, SiH4 and WF6) and others

(2) Sales by geographic region for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

_	For the period from January 1, 2022 to December 31, 2022								
(in thousands of Korean won)		Korea		Asia	C	Others		Total	
Revenue	₩	564,688,296	₩	277,272,054	₩	466,561	₩	842,426,911	
Property, plant and equipment		792,153,279		72,046,240		-		864,199,519	
Right-of-use assets		6,993,550		4,943,547		-		11,937,097	
Intangible assets		12,945,393		1,844,010		-		14,789,403	

		For one-month period from December 1, 2021 to December 31, 2021						
(in thousands of Korean won)		Korea		Asia	C	others		Total
Revenue	₩	44,637,327	₩	21,021,821	₩	88,888	₩	65,748,036
Property, plant and equipment		700,761,989		80,113,724		-		780,875,713
Right-of-use assets Intangible assets		8,343,514 7,397,562		1,934,699 1,678,188		-		10,278,213 9,075,750

20. Revenue from Contracts with Customers

- (1) Revenue of the Group is entirely from contracts with customers and is recognized at a point in time.
- (2) Details of external customers, who contribute more than 10% of the Group's revenue for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022		For one-month period from December 1, 2021 to December 31, 2021	
A company	₩	306,800,187	₩	25,279,476
B company		210,182,457		15,545,673
Total	₩	516,982,644	₩	40,825,149

21. Selling and Administrative Expenses

Details of selling and administrative expenses for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022		For one-month period from December 1, 2021 to December 31, 2021		
Salaries	₩	25,791,419	₩	6,700,291	
Retirement benefit expense		1,364,575		28,499	
Welfare		4,421,063		198,916	
Travel and transportation expenses		792,620		29,656	
Rent		1,458,180		64,295	
Entertainment expenses		338,254		16,467	
Advertising expenses		485,309		34,718	
Books and printing		24,940		2,770	
Commission expenses		9,980,511		876,645	
Freight expenses		3,772,185		329,823	
Sales expenses		7,004,566		437,664	
Taxes and dues		1,229,861		78,817	
Office expenses		1,006,853		72,265	
Depreciation		3,853,644		317,698	
Depreciation of right-of-use assets		1,962,982		124,785	
Amortization of intangible assets		3,465,102		213,504	
Research and development		4,951,490		343,539	
Others		5,506,393		383,427	
Total	₩	77,409,947	₩	10,253,779	

22. Other non-operating income and expenses

(1) Details of other non-operating income for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022		For one-month perio from December 1, 20 to December 31, 202	
Commission income	₩	629,867	₩	178,477
Rental income		82,320		2,928
Income on disposal of property, plant and equipment		351,932		-
Income on disposal of Investment property		2,383		-
Miscellaneous income		1,721,142		271,853
Total	₩	2,787,644	₩	453,258

(2) Details of other non-operating expenses for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022		For one-month period from December 1, 20 to December 31, 20		
Donations	₩	2,750,308	₩	1,550,931	
Loss on disposal of property, plant and equipment		784,163		37,864	
Impairment loss of intangible assets		114,271		-	
Provision for impairment of others		2,991,337		-	
Miscellaneous loss		530,430		118,995	
Total	₩	7,170,509	₩	1,707,790	

23. Finance Income and Costs

Details of finance income and costs for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022		For one-month period from December 1, 2021 to December 31, 2021	
Finance income				
Interest income	₩	579,749	₩	134,368
Gain on foreign currency transactions		14,436,171		228,491
Gain on foreign currency translations		3,341,698		71,603
Total	₩	18,357,618	₩	434,462
Finance costs				
Interest expense	₩	14,545,986	₩	1,002,109
Loss on foreign currency transactions		11,034,605		311,900
Loss on foreign currency translations		4,620,750		254,146
Loss on disposal of trade accounts receivables		447,528		13,340
Others		-		74,604
Total	₩	30,648,869	₩	1,656,099

24. Breakdown of Expenses by Nature

Details of classification based on nature of expenses for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	Janu	ne period from ary 1, 2022 to mber 31, 2022	For one-month period from December 1, 2021 to December 31, 2021		
Changes in inventories	₩	(34,365,603)	₩	(2,513,943)	
Raw materials and merchandise purchased		250,308,749		22,258,932	
Salaries		90,948,984		11,460,083	
Welfare		13,291,877		561,375	
Retirement benefit expense		4,546,770		328,478	
Depreciation		79,062,237		6,846,563	
Depreciation of right-of-use assets		3,432,755		255,875	
Depreciation of investment properties		672,263		29,275	
Amortization of intangible assets		4,105,690		264,759	
Gas expenses		25,731,750		2,146,683	
Utility expenses		69,582,144		5,905,941	
Repairs and maintenance		27,519,270		1,501,329	
Supplies		23,655,889		1,871,898	
Advertising expenses		485,309		34,718	
Freight expenses		3,801,194		346,730	
Commission expenses		23,865,927		1,759,399	
Rent		2,404,348		139,014	
Sales expenses		7,004,566		437,664	
Other expenses		18,167,168		1,682,572	
Total	₩	614,221,287	₩	55,317,345	

25. Tax Expense and Deferred Tax

(1) Income tax expense for the period from January 1, 2022 to December 31, 2022 and onemonth period from December 1, 2021 to December 31, 2021, consists of:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022		For one-month perio from December 1, 202 to December 31, 202	
Current tax:				
Current tax on profit for the year	₩	52,281,447	₩	1,614,535
Adjustments to the current tax of prior periods		339,045		-
Deferred tax:				
Changes in temporary differences		(629,242)		466,895
Deferred tax recognized directly to equity		(1,481,484)		24,707
Income tax expense	₩	50,509,766	₩	2,106,137

(2) Reconciliation between actual income tax expense and amount computed by applying the statutory tax rate to profit before income tax is as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022		For one-month period from December 1, 2021 to December 31, 2021	
Profit before income tax	₩	211,531,508	₩	7,954,522
Income tax expense computed at statutory tax rate		51,092,093		2,124,811
Adjustments:				
Non-deductible revenues		(105)		-
Non-deductible expenses		287,158		8,433
Adjustments to the current tax of prior periods		339,045		-
Others		(1,208,425)		(27,107)
Income tax expense	₩	50,509,766	₩	2,106,137

The average effective tax rate of the Group as of December 31, 2022 was 23.88%(in 2021, 26.48%).

(3) The tax effect relating to components of other comprehensive income for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, is as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022						
	Before tax		Т	ax effect	Α	fter tax	
Remeasurements of net defined benefit liabilities	₩	6,385,705	₩	(1,481,484)	₩	4,904,221	
Total	₩	6,385,705	₩	(1,481,484)	₩	4,904,221	
(in thousands of Korean won)	For one-month period from December 1, 2021 to December 31, 2021						
	,						
	Be	fore tax		,	•	ftor tax	
	Be	fore tax		31, 2021 ax effect	A	fter tax	
Remeasurements of net defined benefit liabilities	Be	ofore tax (102,093)		,	A ₩	fter tax (77,386)	
(In thousands of Korean won)	Before tax			m December 1,	2021 to	December	

(4) The analysis of deferred tax assets and liabilities as of December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)	2022		2021	
Deferred tax assets				
Deferred tax assets to be recovered after more than 12 months	₩	25,013,359	₩	25,385,415
Deferred tax assets to be recovered within 12 months		9,494,153		8,624,603
	₩	34,507,512	₩	34,010,018
Deferred tax liabilities				
Deferred tax liabilities to be recovered after more than 12 months	₩	(11,006,309)	₩	(11,186,879)
Deferred tax liabilities to be recovered within 12 months		(91,328)		(42,506)
	₩	(11,097,637)	₩	(11,229,385)
Deferred tax assets (liabilities), net	₩	23,409,875	₩	22,780,633

(5) Changes in deferred tax assets and liabilities for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, without taking into consideration the offsetting of balances within the same tax jurisdiction, are as follows:

	For the period from January 1, 2022 to December 31, 2022							
(in thousands of Korean won)	Beginning balance		Statement of profit or loss		Other comprehensive income		Ending balance	
Government grants	₩	855,669	₩	(136,118)	₩	-	₩	719,551
Depreciation		13,797,122		754,636		-		14,551,758
Defined benefit obligations		(1,152,106)		83,678		(1,481,484)		(2,549,912)
Intangible assets		829,155		21,740		-		850,895
Undetermined costs		8,070,497		75,662		-		8,146,159
Others		380,296		1,311,128		-		1,691,424
Total	₩	22,780,633	₩	2,110,726	₩	(1,481,484)	₩	23,409,875

	For one-month period from December 1, 2021 to December 31, 2021							
(in thousands of Korean won)	Beginning balance		Statement of profit or loss		Other comprehensive income		Ending balance	
Government grants	₩	864,427	₩	(8,758)	₩	-	₩	855,669
Depreciation		13,795,150		1,972		-		13,797,122
Defined benefit obligations		635,199		(1,812,012)		24,707		(1,152,106)
Intangible assets		833,670		(4,515)		-		829,155
Undetermined costs		6,766,497		1,304,000		-		8,070,497
Others		352,585		27,711		-		380,296
Total	₩	23,247,528	₩	(491,602)	₩	24,707	₩	22,780,633

(6) Details of unrecognized deductible (taxable) temporary differences as deferred tax assets (liabilities) as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022	2021	Remark
Interests in subsidiary and others	₩ (17,526,067)	₩ (13,190,644)	No plan for disposal and dividends

26. Earnings per Share

(1) Basic earnings per share for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	Januai	period from ry 1, 2022 to ber 31, 2022	For one-month period from December 1, 2021 to December 31, 2021		
Profit for the year attributable to owners of the parent	₩	161,019,621	₩	5,858,965	
Weighted-average number of ordinary share outstanding ¹	15,0	000,000 shares		15,000,000 shares	
Basic earnings per share	₩	10,735 won	₩	391 won	

¹ The weighted average number of ordinary shares outstanding is calculated as total number of ordinary shares issued divided by the period outstanding. The number of ordinary shares outstanding is the same as the number of issued shares since the Group does not hold treasury shares for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021.

Since there is no dilution effect of potential ordinary shares of the Group, basic earnings per share and diluted earnings per share are the same.

27. Transactions with related parties

(1) Related parties of the Group as of December 31, 2022 are as follows:

Туре	Name of related party
Parent	SK Inc.
Other related parties	SK conglomerate affiliates ¹

¹ The entities do not correspond to the related parties defined in paragraph 9 of KIFRS 1024 but are classified as related parties according to the resolution of the Securities and Futures Commission. According to the resolution, the conglomerate affiliates designated by the Fair Trade Commission are related parties due to their substantive relationships stipulated in paragraph 10 of KIFRS 1024.

(2) Details of significant transactions with the related parties for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022					
. , , , , , , , , , , , , , , , , , , ,				Acquisition of property, plant and equipment		
		d others	Purchase of	and intangible	Other	
Parent company	Sales an	d others	inventory	assets	purchases	
SK Inc.	₩	648,520 ₩	-	₩ 2,656,199 ₩	6,357,012	
Other related parties	•••	010,020 11		2,000,100 11	0,007,012	
SK Telecom Co., Ltd.		1,500	-	-	499,256	
SK Networks Co., Ltd.		-	-	-	373,118	
SK Networks Service Co., Ltd.		-	65,024	2,050	53,715	
SK Rent A Car Co., Ltd.		-	-	-	30,493	
SK Innovation Co., Ltd.		-	-	-	523,665	
SK Energy Co., Ltd.		-	-	-	9,800	
SK Siltron Co., Ltd.		-	-	-	18,234	
SK Broadband Co., Ltd.		-	-	22,734	38,770	
SK Magic Co., Ltd.		-	-	-	94,223	
SK Pinx Co., Ltd.		-	-	-	390,114	
SK Forest Co., Ltd.		-	-	312,120	1,364	
SK M&Service Co., Ltd.		-	-	-	821,577	
SK Planet Co., Ltd.		-	-	-	1,145	
SK Shieldus Co., Ltd.		-	-	680,016	1,020,837	
FSK L&S Co., Ltd.		-	45,164	-	6,567	
SK Geo Centric China, Ltd.		-	-	-	910	
CAPSTEC Co., Ltd.		-	-	37,382	1,471,951	
SK Resonac Co., Ltd.	c	9,088,921	_	_	6,156,444	
(Former, SK Showa Denko Co., Ltd.)	,	,000,321		_	0,100,+++	
SK Materials airplus Co., Ltd.		3,726,262	13,429,430	-	88,525	
SK Tri Chem Co., Ltd.		1,620,033	49,884	-	70,605	
SK Materials renewtech Co., Ltd.		620,790	4,784,175	48,536	349,547	
SK Materials JNC Co., Ltd.		248,584	-	-	741	
SK Materials Performance Co., Ltd.		2,101,441	-	-	-	
SK Materials Group14 Co., Ltd.		2,637,103	-	13,738,800	-	
SK Hynix Inc.		3,844,187	-	-	8,120	
SK hynix Semiconductor(China) Ltd.	18	3,360,848	-	-	-	
SK Hynix System IC Inc.		8,861	-	-	-	
SK Hynix System IC Wuxi	2	2,649,509	-	-	-	
Key Foundry Co., Ltd. ¹		319,052	-	-	-	
Happynarae Co., Ltd.		-	4,630,029	100,620	237,450	
Goodservice Corp.		-	-	-	31,150	
LTCAM Co., Ltd.		-	2,683,043	-	-	
Total	₩ 230	0,875,611 ₩	25,686,749	₩ 17,598,457 ₩	18,655,333	

¹ Key Foundry Co., Ltd. was incorporated into a large business group affiliate during the current period.

(in thousands of Korean won)	For one-month period from December 1, 2021 to December 31, 2021						
Acquisition of							
			property, plant				
			and equipment				
		Purchase of	and intangible	Other			
	Sales and others	inventory	assets	purchases			
Parent company							
SK Inc.	₩ -	₩ -	₩ 408,899 ₩	1,088,304			
Other related parties							
SK Telecom Co., Ltd.	1,500	-	-	90,262			
SK Networks Co., Ltd.	-	-	-	2,057			
SK Innovation Co., Ltd.	-	-	-	89,659			
SK Energy Co., Ltd.	-	-	-	1,680			
SK Siltron Co., Ltd.	-	-	-	511,903			
SK Broadband Co., Ltd.	-	-	-	3,280			
SK Magic Co., Ltd.	-	-	-	7,023			
SK Pinx Co., Ltd.	-	-	-	1,807			
SK M&Service Co., Ltd.	-	-	-	51,562			
SK Shieldus Co., Ltd.	-	-	121,375	60,491			
FSK L&S Co., Ltd.	-	6,296	-	2,401			
CAPSTEC Co., Ltd.	-	-	-	103,888			
SK Resonac Co., Ltd.	726,142	_	_	577,455			
(Former, SK Showa Denko Co., Ltd.)							
SK Materials airplus Co., Ltd.	496,505	1,112,838	-	6,106,757			
SK Tri Chem Co., Ltd.	403,129	-	-	47,157			
SK Materials renewtech Co., Ltd.	85,400	251,424	6,930	11,547			
Happy Companion Co., Ltd.	4,398	-	-	110,327			
SK JNC Japan	34,248	-	-	-			
SK Materials (Shanghai) Co., Ltd.	540,475	-	-	67,520			
SK Materials Performance Co., Ltd.	229,007	-	-	-			
SK Materials Group14 Co., Ltd.	988	-	-	-			
SK Materials JNC Co., Ltd.	36,212	-	-	-			
SK Hynix Inc.	14,782,070	-	-	-			
SK hynix Semiconductor(China) Ltd.	681,993	-	-	-			
SK Hynix System IC Inc.	81,610	-	-	-			
Happynarae Co., Ltd.	-	332,891	-	14,435			
LTCAM Co., Ltd.	-	304,963		-			
Total	₩ 18,103,677	₩ 2,008,412	₩ 537,204 ₩	8,949,515			
(3) Details of significant outstanding balances of receivables and payables with the related parties as of December 31, 2022 and 2021 are as follows:

(in thousands of Korean won)	2022								
		Receiv	ables	6	Payables				
Name of entity	Trade accounts receivables		Other receivables		Trade payables		Other payables		
Parent company									
SK Inc.	₩	25,911	₩	211,669	₩	-	₩	1,339,680	
Other related parties									
SK Telecom Co., Ltd.		-		1,650		-		28,062	
SK Networks Co., Ltd.		-		-		-		28,030	
SK Rent A Car Co., Ltd.		-		-		-		1,400	
SK Innovation Co., Ltd.		-		6,000		-		66,084	
SK Energy Co., Ltd.		-		-		-		2,552	
SK Magic Co., Ltd.		-		-		-		6,421	
SK Pinx Co., Ltd.	-			-		-		40,608	
SK Forest Co., Ltd.		-		312,120		-		-	
SK Planet Co., Ltd.	-			-		-		95	
SK Shieldus Co., Ltd.		-		-		-		225,471	
SK Broadband Co., Ltd.		-		-		-		233	
CAPSTEC Co., Ltd.		-		-		-		217,670	
SK Resonac Co., Ltd.		1,757,184		199,223		_		695,896	
(Former, SK Showa Denko Co., Ltd.)				100,220				,	
SK Materials airplus Co., Ltd.		153,172		38,094		-		5,088,455	
SK Tri Chem Co., Ltd.		585,638		-		-		41,580	
SK Materials renewtech Co., Ltd.		127,368		11,542		973,734		239,974	
SK Materials JNC Co., Ltd.		88,552		-		-		-	
SK Materials Performance Co., Ltd.		237,074		415,796		-		-	
SK Materials Group14 Co., Ltd.		602,661		323,575		-		-	
SK Hynix Inc.		12,588,479		-		-		-	
SK hynix Semiconductor(China)Ltd.		2,055,341		-		-		-	
SK Hynix System IC Wuxi		274,514		-		-		-	
Key Foundry Co., Ltd. ¹		152,981		-		-		-	
Happynarae Co., Ltd.		-		-		326,854		259,327	
Goodservice Corp.		-		-		-		3,421	
LTCAM Co., Ltd.	<u> </u>	-		-		166,085			
Total	₩	18,648,875	₩	1,519,669	₩	1,466,673	₩	8,284,959	

¹ Key Foundry Co., Ltd. was incorporated into a large business group affiliate during the current period.

(in thousands of Korean won)	2021								
	-	Receiv	ables	6	Payables				
Name of entity	Trade accounts receivables		Other receivables		Trade payables		Other payables		
Parent company									
SK Inc.	₩	-	₩	126,700	₩	-	₩	1,980,807	
Other related parties									
SK Telecom Co., Ltd.		-		2,139		-		98,915	
SK Networks Co., Ltd.		-		-		-		2,057	
SK Innovation Co., Ltd.		-		-		-		98,625	
SK Energy Co., Ltd.		-		-		-		1,848	
SK Siltron Co., Ltd.		-		-		-		510,273	
SK Magic Co., Ltd.		-		-		-		7,241	
SK Pinx Co., Ltd.		1,066,500		- 1,97					
SK M&Service Co., Ltd.		-		-		-		110	
SK Shieldus Co., Ltd.		-		-		-		200,053	
FSK L&S Co., Ltd.		-		-		551		8,146	
CAPSTEC Co., Ltd.		-		-		-		114,276	
SK Resonac Co., Ltd.		420,077		1,477,824		_		635,141	
(Former, SK Showa Denko Co., Ltd.)		,							
SK Materials airplus Co., Ltd.		97,206		478,949		-		6,565,959	
SK Tri Chem Co., Ltd.		206,181		442,011		-		43,207	
SK Materials renewtech Co., Ltd.		-		93,939		-		296,891	
Happy Companion Co., Ltd.		-		4,837		-		121,360	
SK Materials (Shanghai) Co., Ltd.		2,899,881		1,900		-		89,953	
SK Materials Performance Co., Ltd.		169,782		82,017		-		-	
SK Materials Group14 Co., Ltd.		-		1,087		-		-	
SK JNC Japan		-		34,248		-		-	
SK Materials JNC Co., Ltd.		-		39,031		-		-	
SK Hynix Inc.		11,028,353		-		-		-	
SK hynix Semiconductor(China)Ltd.		774,185		-		-		-	
SK Hynix System IC Inc.		269,554		-		-		-	
Happynarae Co., Ltd.		-		-		336,133		45,851	
LTCAM Co., Ltd.		-		-		304,963		-	
Total	₩	15,865,219	₩	3,851,182	₩	641,647	₩	10,822,690	

(4) There are no financial transactions with related parties for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021.

- (5) Payment guarantees and provision of collateral
- 1) As of December 31, 2022, there are no payment guarantees provided by the Group for the financial supports to the related parties.
- 2) As of December 31, 2022, there are no payment guarantees provided by the related parties.
- (6) Details of compensation to the management for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	Janua	e period from ry 1, 2022 to Iber 31, 2022	For one-month period from December 1, 2021 to December 31, 2021	
Short-term employee benefits	₩	8,542,929	₩	553,736
Retirement benefit expense		345,891		33,262
Share based payments		289,360		-
Other long-term benefits		415,846		1,953
Total	₩	9,594,026	₩	588,951

Key management above has the authority and responsibility in the planning, operation and control of the Group's activities.

28.Share Based Payment

(1) Details of share-based compensation granted by the group as of December 31, 2022 and 2021 are as follows:

Туре	Contents
Date of grant of rights	Mar 29, 2022
Types of Subject Shares	Registered common stocks of the parent company
Method of granting	Cash settled stock price difference compensation rights
Number of shares granted	24,873 share
Exercise price	235,600 won
Exerciseable period	Mar 29, 2025 ~ Mar 29, 2029
	If the service period is more than 2 years but less than 3 years, 2/3 can
Vesting condition	be exercised
	If the service period is more than 3 years, it can be exercised as a whole

(2) Compensation expense recognized due to the grant of the group's right to compensate for stock price difference compensation rights and the remained compensation expense to be recognized after the current period are as follows.

(in thousands of Korean won)	Amounts		
Compensation expense for current period	\mathbf{W}	289,360	
Accumulated compensation expense		289,360	
Remained compensation expense		855,544	
Total compensation expense		1,144,904	

(3) Compensation expense for stock price difference compensation rights were calculated by applying the fair value approach using a binomial model as of the end of the reporting period, and all assumptions and variables for calculating compensation expense are as follows. Meanwhile, the fair value of the stock price difference compensation right is remeasured at the end of each reporting period.

Туре	Contents
Risk-free interest rate	3.75%
Stock price at the end of the reporting period (Closing price of evaluation base date)	189,000 won
Expected stock price volatility	28.60%
Exercise price	235,600 won
Fair value per share	46,030 won

29.Cash Flow Information

(1) Details of non-cash adjustments and working capital adjustments

(in thousands of Korean won)		2022	2021		
Profit for the year	₩	161,021,742	₩	5,848,385	
Adjustments for:					
Income tax expense		50,509,766		2,106,137	
Retirement benefit expense		4,169,889		379,754	
Share based payments		289,360		-	
Provision for impairment of others		2,991,337		-	
Inventory valuation losses		1,049,225		-	
Depreciation		79,062,237		6,846,563	
Depreciation of right-of-use assets		3,432,755		255,875	
Depreciation of investment properties		672,263		29,275	
Amortization of intangible assets		4,105,690		264,759	
Income on disposal of property, plant and equipment		(351,932)		-	
Income on disposal of Investment property		(2,383)		-	
Interest income		(579,749)		(134,368)	
Gain on foreign currency translation		(3,341,698)		(71,603)	
Interest expenses		14,545,986		1,002,109	
Loss on foreign currency translation		4,620,750		254,146	
Loss on disposal of property, plant and equipment		784,163		37,864	
Impairment loss of intangible assets		114,271		-	
Miscellaneous		400,018		76,688	
Change in operating assets and liabilities:					
Trade accounts receivables		13,056,875		(21,838,065)	
Other current financial assets		(1,787,270)		(1,126,441)	
Other current assets		902,075		3,263,328	
Inventories		(34,636,401)		(2,552,513)	
Other non-current assets		(7,837,839)		(32,440)	
Trade accounts payables		4,795,261		1,771,534	
Other current financial liabilities		(8,183,279)		1,827,966	
Other current liabilities		3,460,640		(287,478)	
Other non-current liabilities		(206,184)		(919,413)	
Net defined benefit liabilities		(9,504,896)		(11,183,052)	
Cash generated from operations	₩	283,552,672	₩	(14,180,990)	

(2) Significant transactions not affecting cash flows:

(in thousands of Korean won)	2022	2021		
Reclassification of construction in progress to property, plant and equipment	₩ 92,696,099	₩ 63,222,976		
Reclassification of construction in progress to other accounts	30,692,623	5,336,849		
Changes in non-trade accounts payables in relation to acquisition of property, plant and equipment and others	12,330,824	(1,152,684)		
Current portion of debentures	29,977,415	-		

(3) Changes in liabilities arising from financing activities

Changes in liabilities arising from financial activities for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

thousands of Korean won)						
			Non-cash	changes		
	Beginning	Cash flows from financing	Acquisition - lease	Amortization	Interest Exchange expense rate on lease changes	Others Ending
Short-term borrowings	₩ 137,468,770	₩ (48,595,005)	-₩	₩ - ₩	∀ - ₩ 291,567	₩ -₩ 89,165,332
Debenture s	458,886,215	(557,940)	-	614,791		- 458,943,066
Lease liabilities	9,167,148	(3,427,001)	3,383,047	-	217,676 (12,813)	(1,412,824) 7,915,233
Total	₩ 605,522,133	₩ (52,579,946)	₩ 3,383,047	₩ 614,791 ∀	∀ 217,676 ₩ 278,754	₩(1,412,824)₩ 556,023,631

(in thousands

(in

of Korean

won)

Non-cash changes Cash flows Interest Exchange Acquisition -Others Beginning from Amortization expense rate Ending lease financing on lease changes Short-term ₩ 106,149,354 ₩ 31,414,769 ₩ _ ₩ ₩ ₩ (95,353) ₩ -₩ 137,468,770 _ borrowings Debenture 458,837,502 48,713 458,886,215 s Lease 9,777,023 (188,956) 1,414,947 19,159 (3,717) (1,851,308) 9,167,148 liabilities Total ₩ 574,763,879 ₩ 31,225,813 ₩ 1,414,947 ₩ 48,713 ₩ 19,159 ₩ (99,070) ₩(1,851,308)₩ 605,522,133

For one-month period from December 1, 2021 to December 31, 2021

30. Contingencies and Commitments

(1) Commitments arising from financial transactions

As of December 31, 2022 and 2021, the Group has commitments with financial institutions as follows:

(in thousands of Korean v	von, thousands of JPY, USD)		Limit			
Classification	Financial institutions	Currency	2022	2021		
Borrowing agreement	KEB Hana Bank	KRW	10,000,000	10,000,000		
	KB Kookmin Bank	KRW	15,000,000	30,000,000		
	Industrial Bank of Korea	KRW	10,000,000	10,000,000		
	Daegu Bank	KRW	12,000,000	12,000,000		
	Shinhan Bank	KRW	10,000,000	10,000,000		
	Shinhan Bank (Osaka branch of Japan)	JPY	230,000	230,000		
	Korea Development Bank	KRW	50,000,000	50,000,000		
	Korea Development Bank (Guangzhou branch of China)	USD	14,000,000	14,000,000		
	MUFG Bank ¹	USD	30,000,000	30,000,000		
	MUFG Bank (Wuxi branch of China)	USD	15,000,000	15,000,000		
	MUFG Bank (Yokkaichi branch of Japan)	JPY	90,000	90,000		
	Mizuho Bank ¹	USD	32,000,000	32,000,000		
	Agricultural Bank of China	KRW	45,000,000	45,000,000		
	China Everbright Bank	KRW	20,000,000	20,000,000		
	The Export-Import Bank of Korea	KRW	50,000,000	50,000,000		
	Sumitomo Mitsui Bank	KRW	50,000,000	50,000,000		
Opening letters of credit	Daegu Bank	USD	2,500,000	2,500,000		
	MUFG Bank ¹	USD	30,000,000	30,000,000		
	Mizuho Bank ¹	USD	30,000,000	30,000,000		
Electronic bill- collateralized trade	Shinhan Bank	KRW	5,000,000	5,000,000		
accounts receivable (cooperative entities)	Nonghyup Bank	KRW	5,000,000	5,000,000		
Factoring agreement	KEB Hana Bank	USD	10,000,000	10,000,000		
	MUFG Bank	USD	20,000,000	20,000,000		
	Deutsche Bank	USD	20,000,000	20,000,000		

¹ Comprehensive common limit of borrowing agreement, opening L/C agreement and others

In relation to the above borrowings agreements, property, plant and equipment of the Group are provided as collateral (Note 30).

(2) Payment guarantees

As of December 31, 2022, the Group has not received payment guarantees.

As of December 31, 2022, the Group has been provided with performance guarantee amounting to \forall 171 million by Seoul Guarantee Insurance Co., Ltd.

The Group is responsible for repaying the debts of the former SK specialty Co., Ltd.(Former, SK Materials Co., Ltd.) in conjunction with SK Inc.

(3) Major supply agreement

As of December 31, 2022, the Group has entered into long-term supply contracts and is supplying products to Japan Material Co., Ltd.

(4) Major purchase agreement

As of December 31, 2022, the Group has entered into long term purchase contract to buy liquid nitrogen with SK Materials airplus Incorporated.

(5) As of December 31, 2022, there are no pending litigation cases in which the the Group is a defendant.

31. Assets Pledged as Collateral and Restricted Financial Instruments

(1) Details of assets pledged as collateral as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won, USD, thousands of JPY)

					2022				
Pledged assets	Carrying amount		Secured amount		Related line item	Related amount		Secured party	
Land, buildings and machinery	KRW	56,644,397	KRW JPY USD	137,000,000 3,690,000 3,500,000	Borrowings (Note 16)	KRW	-	Korea Development Bank	
Buildings	KRW	883,449	KRW	1,668,283	Government grants	KRW	684,077	Yeongju-si, /Provincal government of Gyeongsangbuk-do	
<u> </u>	KRW	-	KRW	60,000		KRW	20,000,000	Kodit2022the9thSecuritiza tionSpecialty Co., Ltd.	
Financial assets measured at amortized cost ¹	KRW	-	KRW	75,000	Borrowings (Note 16)	KRW	25,000,000	Kodit2022the10thSecuritiz ationSpecialty Co., Ltd.	
	KRW	-	KRW	165,000		KRW	55,000,000	KODIT GLOBAL 2022-1 CO., LTD.	
Land and buildings	JPY	143,560	JPY	315,000	Borrowings (Note 16)	JPY	-	MUFG Bank (Yokkaichi Branch of Japan)	

¹ For the purpose of securing the principal and interest repayment obligations of the 5-1, 5-2 and 5-3 unguaranteed bonds, we have established the right to pledge financial assets for measuring amortized cost.

(in thousands of Korean won, USD, thousands of JPY)

					2021				
	_	_			Related line	_			
Pledged assets	Carrying amount		Secured amount		item	Related amount		Secured party	
Land, buildings and machinery	KRW	58,212,589	KRW JPY USD	137,000,000 3,690,000 3,500,000	Borrowings (Note 16)	KRW	50,000,000	Korea Development Bank	
Buildings	KRW	908,118	KRW	1,668,283	Government grants	KRW	847,674	Yeongju-si, /Provincal government of Gyeongsangbuk-do	
Land and buildings	JPY	146,097	JPY	315,000	Borrowings (Note 16)	JPY	-	MUFG Bank (Yokkaichi Branch of Japan)	

(2) Details of restricted financial instruments as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2	2022 2021		2021	Remark
Long-term financial instruments	₩	2,000	₩	2,000	Deposit for checking accounts

32. Financial Risk Management

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and interest risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize any adverse effects on the financial performance of the Group.

Risk management is carried out under policies approved by the Board of Directors. The Board 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, and investment of excess liquidity.

(1) Market Risk

1) Foreign exchange risk

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The exposure to the risk of changes in foreign exchange rates relates primarily to the operating activities of the Group. The Group manages its foreign currency risk periodically.

The Group's financial assets and liabilities exposed to foreign currency risk as of December 31, 2022 and 2021, are as follows:

(in USD, thousands of JPY, CNY and	2022					
thousands of Korean won)	Foreign currency	Korean won				
Financial assets						
USD	64,472,610	₩	81,706,139			
JPY	451,596		4,304,519			
CNY	-		-			
		₩	86,010,658			
Financial liabilities						
USD	21,554,266	₩	27,315,722			
JPY	40,390		384,987			
CNY	5,008		908,591			
		₩	28,609,300			
(in USD, thousands of JPY, CNY and	20	21				
thousands of Korean won)	Foreign currency	K	orean won			
Financial assets						
USD	60,850,518	₩	72,138,290			
JPY	418,909		4,315,771			
CNY	2,193,000		408,468			
		₩	76,862,529			

21,154,328	₩	25,078,456
62,285		641,689
	₩	25,720,145
		62,285

The table below summarizes the impact of 10% increase or decrease in exchange rate on the Group's net income (loss) before tax as of December 31, 2022 and 2021.

(in thousands of Korean won)	202	22
	10% Increase	10% Decrease
Impact on profit before income tax for the year	5,740,136	(5,740,136)
(in thousands of Korean won)	202	21
	10% Increase	10% Decrease
Impact on profit before income tax for the year	5,114,238	(5,114,238)

2) Interest rate risk

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

The table below summarizes the impact of increases/decreases of interest rate on the Group's net income (loss) before tax as of December 31, 2022 and 2021. The analysis is based on the assumption that the interest rate has increased or decreased by 1% (100 basis points) with all other variables held constant.

(in thousands of Korean won)	202	2
	1% Increase	1% Decrease
Impact on profit before income tax for the year	(275,586)	275,586
(in thousands of Korean won)	202	1
	1% Increase	1% Decrease
Impact on profit before income tax for the year	(1,575,710)	1,575,710

(2) Credit Risk

1) Risk management

Credit risk is managed on a group basis. Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions. For banks and financial institutions, only independently rated parties with a minimum rating of 'A' are accepted. If there is no independent rating, credit risk is assessed by taking into account the financial position, past experience and other factors. Individual risk limits are set based on internal or external ratings in accordance with limits set by the Board. The compliance with credit limits by customers is regularly monitored by management.

The maximum exposure to credit risk as of December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)		2022	2021	
Cash and cash equivalents	₩	41.381.701	₩	19.899.842
Trade accounts receivables		67,876,320		81,039,767
Current and non-current loan		1,714,603		2,407,460
Other receivable		2,973,511		3,820,019
Accrued income		25,023		1,024
Current and non-current deposit		1,803,915		1,448,629
Non-current financial instruments		27,012		2,000

2) Impairment of financial assets

The Group has two types of financial assets that are subject to the expected credit loss model:

- · trade accounts receivables for sales of goods and provision of services,
- · other receivables measured at amortized cost.

Details of trade accounts receivables and other receivables after the collection period as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022								
	-	Normal Receivables	Overdue but not impaired receivables		Impaired Receivables			Total		
			Le	ess than 1 month						
Trade accounts receivables	₩	67,759,221	₩	117,099	₩	-	₩	67,876,320		
Other receivables		6,517,052		-		2,991,337		9,508,389		
Total	₩	74,276,273	₩	117,099	₩	2,991,337	₩	77,384,709		
(in thousands of Korean won)				202	1					
		NI	Overdue but not impaired receivables							
		Normal Receivables	nc	t impaired	F	Impaired Receivables		Total		
	I		nc re	t impaired	F			Total		
Trade accounts receivables	₩		nc re	t impaired ceivables ess than 1	F		₩	Total 81,039,767		
		Receivables	no re Lo	t impaired ceivables ess than 1 month			₩			

The Group applies the simplified approach, which is recognizing expected credit losses throughout the financial year as a loss allowance for trade accounts receivables and other receivables. The Group estimated expected credit losses by using information that can affect credit risks related to sales clients.

Changes of provision of trade accounts receivables and other receivables measured at amortized cost for the period from January 1, 2022 to December 31, 2022 and one-month period from December 1, 2021 to December 31, 2021, are as follows:

(in thousands of Korean won)	For the period from January 1, 2022 to December 31, 2022	For one-month period from December 1, 2021 to December 31, 2021			
Beginning	₩	₩ -			
Provision setting	2,991,337	-			
Ending	2,991,337	-			

(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 management policy involves projecting cash flows in major currencies and considering the level of liquid assets necessary to meet these, monitoring balance sheet liquidity ratios against internal and external regulatory requirements and maintaining debt financing plans.

Details of the contractual maturities of the Group's financial liabilities as of December 31, 2022, are as follows:

(in thousands of Korean won)	2022							
	Book value	Cash flow from contract	Less than 3 months	Between 3 months and 1 year	Between 1 and 5 years	More than 5 years		
Borrowings	₩ 129,165,332	₩ 133,075,502	₩ 31,180,986	₩ 61,054,297	₩ 40,840,219	₩ -		
Debentures	458,943,066	478,794,035	32,395,983	6,843,394	439,554,658	-		
Trade accounts payables	21,727,209	21,727,209	21,727,209	-	-	-		
Other financial liabilities	86,006,352	86,006,352	86,006,352	-	-	-		
Lease liabilities	7,915,233	8,230,488	705,382	2,778,402	4,567,956	178,748		

(4) Capital Risk Management

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

The Group 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 less cash and cash equivalents. Total capital is 'equity' as shown in the consolidated statement of financial position plus net debt.

The gearing ratios as of December 31, 2022 and 2021, are as follows:

	2022		2021
₩	588,108,398	₩	636,354,985
	(41,381,701)		(19,899,842)
	546,726,697		616,455,143
	502,730,640		340,689,016
₩	1,049,457,337	₩	957,144,159
	52.10%		64.41%
		 ₩ 588,108,398 (41,381,701) 546,726,697 502,730,640 ₩ 1,049,457,337 	₩ 588,108,398 ₩ (41,381,701)

33. Greenhouse Gas Emission Rights and Liabilities

(1) Greenhouse emission rights received free of charge from the government are as follows:

(in tCO2-eq)

Planned Period	Implementation Year	Emission Rights
	In 2021	262,357
3rd	In 2022	262,357
	In 2023	262,357
	In 2024	259,900
	In 2025	259,900
Total		1,306,871

(2) Changes in emission rights quantities and amounts are as follows:

(in tCO2-eq, in	20	021				2023			
thousands of Korean won)	Quantity		Amount	Quantity		Amount	Quantity		Amount
Beginning balance ¹	499	₩	-	4,691	₩	-	-	₩	-
Free allocation	262,357		-	262,357		-	262,357		-
Additional allocation ²	-		-	31,089		-	48,620		-
Purchase	(2,346)		-	-		-	-		-
Surrendered to the government	(255,819)		-	(295,430)		-	-		-
Ending balance	4,691	₩	-	2,707	₩	-	310,977	₩	-

2024			2025		Total	
Quantity	Amount	Quantity	Amount	Quantity	Amount	
-	₩ -	-	₩ -	5,190	₩ -	
259,900	-	259,900	-	1,306,871	-	
72,043	-	85,062	-	236,814	-	
-	-	-	-	(2,346)	-	
-	-	-	-	(551,249)	-	
331,943	₩ -	344,962	₩ -	995,280	₩ -	
	Quantity - 259,900 72,043 - -	Quantity Amount - ₩ - 259,900 - 72,043 - - - - -	Quantity Amount Quantity - ₩ - - 259,900 - 259,900 259,900 72,043 - 85,062 - - - - - -	Quantity Amount Quantity Amount - ₩ - - ₩ - 259,900 - 259,900 - 259,900 - 72,043 - 85,062 - - - - - - -	QuantityAmountQuantityAmountQuantity- $\forall \forall$ - $\forall \forall$ -5,190259,900-259,900-1,306,87172,043-85,062-236,814(2,346)(551,249)	

¹ The amount for December 1, 2021 was approved as the carried forward amount after the submission to government of emission rights of secondary planning period.

² The amount of additional allocated emission rights is estimates and may differ from the definite amount in the future.

(3) All emission rights held as of the end of the year to be submitted to the government are free allocations and the amount is zero(0) as of December 31, 2022. The Group is not aware of the emission liabilities since there would not be any emissions exceeding reserved emission rights quantities.

The estimated greenhouse gas emission rights for the period from January 1, 2022 to December 31, 2022, are 295,430 tCO2-eq.

34. Business Combinaions

The details of major business combinations that occurred in the group during the current period are as follows.

- (1) As of February 1, 2022, the Group acquired control by acquiring shares in SK Materials (Shanghai) Co., Ltd. and Happy Companion Co., Ltd. from SK Inc., which corresponds to a business combination under the same control. The Group inherited the assets and liabilities acquired at the book value and recognized the difference from the consideration paid as other capital items.
- (2) Details of the business combination that occurred during the current period are as follows.

(in thousands of Korean won)	Counterparty	Acquisition target	Acquisition Consideration	
Business combination under common control	SK Inc.	SK Materials (Shanghai) Co., Ltd. Happy Companion Co., Ltd.	₩ 2,769,540 770,900	

(3) The reconciliation details of the business combination are as follows.

(in thousands of Korean won)	SK Materials (Shanghai) Co., Ltd.		Happy Companion Co., Ltd.	
Consideration transferred				
Cash	₩	2,769,540	₩	770,900
		2,769,540		770,900
Identifiable assets acquired and liabilities assumed				
Assets:				
Cash and cash equivalents	₩	3,140,452	₩	353,522
Trade receivables		1,329,650		121,360
Invertories		786,471		-
Property, plant and equipment		9,580		90,093
Right-of-use assets		30,905		-
Intangible assets		66		2,886
Other assets		63,182		16,289
		5,360,306		584,150
Liabilities:				
Trade accounts payables		2,690,439		-
Lease liabilities		31,236		-
Other financial liabilities		260,979		122,802
Other liabilities		41,104		26,023
		3,023,758		148,825
Identifiable net assets	₩	2,336,548	₩	435,325
Percentage of ownership		100%		100%
Ownership		2,336,548		435,325
Capital Surplus		(432,992)		(335,575)

(4) The consolidated comprehensive income statement of the consolidated entity includes revenue of 10,505 million and net income of 649 million, respectively, for additional businesses generated after the acquisition date. If this business combination had taken place on January 1, 2022, the group's revenue and net income would have been 843,556 million and 161,012 million, respectively.