

LG CHEM, LTD. AND SUBSIDIARIES

**Interim Condensed Consolidated Financial Statements
For The Three-Month Period Ended March 31, 2023**

(With Independent Auditor's Review Report Thereon)



LG Chem, Ltd. and Subsidiaries

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Report on Review of Consolidated Interim Financial Statements

(English Translation of a Report Originally Issued in Korean)

To the Shareholders and the Board of Directors of
LG Chem, Ltd.

Reviewed Financial Statements

We have reviewed the accompanying condensed consolidated interim financial statements of LG Chem, Ltd. and its subsidiaries (collectively, the "Group"). These condensed consolidated interim financial statement consist of the condensed consolidated interim statement of financial position of the Group as at March 31, 2023, and the related condensed consolidated interim statements of profit or loss, condensed consolidated interim statement of comprehensive income, condensed consolidated interim statements of changes in equity and condensed consolidated interim statement of cash flows, all expressed in Korean won, for the three-month periods ended March 31, 2023, and a summary of material accounting policies and other explanatory notes, expressed in Korean won.

Management's Responsibility for the Condensed Consolidated Interim Statements of Financial Statements

Management is responsible for the preparation and fair presentation of these condensed consolidated interim financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (K-IFRS) 1034 *Interim Financial Reporting*, and for such internal control as management determines is necessary to enable the preparation of condensed consolidated interim financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to issue a report on these condensed consolidated interim financial statements based on our review.

We conducted our review in accordance with quarterly or semi-annual review standards established by the Securities and Futures Commission of the Republic of Korea. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Korean Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.



Conclusion

Based on our review, nothing has come to our attention that causes us to believe the accompanying condensed consolidated interim financial statements are not presented fairly, in all material respects, in accordance with K-IFRS 1034 *Interim Financial Reporting*.

Other Matters

The condensed consolidated interim statements of profit or loss, comprehensive income, changes in equity and cash flows for the three-month periods ended March 31, 2022, which were marked with comparative figures, were reviewed by another auditor. The review report dated May 16, 2022 stated that there were no discrepancies found in the condensed consolidated interim financial statements presented fairly in terms of materiality, in accordance with the K-IFRS No. 1034, "Interim Financial Reporting."

Furthermore, the consolidated statement of financial position of the Group as at December 31, 2022, The consolidated statements of profit or loss, comprehensive income, changes in equity and cash flows for the accounting year ending on the same date (not attached to this review report) were audited in accordance with Korean Standards on Auditing by another auditor. In the audit report dated March 9, 2023, an unqualified opinion was expressed.

The consolidated statement of financial position of the Group as at December 31, 2022, attached for comparative purposes do not differ in all material respects from the audited consolidated financial statements mentioned above.

A handwritten signature in black ink that reads "Deloitte IDNjin LLC". The signature is written in a cursive, flowing style.

May 15, 2023
Seoul, Korea

This report is effective as of May 15, 2023, the review report date. Certain subsequent events or circumstances, which may occur between the review report date and the time of reading this report, could have a material impact on the accompanying condensed consolidated interim financial statements and notes thereto. Accordingly, the readers of the review report should understand that there is a possibility that the above review report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

LG Chem, Ltd. and Subsidiaries
Condensed Consolidated Interim Statements of Financial Position
As of March 31, 2023 and December 31, 2022

<i>(In millions of Korean won)</i>	Notes	March 31, 2023 (Unaudited)	December 31, 2022
Assets			
Current assets			
Cash and cash equivalents	3,5,6	₩ 6,787,093	₩ 8,497,882
Trade receivables	3,5,7,31	8,604,367	7,450,395
Other receivables	3,5,7,31	1,018,561	742,431
Other current financial assets	3,5,8	4,009	9,167
Prepaid income taxes		51,537	52,920
Other current assets	13	936,292	1,013,463
Inventories	9	11,970,098	11,880,631
Assets held for sale	34	27,480	27,480
Total current assets		<u>29,399,437</u>	<u>29,674,369</u>
Non-current assets			
Trade receivables	3,5,7	132,746	120,698
Other receivables	3,5,7	517,136	617,444
Other non-current financial assets	3,5,8	1,517,693	1,237,167
Investments in associates and joint ventures	1,10,33	1,017,760	949,553
Deferred tax assets	28	2,279,760	2,165,557
Property, plant and equipment	11	31,635,701	29,662,743
Intangible assets	12	3,550,230	2,690,203
Investment properties	36	92,647	94,026
Other non-current assets	13,16	752,885	762,063
Total non-current assets		<u>41,496,558</u>	<u>38,299,454</u>
Total assets		<u>₩ 70,895,995</u>	<u>₩ 67,973,823</u>
Liabilities			
Current liabilities			
Trade payables	3,5,31	₩ 5,534,867	₩ 4,756,246
Other payables	3,5,31	3,764,267	4,899,553
Borrowings	3,5,14	5,024,562	3,804,367
Other current financial liabilities	3,5,8	10,494	7,271
Provisions	15	929,954	1,026,446
Income tax payables		660,711	626,226
Other current liabilities	17,35	1,675,432	1,339,454
Total current liabilities		<u>17,600,287</u>	<u>16,459,563</u>
Non-current liabilities			
Other payables	3,5	42,636	43,708
Borrowings	3,5,14	12,848,835	12,160,152
Other non-current financial liabilities	3,5,8	14,693	33,319
Provisions	15	674,716	533,414
Net defined benefit liabilities	13,16	20,522	19,470
Deferred tax liabilities	28	865,186	838,725
Other non-current liabilities	17,35	425,049	404,345
Total non-current liabilities		<u>14,891,637</u>	<u>14,033,133</u>
Total liabilities		<u>₩ 32,491,924</u>	<u>₩ 30,492,696</u>

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

LG Chem, Ltd. and Subsidiaries
Condensed Consolidated Interim Statements of Financial Position
As of March 31, 2023 and December 31, 2022

<i>(In millions of Korean won)</i>	Notes	March 31, 2023 (Unaudited)	December 31, 2022
Equity			
Share capital	1,19	₩ 391,406	₩ 391,406
Capital surplus	19	11,569,556	11,569,556
Other components of equity	21	(19,569)	(19,569)
Accumulated other comprehensive income		898,346	366,916
Retained earnings	20	18,835,360	19,142,263
Equity attributable to owners of the Parent Company		31,675,099	31,450,572
Non-controlling interests	1	6,728,972	6,030,555
Total equity		38,404,071	37,481,127
Total liabilities and equity		₩ 70,895,995	₩ 67,973,823

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

LG Chem, Ltd. and Subsidiaries
Condensed Consolidated Interim Statements of Profit or Loss
For the Three-Month Periods Ended March 31, 2023 and 2022

(In millions of Korean won, except per share amounts)	Notes	Period Ended March 31	
		2023 (Unaudited)	2022 (Unaudited)
Revenue	31,33,35	₩ 14,486,266	₩ 11,594,997
Cost of sales	23,31	(12,161,129)	(9,097,976)
Gross profit		₩ 2,325,137	₩ 2,497,021
Other operating income		100,294	-
Selling and administrative expenses	22,23,31	(1,634,406)	(1,472,244)
Operating profit	33	₩ 791,025	₩ 1,024,777
Finance income	5, 25	546,613	196,167
Finance costs	5, 25	(523,841)	(238,900)
Share of net profit of associates and joint ventures accounted for using the equity method	10	(14,303)	(7,228)
Other non-operating income	5, 26	529,199	275,113
Other non-operating expenses	5, 27	(412,678)	(226,602)
Profit before income tax expense	32	₩ 916,015	₩ 1,023,327
Income tax expense	28	(246,693)	(253,652)
Profit from continuing operations		₩ 669,322	₩ 769,675
Profit (loss) from discontinued operations	34	(272)	(453)
Profit for the period		₩ 669,050	₩ 769,222
Profit is attributable to:			
Owners of the Parent Company			
Profit from continuing operations		474,439	688,631
Profit (loss) from discontinued operations		(272)	(453)
		₩ 474,167	₩ 688,178
Non-controlling interests			
Profit from continuing operations		194,883	81,044
		₩ 194,883	₩ 81,044
Earnings per share for profit attributable to the equity holders of the Parent Company (in Korean won)	29		
Basic and diluted earnings per ordinary share		₩ 6,056	₩ 8,832
Basic and diluted earnings per preferred share		₩ 6,060	₩ 8,838
Earnings per share for profit from continuing operations attributable to the equity holders of the Parent Company (in Korean won)	29		
Basic and diluted earnings per ordinary share		₩ 6,069	₩ 8,845
Basic and diluted earnings per preferred share		₩ 6,072	₩ 8,850

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

LG Chem, Ltd. and Subsidiaries
Condensed Consolidated Interim Statements of Comprehensive Income
For the Three-Month Periods Ended March 31, 2023 and 2022

(In millions of Korean won, except per share amounts)		Period Ended March 31	
		2023 (Unaudited)	2022 (Unaudited)
	Notes		
Profit for the period		₩ 669,050	₩ 769,222
Other comprehensive income			
1. Items that will not be reclassified to profit or loss		(497)	(2,416)
(1) Remeasurements of net defined benefit liability	16	1,411	(2,867)
(2) Gain (loss) on valuation of financial assets at fair value through other comprehensive income		(2,762)	(312)
(3) Shares of remeasurements of net defined benefit liabilities of associates		461	-
(4) Income tax relating to these items		393	763
2. Items that may be subsequently reclassified to profit or loss		709,247	207,871
(1) Exchange differences on translation of foreign operations		677,411	181,551
(2) Cash flow hedge		(7,227)	59,071
(3) Shares of other comprehensive income of associates and joint ventures		28,490	8,145
(4) Income tax relating to these items		10,573	(40,896)
Other comprehensive income for the period, net of tax		₩ 708,750	₩ 205,455
Total comprehensive income for the period		₩ 1,377,800	₩ 974,677
Total comprehensive income for the period is attributable to:			
Owners of the Parent Company		₩ 1,006,997	₩ 852,729
Non-controlling interest		₩ 370,803	₩ 121,948

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

LG Chem, Ltd. and Subsidiaries

Condensed Consolidated Interim Statements of Changes in Equity

For the Three-Month Periods Ended March 31, 2023 and 2022

		Attributable to owners of the Parent Company							
		Share capital	Capital surplus	Other components of equity	Accumulated other comprehensive income (loss)	Retained earnings	Total	Non-controlling interests	Total equity
(In millions of Korean won)									
	Note								
Balance at January 1, 2022		₩ 391,406	₩ 2,696,385	₩ (37,310)	₩ 551,354	₩ 18,091,949	₩ 21,693,784	₩ 1,516,204	₩ 23,209,988
Comprehensive income									
Profit for the period		-	-	-	-	688,178	688,178	81,044	769,222
Remeasurements of net defined benefit liabilities	16	-	-	-	-	(2,049)	(2,049)	(40)	(2,089)
Exchange differences on translation of foreign operations		-	-	-	111,724	-	111,724	29,330	141,054
Gain on valuation of financial assets at fair value through other comprehensive income		-	-	-	(686)	-	(686)	358	(328)
Cash flow hedge		-	-	-	48,317	-	48,317	10,356	58,673
Others		-	-	-	7,245	-	7,245	900	8,145
Total comprehensive income for the period		-	-	-	166,600	686,129	852,729	121,948	974,677
Transactions with owners:									
Dividends	30	-	-	-	-	(935,275)	(935,275)	-	(935,275)
Changes in Interest in Subsidiaries		-	8,711,246	-	-	-	8,711,246	3,297,211	12,008,457
Increase in paid-in capital of a subsidiary		-	-	-	-	-	-	234,037	234,037
Others		-	-	-	-	(646)	(646)	(138)	(784)
Total transactions with owners		-	8,711,246	-	-	(935,921)	7,775,325	3,531,110	11,306,435
Balance at March 31, 2022 (Unaudited)		₩ 391,406	₩ 11,407,631	₩ (37,310)	₩ 717,954	₩ 17,842,157	₩ 30,321,838	₩ 5,169,262	₩ 35,491,100
Balance at January 1, 2023		₩ 391,406	₩ 11,569,556	₩ (19,569)	₩ 366,916	₩ 19,142,263	₩ 31,450,572	₩ 6,030,555	₩ 37,481,127
Comprehensive income									
Profit for the period		-	-	-	-	474,167	474,167	194,883	669,050
Remeasurements of net defined benefit liabilities	16	-	-	-	-	939	939	104	1,043
Exchange differences on translation of foreign operations		-	-	-	512,005	-	512,005	174,180	686,185
Gain (loss) on valuation of financial assets at fair value through other comprehensive income		-	-	-	(3,368)	-	(3,368)	1,368	(2,000)
Cash flow hedge		-	-	-	(4,443)	-	(4,443)	(986)	(5,429)
Others		-	-	-	27,236	461	27,697	1,254	28,951
Total comprehensive income for the period		-	-	-	531,430	475,567	1,006,997	370,803	1,377,800
Transactions with owners:									
Dividends	30	-	-	-	-	(783,135)	(783,135)	(80,748)	(863,883)
Increase in paid-in capital of a subsidiary		-	-	-	-	-	-	408,362	408,362
Others		-	-	-	-	665	665	-	665
Total transactions with owners		-	-	-	-	(782,470)	(782,470)	327,614	(454,856)
Balance at March 31, 2023 (Unaudited)		₩ 391,406	₩ 11,569,556	₩ (19,569)	₩ 898,346	₩ 18,835,360	₩ 31,675,099	₩ 6,728,972	₩ 38,404,071

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

LG Chem, Ltd. and Subsidiaries
Condensed Consolidated Interim Statements of Cash Flows
For the Three-Month Periods Ended March 31, 2023 and 2022

<i>(In millions of Korean won)</i>	Notes	2023 (Unaudited)	2022 (Unaudited)
Cash flows from operating activities			
Cash generated from operations	32 ₩	816,674	₩ 665,327
Interest received		89,260	20,678
Interest paid		(118,715)	(61,065)
Dividends received		12,952	5,000
Income taxes paid		(296,874)	(473,804)
Net cash inflow from operating activities	₩	<u>503,297</u>	<u>₩ 156,136</u>
Cash flows from investing activities			
Decrease in other receivables	₩	242,488	₩ 26,355
Proceeds from disposal of other financial assets		4,522	-
Proceeds from disposal of property, plant and equipment		2,610	2,915
Proceeds from disposal of intangible assets		17	15,343
Government grants received		70,963	33,069
Proceeds from disposal of assets held for sale		6,853	1,402
Increase in other receivables		(112,906)	(5,077,290)
Acquisition of investments in associates and joint ventures		(66,959)	-
Acquisition of other financial assets		(153,284)	(29,502)
Acquisition of property, plant and equipment		(3,321,149)	(2,181,831)
Acquisition of intangible assets		(43,699)	(47,882)
Cash outflows from transfer of business		(702,227)	(6,565)
Other cashflows from investing activities		(4,431)	-
Net cash outflow from investing activities	₩	<u>(4,077,202)</u>	<u>₩ (7,263,986)</u>
Cash flows from financing activities			
Proceeds from borrowings	₩	3,112,369	₩ 798,254
Capital contribution from non-controlling interests		408,360	12,854,293
Repayments of borrowings and others		(1,696,976)	(1,316,009)
Dividends paid		(55,670)	-
Net cash inflow from financing activities		<u>1,768,083</u>	<u>12,336,538</u>
Net increase (decrease) in cash and cash equivalents		(1,805,822)	5,228,688
Cash and cash equivalents at the beginning of the period		8,497,882	3,760,834
Effects of exchange rate changes on cash and cash equivalents		95,033	62,488
Cash and cash equivalents at the end of the period	₩	<u>6,787,093</u>	<u>₩ 9,052,010</u>

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

LG Chem, Ltd. and Subsidiaries

Notes to the Condensed Consolidated Interim Financial Statements

As of March 31, 2023 and December 31, 2022 and for the Three-Month Periods Ended

1. General Information:

General information about LG Chem, Ltd. (the Parent Company) and its 64 subsidiaries (collectively the “Group”) is as follows:

1.1 The Parent Company

The Parent Company was spun off on April 1, 2001, from LG Chem Investment Ltd. (now LG Corp., formerly LG Chemical Ltd.).

As at March 31, 2023, the Group has its manufacturing facilities in Yeosu, Daesan, Ochang, Cheongju, Ulsan, Naju, Iksan, Paju, Osong, Onsan, Gimcheon and overseas sites.

The Parent Company is authorized to issue 292 million shares of ordinary shares with par value of ₩5,000 per share. As at March 31, 2023, the Parent Company has 70,592,343 ordinary shares and 7,688,800 preferred shares issued and outstanding. The largest shareholder of the Parent Company is LG Corp., which owns 33.34% of the Parent Company’s ordinary shares. Preferred shareholders have no voting rights but are entitled to receive dividends at a rate 1% more than those paid to ordinary shareholders.

1.2 Business Overview

The Group is engaged in Petrochemical, Energy solutions, and Advanced materials businesses, and is also engaged in Life Sciences business acquired through a merger with LG Life Sciences, Ltd. in January 2017. In addition, the Parent Company acquired 100% shares of FarmHannong Co., Ltd. in April 2016, which is engaged to manufacture crop protection products, seeds, fertilizers and others.

The Petrochemical business includes production of olefin petrochemicals, such as ethylene, propylene, butadiene from Naphtha, and aromatic petrochemicals such as benzene. It also includes production of synthetic resin and synthetic components from olefin, and aromatic petrochemicals. This business bears characteristics of a large-volume process industry. The Group’s major products are PE, PP, BPA, ABS, EP, PVC, plasticizers, acrylic, SAP, synthetic rubber, a special resin, and others.

LG Energy Solution, Ltd. which was established through the split-off of the Energy solution business from the Parent Company on December 1, 2020, and its subsidiaries mainly manufacture and supply batteries ranging from IT and new application batteries for mobile phones and laptop computers, to automotive batteries for electric vehicles and Energy Storage System (“ESS”) batteries. Demand for small-sized batteries for new applications such as electric tools and electric driving devices as well as traditional IT devices is increasing recently, and the automotive battery business is also expected to expand rapidly due to an increasing demand for the batteries associated with enhanced environment regulation in developed countries. Demand for ESS is expanding with an increasing importance of efficient usage of electricity and generation of renewable energy.

The Advanced materials business manufactures and supplies various kinds of IT materials such as automotive materials, OLED film, semiconductor materials, OLED materials, battery materials and others including RO membranes, which will be the next growth engine for future.

The Life Sciences business manufactures and supplies pharmaceutical products, such as human growth hormone ‘Eutropin’, diabetes drug ‘Zemiglo’, bovine somatotropin ‘Boostin’, hyaluronic acid filler ‘YVOIRE’ and others, as well as fine chemical products, such as herbicide ‘PYANCHOR’ for rice farming and others.

LG Chem, Ltd. and Subsidiaries

Notes to the Condensed Consolidated Interim Financial Statements

As of March 31, 2023 and December 31, 2022 and for the Three-Month Periods Ended

FarmHannong Co., Ltd. and its subsidiaries were acquired by the Group in 2016 to manufacture and sell crop protection products, seeds, fertilizers, and others. The crop protection business provides high-value products such as environment-friendly pesticides. The fertilizer business leads to developing of next-generation fertilizers, such as eco-friendly organic and functional fertilizers, and potting soil. The seed business puts priority on retaining various genetic resources and developing rare breeds with high profit in order to remain competitive in a future food industry.

1.3 Consolidated Subsidiaries, Associates and Joint Ventures

	Percentage of ownership held by the Group (%)		Business location	Closing month	Business activities
	March 31, 2023	December 31, 2022			
Consolidated subsidiaries					
LG Energy Solution, Ltd. ¹	82	82	Korea	December	Battery manufacturing and sales
Ningbo LG Yongxing Chemical Co., Ltd. ²	75	75	China	December	ABS/SBL manufacturing and sales
Ningbo Zhenhai LG Yongxing Trade Co., Ltd. ²	75	75	China	December	ABS sales
LG Chem America, Inc	100	100	USA	December	Sales and trading
LG Chemical India Pvt. Ltd. ^{3, 5}	100	100	India	December	Synthetic resin manufacturing and sales
LG Polymers India Pvt. Ltd. ^{3, 5}	100	100	India	December	PS manufacturing and sales
LG Chemical (Guangzhou) Engineering Plastics Co., Ltd.	100	100	China	December	EP manufacturing and sales
LG Chem (Taiwan), Ltd.	100	100	Taiwan	December	Polarizer manufacturing and sales
Tianjin LG Bohai Chemical Co., Ltd.	75	75	China	December	PVC, VCM and EDC manufacturing and sales
Tianjin LG BOTIAN Chemical Co., Ltd.	58	58	China	December	SBS manufacturing and sales
LG Chem (China) Investment Co., Ltd. ⁴	100	100	China	December	China holding company
LG Chem (Tianjin) Engineering Plastics Co., Ltd.	100	100	China	December	EP manufacturing and sales
LG Chem Europe GmbH	100	100	Germany	December	Sales and trading
LG Chem Poland Sp. z o.o.	100	100	Poland	December	EP manufacturing and sales
LGC Petrochemical India Private Ltd.	100	100	India	December	Synthetic resin manufacturing and sales
HAENGBOKNURI CO., Ltd.	100	100	Korea	December	Facility management and general cleaning
LG CHEM TK Kimya SANAYI VE TIC. Ltd. STI.	100	100	Turkey	December	Sales and trading
LG Chem Japan Co., Ltd.	100	100	Japan	December	Sales and trading
LG NanoH2O, LLC	100	100	USA	December	Water processing membrane sales
LG Chem (Chongqing) Engineering Plastics Co., Ltd.	100	100	China	December	EP manufacturing and sales
LG Chem(HUIZHOU) Petrochemical Co., Ltd.	70	70	China	December	ABS manufacturing and sales
LG Chem Life Sciences India Pvt. Ltd.	100	100	India	December	Pharmaceutical products sales
LG Jiansheng Chem Life Sciences (Beijing) Co., Ltd.	60	60	China	December	Pharmaceutical products sales
LG Chem Life Sciences (Thailand) Ltd.	100	100	Thailand	December	Pharmaceutical products sales
LG Chem Hai Phong Vietnam Co., Ltd.	100	100	Vietnam	December	Polarizer manufacturing and sales
LG Chem Mexico S.A. de C.V.	100	100	Mexico	December	Sales and trading
LG Chem Hai Phong engineering Plastics LLC.	100	100	Vietnam	December	EP manufacturing and sales
LG Chem (Guangzhou) Information & Electronics Materials Co., Ltd.	100	100	China	December	Polarizer manufacturing and sales
LEYOU NEW ENERGY MATERIALS(WUXI) Co., Ltd.	51	51	China	December	Battery materials manufacturing and sales

LG Chem, Ltd. and Subsidiaries
Notes to the Condensed Consolidated Interim Financial Statements
As of March 31, 2023 and December 31, 2022 and for the
Three-Month Periods Ended

	Percentage of ownership held by the Group (%)		Business location	Closing month	Business activities
	March 31, 2023	December 31, 2022			
LG Chem Fund I LLC ⁶	100	100	USA	December	Investments in venture companies
Uniseal, Inc.	100	100	USA	December	Adhesive manufacturing and sales
LG Chem Life Science Innovation Center, Inc. ⁷	100	100	USA	December	Pharmaceutical products research
LG Chem Asia Pte. Ltd.	100	100	Singapore	December	Asia BSC
LG Chem China Tech Center ⁴	100	100	China	December	Research on petrochemicals
LG PETRONAS CHEMICALS Malaysia Sdn.Bhd.	51	51	Malaysia	December	NBL manufacturing and sales
LG Chem Hangzhou Advanced Materials Co., Ltd.	70	70	China	December	Polarizer sheet manufacturing and sales
LG BCM	100	100	Korea	December	Battery materials manufacturing and sales
LG Chem Ohio Petrochemical, Inc.	100	100	USA	December	ABS manufacturing and sales
LG Chem VietNam Co., Ltd.	100	100	Vietnam	December	Sales and trading
LG Chem Malaysia SDN.BHD.	100	100	Malaysia	December	Sales and trading
LG Chem BRASIL INTERMEDIACAO DE NEGOCIOS DO SETOR QUIMICO LTDA.	100	100	Brazil	December	Sales and trading
Aveo Pharmaceuticals, Inc. ⁷	100	-	USA	December	Anti-cancer drugs sales and research
FarmHannong Co., Ltd. ⁹	100	100	Korea	December	Agricultural pesticide manufacturing and sales
Farmhannong America, Inc. ⁹	100	100	USA	December	Agricultural pesticide sales
FarmHannong(Thailand) Ltd. ⁹	100	100	Thailand	December	Research and development ("R&D") on seeds
FARMHANNONG(MALAYSIA) SDN. BHD. ⁹	100	100	Malaysia	December	Agricultural pesticide licensing
PT FARM HANNONG INDONESIA ⁹	100	100	Indonesia	December	Agricultural pesticide licensing
FarmHannong do Brasil Limitada ⁹	100	100	Brazil	December	Agricultural pesticide sales
LG Energy Solution (Nanjing) Co., Ltd. ¹	82	82	China	December	Battery manufacturing and sales
LG Energy Solution Michigan Inc. ¹	82	82	USA	December	Automotive battery research and manufacturing
LG Energy Solution Battery (Nanjing) Co., Ltd. ¹	82	82	China	December	Automotive battery manufacturing and sales
LG Energy Solution Wroclaw sp. z o.o. ¹	82	82	Poland	December	Automotive battery manufacturing and sales
LG Energy Solution Australia Pty Ltd ¹	82	82	Australia	December	ESS sales
LG Energy Solution Technology (Nanjing) Co., Ltd. ¹	82	82	China	December	Battery manufacturing and sales
Ultium Cells Holdings LLC ^{1, 12}	41	41	USA	December	Automotive battery manufacturing and sales
Ultium Cells LLC ^{1, 12}	41	41	USA	December	Automotive battery manufacturing and sales
LG Energy Solution Europe GmbH ¹	82	82	Germany	December	Sales and trading
LG Energy Solution (Taiwan), Ltd. ¹	82	82	Taiwan	December	Sales and trading
Aremnuri. Co. Ltd ¹	82	82	Korea	December	Facility management and general cleaning
LG Energy Solution Fund I LLC ¹	82	82	USA	December	Investments in venture companies
LG Energy Solution Vertech Inc. ¹	82	82	USA	December	ESS installation service
ES America, LLC ¹	82	82	USA	December	Battery manufacturing and sales
Baterias De Castilla, S.L. ¹	82	82	Spain	December	Special purpose company
L-H Battery Company, Incorporated ¹	42	-	USA	December	Automotive battery manufacturing and sales

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	Percentage of ownership held by the Group (%)				
	March 31, 2023	December 31, 2022	Business location	Closing month	Business activities
Associates					
TECHWIN Co., Ltd.	20	20	Korea	December	Environment solution and construction of chemical plant
LG Chem Life Sciences Poland Ltd. ¹¹	100	100	Poland	December	Pharmaceutical products sales
HUAJIN NEW ENERGY MATERIALS(QUZHOU)CO., LTD.	49	49	China	December	Battery materials manufacturing and sales
TL Chemical CO., Ltd	40	40	Korea	December	AN manufacturing and sales
KOREA PRECURSOR CO., LTD. ⁸	49	49	Korea	December	Battery materials manufacturing and sales
VINFAST LITHIUM BATTERY PACK LLC. ¹	29	29	Vietnam	December	Battery manufacturing and sales
Jiangxi VL Battery., Ltd. ¹	28	28	China	December	Battery manufacturing and sales
Sam-a Aluminum Company, Limited ^{1, 13}	8	-	Korea	December	Aluminum sales and manufacturing
Joint ventures ¹⁰					
VINA Plasticizers Chemical Co., Ltd ¹⁴	50	50	Vietnam	December	DOP production and sales
SEETEC Co., Ltd.	50	50	Korea	December	Plant utility and distribution, research assistance service
LG Toray Hungary Battery Separator Kft	50	50	Hungary	December	Battery separator manufacturing and sales
PT.HLI Greenpower Co., Ltd. ¹	41	41	Indonesia	December	Automotive battery manufacturing and sales

¹ During the previous year, LG Energy Solution, Ltd. was listed on Korea Composite Stock Price Index (KOSPI) and its percentage of ownership to LG Energy Solution, Ltd. decreased since the Parent Company sold the shares of LG Energy Solution, Ltd. As at March 31, 2023, LG Energy Solution, Ltd. owns shares in subsidiaries, associates and joint ventures such as LG Energy Solution (Nanjing) Co., Ltd. and others, and the Group has stated the shares of those companies as effective share ratio.

² As at March 31, 2023, Ningbo LG Yongxing Chemical Co., Ltd. owns 100% of Ningbo Zhenhai LG Yongxing Trading Co., Ltd.'s shares.

³ As at March 31, 2023, LG Chemical India Pvt. Ltd. owns 100% of LG Polymers India Pvt. Ltd.'s shares.

⁴ As at March 31, 2023, LG Chem (China) Investment Co., Ltd. owns 100% of LG Chem China Tech Center's shares.

⁵ During the three-month period ended March 31, 2023, LG Chemical India Pvt. Ltd. newly acquired shares of LG Polymers India Pvt. Ltd. for ₩12,390 million.

⁶ During the three-month period ended March 31, 2023, the Group additionally acquired shares of LG CHEM FUND I LLC for ₩1,781 million.

⁷ During the three-month period ended March 31, 2023, LG Chem Life Science Innovation Center, Inc. invested ₩701,103 million for a 100% share in Aveo Pharmaceuticals, Inc.

⁸ During the three-month period ended March 31, 2023, the Group additionally acquired shares of KOREA PRECURSOR CO., LTD. for ₩20,384 million.

⁹ As at March 31, 2023, FarmHannong Co., Ltd. owns 100% of Farmhannong America, Inc., FarmHannong(Thailand) Ltd., FARMHANNONG(MALAYSIA) SDN.BHD., PT FARM HANNONG INDONESIA, and FarmHannong do Brasil Limitada's shares.

¹⁰ All joint arrangements over which the Group has joint control are classified as a joint venture since the joint arrangements are structured through a separate vehicle and the parties have rights to the net assets of the arrangement.

¹¹ Classified as an investment in associate due to its small size.

¹² During the year ended December 31, 2022, LG Energy Solution, Ltd. acquired 50% shares of Ultium Cells Holdings LLC through the investment in kind with 100% shares of Ultium

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Cells LLC. Although the Group has less than a majority ownership interest in Ultium Cells Holdings LLC, it is considered to have the control over Ultium Cells LLC as LG Energy Solution, Ltd. The Group can exercise the majority voting rights in its decision-making process and has the ability to use power to affect the returns of the investee through its involvement in the production and cost management and other activities in accordance with the shareholders' agreement.

¹³ During the three-month period ended March 31, 2023, LG Energy Solution, Ltd. newly acquired 10% shares of Sam-a Aluminum Company, Limited for ₩46,575 million. Although the ownership interest in Sam-a Aluminum Company, Limited. is less than 20%, the Group can exercise the majority voting rights in its decision-making process in accordance with the shareholders' agreement. Therefore, it is judged to have significant influence

¹⁴ During the year ended December 31, 2022, the Group reclassified the shares of VINA Plasticizers Chemical Co., Ltd. amounting to ₩16,822 million as assets held for sale.

1.4 Summarized Financial Information of Subsidiaries, Associates and Joint Ventures

Summarized financial information (before the adjustments such as elimination of intercompany transactions, adjustments for differences in accounting policies, etc.) of subsidiaries, associates and joint ventures is as follows:

	March 31, 2023			2023 1 st quarter	
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the period
<i>(In millions of Korean won)</i>					
Subsidiaries					
LG Energy Solution, Ltd. and its subsidiaries ¹	₩ 40,713,454	₩ 18,665,780	₩ 22,047,674	₩ 8,747,117	₩ 561,986
Ningbo LG Yongxing Chemical Co.,Ltd.	955,114	167,120	787,994	480,611	20,240
Ningbo Zhenhai LG Yongxing Trade Co.,Ltd.	7,250	596	6,654	4,728	45
LG Chem America, Inc.	378,344	337,335	41,009	251,207	(9,252)
LG Chemical India Pvt. Ltd.	62,933	4	62,929	-	55
LG Polymers India Pvt. Ltd.	74,431	43,866	30,565	-	(2,392)
LG Chemical (Guangzhou) Engineering Plastics Co.,Ltd.	104,998	30,094	74,904	43,920	2,487
LG Chem (Taiwan), Ltd. ⁴	70,664	18,731	51,933	10,707	198
Tianjin LG Bohai Chemical Co.,Ltd.	525,144	122,750	402,394	141,724	11,097
Tianjin LG BOTIAN Chemical Co.,Ltd.	54,651	23,169	31,482	38,874	(40)
LG Chem (China) Investment Co.,Ltd.	954,778	564,194	390,584	19,621	3,294
LG Chem (Tianjin) Engineering Plastics Co.,Ltd.	59,656	14,568	45,088	17,754	1,843
LG Chem Europe GmbH	508,293	410,614	97,679	237,938	3,612
LG Chem Poland Sp. z o.o.	261,293	153,779	107,514	110,576	7,565
LGC Petrochemical India Private Ltd.	6,022	1,205	4,817	1,491	148
HAENGBOKNURI CO., Ltd.	4,151	1,193	2,958	2,453	63
LG CHEM TK Kimya SANAYI VE TIC. Ltd. STI.	24,196	23,971	225	18,835	(123)
LG Chem Japan Co.,Ltd.	5,251	900	4,351	1,728	166
LG NanoH2O, LLC	57,241	16,082	41,159	18,653	1,497
LG Chem (Chongqing) Engineering Plastics Co.,Ltd.	47,018	8,038	38,980	16,946	1,699
LG Chem (HUIZHOU) Petrochemical Co., Ltd.	545,947	103,680	442,267	187,288	(4,405)
LG Chem Life Sciences India Pvt. Ltd.	1,464	417	1,047	162	29
LG Jiansheng Life Sciences (Beijing) Co., Ltd.	19,181	19,311	(130)	11,233	901
LG Chem Life Sciences (Thailand) Ltd.	27,136	9,558	17,578	12,531	292
LG Chem Hai Phong Vietnam Company Ltd.	14,840	3,056	11,784	4,292	(323)
LG Chem Mexico S.A. de C.V.	3,958	1,894	2,064	993	78
LG Chem Hai Phong Engineering Plastics Ltd.	33,784	14,870	18,914	10,474	1,034

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(In millions of Korean won)	March 31, 2023			2023 1 st quarter	
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the period
LG Chem (Guangzhou) Information & Electronics Materials Co., Ltd.	279,783	64,874	214,909	39,547	(548)
LEYOU NEW ENERGY MATERIALS(WUXI) Co., Ltd	1,192,506	513,730	678,776	697,035	74,372
LG Chem Fund I LLC	80,993	37	80,956	-	(828)
Uniseal, Inc.	52,695	10,299	42,396	25,374	2,736
LG Chem Life Science Innovation Center, Inc.	22,573	1,348	21,225	2,566	170
LG Chem Asia Pte. Ltd.	49,280	47,701	1,579	1,187	208
LG Chem China Tech Center	36,777	1,494	35,283	2,472	67
LG PETRONAS CHEMICALS Malaysia Sdn.Bhd.	218,832	149,050	69,782	-	(1,664)
LG Chem Hangzhou Advanced Materials Co., Ltd.	44,265	14,148	30,117	12,177	(2,367)
LG BCM	261,009	211,946	49,063	-	(1,213)
LG Chem Ohio Petrochemical, Inc.	41,720	17,390	24,330	-	(181)
LG Chem VietNam Co.,Ltd	765	251	514	281	42
LG Chem Malaysia SDN.BHD.	1,069	378	691	471	29
LG Chem BRASIL INTERMEDIACAO DE NEGOCIOS DO SETOR QUIMICO LTDA.	1,367	112	1,255	762	(2)
Aveo Pharmaceuticals. Inc. ²	49,550	49,203	347	31,634	(3,890)
FarmHannong Co., Ltd and its subsidiaries ¹	₩ 1,165,745	₩ 706,522	₩ 459,223	₩ 265,445	₩ 20,131
Associates					
TECHWIN Co., Ltd.	₩ 123,624	₩ 52,433	₩ 71,191	₩ 17,920	₩ (7,238)
LG Life Sciences Poland Ltd.	241	65	176	26	1
KOREA PRECURSOR CO., Ltd.	97,889	16,691	81,198	-	(761)
HUAJIN NEW ENERGY MATERIALS(QUZHOU)CO., LTD.	442,082	271,724	170,358	87,132	(3,903)
TL Chemical Co., Ltd	120,533	20	120,513	-	970
VINFAST LITHIUM BATTERY PACK LLC.	11,493	5,270	6,223	8	(1,434)
Jiangxi VL Battery.,Ltd	82,851	45,984	36,867	1,341	(3,872)
Sam-a Aluminum Company, Limited ²	₩ 414,978	₩ 163,516	₩ 251,462	₩ 71,192	₩ 1,018
Joint ventures					
SEETEC Co., Ltd.	₩ 330,778	₩ 58,475	₩ 272,303	₩ 204,814	₩ 5,457
LG Toray Hungary Battery Separator Kft. ²	790,807	11,184	779,623	199	(8,367)
PT.HLI Green Power	₩ 859,835	₩ 410,271	₩ 449,564	-	₩ (5,194)

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	December 31, 2022			2022 1 st quarter	
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the period
<i>(In millions of Korean won)</i>					
Subsidiaries					
LG Energy Solution, Ltd and its subsidiaries ¹	₩ 38,299,445	₩ 17,705,683	₩ 20,593,762	₩ 4,342,348	₩ 226,622
Ningbo LG Yongxing Chemical Co.,Ltd.	977,939	216,923	761,016	601,040	69,965
Ningbo Zhenhai LG Yongxing Trade Co.,Ltd.	6,547	208	6,339	8,009	124
LG Chem America, Inc.	364,217	315,018	49,199	321,818	(2,091)
LG Chemical India Pvt. Ltd.	63,069	76	62,993	-	(274)
LG Polymers India Pvt. Ltd.	56,108	36,817	19,291	1,383	(1,208)
LG Chemical (Guangzhou) Engineering Plastics Co.,Ltd.	103,121	31,869	71,252	58,590	864
LG Chem (Taiwan), Ltd. ⁴	66,276	16,344	49,932	13,593	1,804
Tianjin LG Bohai Chemical Co.,Ltd.	506,683	91,577	415,106	142,002	13,652
Tianjin LG BOTIAN Chemical Co.,Ltd.	52,147	21,909	30,238	36,580	1,699
LG Chem (China) Investment Co.,Ltd.	965,394	595,580	369,814	18,143	1,765
LG Chem (Tianjin) Engineering Plastics Co.,Ltd.	54,521	7,617	46,904	22,390	2,002
LG Chem Europe GmbH	416,423	327,179	89,244	263,691	13,052
LG Chem Poland Sp. z o.o.	251,051	156,649	94,402	72,861	1,563
LGC Petrochemical India Private Ltd.	5,708	1,208	4,500	1,385	172
HAENGBOKNURI CO., LTD.	4,484	1,588	2,896	2,046	(45)
LG CHEM TK Kimya SANAYI VE TIC. Ltd. STI.	10,320	9,973	347	14,395	(1,225)
LG Chem Japan Co.,Ltd.	5,074	1,012	4,062	1,189	289
LG NanoH2O, LLC	59,062	20,546	38,516	24,793	1,972
LG Chem (Chongqing) Engineering Plastics Co.,Ltd.	45,022	9,280	35,742	21,541	760
LG Chem (HUIZHOU) Petrochemical Co., Ltd.	545,010	116,473	428,537	265,995	25,415
LG Chem Life Sciences India Pvt. Ltd.	2,015	1,034	981	1,582	104
LG Jiansheng Life Sciences (Beijing) Co.,Ltd.	16,953	17,949	(996)	6,966	473
LG Chem Life Sciences (Thailand) Ltd.	31,712	15,120	16,592	10,383	917
LG Chem Hai Phong Vietnam Company Ltd.	16,224	4,505	11,719	4,833	626
LG Chem Mexico S.A. de C.V.	3,811	1,877	1,934	667	67
LG Chem Hai Phong Engineering Plastics Ltd.	33,254	15,968	17,286	9,135	103
LG Chem (Guangzhou) Information & Electronics Materials Co., Ltd.	281,292	72,768	208,524	44,112	512
LEYOU NEW ENERGY MATERIALS(WUXI) CO.,LTD	1,308,350	640,026	668,324	252,510	29,115
LG Chem Fund I LLC	77,965	20	77,945	-	(804)
Uniseal, Inc.	47,936	9,428	38,508	20,367	15
LG Chem Life Science Innovation Center, Inc.	21,438	1,477	19,961	1,923	116
LG Chem Asia Pte. Ltd.	47,745	46,430	1,315	824	(1)
LG Chem China Tech Center	37,725	3,941	33,784	858	255
Shanjin Optoelectronics (Taiwan) Co., Ltd. ^{3,4}	-	-	-	-	39
LG PETRONAS CHEMICALS Malaysia Sdn.Bhd.	204,444	134,990	69,454	-	(740)
LG Chem Hangzhou Advanced Materials Co., Ltd.	46,375	15,645	30,730	39,242	492
LG BCM	175,519	125,909	49,610	-	(1,080)
LG Chem Ohio Petrochemical, Inc.	23,842	15	23,827	-	3
LG Chem VietNam Co., Ltd	747	291	456	-	(95)
LG Chem Malaysia SDN.BHD.	1,043	399	644	-	-
LG Chem BRASIL INTERMEDIACAO DE NEGOCIOS DO SETOR QUIMICO LTDA.	1,287	107	1,180	-	-
FarmHannong Co., Ltd and its subsidiaries ¹	₩ 1,120,997	₩ 682,253	₩ 438,744	₩ 260,833	₩ 31,032

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	December 31, 2022			2022 1 st quarter	
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the period
<i>(In millions of Korean won)</i>					
Associates					
TECHWIN Co., Ltd.	₩ 137,123	₩ 58,470	₩ 78,653	₩ 9,764	₩ (3,406)
LG Chem Malaysia SDN.BHD.	-	-	-	472	31
LG Chem BRASIL INTERMEDIACAO DE NEGOCIOS DO SETOR QUIMICO LTDA.	-	-	-	486	89
LG Chem Life Sciences Poland Ltd.	235	69	166	46	25
KOREA PRECURSOR CO., LTD. ²	47,838	7,352	40,486	-	-
HUAJIN NEW ENERGY MATERIALS(QUZHOU)CO., LTD.	459,440	292,204	167,236	38,413	(1,213)
TL Chemical Co., Ltd	118,942	155	118,787	-	223
VINFAST LITHIUM BATTERY PACK LLC.	13,297	5,888	7,409	3,106	(330)
Jiangxi VL Battery.,Ltd	82,311	43,170	39,141	5,236	(3,998)
Joint ventures					
VINA Plasticizer Chemical Co., Ltd. ⁵	₩ 88,554	₩ 57,091	₩ 31,463	₩ 51,674	₩ 2,804
SEETEC Co., Ltd.	338,100	61,274	276,826	164,165	2,098
LG Toray Hungary Battery Separator Kft. ²	751,781	2,472	749,309	-	-
PT.HLI Green Power	₩ 667,930	₩ 227,305	₩ 440,625	-	₩ (11,669)

¹ The information is represented on the basis of the consolidated financial information.

² The information of revenue and profit or loss for the period represents the financial performance after the acquisition of shares.

³ The entities were disposed during the previous year, and the information of revenue and profit or loss for the period represents the financial performance before the disposal.

⁴ LCD polarizer business, etc. of these entities was classified as discontinued operations and profit or loss from the business was included in profit from discontinued operations.

⁵ Reclassified to the assets held for sale during the previous year, and revenue and profit or loss for the year presented are the financial performances before the reclassification.

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1.5 Information of Non-Controlling Interests that are Material to the Group

(a) LG Energy Solution, Ltd. and its subsidiaries

- Percentage of ownership held by non-controlling interests and accumulated non-controlling interests

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Percentage of ownership held by non-controlling interests	18.2%	18.2%
Accumulated non-controlling interests	₩ 5,967,835	₩ 5,263,729

- Profit and dividends attributable to non-controlling interests for the three-month period ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Profit allocated to non-controlling interests	₩ 152,217	₩ 40,144
Dividends paid to non-controlling interests	-	-

- Summarized condensed consolidated interim statements of financial positions of subsidiaries with material non-controlling interests, are as follows (before elimination of intercompany transactions):

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Current assets	₩ 18,950,796	₩ 18,804,269
Non-current assets	21,762,658	19,495,176
Total assets	40,713,454	38,299,445
Current liabilities	12,346,111	11,444,923
Non-current liabilities	6,319,669	6,260,760
Total liabilities	18,665,780	17,705,683
Total equity	₩ 22,047,674	₩ 20,593,762

- Summarized condensed consolidated interim statements of comprehensive income of subsidiaries with material non-controlling interests for the three-month period ended March 31, 2023 and 2022, are as follows (before elimination of intercompany transaction):

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Revenue	₩ 8,747,117	₩ 4,342,348
Profit for the period	561,986	226,622
Total comprehensive income	1,045,552	367,023

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- Summarized condensed consolidated interim statements of cash flows of subsidiaries with material non-controlling interests for the three-month period ended March 31, 2023 and 2022, are as follows (before elimination of intercompany transaction):

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Cash flows from operating activities	₩ 780,880	₩ 398,779
Cash flows from investing activities	(2,185,552)	(6,525,414)
Cash flows from financing activities	204,586	9,960,205
Net increase (decrease) in cash and cash equivalents	(1,200,086)	3,833,570
Cash and cash equivalents at the beginning of period	5,937,967	1,282,880
Effects of exchange rate changes on cash and cash equivalents	42,612	44,804
Cash and cash equivalents at the end of period	₩ 4,780,493	₩ 5,161,254

1.6 Changes in Scope for Consolidation

Subsidiaries newly included in the consolidation for the three-month period ended March 31, 2023, are as follows:

Subsidiary	Remark
Aveo Pharmaceuticals, Inc.	Newly acquired
L-H Battery Company, Inc.	Newly established

2. Summary of Significant Accounting Policies:

The principal accounting policies applied in the preparation of these condensed consolidated interim financial statements are set out below. These policies have been consistently applied to all the periods presented, unless otherwise stated.

The Group maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("K-IFRSs"). The accompanying condensed consolidated interim financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

2.1 Basis of Preparation

The Group's condensed consolidated interim financial statements for the three-month period ended March 31, 2023, have been prepared in accordance with K-IFRS 1034 *Interim Financial Reporting*. These condensed consolidated interim financial statements have been prepared in accordance with the K-IFRS which is effective or early adopted as at March 31, 2023.

(a) New and amended standards adopted by the Group

The Group has applied the following standards for the first time for its annual reporting period commencing on January 1, 2023.

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-K-IFRS 1001 Presentation of Financial Statements and IFRS Practice Statement 2 Making Materiality Judgements - Disclosure of Accounting Policies (Amendments)

The amendments change the requirements in K-IFRS 1001 with regard to disclosure of accounting policies. The amendments replace all instances of the term 'significant accounting policies' with 'material accounting policy information'. Accounting policy information is material if, when considered together with other information included in an entity's financial statements, it can reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements.

The supporting paragraphs in K-IFRS 1001 are also amended to clarify that accounting policy information that relates to immaterial transactions, other events or conditions is immaterial and need not be disclosed. Accounting policy information may be material because of the nature of the related transactions, other events or conditions, even if the amounts are immaterial. However, not all accounting policy information relating to material transactions, other events or conditions is itself material.

-K-IFRS 1001 Presentation of Financial Statements - Disclosure of financial liabilities with condition to adjust exercise price (Amendment)

The amendment requires disclosure of valuation gains or losses (limited to those recognized in the profit or loss) of the conversion options or warrants (or financial liabilities including them), if all or part of the financial instrument with exercise price that is adjusted depending on the issuer's share price change is classified as financial liability as defined in paragraph 11 (2) of K-IFRS 1032.

-K-IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors - Definition of Accounting Estimates (Amendment)

The amendments replaces the definition of a change in accounting estimates with the definition of accounting estimates. Under the new definition, accounting estimates are "monetary amounts in financial statements that are subject to measurement uncertainty."

The definition of a change in accounting estimates was deleted. However, the International Accounting Standards Board ("IASB") retained the concept of changes in accounting estimates in the standard with the following clarifications:

- A change in accounting estimate that results from new information or new developments is not the correction of an error
- The effects of a change in an input or a measurement technique used to develop an accounting estimate are changes in accounting estimates if they do not result from the correction of prior period errors

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

The amendment introduces a further exception from the initial recognition exemption. Under the amendment, an entity does not apply the initial recognition exemption for transactions that give rise to equal taxable and deductible temporary differences.

Depending on the applicable tax law, equal taxable and deductible temporary differences may arise on initial recognition of an asset and a liability in a transaction that is not a business combination and affects neither accounting nor taxable profit. For example, this may arise upon recognition of a lease liability and the corresponding right-of-use asset applying K-IFRS 1116 at the commencement date of a lease.

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Following the amendments to K-IFRS 1012, an entity is required to recognize the related deferred tax asset and liability, with the recognition of any deferred tax asset being subject to the recoverability criteria in K-IFRS 1012.

The Board also adds an illustrative example to K-IFRS 1012 that explains how the amendments are applied.

The amendments apply to transactions that occur on or after the beginning of the earliest comparative period presented. In addition, at the beginning of the earliest comparative period an entity recognizes:

- A deferred tax asset (to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilised) and a deferred tax liability for all deductible and taxable temporary differences associated with:
 - Right-of-use assets and lease liabilities
 - Decommissioning, restoration and similar liabilities and the corresponding amounts recognised as part of the cost of the related asset
- The cumulative effect of initially applying the amendments as an adjustment to the opening balance of retained earnings (or other component of equity, as appropriate) at that date.

(b) New and amended standards not yet adopted by the Group

The following new and amended accounting standards and interpretations that have been published are not mandatory for March 31, 2023 reporting periods and have not been early adopted by the Group.

- Amendments to K-IFRS 1001 Presentation of Financial Statements - Classification of Liabilities as Current or Non-current

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the expectations of management. Also, the settlement of liability includes the transfer of the entity's own equity instruments; however, it would be excluded if an option to settle them by the entity's own equity instruments, i.e, compound financial instruments, meets the definition of equity instruments and is recognized separately from the liability.

The 2023 amendments specify that only covenants that an entity is required to comply with on or before the end of the reporting period affect the entity's right to defer settlement of a liability for at least 12 months after the reporting date. Such covenants affect whether the right exists at the end of the reporting period, even if compliance with the covenant is assessed only after the reporting date.

The 2023 amendments also specify that the right to defer settlement is not affected if an entity only has to comply with a covenant after the reporting period. However, if the entity's right to defer settlement of a liability is subject to the entity complying with covenants within 12 months after the reporting period, an entity discloses information that enables users of financial statements to understand the risk of the liabilities becoming repayable within twelve months after the reporting period. This would include information about the covenants (including the nature of the covenants and when the entity is required to comply with them), the carrying amount of related liabilities and facts and circumstances, if any, that indicate that the entity may have difficulties complying with the covenants. The amendments should be applied for annual periods beginning on or after January 1, 2024, and earlier application is permitted.

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The Group does not anticipate that the application of the amendments will not have an significant impact on the Group's consolidated financial statements.

3. Financial Risk Management:

3.1 Financial Risk Factors

The Group's activities expose it to a variety of financial risks: market risk, credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the financial performance of the Group. The Group uses derivative financial instruments to hedge certain risk exposures.

Risk management is carried out by the Group's finance team under policies approved by the Corporate Management Committee. The finance team identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units. The Corporate Management Committee reviews and approves written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, and credit risk, use of derivative financial instruments and non-derivative financial instruments, investment of excess liquidity.

(1) Market risk

1) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from foreign currency exposures, primarily with respect to the US dollar. Foreign exchange risk arises from future commercial transactions of recognized assets and liabilities.

Management has set up a policy to require Group companies to manage their foreign exchange risk against their functional currency. The Group manages maximum loss for currency risk exposures within the acceptable range by using currency risk management model and hires employees who are exclusively responsible for currency risk management.

As at March 31, 2023 and December 31, 2022, the Group's monetary assets and liabilities denominated in currencies other than its functional currency are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023		December 31, 2022	
	Assets	Liabilities	Assets	Liabilities
USD	₩ 7,247,948	₩ 10,169,157	₩ 5,518,144	₩ 8,164,815
EUR	914,881	5,331,805	478,624	5,044,754
JPY	16,982	146,720	17,686	145,211
CNY and others	₩ 391,431	₩ 11,947	₩ 230,763	₩ 11,419

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As at March 31, 2023 and December 31, 2022, if the Group's functional currency had weakened / strengthened by 10% against the US dollar, etc with all other variables held constant, profit before income tax would have been affected as follows:

(in millions of Korean won)	March 31, 2023		December 31, 2022	
	10% Increase	10% Decrease	10% Increase	10% Decrease
USD	₩ (125,311)	₩ 125,311	₩ (75,555)	₩ 75,555
EUR	(427,152)	427,152	(418,930)	418,930
JPY	(12,870)	12,870	(12,603)	12,603
CNY and others	₩ 52,135	₩ (52,135)	₩ 42,841	₩ (42,841)

The above sensitivity analysis has been performed for monetary assets and liabilities denominated in foreign currencies other than the Group's functional currency at the reporting date.

As at March 31, 2023 and December 31, 2022, the Group entered into foreign currency forward and currency swap contracts to manage risk from changes in exchange rates and the details are as follows:

(In millions of Korean won and in millions of US dollars)

		March 31, 2023				Book amount	
	Contractor	Contract amount	Contract exchange rate	Contract inception date	Contract maturity	Assets	Liabilities
Currency forward	Industrial and Commercial Bank of China	USD 158	1,218.70	2022.04.22	2024.02.01	-	₩ 9,914
	Shinhan Bank	USD 500	1,135.60	2020.10.14	2024.10.15	64,789	-
	KB Kookmin Bank	USD 500	1,102.83	2020.11.24	2029.04.16	64,132	-
Currency swap	SMBC	USD 200	1,118.00	2021.05.28	2024.05.28	30,896	-
	KDB Bank	USD 130	1,135.60	2021.06.24	2025.06.24	29,556	-
	KDB Bank	USD 35	1,135.60	2021.06.24	2026.06.24	8,778	-
	Shinhan Bank	USD 300	1,131.80	2021.07.07	2026.07.07	37,043	-
	Woori Bank	USD 100	1,131.80	2021.07.07	2026.07.07	12,635	-
	Industrial and Commercial Bank of China	USD 100	1,131.80	2021.07.07	2026.07.07	12,567	-
	Shinhan Bank	USD 100	1,131.80	2021.07.07	2031.07.07	11,211	-
	Woori Bank	USD 200	1,131.80	2021.07.07	2031.07.07	23,224	-
	KDB Bank	USD 200	1,131.80	2021.07.07	2031.07.07	23,248	-
	KDB Bank	USD 250	1,289.70	2022.06.15	2025.06.15	3,807	-
	Shinhan Bank	USD 110	1,289.70	2022.06.15	2027.06.15	1,294	-
	The Export-Import Bank of Korea	USD 200	1,305.90	2022.07.14	2025.07.14	-	3,822
	Shinhan Bank	USD 100	1,305.90	2022.07.14	2025.07.14	-	1,861
	KDB Bank	USD 200	1,233.40	2023.01.26	2025.01.26	14,332	-
	Shinhan Bank	USD 100	1,233.40	2023.01.26	2026.01.26	6,985	-
	KDB Bank	USD 100	1,233.40	2023.01.26	2026.01.26	7,267	-

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(in millions of Korean won and in millions of US dollars)

		December 31, 2022				Book amount	
	Contractor	Contract amount	Contract exchange rate	Contract inception date	Contract maturity	Assets	Liabilities
Currency Forward	Citi Bank	USD 105	1,234.60	2022.04.22	2023.02.01	-	₩ 3,348
	Industrial and Commercial Bank of China	USD 158	1,218.70	2022.04.22	2024.02.01	-	4,364
	Shinhan Bank	USD 500	1,135.60	2020.10.14	2024.10.15	47,695	-
	KB Kookmin Bank	USD 500	1,102.83	2020.11.24	2029.04.16	41,780	-
	ING	EUR 100	4.7800 ¹	2022.01.05	2023.01.05	-	2,522
Currency swap	SMBC	USD 200	1,118.00	2021.05.28	2024.05.28	22,974	-
	KDB Bank	USD 130	1,135.60	2021.06.24	2025.06.24	26,317	-
	KDB Bank	USD 35	1,135.60	2021.06.24	2026.06.24	7,898	-
	Shinhan Bank	USD 300	1,131.80	2021.07.7	2026.07.07	26,599	-
	Woori Bank	USD 100	1,131.80	2021.07.7	2026.07.07	9,067	-
	Industrial and Commercial Bank of China	USD 100	1,131.80	2021.07.7	2026.07.07	9,175	-
	Shinhan Bank	USD 100	1,131.80	2021.07.7	2031.07.07	6,192	-
	Woori Bank	USD 200	1,131.80	2021.07.7	2031.07.07	12,852	-
	KDB Bank	USD 200	1,131.80	2021.07.7	2031.07.07	12,926	-
	KDB Bank	USD 250	1,289.70	2022.06.15	2025.06.15	-	3,374
	Shinhan Bank	USD 110	1,289.70	2022.06.15	2027.06.15	-	1,700
	The Export-Import Bank of Korea	USD 200	1,305.90	2022.07.14	2025.07.14	-	10,360
	Shinhan Bank	USD 100	1,305.90	2022.07.14	2025.07.14	-	5,003

¹ Cross exchange rate between PLN and EUR.

2) Price risk

The Group is exposed to equity securities price risk that arises from investments held by the Group and classified as non-current financial assets. The Group's equity investments are publicly traded and are related to the National Association of Securities Dealers Automated Quotations ("NASDAQ"), New York Stock Exchange ("NYSE"), Shenzhen Stock Exchange ("SZSE"), Hang Seng Index ("HIS"), Australian Stock Exchange ("ASX") and KOSPI stock indexes.

The table below summarizes the impact of increases/decreases of the listed stock price index on the Group's equity before tax effects as at March 31, 2023 and December 31, 2022. The analysis is based on the assumption that the equity index has increased/decreased by 10% with all other variables held constant, and that all the Group's equity instruments moved in line with the index.

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(In millions of Korean won)	March 31, 2023		December 31, 2022	
	10% Increase	10% Decrease	10% Increase	10% Decrease
NASDAQ	₩ 17,071	₩ (17,071)	₩ 2,561	₩ (2,561)
ASX	1,439	(1,439)	1,167	(1,167)
NYSE	5,665	(5,665)	4,416	(4,416)
SZSE	3,794	(3,794)	3,747	(3,747)
HSI	9,013	(9,013)	8,349	(8,349)
KOSPI	15,482	(15,482)	17,667	(17,667)
Total	₩ 52,464	₩ (52,464)	₩ 37,907	₩ (37,907)

3) 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 through 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 Group adequately minimizes risks from interest rate fluctuations through various policies, such as sharing excess cash within the Group (internal cash sharing) to minimize external borrowings, avoiding high rate borrowings, reforming capital structure, managing an appropriate ratio of fixed rate borrowings and floating rate borrowings, monitoring a fluctuation of domestic and foreign interest rates daily, weekly and monthly, establishing alternatives, and balancing floating rate short-term borrowings with floating rate deposits.

The table below summarizes the impact of increases/decreases of interest rate on the Group's equity and post-tax profit for the three-month periods ended March 31, 2023 and 2022. The analysis is based on the assumption that the interest rate has increased/decreased by 1% (100 basis points) with all other variables held constant.

(In millions of Korean won)		Impact on post-tax profit		Impact on equity	
		March 31, 2023	December 31, 2022	March 31, 2023	December 31, 2022
Increase	Deposits	₩ 25,547	₩ 44,606	₩ 25,547	₩ 44,606
	Borrowings	(43,535)	(41,996)	(43,535)	(41,996)
	Total	₩ (17,988)	₩ 2,610	₩ (17,988)	₩ 2,610
Decrease	Deposits	₩ (25,547)	₩ (44,606)	₩ (25,547)	₩ 44,606
	Borrowings	43,535	41,996	43,535	(41,996)
	Total	₩ 17,988	₩ (2,610)	₩ 17,988	₩ 2,610

(2) Credit risk

Credit risk arises from trade receivables that the Group holds, as well as debt instruments at amortized cost or fair value through other comprehensive income.

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1) Trade receivables

The Group applies the simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The loss allowance on trade receivables as at March 31, 2023 and at December 31, 2022 are as follows. Expected credit losses include forward-looking information.

<i>(In millions of Korean won)</i>	Receivables not past due ¹		Receivables past due but not impaired ¹		Impaired receivables ²		Total
March 31, 2023 (trade receivables)							
Gross carrying amount	₩	8,608,651	₩	129,911	₩	1,869	₩ 8,740,431
Expected loss rate		0.0%		0.4%		67.0%	0.0%
Loss allowance	₩	1,517	₩	549	₩	1,252	₩ 3,318
December 31, 2022 (trade receivables)							
Gross carrying amount	₩	7,349,259	₩	223,992	₩	2,859	₩ 7,576,110
Expected loss rate		0.0%		0.3%		88.4%	0.1%
Loss allowance	₩	1,900	₩	591	₩	2,526	₩ 5,017

¹ See Note 7.(3) for aging analysis.

² Impaired receivables are those for which impairment indicators have been confirmed, such as significant lack of collectability.

Movements in the loss allowance on trade receivables for the three-month period ended March 31, 2023 and for the year ended December 31, 2022 are as follows:

<i>(In millions of Korean won)</i>	Trade receivables	
	March 31, 2023	December 31, 2022
Beginning balance	₩ 5,017	₩ 5,094
Increase in (reversal of) loss allowance recognized in profit or loss	(525)	-
Business combination (Note 37)	-	724
Receivables written off as uncollectible	-	(849)
Exchange differences	(1,174)	48
Ending balance	<u>₩ 3,318</u>	<u>₩ 5,017</u>

As at March 31, 2023, the carrying amount of trade receivables representing the maximum exposure to credit risk amounts to ₩8,737,113 million (December 31, 2022: ₩7,571,093 million).

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2) Other financial assets at amortized cost

Movements in loss allowance on other financial assets at amortized cost for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

(In millions of Korean won)	Other receivables	
	March 31, 2023	December 31, 2022
Beginning balance	₩ 682	₩ 2,165
Increase in loss allowance recognized in profit or loss as 'other expenses'	-	(331)
Receivables written off as uncollectible	(54)	(1,152)
Ending balance	₩ 628	₩ 682

All of the financial assets at amortized costs are considered to have low credit risk, and the loss allowance recognized during the period was, therefore, limited to 12 months expected losses.

The Group has established the following policies and procedures to manage credit risks.

To manage credit risks relating to trade receivables, the Group evaluates the credit rating of customers and determines credit limit for each customer based on the information provided by credit rating agencies and other available financial information before commencing business with new customers. The credit risks relating to trade receivables are also mitigated by insurance contracts and collateral, as well as payment guarantees.

The Group has entered into export bond insurance contracts with Korea Trade Insurance Corporation to mitigate credit risks relating to export trade receivables to overseas customers. The Group is also provided with collateral by customers depending on their credit rating or payment guarantees from the customers' financial institutions if necessary.

The Group has deposited its cash and cash equivalents and other long-term deposits in several financial institutions, such as Woori Bank and others. The Group has also entered into derivative contracts with several financial institutions. The Group maintains business relationship with financial institutions with high credit ratings evaluated by independent credit rating agencies, and accordingly, credit risks associated with these financial institutions are limited.

(3) Liquidity risk

Finance team of 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 statement of financial position liquidity ratios against internal and external regulatory requirements and maintaining debt financing plans.

The table below analyzes the Group's financial liabilities into relevant maturity groupings based on the remaining period at the end of the reporting period to the contractual maturity date. Cash flows presented below are gross cash flows before discount and includes cash flows for interests.

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(In millions of Korean won)	March 31, 2023			
	Less than 1 year	Between 1-2 years	Between 2-5 years	More than 5 years
Non-derivative financial instruments				
Borrowings (excluding lease liabilities)	₩ 5,376,009	₩ 3,374,950	₩ 6,323,428	₩ 3,248,126
Lease liabilities	109,111	82,399	103,075	166,626
Trade and other payables	9,299,134	20,409	21,548	681
Other current liabilities (dividends payable)	783,135	-	-	-
	<u>15,567,389</u>	<u>3,477,758</u>	<u>6,448,051</u>	<u>3,415,433</u>
Derivative instruments				
Gross settlement currency forwards and swaps				
(Inflows)	(307,080)	(1,370,736)	(1,747,031)	(1,357,989)
Outflows	284,251	1,188,439	1,614,647	1,161,965
	<u>(22,829)</u>	<u>(182,297)</u>	<u>(132,384)</u>	<u>(196,024)</u>
	<u>₩ 15,544,560</u>	<u>₩ 3,295,461</u>	<u>₩ 6,315,667</u>	<u>₩ 3,219,409</u>

Although it is not included in the above cash flow, the agreement is made to purchase additional shares of LG Toray Hungary Battery Separator Kft. in accordance with the agreed price calculation method (Note 18).

(In millions of Korean won)	December 31, 2022			
	Less than 1 year	Between 1-2 years	Between 2-5 years	More than 5 years
Non-derivative financial instruments				
Borrowings (excluding lease liabilities)	₩ 4,098,366	₩ 3,315,867	₩ 5,730,247	₩ 3,963,315
Lease liabilities	138,892	70,516	100,099	120,992
Trade and other payables ¹	9,655,799	41,085	1,546	1,077
	<u>13,893,057</u>	<u>3,427,468</u>	<u>5,831,892</u>	<u>4,085,384</u>
Derivative instruments				
Gross settlement currency forwards and swaps				
(Inflows)	(344,898)	(1,157,662)	(1,787,213)	(1,327,497)
Outflows	328,856	1,047,373	1,694,337	1,168,399
	<u>(16,042)</u>	<u>(110,289)</u>	<u>(92,876)</u>	<u>(159,098)</u>
	<u>₩ 13,877,015</u>	<u>₩ 3,317,179</u>	<u>₩ 5,739,016</u>	<u>₩ 3,926,286</u>

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As at March 31, 2023, the Group has entered into swap contracts for which cash flow hedge accounting is applied, to avoid market price fluctuation of raw materials.

(In millions of Korean won)	Purpose of the contracts	Hedged items	Financial institution	Maturity	March 31, 2023	
					Fair value	
					Assets	Liabilities
Merchandise (raw materials) swap ¹	Cash flow hedge	Non-ferrous metal	Citi Bank and others	2025. 12	₩ 5,773	₩ 798

¹ Gain (loss) resulting from the contracts to avoid cash flow fluctuation risk of expected future transaction is accounted for as accumulated other comprehensive income which corresponds to an effective portion of the hedges (Note 5).

Details of financial guarantee contracts by maturity as at March 31, 2023 and December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023			
	Less than 1 year	Between 1-2 years	Between 2-5 years	More than 5 years
Financial guarantee contracts (*)	₩ 463,501	-	-	-

(In millions of Korean won)	December 31, 2022			
	Less than 1 year	Between 1-2 years	Between 2-5 years	More than 5 years
Financial guarantee contracts (*)	₩ 450,525	-	-	-

(*) The financial guarantee contracts above are for joint ventures and are presented based on the maximum amount of guarantee that can be requested as at March 31, 2023 and at December 31, 2022 (Note 18).

3.2 Capital Risk Management

The Group's objectives for 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.

Consistent with others in the industry, 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 calculated as total borrowings less cash and cash equivalents. Total capital is calculated as 'equity' as shown in the consolidated statements of financial positions, plus net debt.

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The gearing ratio and debt-to-equity ratio as at March 31, 2023, and December 31, 2022, were as follows:

<i>(In millions of Korean won, except for ratios)</i>	March 31, 2023		December 31, 2022	
Total borrowings (Note 14) (A)	₩	17,873,397	₩	15,964,519
Less: cash and cash equivalents (B)		(6,787,093)		(8,497,882)
Net debt (C=A+B)	₩	11,086,304	₩	7,466,637
Total liabilities (D)		32,491,924		30,492,696
Total equity (E)		38,404,071		37,481,127
Total capital (F=C+E)	₩	49,490,375	₩	44,947,764
Gearing ratio (C/F)		22.4%		16.6%
Debt-to-equity ratio (D/E)		84.6%		81.4%

3.3 Fair Value

- (1) Carrying amount and fair value of financial instruments by category as at March 31, 2023 and December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023		December 31, 2022	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets (current)				
Cash and cash equivalents	₩ 6,787,093	¹	₩ 8,497,882	¹
Deposits held by financial institutions	23,278	¹	14,448	¹
Trade receivables	8,604,367	¹	7,450,395	¹
Other receivables (excluding deposits held by financial institutions)	995,283	¹	727,983	¹
Current derivative financial assets (excluding currency forward)	4,009	4,009	9,167	9,167
Financial assets (non-current)				
Deposits held by financial institutions	₩ 277,265	¹	₩ 277,210	¹
Trade receivables	132,746	¹	120,698	¹
Other receivables (excluding deposits held by financial institutions)	239,871	¹	340,234	¹
Other non-current financial assets (carried at fair value)				
Marketable financial assets	659,129	659,129	462,330	462,330
Non-marketable financial assets ³	452,451	452,451	495,484	495,484
Non-current derivative financial assets (currency forward)	128,920	128,920	89,475	89,475
Non-current derivative financial assets (excluding currency forward)	224,607	224,607	138,764	138,764

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(In millions of Korean won)	March 31, 2023		December 31, 2022	
	Carrying amount	Fair value	Carrying amount	Fair value
Non-current derivative financial assets (acquisition of interests)	52,586	52,586	51,114	51,114
Financial liabilities (current)				
Trade and other payables	₩ 9,299,134	¹	₩ 9,655,799	¹
Current borrowings (excluding lease liabilities)	4,923,549	¹	3,709,288	¹
Current lease liabilities	101,014	²	95,079	²
Current derivative financial liabilities (currency forward)	9,914	9,914	5,870	5,870
Current derivative financial liabilities (excluding currency forward)	580	580	1,401	1,401
Financial liabilities (non-current)				
Non-current borrowings (excluding lease liabilities)	₩ 12,549,605	₩ 11,397,488	₩ 11,865,593	₩ 11,092,812
Non-current lease liabilities	299,230	²	294,559	²
Other non-current payables	42,636	¹	43,708	¹
Non-current derivative financial liabilities (currency forward)	-	-	4,364	4,364
Non-current derivative financial liabilities (excluding currency forward)	5,902	5,902	21,178	21,178
Non-current derivative financial liabilities (acquisition of interests)	8,791	8,791	7,777	7,777

¹ These financial assets and liabilities are not included in the disclosure above as their carrying amount is a reasonable approximation of the fair value.

² Fair values for these financial assets and liabilities are not disclosed above in accordance with related K-IFRS.

³ Acquisition costs of a part of these financial assets approximate their fair values.

(2) Fair value hierarchy

Items that are measured at fair value are categorized by the fair value hierarchy levels, and the defined levels are as follows:

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

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Fair value hierarchy of the financial instruments that are measured at fair value and their fair values disclosed as at March 31, 2023, and December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023			
	Level 1	Level 2	Level 3	Total
Financial assets/liabilities measured at fair value				
Other non-current financial assets (marketable financial assets)	₩ 659,129	-	-	₩ 659,129
Other non-current financial assets (non-marketable financial assets) ¹	-	-	452,451	452,451
Current derivative financial assets (excluding currency forward)	-	4,009	-	4,009
Non-current derivative financial assets (currency forward)	-	128,920	-	128,920
Non-current derivative financial assets (excluding currency forward)	-	224,607	-	224,607
Non-current derivative financial assets (acquisition of interests)	-	-	52,586	52,586
Current derivative financial liabilities (currency forward)	-	9,914	-	9,914
Current derivative financial liabilities (excluding currency forward)	-	580	-	580
Non-current derivative financial liabilities (excluding currency forward)	-	5,902	-	5,902
Non-current derivative financial liabilities (acquisition of interests)	-	-	8,791	8,791
Financial assets/liabilities not measured at fair value				
Non-current borrowings (excluding lease liabilities)	-	-	₩ 11,397,488	₩ 11,397,488

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(In millions of Korean won)	December 31, 2022			
	Level 1	Level 2	Level 3	Total
Financial assets/liabilities measured at fair value				
Other non-current financial assets (marketable financial assets)	₩ 462,330	-	-	₩ 462,330
Other non-current financial assets (non-marketable financial assets) ¹	-	-	495,484	495,484
Current derivative financial assets (excluding currency forward)	-	9,167	-	9,167
Non-current derivative financial assets (currency forward)	-	89,475	-	89,475
Non-current derivative financial assets (excluding currency forward)	-	138,764	-	138,764
Non-current derivative financial assets (purchase of interests)	-	-	51,114	51,114
Current derivative financial liabilities (currency forward)	-	5,870	-	5,870
Current derivative financial liabilities (excluding currency forward)	-	1,401	-	1,401
Non-current derivative financial liabilities (currency forward)	-	4,364	-	4,364
Non-current derivative financial liabilities (excluding currency forward)	-	21,178	-	21,178
Non-current derivative financial liabilities (acquisition of interests)	-	-	7,777	7,777
Financial assets/liabilities not measured at fair value				
Non-current borrowings (excluding lease liabilities)	-	-	₩ 11,092,812	₩ 11,092,812

¹ Acquisition costs of a part of these financial assets approximate their fair values. For fair values measured by using other methods, see (3) Valuation technique and the inputs.

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(3) Valuation technique and the inputs

Valuation techniques and inputs used in the fair value measurements categorized within Level 3 of the fair value hierarchy as at March 31, 2023 and December 31, 2022, are as follows:

March 31, 2023					
<i>(In millions of Korean won)</i>	Fair value	Level	Valuation technique	Inputs	Coverage of Level 3 inputs (weighted average)
Non-current derivative financial assets (acquisition of interests)	₩ 47,896	3	Monte Carlo Simulation	Stock volatility of underlying assets	40.54%
				Stock price correlation coefficient	35.81%
				Volatility of financial indicators	44.11%
	4,690	3	Binominal option pricing model	Volatility	45.60%
Non-current derivative financial liabilities (acquisition of interests)	8,791	3	Monte Carlo Simulation	Stock volatility of underlying assets	40.54%
				Stock price correlation coefficient	57.86%
				Volatility of financial indicators	21.90%
Other non-current financial assets (non-listed shares)	14,853	3	Binominal option pricing model	Volatility	25.92%
	48,660	3	Discounted cash flows model	Discount rates	13.53%
	136,508	3	Adjusted net asset method	-	-
Non-current borrowings (excluding lease liabilities)	11,517,332	3	Discounted cash flows model	Discount rates	3.69% - 4.80%

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<i>(In millions of Korean won)</i>	December 31, 2022				
	Fair value	Level	Valuation Technique	Inputs	Coverage of Level 3 inputs (weighted average)
Non-current derivative financial assets (acquisition of interests)	₩ 46,555	3	Monte Carlo Simulation	Stock volatility of underlying assets	40.54%
				Stock price correlation coefficient	35.81%
				Volatility of Financial Indicators	44.11%
	4,559	3	Binominal option pricing model	Volatility	45.60%
Non-current derivative financial liabilities (acquisition of interests)	7,777	3	Monte Carlo Simulation	Stock volatility of underlying assets	40.54%
				Stock price correlation coefficient	57.86%
				Volatility of Financial Indicators	21.90%
Other non-current financial assets (non-listed shares)	14,437	3	Binominal option pricing model	Volatility	25.92%
	46,682	3	Discounted cash flows model	Discount rates	13.53%
	132,686	3	Adjusted net asset method	-	-
Non-current borrowings (excluding lease liabilities)	11,092,812	3	Discounted cash flows model	Discount rates	4.94% - 5.33%

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4. Critical Accounting Estimates and Assumptions:

The preparation of financial statements requires the Group to make estimates and assumptions concerning the future. Management also needs to exercise judgement in applying the Group's accounting policies. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates may differ from the related actual results.

Significant accounting estimates and assumptions applied in the preparation of these condensed consolidated interim financial statements are the same as those applied to the consolidated financial statements as of and for the year ended December 31, 2022, except for the estimates used to determine income tax expense.

5. Financial Instruments by Category:

Categorizations of financial instruments as at March 31, 2023 and December 31, 2022, are as follows:

(In millions of Korean won)

Financial assets	March 31, 2023				
	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Other financial assets ¹	Total
Cash and cash equivalents	₩ 6,787,093	-	-	-	₩ 6,787,093
Trade receivables	8,020,791	-	583,576	-	8,604,367
Non-current trade receivables	132,746	-	-	-	132,746
Other receivables	1,018,464	-	97	-	1,018,561
Other non-current receivables	517,136	-	-	-	517,136
Other current financial assets	-	-	-	4,009	4,009
Other non-current financial assets	-	286,901	824,680	406,112	1,517,693
Total	₩ 16,476,230	₩ 286,901	₩ 1,408,353	₩ 410,121	₩ 18,581,605

(In millions of Korean won)

Financial liabilities	March 31, 2023		
	Financial liabilities at amortized cost	Other financial liabilities ²	Total
Trade payables	₩ 5,534,867	-	₩ 5,534,867
Other payables	3,764,267	-	3,764,267
Borrowings (current)	4,166,145	858,417	5,024,562
Other current liabilities (dividend payable)	783,135	-	783,135
Other current financial liabilities	-	10,494	10,494
Other non-current financial liabilities	-	14,693	14,693
Other non-current payables	42,636	-	42,636
Borrowings (non-current)	12,549,605	299,230	12,848,835
Total	₩ 26,840,655	₩ 1,182,834	₩ 28,023,489

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(In millions of Korean won)

Financial assets	December 31, 2022				
	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Other financial assets ¹	Total
Cash and cash equivalents	₩ 8,497,882	-	-	-	₩ 8,497,882
Trade receivables	6,919,243	-	531,152	-	7,450,395
Non-current trade receivables	120,698	-	-	-	120,698
Other receivables	741,000	-	1,431	-	742,431
Other non-current receivables	617,444	-	-	-	617,444
Other current financial assets	-	-	-	9,167	9,167
Other non-current financial assets	-	245,459	712,355	279,353	1,237,167
Total	₩ 16,896,267	₩ 245,459	₩ 1,244,938	₩ 288,520	₩18,675,184

(In millions of Korean won)

Financial liabilities	December 31, 2022		
	Financial liabilities at amortized cost	Other financial liabilities ²	Total
Trade payables	₩ 4,756,246	-	₩ 4,756,246
Other payables	4,899,553	-	4,899,553
Borrowings (current)	3,709,288	95,079	3,804,367
Other current financial liabilities	-	7,271	7,271
Other non-current financial liabilities	-	33,319	33,319
Other non-current payables	43,708	-	43,708
Borrowings (non-current)	11,865,593	294,559	12,160,152
Total	₩ 25,274,388	430,228	₩ 25,704,616

¹ Other financial assets include derivative assets that are not subject to the categorizations.

² Other financial liabilities include lease liabilities, derivative liabilities and negotiated borrowings that are not subject to the categorizations.

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Net gains or losses on each category of financial instruments for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>		2023 1st quarter	2022 1st quarter
Dividend income			
Financial assets at fair value through other comprehensive income	₩	12,920	-
Impairment loss(reversal)			
Financial assets at amortized cost	₩	(525)	₩ 489
Interest income			
Financial assets at amortized cost	₩	73,301	₩ 58,176
Interest expense			
Financial liabilities at amortized cost	₩	(132,537)	₩ (64,097)
Other financial liabilities		(2,460)	(2,228)
Financial assets at amortized cost ¹		(5,807)	(379)
Gain on valuation/disposal			
Financial assets at fair value through profit or loss	₩	3,482	₩ 79
Financial assets at fair value through other comprehensive income		(2,762)	(312)
Derivative instruments		134,142	101,885
Exchange differences			
Financial assets at amortized cost	₩	225,484	₩ 140,272
Financial liabilities at amortized cost		(152,671)	(183,514)
Derivative instruments		(517)	-
Other financial liabilities		(9,399)	(4,226)

¹ Fees paid to financial institutions for factoring.

6. Cash and Cash Equivalents:

Details of cash and cash equivalents as at March 31, 2023 and December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Bank deposits and cash on hand	₩ 1,665,944	₩ 1,640,251
Deposits held by financial institutions and others	5,121,149	6,857,631
Total	₩ 6,787,093	₩ 8,497,882

As at March 31, 2023, cash and cash equivalents include ₩32,158 million(December 31, 2022: ₩32,098 million) which is subject to a restriction on the use in association with the national R&D projects.

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7. Trade and Other Receivables:

Trade and other receivables and loss allowance, as at March 31, 2023 and December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023		
	Gross amount	Loss allowance	Carrying amount
Trade receivables	₩ 8,607,685	₩ (3,318)	₩ 8,604,367
Non-current trade receivables	132,746	-	132,746
Other current receivables	1,019,189	(628)	1,018,561
Other non-current receivables	517,136	-	517,136
Total	₩ 10,276,756	₩ (3,946)	₩ 10,272,810

(In millions of Korean won)	December 31, 2022		
	Gross amount	Loss allowance	Carrying amount
Trade receivables	₩ 7,455,412	₩ (5,017)	₩ 7,450,395
Non-current trade receivables	120,698	-	120,698
Other current receivables	743,113	(682)	742,431
Other non-current receivables	617,444	-	617,444
Total	₩ 8,936,667	₩ (5,699)	₩ 8,930,968

Details of other receivables as at March 31, 2023 and December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023		December 31, 2022	
Current				
Non-trade receivables	₩	693,525	₩	487,646
Deposits held by financial institutions		23,278		14,448
Accrued income		51,127		68,294
Loans		202,313		129,908
Guarantee deposits provided		48,318		42,135
		<u>1,018,561</u>		<u>742,431</u>
Non-current				
Non-trade receivables	₩	132,056	₩	30,793
Deposits held by financial institutions ¹		277,265		277,210
Loans		7,642		207,247
Guarantee deposits provided		100,173		102,194
		<u>517,136</u>		<u>617,444</u>
Total	₩	<u>1,535,697</u>	₩	<u>1,359,875</u>

¹ As at March 31, 2023, ₩266,100 million (December 31, 2022: ₩266,100 million) is withdrawal restricted in relation to large, small and medium-sized companies cooperation agreement, ₩126 million is restricted in use to be retained in connection with maintaining checking accounts (December 31, 2022: ₩123 million), and ₩10,000 million is restricted in use to be retained in connection with employee loan deposits (December 31, 2022: ₩10,000 million). Also, PLN 3 million is restricted in use to be retained in relation to overseas transportation of hazardous waste (December 31, 2022: PLN 3 million).

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The aging analysis of trade and other receivables as at March 31, 2023 and December 31, 2022, is as follows:

(In millions of Korean won)	March 31, 2023		December 31, 2022	
	Trade receivables	Other receivables	Trade receivables	Other receivables
Receivables not past due	₩ 8,608,651	₩ 1,479,427	₩7,349,259	₩ 1,309,179
Past due but not impaired				
Up to 3 months	126,467	33,641	220,785	31,873
Between 3-6 months	2,455	16,805	2,445	10,989
More than 6 months	989	5,824	762	7,834
	129,911	56,270	223,992	50,696
Impaired receivables	1,869	628	2,859	682
Total	₩ 8,740,431	₩ 1,536,325	₩7,576,110	₩ 1,360,557

Movements of loss allowance on trade and other receivables for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023			
	Trade receivables		Other receivables	
	Current	Non-current	Current	Non-current
Beginning balance	₩ 5,017	-	₩ 682	-
Reversal of impairment	(525)	-	-	-
Write-off	-	-	(54)	-
Exchange differences	(1,174)	-	-	-
Ending balance	₩ 3,318	-	₩ 628	-

(in millions of Korean won)	December 31, 2022			
	Trade receivables		Other receivables	
	Current	Non-current	Current	Non-current
Beginning balance	₩ 5,094	-	₩ 2,165	-
Reversal of impairment	-	-	(331)	-
Business combination (Note 37)	724	-	-	-
Write-off	(849)	-	(1,152)	-
Exchange differences	48	-	-	-
Ending balance	₩ 5,017	-	₩ 682	-

As at March 31, 2023 and December 31, 2022, the carrying amounts of trade and other receivables are approximation of their fair values.

The Group transferred trade and other receivables to financial institutions for ₩215,766 million at March 31, 2023 (December 31, 2022: ₩201,640 million), and derecognized the trade and other receivables from the financial statements at the date of disposal, as substantially all the risks and rewards were transferred.

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8. Other Financial Assets and Liabilities:

Details of other financial assets and liabilities as at March 31, 2023 and December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Other financial assets		
Financial assets at fair value through other comprehensive income (derivative instruments) (current)	₩ 4,009	₩ 9,167
Financial assets at fair value through other comprehensive income (derivative instruments) (non-current)	1,763	4,764
Financial assets at fair value through other comprehensive income (excluding derivative instruments) (non-current)	824,680	712,355
Financial assets at fair value through profit or loss (derivative instruments) (non-current)	404,350	274,589
Financial assets at fair value through profit or loss (excluding derivative instruments) (non-current)	286,900	245,459
	<u>₩ 1,521,702</u>	<u>₩ 1,246,334</u>
Other financial liabilities		
Financial liabilities at fair value through other comprehensive income (derivative instruments) (current)	₩ 580	₩ 1,401
Financial liabilities at fair value through profit or loss (derivative instruments) (current)	9,914	5,870
Financial liabilities at fair value through other comprehensive income (derivative instruments) (non-current)	218	742
Financial liabilities at fair value through profit or loss (derivative instruments) (non-current)	14,475	32,577
	<u>₩ 25,187</u>	<u>₩ 40,590</u>

Changes in equity and debt instruments included in other financial assets as at March 31, 2023 and December 31, 2022 are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Beginning balance	₩ 958,060	₩ 362,452
Acquisitions / transfer	153,489	680,284
Disposals	(3,931)	(32,578)
Gain on valuation through other comprehensive income (before income tax effects)	(2,762)	(51,355)
Gain (loss) on valuation through profit or loss	3,508	(4,761)
Exchange differences on translation of foreign operations	3,216	4,018
Ending balance	<u>₩ 1,111,580</u>	<u>₩ 958,060</u>

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(*) The Group has entered into a Put-Option agreement regarding its equity investment for Volta Energy Solutions S.a.r.l, for the purpose of guaranteeing the principal amount of investments. The main conditions of the Put-Option agreement are as follows:

Category	Details
Exercise date	For 3 years from the date on which three years lapse since it was acquired (Date of initial investment: January 27, 2021)
Exercise price	Investment amount deducting dividends (received from the time of investment to the time of exercise) from the investment
Other conditions	Put-option cannot be exercised in case Volta Energy Solutions S.a.r.l is listed

During the three-month periods ended March 31, 2023 and for the year ended December 31, 2022, the Group did not recognize impairment for other financial assets.

9. Inventories:

Details of inventories as at March 31, 2023 and December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023		
	Gross amount	Valuation allowance	Carrying amount
Merchandise	₩ 424,104	₩ (23,561)	₩ 400,543
Finished / Semi-finished products	6,775,090	(260,057)	6,515,033
Work-in-process	22,166	-	22,166
Raw materials	3,164,374	(36,988)	3,127,386
Supplies	327,469	-	327,469
Goods-in-transit	1,577,501	-	1,577,501
Total	₩ 12,290,704	₩ (320,606)	₩ 11,970,098

(In millions of Korean won)	December 31, 2022		
	Gross amount	Valuation allowance	Carrying amount
Merchandise	₩ 379,412	₩ (29,242)	₩ 350,170
Finished / Semi-finished products	7,186,610	(333,643)	6,852,967
Work-in-process	32,439	-	32,439
Raw materials	3,004,491	(44,344)	2,960,147
Supplies	307,117	-	307,117
Goods-in-transit	1,377,791	-	1,377,791
Total	₩ 12,287,860	₩ (407,229)	₩ 11,880,631

The cost of inventories recognized as sales costs during the three-month period ended March 31, 2023, was ₩9,575,549 million (2022: ₩7,109,855 million).

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10. Investments in Associates and Joint Ventures:

Changes in investments in associates and joint ventures for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023							
	Beginning balance	Acquisitions / transfer	Dividends	Share of profit (loss) of associates and joint ventures	Share of other comprehens ive income (loss) of associates and joint ventures	Impairment / disposals	Others	Ending balance
TECHWIN Co., Ltd.	₩ 16,526	-	-	₩ (1,114)	₩ 91	-	-	₩ 15,503
SEETEC Co., Ltd	134,482	-	(5,000)	2,739	-	-	461	132,682
LG Life Sciences Poland Ltd.	17	-	-	-	-	-	-	17
HUAJIN NEW ENERGY MATERIALS(QUZH OU)CO., LTD.	81,179	-	-	(1,914)	2,562	-	-	81,827
VINFAST LITHIUM BATTERY PACK LIMITED LIABILITY COMPANY	2,428	-	-	(480)	64	-	-	2,012
Jiangxi VL Battery Co.,Ltd	13,323	-	-	(1,318)	544	-	-	12,549
PT.HLI Green Power	187,945	-	-	(7,494)	6,295	-	-	186,746
Sam-a Aluminum Company, Limited	-	46,575	-	(567)	-	-	-	46,008
TL Chemical CO., Ltd	47,816	-	-	389	(319)	-	-	47,886
LG Toray Hungary Battery Separator Kft.	445,999	-	-	(4,183)	19,341	-	(8,400)	452,757
KOREA PRECURSOR CO., LTD.	19,838	20,384	-	(361)	(88)	-	-	39,773
	<u>₩ 949,553</u>	<u>₩ 66,959</u>	<u>₩ (5,000)</u>	<u>₩ (14,303)</u>	<u>₩ 28,490</u>	<u>-</u>	<u>₩ (7,939)</u>	<u>₩ 1,017,760</u>

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(In millions of Korean won)	December 31, 2022							
	Beginning balance	Acquisitions / transfer	Dividends	Share of profit (loss) of associates and joint ventures	Share of other comprehensi ve income (loss) of associates and joint ventures	Impairment / disposals	Others	Ending balance
VINA Plasticizers Chemical Co., Ltd. ¹	₩ 12,822	-	-	₩ 2,239	₩ 1,761	-	₩ (16,822)	-
TECHWIN Co., Ltd.	19,024	-	-	(2,447)	(51)	-	-	16,526
SEETEC Co., Ltd	134,843	-	(5,000)	4,946	-	-	(307)	134,482
LG Chem BRASIL INTERMEDIACAO DE NEGOCIOS DO SETOR QUIMICO LTDA.	579	-	-	-	-	-	(579)	-
LG Chem Malaysia SDN.BHD	150	-	-	-	-	-	(150)	-
LG Life Sciences Poland Ltd.	17	-	-	-	-	-	-	17
HUAJIN NEW ENERGY MATERIALS(QUZHOU)CO., LTD.	93,835	-	-	(8,879)	(3,777)	-	-	81,179
VINFAST LITHIUM BATTERY PACK LIMITED LIABILITY COMPANY	3,769	-	-	(1,611)	270	-	-	2,428
Jiangxi VL Battery Co.,Ltd	20,310	-	-	(6,820)	(167)	-	-	13,323
PT.HLI Green Power	201,488	-	-	(28,210)	14,667	-	-	187,945
TL Chemical CO., Ltd	48,473	-	-	(657)	-	-	-	47,816
LG Toray Hungary Battery Separator Kft.	-	445,628	-	(4,334)	4,705	-	-	445,999
KOREA PRECURSOR CO., LTD.	-	20,384	-	(442)	(104)	-	-	19,838
	₩ 535,310	₩ 466,012	₩ (5,000)	₩ (46,215)	₩ 17,304	-	₩ (17,858)	₩ 949,553

¹ During the previous year, the Group reclassified the shares of VINA Plasticizers Chemical Co., Ltd. amounting to ₩16,822 million as assets held for sale.

Summarized financial information of associates and joint ventures as of March 31, 2023, and December 31, 2022 are disclosed in Note 1.3 and Note 1.4.

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The tables below provide a reconciliation of the summarized financial information presented to the carrying amount of its interest in the joint ventures or associates:

March 31, 2023						
<i>(In millions of Korean won)</i>	Net Asset (a)	Group's share in % (b)	Group's share in KRW (a x b)	Investment difference	Intercompany transactions, etc.	Carrying amount
HUAJIN NEW ENERGY MATERIALS(QUZHOU) CO., LTD.	₩ 170,358	49	₩ 83,475	-	₩ (1,648)	₩ 81,827
SEETEC Co., Ltd.	272,303	50	136,152	(3,470)	-	132,682
LG Toray Hungary Battery Separator Kft.	779,623	50	389,812	71,344	(8,400)	452,756
PT.HLI Green Power	449,564	50	224,782	-	(38,034)	186,748
December 31, 2022						
<i>(In millions of Korean won)</i>	Net Asset (a)	Group's share in % (b)	Group's share in KRW (a x b)	Investment difference	Intercompany transactions, etc.	Carrying amount
HUAJIN NEW ENERGY MATERIALS(QUZHOU) CO., LTD.	₩ 167,236	49	₩ 81,946	-	₩ (767)	₩ 81,179
SEETEC Co., Ltd.	276,826	50	138,412	(3,470)	(460)	134,482
LG Toray Hungary Battery Separator Kft.	749,309	50	374,655	71,344	-	445,999
PT.HLI Green Power	440,626	50	220,313	-	(32,368)	187,945

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11. Property, Plant and Equipment:

Changes in property, plant and equipment for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Beginning balance	₩ 29,662,743	₩ 24,378,259
Business combination (Note 37)	935	7,251
Acquisitions / transfer	3,312,932	15,410,699
Disposals / transfer	(1,114,540)	(6,837,397)
Exchange differences	616,945	(138,953)
Depreciation	(831,109)	(3,103,130)
Impairment	(12,205)	(38,095)
Transfer to assets held for sale (Note 34)	-	(15,891)
Ending balance	<u>₩ 31,635,701</u>	<u>₩ 29,662,743</u>

During the three-month period ended March 31, 2023, the Group capitalized ₩9,264 million of borrowing costs (2022: ₩4,520 million) in relation to the acquisition of property, plant and equipment. The capitalization rate of borrowings used to determine the amount of borrowing costs eligible for capitalization is 1.96% (2022: 1.35%).

Line items including depreciation in the consolidated statements of profit or loss for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	March 31, 2022
Cost of sales	₩ 748,192	₩ 656,509
Selling and administrative expenses	82,244	70,094
Others	561	121
Discontinued operations	112	571
Total	<u>₩ 831,109</u>	<u>₩ 727,295</u>

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Lease

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

Details of right-of-use assets in consolidated statement of financial position are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Right-of-use assets¹		
Real-estate	₩ 392,487	₩ 382,714
Machinery	50,237	50,078
Vehicles	35,653	29,935
Tools	2,212	2,204
Equipment	498	568
	<u>₩ 481,087</u>	<u>₩ 465,499</u>

¹ Included in the line item 'Property, plant and equipment' in the consolidated statements of financial position.

Additions to the right-of-use assets during the three-month period ended March 31, 2023, were ₩69,301 million (2022: ₩31,398 million).

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Lease liabilities¹		
Current	₩ 101,014	₩ 95,079
Non-current	299,230	294,559
	<u>₩ 400,244</u>	<u>₩ 389,638</u>

¹ Included in the line item 'Borrowings' in the consolidated statements of financial position.

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(ii) Amounts recognized in the consolidated statements of profit or loss

Lease related expenses recognized in the consolidated statements of profit or loss for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Depreciation of right-of-use assets		
Real-estate	₩ 20,036	₩ 16,542
Machinery	2,176	1,431
Vehicles	5,164	4,039
Tools	627	475
Equipment	94	65
	<u>₩ 28,097</u>	<u>₩ 22,552</u>
Interest expense relating to lease liabilities (included in finance cost)	2,460	2,228
Expenses relating to short-term leases (included in cost of goods sold and administrative expenses)	7,845	6,831
Expenses relating to leases of low-value assets that are not short-term leases (included in cost of goods sold and administrative expenses)	4,712	3,598

Total cash outflow for leases during the three-month period ended March 31, 2023, was ₩41,389 million (2022: ₩33,480 million).

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12. Intangible Assets:

Changes in intangible assets for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Beginning balance	₩ 2,690,203	₩ 2,444,303
Business combination (Note 37)	697,115	1,504
Acquisitions / transfer	170,488	598,608
Disposals / transfer	(1,903)	(41,494)
Exchange differences	78,084	4,205
Amortization	(83,401)	(290,921)
Impairment	(356)	(25,998)
Transfer to assets held for sale (Note 34)	-	(4)
Ending balance	<u>₩ 3,550,230</u>	<u>₩ 2,690,203</u>

Line items including amortization of intangible assets for the three-month period ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Cost of sales	₩ 15,950	₩ 15,188
Selling and administrative expenses	67,450	50,565
Discontinued operations	1	2
Total	<u>₩ 83,401</u>	<u>₩ 65,755</u>

Total research and development costs recognized as expenses amounted to ₩441,055 million (2022: ₩357,237 million) for the three-month periods ended March 31, 2023 and 2022.

Details of greenhouse gas emission permits included in other intangible assets are as follows:

Greenhouse gas emission permits held for the purpose of fulfilling obligations

The number of greenhouse gas emission permits received at free of charge for the 3rd planning period (2021 to 2025) is as follows:

<i>(In thousands of tons)</i>	2021	2022	2023	2024	2025	Total
Allocation with nil consideration	10,113	9,417	9,417	9,329	9,329	47,605

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Changes in greenhouse gas emission permits during the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

(In thousands of tons and millions of Korean won)	March 31, 2023							
	2020		2021		2022		2023	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
Beginning balance								
/allocation with nil consideration	8,666	-	10,113	-	9,417	-	9,417	-
Purchase (Sales)	(69)	1,111	(285)	(20)	(388)	-	-	-
Exchange	100	-	(100)	-	-	-	-	-
Issuance of offset credits	-	-	-	-	119	-	-	-
Borrowings/Carry forwards								
between years	(49)	(388)	(392)	388	441	-	-	-
Surrendered to the government	(8,648)	(723)	(9,336)	(368)	--	-	-	-
Ending balance ¹	-	-	-	-	9,589	-	9,417	-

(In thousands of tons and millions of Korean won)	March 31, 2023					
	2024		2025		Total	
	Quantity	Amount	Quantity	Amount	Quantity	Amount
Beginning balance						
/ allocation with nil consideration	9,329	-	9,329	-	56,271	-
Purchase (Sale)	-	-	-	-	(742)	1,091
Exchange	-	-	-	-	-	-
Issuance of offset credits	-	-	-	-	119	-
Borrowings/Carry forwards						
between years	-	-	-	-	-	-
Surrendered to the government	-	-	-	-	(17,984)	(1,091)
Ending balance ¹	9,329	-	9,329	-	37,664	-

¹ The emission permits for 2022 are expected to be surrendered to the government after getting a certification in the current year.

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(In thousands of tons and millions of Korean won)	December 31, 2022							
	2020		2021		2022		2023	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
Beginning balance								
/allocation with nil consideration	8,666	-	10,113	-	9,417	-	9,417	-
Purchase (Sales)	(69)	1,111	(285)	(20)	(249)	-	-	-
Exchange	100	-	(100)	-	-	-	-	-
Issuance of offset credits	-	-	-	-	119	-	-	-
Borrowings/Carry forwards between years	(49)	(388)	(392)	388	441	-	-	-
Surrendered to the government	(8,648)	(723)	(9,336)	(368)	-	-	-	-
Ending balance	-	-	-	-	9,728	-	9,417	-

(In thousands of tons and millions of Korean won)	December 31, 2022					
	2024		2025		Total	
	Quantity	Amount	Quantity	Amount	Quantity	Amount
Beginning balance						
/ allocation with nil consideration	9,329	-	9,329	-	56,271	-
Purchase (Sales)	-	-	-	-	(603)	1,091
Exchange	--	-	-	-	-	-
Issuance of offset credits	-	-	-	-	119	-
Borrowings/Carry forwards between years	-	-	-	-	-	-
Surrendered to the government	-	-	-	-	(17,984)	(1,091)
Ending balance	9,329	-	9,329	-	37,803	-

During the three-month period ended March 31, 2023 and for the year ended December 31, 2022, there are no greenhouse gas emission permits held for short-term trading purposes.

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Details of Greenhouse gas emission permits included in other intangible assets of consolidated financial statements regarding to EU ETS(Emissions Trading System) are as follows:

(In thousands of tons and millions of Korean won)	2023		2022	
	1st quarter		1st quarter	
	Quantity	Amount	Quantity	Amount
Beginning balance	-	-	-	-
Purchase/Sale	49	5,154	78	7,902
Surrendered to the government	-	-	-	-
Exchange	-	-	-	33
Ending balance¹	<u>49</u>	<u>₩ 5,154</u>	<u>78</u>	<u>₩ 7,935</u>

13. Other Current and Non-Current Assets:

Details of other current and non-current assets as at March 31, 2023 and December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023		December 31, 2022	
Current				
Prepayments to suppliers and prepaid expenses	₩	422,644	₩	455,013
Prepaid value added tax		341,774		293,627
Others		171,874		264,823
Total	₩	<u>936,292</u>	₩	<u>1,013,463</u>
Non-current				
Net defined benefit assets	₩	581,328	₩	618,049
Long-term prepayments and long-term prepaid expenses		171,412		143,876
Others		145		138
Total	₩	<u>752,885</u>	₩	<u>762,063</u>

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14. Borrowings:

Borrowings as at March 31, 2023 and December 31, 2022, consist of:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Current		
Short-term borrowings	₩ 2,545,454	₩ 1,402,367
Current portion of long-term borrowings	1,007,915	921,928
Current portion of debentures	1,370,179	1,384,993
Current lease liabilities	101,014	95,079
	<u>5,024,562</u>	<u>3,804,367</u>
Non-current		
Long-term borrowings	₩ 5,696,151	₩ 5,285,629
Debentures	6,853,454	6,579,964
Lease liabilities	299,230	294,559
	<u>12,848,835</u>	<u>12,160,152</u>
Total	<u>₩ 17,873,397</u>	<u>₩ 15,964,519</u>

Details of short- and long-term borrowings and debentures as at March 31, 2023 and December 31, 2022, are as follows:

<i>(in millions of Korean won)</i>	Currency	Bank	Latest maturity date	Interest rate(%) as at March 31, 2023	March 31, 2023		December 31, 2022	
					Current	Non-current	Current	Non-current
Short-term borrowings								
Bank loans	Foreign currency	CITI Securities and others	2024.3.10	6.21 and others	₩ 1,788,071	-	₩ 1,402,367	-
Negotiated borrowings in foreign currency	Foreign currency	Woori Bank and others	2023.7.12	3M SOFR + 0.42 and others	757,383	-	-	-
Total					<u>₩ 2,545,454</u>	<u>-</u>	<u>₩ 1,402,367</u>	<u>-</u>
Long-term borrowings								
Bank loans	Korean won	KDB Bank and others	2028.11.1	4.67 and others	₩ 50,000	₩ 520,000	-	₩ 50,000
	Foreign currency	RBH and others	2029.1.11	3M WIBOR + 0.85 and others	957,915	5,176,913	921,928	4,786,280
Less: discount on long-term borrowings					-	(762)	-	(651)
Total					<u>₩ 1,007,915</u>	<u>₩ 5,696,151</u>	<u>₩ 921,928</u>	<u>₩ 5,285,629</u>
Debentures								
Public debentures	Korean won	KB Securities Co., Ltd and others	2036.2.19	7.20 and others	₩ 660,000	₩ 3,730,000	₩ 710,000	₩ 3,540,000
Private debentures	Korean won	KB Securities Co., Ltd and others	2036.5.7	2.52 and others	-	150,000	-	150,000
	Foreign currency	CITI Securities and others	2031.7.7	4.38 and others	710,766	2,998,740	675,600	2,914,790
Less: discount on debentures					(587)	(25,286)	(607)	(24,826)
Total					<u>₩ 1,370,179</u>	<u>₩ 6,853,454</u>	<u>₩ 1,384,993</u>	<u>₩ 6,579,964</u>

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Details of lease liabilities as at March 31, 2023 and December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>					
March 31, 2023					
Leaser	Annual interest rate (%)	Latest maturity date	Total amount	Current	Non-current
Hyundai Oil Bank and others	0.67 ~ 8.68	2082.2.28	₩ 400,244	₩ 101,014	₩ 299,230
<i>(In millions of Korean won)</i>					
December 31, 2022					
Leaser	Annual interest rate (%)	Latest maturity date	Total amount	Current	Non-current
Hyundai Oil Bank and others	0.67 ~ 8.68	2082.2.28	₩ 389,638	₩ 95,079	₩ 294,559

15. Provisions:

Changes in provisions for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>					
March 31, 2023					
	Warranty¹	Greenhouse gas emission²	Legal claims³	Restoration⁴	Total
Beginning balance	₩ 1,485,978	₩ 8,712	₩ 14,355	₩ 50,815	₩ 1,559,860
Additions (reversal)	188,579	3,951	1,258	275	194,063
Used	(135,986)	-	(973)	(12,294)	(149,253)
Ending balance	₩ 1,538,571	₩ 12,663	₩ 14,640	₩ 38,796	₩ 1,604,670
Current portion	883,167	12,663	-	34,124	929,954
Non-current portion	655,404	-	14,640	4,672	674,716
<i>(In millions of Korean won)</i>					
December 31, 2022					
	Warranty¹	Greenhouse gas emission²	Legal claims³	Restoration⁴	Total
Beginning balance	₩ 2,110,180	₩ 79	₩ 15,642	₩ 83,807	₩ 2,209,708
Business combination (Note 37)	4,999	-	-	-	4,999
Additions (reversal)	666,923	12,493	(248)	9,384	688,552
Used	(1,296,124)	(3,860)	(1,039)	(42,376)	(1,343,399)
Ending balance	₩ 1,485,978	₩ 8,712	₩ 14,355	₩ 50,815	₩ 1,559,860
Current portion	971,836	8,712	-	45,898	1,026,446
Non-current portion	514,142	-	14,355	4,917	533,414

¹ Warranty provisions have been accrued based on historical experience for the estimated warranty costs to be incurred due to quality control, exchange, refunds with regard to products. In addition, provisions related to replacement costs for ESS and voluntary automotive battery recalls are determined based on the best estimate and included in the above warranty provision. The provisions are adjusted to reflect the current best estimate. As at March 31, 2023, the above warranty provision included ₩1,536,057 million of

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warranty provision for LG Energy Solution, Ltd. and its subsidiaries.

² Greenhouse gas emission provisions have been accrued for estimated expenditures to be obligated for any excess emission. The estimated emission as at March 31, 2023 amounts to 2,340 thousand tons (March 31, 2022: 2,459 thousand tons).

³ Lawsuit provisions have been accrued for certain pending cases.

⁴ As at March 31, 2023, restoration provisions have been accrued for the estimated expenses to restore land pollutions and others.

16. Net Defined Benefit Liabilities (Assets):

Details of net defined benefit liabilities (assets) recognized in the consolidated statements of financial position as at March 31, 2023 and December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Present value of defined benefit obligations ¹	₩ 1,575,501	₩ 1,554,870
Fair value of plan assets	(2,136,307)	(2,153,449)
Liabilities (Assets) in the consolidated statements of financial position²	₩ (560,806)	₩ (598,579)

¹ The present value of retirement benefit obligations is net of existing contributions to the National Pension Plan of ₩604 million as at March 31, 2023 (December 31, 2022: ₩655 million).

² Net defined benefit assets are included in other non-current assets.

The amounts recognized in the consolidated statements of profit or loss for the three-month ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Current service cost ¹	₩ 47,958	₩ 52,673
Interest cost	(7,976)	(168)
Total, included in employee benefit expenses	₩ 39,982	₩ 52,505

¹ The above amounts excluded ₩295 million (2022: ₩273million) of expenses capitalized to construction in progress and development costs.

Post-employment benefits recognized for defined contribution plan for the three-month period ended March 31, 2023, amounted to ₩5,385million (2022: ₩3,450million).

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Post-employment benefits recognized in the consolidated statements of profit or loss for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Cost of sales	₩ 27,778	₩ 32,927
Selling and administrative expenses	17,589	23,028
Total	₩ 45,367	₩ 55,955

Movements in the present value of defined benefit obligations for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Beginning balance	₩ 1,554,870	₩ 1,616,781
Transfer in	9,395	11,434
Transfer out	(2,035)	(6,334)
Current service cost	48,253	211,737
Interest expense	20,132	46,328
Remeasurements:		
Actuarial loss from change in demographic assumptions	-	(1,210)
Actuarial gain from change in financial assumptions	-	(284,041)
Actuarial loss from experience adjustments	-	78,279
Others	-	459
Exchange differences	16	(1,108)
Payments from plans	(55,130)	(117,455)
Ending balance	₩ 1,575,501	₩ 1,554,870

Movements in the fair value of plan assets for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Beginning balance	₩ 2,153,449	₩ 1,643,709
Increase in plan assets due to business combination	(268)	(933)
Interest income	28,108	47,107
Remeasurements:		
Return on plan assets (excluding amounts included in interest income)	1,411	(13,380)
Contributions:		
Employers	746	586,745
Payments from plans	(45,732)	(107,204)
Administrative costs	(1,407)	(2,595)
Ending balance	₩ 2,136,307	₩ 2,153,449

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The actual return on plan assets for the three-month period ended March 31, 2023, was ₩29,519 million and for the year ended December 31, 2022, was ₩33,727 million.

The significant actuarial assumptions as at March 31, 2023, and December 31, 2022, are as follows:

	March 31, 2023	December 31, 2022
Discount rate	5.3%~5.6%	5.3%~5.6%
Future salary growth rate	6.0%	6.0%

The sensitivity analysis for changes in key actuarial assumptions as at March 31, 2023, is as follows:

<i>(In millions of Korean won)</i>	Increase by 0.5%	Decrease by 0.5%
Discount rate:		
Increase (decrease) in defined benefit obligations	₩ (155,112)	₩ 184,557
Salary growth rate:		
Increase (decrease) in defined benefit obligations	₩ 192,923	₩ (163,961)

A decrease in corporate bond yields is a major factor contributing to an increase in defined benefit liabilities.

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. 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 types of assumptions used in preparing the sensitivity analysis did not change compared to the prior period.

Plan assets as at March 31, 2023 and December 31, 2022, consist of the following:

<i>(In millions of Korean won)</i>	March 31, 2023		December 31, 2022	
	Amount	Composition (%)	Amount	Composition (%)
Insurance contracts with guaranteed yield	₩ 2,125,151	99.5	₩ 2,142,224	99.5
Equity linked bonds	11,154	0.5	11,222	0.5
Time deposits	2	0.0	3	0.0
	<u>₩ 2,136,307</u>	<u>100.0</u>	<u>₩ 2,153,449</u>	<u>100.0</u>

Plan assets consist of various debt instruments with principal and interest protection and others that have no quoted market prices in an active market.

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17. Other Current and Non-Current Liabilities:

Details of other current and non-current liabilities as at March 31, 2023 and December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Current		
Advances from customers	₩ 308,940	₩ 232,059
Dividends payable	783,135	-
Withholdings	128,098	147,334
Unearned revenues	147,726	149,293
Accrued expenses	307,533	810,768
Total	<u>₩ 1,675,432</u>	<u>₩ 1,339,454</u>
Non-current		
Long-term accrued expenses	₩ 68,411	₩ 65,182
Long-term unearned revenues	105,004	224,619
Long-term advanced received	251,634	114,544
Total	<u>₩ 425,049</u>	<u>₩ 404,345</u>

18. Commitments and Contingencies:

(1) As at March 31, 2023, the Parent Company and certain subsidiaries have been guaranteed by Seoul Guarantee Insurance Company for the execution of contracts and others.

(2) As at March 31, 2023, the Parent Company and certain subsidiaries have various specific line of credit agreements with several financial institutions, as follows:

(unit: Korean won in millions, foreign currencies in millions)

Classification	The Parent Company		Certain Subsidiaries								
	KRW	USD	KRW	USD	CNY	EUR	PLN	INR	THB	MYR	JPY
Limit of bank overdraft	20,400	-	8,700	100	1,050	93	-	-	10	-	-
Limit of the letter of credit	15,000	278	-	306	2,347	-	-	-	-	-	2,000
Limit of discount of notes from export	-	824	-	845	3,200	-	-	-	-	-	-
Limit of guaranteed payments in other foreign currency	-	283	51,600	220	448	-	-	-	-	-	-
Limit of loan arrangements	350,000	-	375,000	5,846	11,955	2,990	155	2,970	-	450	-
Derivatives	-	-	30,000	1,319	-	170	-	-	-	-	-

The Group also entered into comprehensive credit line agreements with other financial institutions relating to trade finance and import/export amounting to ₩20,000 million (including bank overdraft) and USD 285 million. Certain subsidiaries entered into factoring agreements with a limit of ₩150,000 million and CNY 460 million.

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- (3) As at March 31, 2023, the Parent Company and certain subsidiaries have B2B purchase arrangements with several financial institutions with limit of ₩356,000 million and ₩190,000 million, respectively.
- (4) As at March 31, 2023, the Group has reverse factoring agreements, and there is no utilized amount.
- (5) As at March 31, 2023, the Group's litigation status is as follows.
- i) As at March 31, 2023, in connection with styrene monomer gas leakage accident, several lawsuits against LG Polymer India Pvt. Ltd., a subsidiary, have been filed with National Green Tribunal of India (NGT) and Andhra Pradesh High Court (APHC). The ultimate outcome of these cases cannot be determined at the reporting date. LG Polymer India Pvt. Ltd deposited INR 500 million under the order from NGT, and deposited INR 953 million generated from sales of inventories, under the order from APHC in connection with this accident. The manufacturing facility is currently closed with limited access in accordance with the order from APHC.
 - ii) As at March 31, 2023, in relation to price fixing of small rechargeable batteries, the consumers in Israel have filed a class action against a subsidiary. However, the ultimate outcome of these cases cannot be determined at the reporting date.
 - iii) As at March 31, 2023, in relation to General Motors (GM) Bolt EV, the class action against GM Bolt EV, including the Group is still pending. However, the ultimate outcome of the case cannot be determined at the reporting date.
 - iv) In addition, as at March 31, 2023, the Parent Company and certain subsidiaries have been named as plaintiffs in 9 (related claim amount of ₩26,494 million) and 21 (related claim amount of USD 90 million and ₩5,453 million) legal actions, respectively. They have been named as defendants in 14 and 119 legal actions, with ₩85,329 million and ₩4,902 million in claims, respectively. The ultimate outcome of these cases cannot be determined at the reporting date.
- (6) The Group has entered into manufacture and production technical contracts with ExxonMobil and others.
- (7) The Group has entered into a license agreement with LG Corp. to use trademarks on the products that the Group manufactures and sells, and on the services the Group provides in relation to its business.
- (8) As at March 31, 2023, the Group has entered into a payment guarantee contract of USD 8 million, and certain subsidiaries have entered into payment guarantee contracts of USD 114 million, EUR 1 million and ₩7,755 million with financial institutions to guarantee the warrant of products and payment. Certain subsidiaries have entered into payment guarantee contracts of CNY 471 million with financial institutions in relation to the custom of imported raw materials.

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- (9) Capital expenditure arrangement that has not been incurred at the end of the reporting period is as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Property, plant and equipment	₩ 5,809,776	₩ 6,522,401

- (10) As at March 31, 2023, the Group has entered into an agreement with General Motors (GM) regarding joint investment in Ultium Cells LLC, whereby each party can sell its shares to third parties in 8 years after the inception of the contract. In addition, if one party defaults, the other party has the right to purchase shares from the other party. The Group completed the process of approval by the government for the use of core technologies according to the Industrial Technology Protection Act.
- (11) As at March 31, 2023, the Group has entered into a joint venture agreement with Honda in which the Group agreed to invest USD 1,802 million. In addition, the Group determined payment guarantees of USD 450 million for the joint venture, in accordance with the equity ratio of the borrowing with a credit limit of USD 883 million.
- (12) As at March 31, 2023, the Group has entered into a joint venture agreement with Stellantis in which the Group agreed to invest USD 1,464 million.
- (13) As at March 31, 2023, the Group agreed to contribute USD 1,173 million to LG Energy Solution Arizona ESS, Inc. In addition, the Group determined payment guarantees for borrowing with a credit limit of USD 1,173 million.
- (14) As at March 31, 2023, the Group and certain subsidiaries' investment agreements, are as follows:

<i>(In millions of Korean won, USD and EUR)</i>	Currency	Committed investments	Cumulative investments	Remaining
KBE Fund	KRW	150,000	60,274	89,726
Gross Acceleration Fund	KRW	5,000	4,750	250
BNZ(Beyond Net Zero) Fund	USD	150	48	102
Secondary battery growth Fund	KRW	6,700	3,350	3,350
U.S. Venture Partners XII ¹	USD	5	4	1
U.S. Venture Partners XIII ¹	USD	5	-	5
Phoenix Venture Partners III ¹	USD	10	4	6
Emerald Industrial Innovation Fund IX ¹	EUR	5	-	5
BCM Global Battery Fund	KRW	30,000	5,979	24,021

¹ Investment agreements of LG Chem Fund LLC.

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- (15) The Group acquired 50% of new shares issued by LG Toray Hungary Battery Separator kft. for USD 375 million in accordance with the joint venture agreement with Toray Industries, Inc. The shares were recognized as an investment in associates as it was determined that there was joint control under the agreement. The details of agreements entered into upon the acquisition of shares are as follows:

Category	Details
Agreement to purchase additional shares	After 30 months from the acquisition date of the 50% shares, purchasing the 20% shares through the agreed pricing method
Restrictions on share transfer	- During the lock-up period ¹ , share transfer is prohibited without prior written consent of the other shareholder. - When sold to a third party, the Parent Company holds a drag-along right and Toray Industries, Inc. holds a tag-along right.
Default	In case the Parent Company or the contracting party defaults, non-default shareholders and subsidiaries have the right to request the defaulting shareholders to sell their shares (Call Option) and the defaulting shareholders to purchase the shares held by the non-default shareholder (Put Option).
Exit put option	Once the lock-up period ¹ ends, the other shareholder has a put option to sell the remaining 30% of the shares to the Parent Company.
Deadlock	In the event of a dead lock agreed upon by both parties, 1) the Parent Company holds a Call Option to request the counterparty's company and affiliates to sell their shares. 2) The other party holds a put option to request the Parent Company to purchase shares of the counterparty.

¹ Lock-up period: restriction period of share transfer for 5 years from the time the Parent Company acquires 50% of the shares.

- (16) Certain subsidiaries provide payment guarantees for borrowings as at March 31, 2023; details are as follows:

<i>(In millions of Korean won)</i>			Amount of borrowing ¹		Guaranteed amount ²	
Guarantor	Guaranteed company	Creditor	March 31, 2023	December 31, 2022	March 31, 2023	December 31, 2022
LG ENERGY SOLUTION, LTD.	PT. HLI Green Power	ANZ and others	₩ 176,013	₩ 88,711	₩ 463,501	₩ 450,525

¹ It is amount of borrowing as at March 31, 2023

² It is a total amount guaranteed

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19. Share Capital:

Changes in share capital and share premium for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

<i>(In millions of Korean won and in shares)</i>	Ordinary shares		Preferred shares		Share premium
	Number of shares	Share capital	Number of shares	Share capital	
January 1, 2022	70,592,343	₩ 352,962	7,688,800	₩ 38,444	₩ 2,014,036
December 31, 2022	70,592,343	₩ 352,962	7,688,800	₩ 38,444	₩ 2,014,036
March 31, 2023	70,592,343	₩ 352,962	7,688,800	₩ 38,444	₩ 2,014,036

Changes in treasury shares for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

<i>(In millions of Korean won and in shares)</i>	Number of shares		Carrying amount	Gain on disposal of treasury shares
	Ordinary shares	Preferred shares		
January 1, 2022	367,529	6,041	₩ 18,011	₩ 463,807
Disposal of treasury shares ¹	(367,529)	-	(17,741)	192,119
December 31, 2022	-	6,041	₩ 270	₩ 655,926
March 31, 2023	-	6,041	₩ 270	₩ 655,926

¹ The Group disposed of all of treasury shares of the Parent Company (367,529 shares), on November 23, 2022, as the Board of Directors' meeting decided to exchange treasury shares of Korea Zinc Company, Ltd with the treasury shares of the Parent Company.

Capital surplus as at March 31, 2023 and December 31, 2022, consist of:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Revaluation reserve	₩ 206,769	₩ 206,769
Share premium	2,014,036	2,014,036
Gain on disposal of treasury shares	655,927	655,927
Other capital surplus	8,692,824	8,692,824
Total	₩ 11,569,556	₩ 11,569,556

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20. Retained Earnings:

Retained earnings as at March 31, 2023 and December 31, 2022, consist of:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Legal reserve ¹	₩ 674,648	₩ 674,327
Discretionary reserve ²	16,894,707	14,570,240
Retained earnings before appropriation	1,266,005	3,897,696
Total	₩ 18,835,360	₩ 19,142,263

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

² The Group separately accumulates a discretionary reserve for research and human resource development through the appropriation of retained earnings, which has been included as deductible expense for the corporate income tax return according to the Special Tax Treatment Law. Among these reserves, the used amounts for each specific purpose and the balances after use can be transferred to discretionary reserve and will be able used for dividends.

21. Other Components of Equity:

Details of other components of equity as at March 31, 2023 and December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Treasury shares (Note 19)	₩ (270)	₩ (270)
Capital transactions within the Group ¹	(19,299)	(19,299)
Total	₩ (19,569)	₩ (19,569)

¹ Includes gain or loss on disposal of investments and investment differences due to changes in equity, net of deferred tax.

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22. Operating Profit:

Selling and administrative expenses for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023	2022
	1st quarter	1st quarter
Revenue	₩ 14,486,266	₩ 11,594,997
Cost of sales	12,161,129	9,097,976
Gross profit	2,325,137	2,497,021
Other non-operating income(*)	100,294	-
Selling and administrative expenses	1,634,406	1,472,244
Wages and salaries	411,816	345,994
Post-employment benefits (Note 16)	17,589	23,027
Employee benefits	94,582	64,113
Travel expense	20,369	12,416
Water & utilities	34,784	24,690
Packaging expense	1,625	1,951
Rental expenses	40,117	34,991
Commission expenses	257,244	206,132
Depreciation	83,136	70,452
Advertising expense	11,220	7,229
Freight expenses	210,396	446,235
Training expense	13,300	7,075
Amortization (Note 12)	67,450	50,565
Sample expense	9,069	5,223
Development costs	98,965	57,878
Others	262,744	114,273
Operating profit	<u>₩ 791,025</u>	<u>₩ 1,024,777</u>

(*) Under the Inflation Reduction Act, which takes effect on January 1, 2023, manufacturers and sellers of battery cells/modules produced in the United States are eligible for tax deductions of a certain amount. The amount is expected to be received quarterly by the Group based on the anticipated revenue.

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23. Classification of Expenses by Nature:

Cost of sales, and selling and administrative expenses by nature for the three-month periods ended March 31, 2023 and 2022, consist of:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Changes in inventories of merchandise, finished goods, semi-finished goods and work in process	₩ 297,833	₩ (340,377)
Raw materials and consumables used	8,887,517	7,126,794
Purchase of merchandise	390,199	323,438
Employee benefit expenses (Note 24)	1,199,805	992,883
Advertising expenses	11,402	7,378
Freight expenses	224,458	459,326
Commission expenses	438,787	359,317
Depreciation and amortization	914,727	792,714
Rent expenses and usage fee	29,854	23,837
Other expenses	1,400,953	824,910
Total	₩ 13,795,535	₩ 10,570,220

24. Employee Benefit Expenses:

Details of employee benefit expenses for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Salaries	₩ 993,175	₩ 842,447
Post-employment benefits – defined benefit plan (Note 16)	39,982	52,505
Post-employment benefits – defined contribution plan (Note 16)	5,385	3,450
Others	161,263	119,804
Total	₩ 1,199,805	₩ 1,018,206

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25. Finance Income and Costs:

Details of finance income and costs for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Finance income		
Interest income ¹	₩ 73,301	₩ 58,176
Dividend income	12,920	-
Exchange differences	308,363	95,096
Gain related to derivative instruments	146,789	42,814
Others	5,240	81
Total	<u>₩ 546,613</u>	<u>₩ 196,167</u>
Finance costs		
Interest expense ²	₩ 131,540	₩ 62,183
Exchange differences	386,219	176,717
Loss related to derivative instruments	5,550	-
Others	532	-
Total	<u>₩ 523,841</u>	<u>₩ 238,900</u>

¹ Details of interest income for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Deposits held by financial institutions	₩ 57,749	₩ 41,709
Other loans and receivables	15,552	16,467
Total	<u>₩ 73,301</u>	<u>₩ 58,176</u>

² Details of interest expense for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Interest on financial institutions	₩ 79,733	₩ 13,988
Interest on lease liabilities	2,460	2,228
Interest on debentures	51,685	45,224
Other interest expenses	6,926	5,264
Capitalized interest for qualifying assets	(9,264)	(4,520)
Total	<u>₩ 131,540</u>	<u>₩ 62,184</u>

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26. Other Non-Operating Income:

Details of other non-operating income for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Exchange differences	₩ 508,027	₩ 228,216
Gain on disposal of property, plant and equipment	571	326
Gain on disposal of intangible assets	-	8
Reversal of negative goodwill	-	33,302
Insurance income	1,262	3,935
Others	19,339	9,326
Total	<u>₩ 529,199</u>	<u>₩ 275,113</u>

27. Other Non-Operating Expenses:

Details of other non-operating expenses for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Exchange differences	₩ 367,274	₩ 194,066
Loss on disposal of property, plant and equipment	23,086	4,109
Loss on disposal of intangible assets	732	19,543
Impairment loss on property, plant and equipment(Reversal) (Note 11)	(914)	918
Impairment loss on intangible assets (Note 12)	20	40
Loss on disasters	14,229	3,747
Donations	2,505	2,097
Others	5,746	2,082
Total	<u>₩ 412,678</u>	<u>₩ 226,602</u>

28. Tax Expense and Deferred Tax:

Income tax expense is recognized based on the best estimate of weighted average annual income tax rate expected for the full financial year. The estimated average annual income tax rate used for the year ending December 31, 2023, is 26.9% (the estimated tax rate for the year ended December 31, 2022: 24.8%).

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29. Earnings per Share:

Basic earnings per share are calculated by dividing the profit attributable to owners of the Parent Company by the weighted average number of shares in issue excluding shares purchased by the Parent Company and held as treasury shares. As at the reporting date, the Parent Company has no potential ordinary shares. Preferred shares have a right to participate in the profits of the Group. These participation rights have been considered in presenting the earnings per share information for both ordinary shares and preferred shares.

Basic earnings per share for profit from continuing operations and earnings per share attributable to the equity holders of the Parent Company for the three-month periods ended March 31, 2023 and 2022, are computed as follows:

Basic earnings per ordinary share from continuing operations

<i>(In millions of Korean won and in number of shares)</i>	2023 1st quarter	2022 1st quarter
Profit from continuing operations attributable to ordinary shares ¹	₩ 427,786	₩ 620,636
Weighted average number of ordinary shares outstanding ²	70,592,343	70,224,814
Basic earnings per ordinary share from continuing operations <i>(in won)</i>	₩ 6,060	₩ 8,838

Basic earnings per ordinary share

<i>(In millions of Korean won and in number of shares)</i>	2023 1st quarter	2022 1st quarter
Profit attributable to ordinary shares ¹	₩ 427,541	₩ 620,228
Weighted average number of ordinary shares outstanding ²	70,592,343	70,224,814
Basic earnings per ordinary shares <i>(in won)</i>	₩ 6,056	₩ 8,832

Basic earnings per preferred share from continuing operations

<i>(In millions of Korean won and in number of shares)</i>	2023 1st quarter	2022 1st quarter
Profit from continuing operations attributable to preferred share ¹	₩ 46,653	₩ 67,995
Weighted average number of preferred shares outstanding ²	7,682,759	7,682,759
Basic earnings per preferred share from continuing operations <i>(in won)</i>	₩ 6,072	₩ 8,850

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Basic earnings per preferred share

<i>(In millions of Korean won and in number of shares)</i>	2023 1st quarter	2022 1st quarter
Profit attributable to preferred shares ¹	₩ 46,626	₩ 67,950
Weighted average number of preferred shares outstanding ²	7,682,759	7,682,759
Basic earnings per preferred shares <i>(in won)</i>	₩ 6,069	₩ 8,845

¹ Profit attributable to ordinary and preferred shares are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Profit from continuing operations attributable to the owners of the Parent Company	₩ 474,439	₩ 688,631
Ordinary shares dividends (A)	176,481	210,674
Preferred shares dividends (B)	19,303	23,144
Undistributed earnings from continuing operation for the period	₩ 278,655	₩ 454,813
Undistributed earnings available for ordinary shares (C)	251,305	409,962
Undistributed earnings available for preferred shares (D)	27,350	44,851
Profit from continuing operations for the period attributable to ordinary shares (A+C)	₩ 427,786	₩ 620,636
Profit from continuing operations for the period attributable to preferred shares (B+D)	₩ 46,653	₩ 67,995

<i>(in millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Profit attributable to the owners of the Parent Company	₩ 474,167	₩ 688,178
Ordinary shares dividends (A)	176,481	210,674
Preferred shares dividends (B)	19,303	23,144
Undistributed earnings for the period	₩ 278,383	₩ 454,360
Undistributed earnings available for ordinary shares (C)	251,060	409,554
Undistributed earnings available for preferred shares (D)	27,323	44,806
Profit for the period attributable to ordinary shares (A+C)	₩ 427,541	₩ 620,228
Profit for the period attributable to preferred shares (B+D)	₩ 46,626	₩ 67,950

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For the three-month period ended March 31, 2023 and 2022, there were no dilutive potential outstanding ordinary shares at the reporting date. Accordingly, diluted earnings per share for profit attributable to owners of the Parent Company is identical to basic earnings per share.

Basic and diluted earnings (losses) per share attributable to ordinary and preferred shares from discounted operations for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In Korean won and in number of shares)</i>	2023 1st quarter	2022 1st quarter
Basic earnings (losses) per ordinary share from discounted operations	₩ (4)	₩ (6)
Basic earnings (losses) per preferred share from discounted operations	₩ (3)	₩ (5)
Diluted earnings (losses) per ordinary share from discounted operations	₩ (4)	₩ (6)
Diluted earnings (losses) per preferred share from discounted operations	₩ (3)	₩ (5)

30. Dividends

The ₩783,135 million (2022: ₩935,275 million) of dividends for the year ended December 31, 2022, was paid to the shareholders of the Parent Company in April 2023.

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31. Related Party Transactions:

As at March 31, 2023 and December 31, 2022, LG Corp. is an entity exercising a significant influence over the Group, which owns 33.34% of the Parent Company's ordinary shares.

Details of associates and other related parties that have sales and other transactions with the Group or have receivables and payables balances as at March 31, 2023 and December 31, 2022, are as follows, and the details of investments in subsidiaries, associates and joint ventures are described in Note 1.3:

Related party	Related party's subsidiary (Domestic)	Related party's subsidiary (Overseas)	Details
D&O Corp.	D&O CM Corp. Co.,Ltd. and others	D&O CM POLAND sp.zo.o. and others	Subsidiary of LG Corp.
LG CNS Co., Ltd.	BIZTECH ON CO., LTD. and others	LG CNS America Inc. and others	Subsidiary of LG Corp.
LG Management Development Institute	-	-	Subsidiary of LG Corp.
LG Sports Ltd.	-	-	Subsidiary of LG Corp.
LG Holdings Japan co.,Ltd.	-	-	Subsidiary of LG Corp.
LG Display Co., Ltd.	Nanumnuri Co., Ltd.	LG Display High-Tech (China) Co., Ltd. and others	LG Enterprise group ^{1,2}
LG Electronics Inc.	LG Innotek Co., Ltd. and others	LG ELECTRONICS INDIA PRIVATE LIMITED and others	LG Enterprise group ^{1,2}
LG Household & Health Care Ltd.	Coca-Cola Beverage Co. and others	Beijing LG Household Chemical Co.,Ltd. and others	LG Enterprise group ^{1,2}
LG Uplus Corp.	LG HelloVision Corp and others.	DACOM AMERICA,INC.	LG Enterprise group ^{1,2}
G I I R Inc.	HS AD Inc. and others	GIIR America Inc. and others	LG Enterprise group ^{1,2}
Robostar Co., Ltd.	-	ROBOSTAR(SHANGHAI) CO.,LTD	LG Enterprise group ^{1,2}
DACOM Crossing Corporation	-	-	LG Enterprise group ^{1,2}
FITNESSCANDY Co.,Ltd.	-	-	LG Enterprise group ^{1,2}
Shanjin Optoelectronics (Suzhou) Co.,Ltd.	-	Shanjin Optoelectronics (Nanjing) Co.,Ltd and others	Other ³

¹ Although these entities are not the related parties of the Group in accordance with K-IFRS 1024, these entities belong to a large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

² During the year ended December 31, 2022, LX Holdings Corp. and its affiliates were excluded from the LG Group due to the spin-off of LG Corp.

³ A company that is not a subsidiary, associate, or joint venture of a consolidated company but falls within the scope of related parties in K-IFRS 1024.

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Sales and purchases with related parties for the three-month periods ended March 31, 2023 and 2022, are as follows:

(In millions of Korean won)	2023 1 st quarter					
	Purchase and others					
	Sales and others	Purchase of raw materials /merchandises	Acquisition of property, plant and equipment and intangible assets	Acquisition of right-of-use assets	Interest expense	Others
Entity with a significant influence over the Group						
LG Corp.	-	-	-	-	₩ 65	₩ 30,675
Associates and joint ventures						
SEETEC Co., Ltd.	46,167	76,479	-	34	93	24,111
TECWIN Co., Ltd.	-	85	145	-	-	39
HUAJIN NEW ENERGY MATERIALS(QUZHOU) CO., LTD.	230	161,103	-	-	-	-
PT. HLI Greenpower Co., Ltd.	11,524	-	-	-	-	-
Others	16,946	6,222	-	-	-	28
Other related parties						
D&O Corp. and its subsidiaries and associates	44	6,284	233,324	-	-	30,803
LG CNS Co., Ltd. and its subsidiaries	9,166	814	134,396	-	6	60,007
Others	7	-	-	-	-	15,551
Others						
LG Display Co., Ltd. and its subsidiaries	108,005	23	-	-	3	89
LG Electronics Inc. and its subsidiaries and joint ventures	632,783	80,197	261,185	-	89	13,039
Shanjin Optoelectronics (Suzhou) Co.,Ltd. and its subsidiaries	126,110	43	-	-	-	4,078
Others	2,620	8,359	-	625	14	1,594
Total	<u>₩ 953,602</u>	<u>₩ 339,609</u>	<u>₩ 629,050</u>	<u>₩ 659</u>	<u>₩ 270</u>	<u>₩ 180,014</u>

LG Chem, Ltd. and Subsidiaries
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(In millions of Korean won)	2022 1 st quarter					
	Purchase and others					
	Sales and others	Purchase of raw materials /merchandises	Acquisition of property, plant and equipment and intangible assets	Acquisition of right-of- use assets	Interest expense	Others
Entity with a significant influence over the Group						
LG Corp.	-	- ₩	1,273	- ₩	60 ₩	23,620
Associates and joint ventures						
SEETEC Co., Ltd.	25,596	53,716	-	35	101	19,754
TECWIN Co., Ltd.	-	22	346	-	-	24
HUAJIN NEW ENERGY MATERIALS(QUZHOU) CO., LTD.	-	28,183	-	-	-	-
PT. HLI Greenpower Co., Ltd.	11,490	-	-	-	-	-
Others	1,070	2,760	-	-	-	1,093
Other related parties						
D&O Corp. and its subsidiaries	105	2,049	71,706	-	-	21,876
LG CNS Co., Ltd. and its subsidiaries	4,409	340	66,347	-	6	37,469
Others	-	-	-	-	-	10,566
Others						
LG Display Co., Ltd. and its subsidiaries	151,086	31	-	-	3	6
LG Electronics Inc. and its subsidiaries and joint ventures	202,752	106,311	101,364	-	98	6,772
LX International Corp. and its subsidiaries	23,684	107,210	18,534	-	4	441,965
LX Hausys, Ltd. and its subsidiaries	75,712	2,000	1,048	-	-	-
LX MMA Corporation ¹	51,754	51,438	-	-	-	1,305
Shanjin Optoelectronics (Suzhou) Co.,Ltd. and its subsidiaries	120,744	6,194	-	-	-	11,551
Others	3,132	8,977	58	-	14	1,472
Total	₩ 671,534	₩ 369,231	₩ 260,676	₩ 35	₩ 286	₩ 577,473

¹ Net sales and purchase amounts after offsetting for Raffinate transactions with LX MMA Corporation.

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Balances of receivables and payables arising from sales and purchases of goods and services as at March 31, 2023 and December 31, 2022, are as follows:

	March 31, 2023			
	Receivables			
	Trade receivables and others	Loan receivables	Other receivables	Total
<i>(In millions of Korean won)</i>				
Entity with a significant influence over the Group				
LG Corp.	-	- ₩	10,243 ₩	10,243
Associates and joint ventures				
SEETEC Co., Ltd.	13,938	-	940	14,878
TECWIN Co., Ltd.	-	-	-	-
HUAJIN NEW ENERGY MATERIALS(QUZHOU) CO., LTD.	3,248	-	-	3,248
PT. HLI Greenpower Co., Ltd.	-	-	2,520	2,520
Others	6,352	-	4,444	10,796
Other related parties				
D&O Corp. and its subsidiaries and associates ¹	26	-	-	26
LG CNS Co., Ltd. and its subsidiaries	10,056	-	-	10,056
Others	-	-	2	2
Others				
LG Display Co., Ltd. and its subsidiaries	110,135	-	12	110,147
LG Electronics Inc. and its subsidiaries and joint ventures ¹	540,823	-	5,422	546,245
Shanjin Optoelectronics (Suzhou) Co.,Ltd. and its subsidiaries	70,251	-	1,259	71,510
Others	143	-	2,188	2,331
Total	₩ 754,972	- ₩	27,030 ₩	₩ 782,002

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	March 31, 2023				
	Payables				Total
	Trade payables	Borrowings	Lease liabilities	Other payables	
<i>(In millions of Korean won)</i>					
Entity with a significant influence over the Group					
LG Corp.	-	-	₩ 9,126	₩ 265,106	₩ 274,232
Associates and joint ventures					
SEETEC Co., Ltd.	26,560	-	18,426	10,602	55,588
TECWIN Co., Ltd.	-	-	-	260	260
HUAJIN NEW ENERGY MATERIALS(QUZHOU) CO., LTD.	73,472	-	-	-	73,472
PT. HLI Greenpower Co., Ltd.	-	-	-	76,602	76,602
Others	2,557	-	-	-	2,557
Other related parties					
D&O Corp. and its subsidiaries and associates ¹	-	-	-	303,046	303,046
LG CNS Co., Ltd. and its subsidiaries	631	-	918	210,428	211,977
Others	-	-	-	1,822	1,822
Others					
LG Display Co., Ltd. and its subsidiaries	24	-	419	37	480
LG Electronics Inc. and its subsidiaries and joint ventures ¹	63,224	-	17,617	125,225	206,066
Shanjin Optoelectronics (Suzhou) Co.,Ltd. and its subsidiaries	43	-	-	1,672	1,715
Others	4,776	-	2,691	3,467	10,934
Total	<u>₩ 171,287</u>	<u>-</u>	<u>₩ 49,197</u>	<u>₩ 998,267</u>	<u>₩ 1,218,751</u>

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	December 31, 2022			
	Receivables			Total
	Trade receivables and others	Loan receivables	Other receivables	
<i>(In millions of Korean won)</i>				
Entity with a significant influence over the Group				
LG Corp.	-	-	₩ 10,335	₩ 10,335
Associates and joint ventures				
SEETEC Co., Ltd.	15,002	-	1,221	16,223
TECWIN Co., Ltd.	-	-	-	-
HUAJIN NEW ENERGY MATERIALS(QUZHOU) CO., LTD.	9,453	-	-	9,453
PT. HLI Greenpower			1,311	1,311
Others	-	-	-	-
Other related parties				
D&O Corp. and its subsidiaries and affiliates	-	-	-	-
LG CNS Co., Ltd. and its subsidiaries	5,782	-	319	6,101
Others	-	-	5	5
Others				
LG Display Co., Ltd. and its subsidiaries	78,507	-	419	78,926
LG Electronics Inc. and its subsidiaries and joint ventures ¹	396,289	-	27,917	424,206
Shanjin Optoelectronics (Suzhou) Co.,Ltd. and its subsidiaries	57,361	-	1,792	59,153
Others	42	-	2,923	2,965
Total	₩ 562,436	-	₩ 46,242	₩ 608,678

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	December 31, 2022				
	Payables				
	Trade payables	Borrowings	Lease liabilities	Other payables	Total
<i>(in millions of Korean won)</i>					
Entity with a significant influence over the Group					
LG Corp.	-	-	₩ 12,232	₩ 30,349	₩ 42,581
Associates and joint ventures					
SEETEC Co., Ltd.	29,368	-	19,127	10,939	59,434
TECWIN Co., Ltd.	-	-	-	328	328
HUAJIN NEW ENERGY MATERIALS(QUZHOU) CO., LTD.	34,300	-	-	-	34,300
PT. HLI Greenpower	-	-	-	88,093	88,093
Others	1	-	-	47	48
Other related parties					
D&O Corp. and its subsidiaries and affiliates	-	-	-	497,005	497,005
LG CNS Co., Ltd. and its subsidiaries	536	-	1,221	495,940	497,697
Others	-	-	-	1,168	1,168
Others					
LG Display Co., Ltd. and its subsidiaries	28	-	454	47	529
LG Electronics Inc. and its subsidiaries and joint ventures ¹	77,581	-	17,264	162,152	256,997
Shanjin Optoelectronics (Suzhou) Co.,Ltd. and its subsidiaries	449	-	-	16,965	17,414
Others	1,488	-	2,146	7,404	11,038
Total	<u>₩ 143,751</u>	<u>-</u>	<u>₩ 52,444</u>	<u>₩ 1,310,437</u>	<u>₩1,506,632</u>

¹ The warranty provision related to the recall of GM Bolt is not included in the above receivables and payables.

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Fund transactions with related parties for the nine-month periods ended March 31, 2023 and 2022, are as follows:

(in millions of Korean won)	2023 1 st quarter						
	Dividends received	Dividends paid	Equity contributions in cash (capital reduction)	Loans		Borrowings ¹	
				Loans	Repayment	Borrowings	Repayment
Entity with a significant influence over the Group							
LG Corp.	-	-	-	-	-	-	₩ 3,010
Associates and joint ventures							
SEETEC Co., Ltd.	5,000	-	-	-	-	34	247
KOREA PRECURSOR CO.,LTD.	-	-	20,384	-	-	-	-
Sam-A Aluminium Co., Ltd.	-	-	46,575	-	-	-	-
VINA PLASTICIZERS CHEM	4,444	-	-	-	-	-	-
Other related parties							
LG CNS Co., Ltd.	-	-	-	-	-	-	303
Others							
LG Display America, Inc.	-	-	-	-	-	-	44
LG Electronics Deutschland GmbH	-	-	-	-	-	-	75
LG ELECTRONICS WROCLAW SP. Z O.O.	-	-	-	-	-	-	361
LG HOUSEHOLD & HEALTH CARE LTD	-	-	-	-	-	625	86
Total	₩ 9,444	-	₩ 66,959	-	-	₩ 659	₩ 4,126

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(in millions of Korean won)	2022 1 st quarter						
	Dividends received	Dividends paid	Equity contributions in cash (capital reduction)	Loans		Borrowings ¹	
				Loans	Repayment	Borrowings	Repayment
Entity with a significant influence over the Group							
LG Corp.	-	-	-	-	-	-	₩ 2,923
Associates and joint ventures							
SEETEC Co., Ltd.	5,000	-	-	-	-	35	238
Other related parties							
LG CNS Co., Ltd.	-	-	-	-	-	-	295
Others							
LG Display America, Inc.	-	-	-	-	-	-	40
LG Pantos Poland sp.z.o.o	-	-	-	-	-	62	2
PANTOS LOGISTICS MEXICO S.A. de C.V	-	-	-	-	-	2,384	161
LX PANTOS TURKEY LOJISTIK	-	-	-	-	-	337	21
LG Electronics Deutschland GmbH	-	-	-	-	-	-	72
LG ELECTRONICS WROCLAW SP. Z O.O.	-	-	-	-	-	-	348
LG HOUSEHOLD & HEALTH CARE LTD	-	-	-	-	-	-	156
Total	₩ 5,000	-	-	-	-	₩ 2,818	₩ 4,256

¹ The amounts represent lease liabilities that were recognized or repaid for the three-month periods ended March 31, 2023 and 2022.

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Compensation for key management of the Group for the three-month periods ended March 31, 2023 and 2022, consists of:

<i>(In millions of Korean won)</i>	2023		2022	
	1st quarter		1st quarter	
Short-term employee benefits	₩	35,018	₩	21,610
Post-employment benefits		3,620		2,966
Total	₩	38,638	₩	24,576

Key management includes directors and audit committee members having duties and responsibilities over planning, operations and controlling of the Group's business activities.

There is no loss allowance recognized against receivables from related parties as of March 31, 2023 and December 31, 2022; therefore, there are no impairment losses recognized against the receivables from related parties for the three-month period ended March 31, 2023 and for the year ended December 31, 2022.

As at March 31, 2023, payment guarantees provided by the Group for related parties are listed in Note 18.

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32. Cash Flows:

Cash generated from operations for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Profit before income tax		
Profit before income tax from continuing operations	₩ 915,546	₩ 1,022,769
Profit before income tax from discontinued operations	916,015	1,023,328
	(469)	(559)
Adjustments for:		
Depreciation	831,439	727,532
Amortization	83,401	65,755
Post-employment benefits	39,982	52,505
Finance income	(260,440)	(217,361)
Finance costs	320,900	223,784
Other foreign exchange differences	(134,879)	4,078
Loss (gain) on valuation of inventories	(87,526)	9,223
Gain on disposal of property, plant and equipment	(571)	(10,894)
Gain on disposal of intangible assets	-	(8)
Loss on disposal of property, plant and equipment	23,086	14,677
Loss on disposal of intangible assets	732	19,543
Reversal of impairment loss on property, plant and equipment	(914)	-
Impairment loss on property, plant and equipment	-	918
Impairment loss on intangible assets	20	40
Additions to provisions	194,063	71,478
Other income/expenses	26,062	32,815
Decrease (increase) in inventories	325,921	(1,009,645)
Increase in trade receivables	(803,517)	(543,809)
Decrease (increase) in other receivables	(193,609)	71,668
Decrease (increase) in other current assets	150,753	(69,769)
Increase in trade payables	524,515	876,849
Increase (decrease) in other payables	(481,362)	(87,839)
Decrease in other current liabilities	(514,412)	(255,540)
Decrease in provisions	(149,253)	(296,555)
Decrease in net defined benefit liabilities	(1,092)	(2,102)
Other cash flows from operations	7,829	(34,785)
Cash generated from operations	₩ 816,674	₩ 665,327

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Changes in liabilities arising from financial activities for the three-month periods ended March 31, 2023 and 2022, are as follows:

(In millions of Korean won)	2023 1 st quarter					
	As at January 1, 2023	Cash flows from financing activities	Non-cash transactions			As at March 31, 2023
			Acquisition	Amortization	Others	
Borrowings	₩ 7,609,923	₩ 1,304,290	-	₩ 2,143	₩ 333,165	₩ 9,249,521
Debentures	7,964,957	137,475	-	2,273	118,928	8,223,633
Lease liabilities	389,638	(26,372)	30,962	-	6,016	400,244
Total	₩ 15,964,518	₩ 1,415,393	₩ 30,962	₩ 4,416	₩ 458,109	₩ 17,873,398

(In millions of Korean won)	2022 1 st quarter					
	As at January 1, 2022	Cash flows from financing activities	Non-cash transactions			As at March 31, 2022
			Acquisition	Amortization	Others	
Borrowings	₩ 6,373,909	₩ 62,689	-	-	₩ 62,617	₩ 6,499,215
Debentures	8,072,580	(260,000)	-	2,195	54,369	7,869,144
Lease liabilities	319,245	(20,799)	34,108	-	(6,761)	325,793
Other payables for the reverse factoring arrangement	299,645	(299,645)	-	-	-	-
Total	₩ 15,065,379	₩ (517,755)	₩ 34,108	₩ 2,195	₩ 110,225	₩ 14,694,152

Significant non-cash transactions for the three-month periods ended March 31, 2023 and 2022, are as follows:

(in millions of Korean won)	2023 1 st quarter	2022 1 st quarter
Reclassification of construction-in-progress	₩ 953,014	₩ 894,202
Reclassification of machinery-in-transit	47,040	35,984
Reclassification of long-term borrowings into current portion	2,054,297	1,243,965
Other payables related to acquisitions of property, plant and equipment and intangible assets	₩ 922,621	₩ 561,360

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33. Segment Information:

General information about the Group's reportable segments is as follows:

Segment	Products or services	Major customers
Petrochemicals	ABS, PC, PE, PP, Acrylic, Alcohol, SAP, PVC, Synthetic rubber, Special resin, BPA, Ethylene, Propylene and others	LG Electronics Inc., OCI Group Co. Ltd., Mitsubishi Corp. and others
LG Energy solution	Mobile batteries, Automotive batteries, Electricity storage batteries and others	Hewlett-Packard Co., General Motors Corp., and others
Advanced materials	Automotive components, LCD Photoresist, OLED materials, anodic materials and others	LG Display Co., Ltd., Samsung Display Co., Ltd., BOE, AUO and others
Life sciences	Growth hormone, Vaccine, Antidiabetic, agricultural chemicals and others	UNICEF, Intervet, SOUSAM IMPORTACAO E EXPORTACAO LTDA and others
Common and others ¹	Crop protection products, Seeds, Fertilizers, General management, sales and R&D and others	National Agriculture Cooperative Federation and others

¹ The management approved to dispose of LCD polarizer business from the subsidiary in Taiwan and related profit and loss are presented as discontinued operations. The information for the comparative period has been restated to reflect these changes.

Segment information on revenue, profit and loss for the three-month periods ended March 31, 2023 and 2022, are as follows:

(In millions of Korean won)	2023 1 st quarter					Total
	Petro-chemicals	LG Energy solution	Advanced materials	Life sciences	Common and others ³	
Total segment revenue	₩ 4,578,643	₩ 8,747,117	₩ 2,561,427	₩ 277,997	₩ 282,113	₩16,447,297
Inter-segment revenue	155,913	2,421	1,786,071	11,387	5,239	1,961,031
Revenue from external customers ¹	4,422,730	8,744,696	775,356	266,610	276,874	14,486,266
Operating profit (loss) ²	(50,797)	633,166	202,713	16,414	(10,471)	791,025
Depreciation and amortization	260,092	505,812	59,211	22,611	67,001	914,727

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(In millions of Korean won)	2022 1 st quarter					Total
	Petro-chemicals	LG Energy solution	Advanced materials	Life sciences	Common and others ³	
Total segment revenue	₩ 5,963,473	₩ 4,342,326	₩ 1,568,017	₩ 217,438	₩ 287,058	₩12,378,312
Inter-segment revenue	146,950	3,490	609,922	14,658	8,295	783,315
Revenue from external customers ¹	5,816,523	4,338,836	958,095	202,780	278,763	11,594,997
Operating profit (loss) ²	634,600	259,153	153,761	32,197	(54,934)	1,024,777
Depreciation and amortization	244,185	417,927	53,338	21,355	55,909	792,714

¹ Revenue from external customers consists of sales of goods. Interest income and dividend income are included in finance income.

² Management assesses the performance of the operating segments based on a measurement of operating profit of segment.

³ Common and other segments include operating segments not qualifying as a reportable segment, supporting divisions as well as R&D divisions.

Segment information on assets and liabilities as at March 31, 2023 and December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023					
	Petro-chemicals	LG Energy solution	Advanced materials	Life sciences	Common and others	Total
Reportable segment asset ¹	₩ 15,094,197	₩ 40,673,166	₩ 7,423,848	₩ 1,862,931	₩ 5,841,853	₩ 70,895,995
Investments in associates and joint ventures	47,886	247,315	574,357	17	148,185	1,017,760
Reportable segment liability ¹	5,181,680	18,611,375	2,992,059	340,083	5,366,727	32,491,924

(In millions of Korean won)	December 31, 2022					
	Petro-chemicals	LG Energy solution	Advanced materials	Life sciences	Common and others	Total
Reportable segment asset ¹	₩ 14,894,527	₩ 38,260,414	₩ 6,828,293	₩ 1,794,744	₩ 6,195,845	₩ 67,973,823
Investments in associates and joint ventures	47,816	203,696	547,016	17	151,008	949,553
Reportable segment liability ¹	5,375,055	17,688,146	2,292,775	333,712	4,803,008	30,492,696

¹ Assets and liabilities are measured in a manner consistent with those in the financial statements, and allocated on the basis of segment operation.

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External sales and non-current assets by geographical segments from continuing operations for the three-month periods ended March 31, 2023 and 2022, and as at March 31, 2023 and December 31, 2022, are as follows:

(In millions of Korean won)	Sales		Non-current assets ¹	
	2023 1 st quarter	2022 1 st quarter	March 31, 2023	December 31, 2022
Korea ²	₩ 2,620,594	₩ 2,816,169	₩ 18,217,079	₩ 17,886,010
China	3,922,923	3,609,504	5,177,304	4,875,247
Asia / Oceania	1,160,025	1,475,083	246,067	229,732
America	2,573,598	1,062,284	6,803,897	4,846,029
Europe	4,104,508	2,514,438	4,834,231	4,609,954
Others	104,618	117,519	-	-
Total	₩ 14,486,266	₩ 11,594,997	₩ 35,278,578	₩ 32,446,972

¹ Represents aggregate amount of property, plant and equipment, intangible assets and investment properties.

² Domestic sales include the exports made through local letters of credit.

During the three-month period ended March 31, 2023, revenue to single external customers accounting for more than 10% of the Group's revenue were ₩1,570,953 million and ₩1,510,614 million, respectively, all from LG Energy Solution, Ltd.. And there is no single external customers who contribute more than 10% of the Group's revenue for the years ended December 31, 2022.

34. Assets Held for Sale and Discontinued Operations:

34.1 Assets Held for Sale

In accordance with the final approval of management in September 2022, the Group decided to dispose of all shares of VINA PLASTICIZERS CHEMICAL COMPANY LIMITED. As a result, the related assets were reclassified as assets held for sale.

The land of FarmHannong Co., Ltd. which is held for sale in accordance with the river maintenance plan, is in the process of the compensation plan with Gimhae City Hall. The Group decided to dispose of the land and buildings related to the former horticultural factory of FarmHannong Co., Ltd. (November 2022), and related assets were reclassified as assets held for sale.

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Details of assets of the disposal group classified as held for sale as at March 31, 2023 and December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Assets of disposal group		
Property, plant and equipment	₩ 10,658	₩ 10,658
Investments in joint ventures	16,822	16,822
Total	<u>₩ 27,480</u>	<u>₩ 27,480</u>

Assets of the disposal group were measured at net fair value immediately before the initial classification as assets as held for sale and there are no other non-operating expenses (income) recognized from the measurement for the three-month periods ended March 31, 2023 and 2022.

34.2 Discontinued Operations

The Group decided to discontinue Glass substrate business with the resolution of the Board of Directors in January 2020 and substantially discontinued the related business as at March 2020. In addition, the Group decided to dispose of LCD polarizer business with the resolution of the Board of Directors in June 2020, and the disposal was completed in February 2021. The Group disposed of LCD polarizer business in Taiwan in May 2022 and the disposal was completed in July 2022. Accordingly, the profit and loss from the related operations are presented as discontinued operations and the comparative consolidated statements of profit or loss have been restated.

Comprehensive income information from discontinued operation for the three-month periods ended March 31, 2023 and 2022, are as follows:

<i>(In millions of Korean won)</i>	2023 1st quarter		
	LCD polarizer	Glass substrate	Total
Revenue	₩ 306	-	₩ 306
Expense	-	(775)	(775)
Profit (loss) before income tax of discontinued operation	306	(775)	(469)
Income tax benefit (expense)	(128)	325	197
Profit (loss) after income tax of discontinued operations	<u>₩ 178</u>	<u>₩ (450)</u>	<u>₩ (272)</u>
	2022 1st quarter		
	LCD polarizer	Glass substrate	Total
Revenue	₩ 24,909	₩ 184	₩ 25,093
Expense	(25,073)	(579)	(25,652)
Profit (loss) before income tax of discontinued operation	(164)	(395)	(559)
Income tax benefit (expense)	(3)	109	106
Profit (loss) after income tax of discontinued operations	<u>₩ (167)</u>	<u>₩ (286)</u>	<u>₩ (453)</u>

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Net cash flows from discontinued operations for the three-month periods ended March 31, 2023 and 2022, are as follows:

(In millions of Korean won)	2023 1 st quarter		
	LCD polarizer	Glass substrate	Total
Net cash inflow (outflow) from operating activities	₩ (14,745)	₩ (341)	₩ (15,086)
Net cash inflow (outflow) from investing activities	-	(18)	(18)
Net cash inflow (outflow) from financing activities	-	-	-

(In millions of Korean won)	2022 1 st quarter		
	LCD polarizer	Glass substrate	Total
Net cash inflow (outflow) from operating activities	₩ 24,036	₩ (561)	₩ 23,475
Net cash inflow (outflow) from investing activities	426	282	708
Net cash inflow (outflow) from financing activities	(24,462)	279	(24,183)

35. Assets and Liabilities related to Contracts with Customers:

Assets and liabilities recognized by the Group related to contracts with customers as at March 31, 2023 and December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023		December 31, 2022	
Contract assets				
Due from customers for contract work	₩	17,230	₩	11,570
Total contract assets	₩	17,230	₩	11,570
Contract liabilities				
Advances in relation to revenue from the Group's main business activities	₩	461,385	₩	364,763
Expected customer incentives		53,413		6,277
Unearned revenue		126,565		140,024
Due to customers for contract work		1,483		14,315
Total contract liabilities	₩	642,846	₩	525,379

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Revenue recognized in relation to contract liabilities

The following table shows how much of the revenue recognized during the current quarter and previous reporting period relates to carried-forward contract liabilities and how much relates to performance obligations that were satisfied in the prior periods.

<i>(In millions of Korean won)</i>	2023 1st quarter	2022 1st quarter
Revenue recognized in the current period from the contract liabilities balance at the beginning of the period	₩ 128,105	₩ 125,175
Advances in relation to revenue from the Group's main business activities	111,822	108,213
Unearned revenue	16,283	16,962
Revenue recognized from performance obligations satisfied in previous periods	-	-

36. Investment Properties:

Details of investment properties as at March 31, 2023 and December 31, 2022, are as follows:

		March 31, 2023			
<i>(In millions of Korean won)</i>	Cost	Accumulated depreciation	Accumulated impairment	Book amount	
Land	₩ 5,287	₩ (58)	₩ (497)	₩ 4,732	
Buildings	122,489	(16,327)	(18,247)	87,915	
Total	<u>₩ 127,776</u>	<u>₩ (16,385)</u>	<u>₩ (18,744)</u>	<u>₩ 92,647</u>	

		December 31, 2022			
<i>(In millions of Korean won)</i>	Cost	Accumulated depreciation	Accumulated impairment	Book amount	
Land	₩ 5,287	₩ (46)	₩ (497)	₩ 4,744	
Buildings	123,296	(15,764)	(18,250)	89,282	
Total	<u>₩ 128,583</u>	<u>₩ (15,810)</u>	<u>₩ (18,747)</u>	<u>₩ 94,026</u>	

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Changes in investment properties for the three-month period ended March 31, 2023 and for the year ended December 31, 2022, are as follows:

(In millions of Korean won)	March 31, 2023			December 31, 2022		
	Land	Building	Total	Land	Building	Total
Beginning balance	₩ 4,744	₩ 89,282	₩ 94,026	₩ 4,211	₩ 52,086	₩ 56,297
Acquisitions/transfers	-	83	83	1,562	60,018	61,580
Disposals/transfers	-	(571)	(571)	(486)	(1,493)	(1,979)
Depreciation	(12)	(879)	(891)	(46)	(3,130)	(3,176)
Impairment ¹	-	-	-	(497)	(18,199)	(18,696)
Ending balance	<u>₩ 4,732</u>	<u>₩ 87,915</u>	<u>₩ 92,647</u>	<u>₩ 4,744</u>	<u>₩ 89,282</u>	<u>₩ 94,026</u>

¹ Impairment recognized for Magok contributed public facility classified as investment properties. As the recoverable amount was less than the carrying amount due to the impact of lease payment setting for public purposes and others, impairment losses were recognized during the year ended December 31, 2022.

The fair value of investment properties is measured either by independent professional appraisers with certified qualifications or measured based on official appraised value of land and available information from recent transactions of similar properties, and it is classified as 'level 3' of the fair value hierarchy. The fair value of investment properties as at March 31, 2023, is ₩107,132 million (December 31, 2022: ₩102,298 million).

During the three-month period ended March 31, 2023, rental income from investment properties under operating lease is ₩2,210 million (2022: ₩1,671 million), and operating expenses incurred for investment properties that generated rental income (including maintenance and repair expenses) are ₩824 million (2022: ₩355 million). During the three-month period that ended March 31, 2023, there are no operating expenses incurred for investment properties that do not generate rental income (including maintenance and repair expenses) (2022: ₩3 million).

Operating lease

Investment properties are leased to tenants under operating leases with monthly rent payments. Where considered necessary to reduce credit risk, the Group may obtain bank guarantees for the term of the lease.

Although the Group is exposed to changes in the residual value at the end of the current leases, the Group typically enters new operating leases and therefore will not immediately realize any reduction in residual value at the end of these leases. Expectations about the future residual values are reflected in the fair value of investment properties.

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The future minimum lease payments expected to be received in relation to the above operating lease agreement for investment properties as at March 31, 2023 and December 31, 2022, are as follows:

<i>(In millions of Korean won)</i>	March 31, 2023	December 31, 2022
Within one year	₩ 7,085	₩ 8,575
Within two years	2,040	2,039
Within five years	6,069	6,106
Total	₩ 15,194	₩ 16,720

37. Business Combination:

(1) To establish a foundation for becoming a global pharmaceutical company, the Group acquired 100% interest in Aveo Pharmaceuticals, Inc. on January 20, 2023 for the purpose of securing commercialization capabilities and pre-emptive products in the US anticancer market.

Details of consideration transferred, assets and liabilities recognized as a result of the business combination paid to Aveo Pharmaceuticals, Inc. are as follows:

The goodwill of ₩697,115 million resulting from the business combination arises from various factors, including the expected increase in revenue resulting from the combination of the businesses of the company and Aveo Pharmaceuticals, Inc.

<i>(In millions of Korean won)</i>	Amount
Consideration transferred	
Cash and cash equivalents	₩ 701,103
Total consideration	₩ 701,103
Identifiable assets acquired and liabilities assumed	
Cash and cash equivalents	8,902
Trade and other receivables ¹	34,687
Inventories	845
Property, plant and equipment	935
Other assets	246
Trade and non-trade payables	(40,941)
Other payables	(686)
Fair value of net identifiable assets acquired	3,988
Goodwill (gain from a bargain purchase)	697,115
	₩ 701,103

¹ The fair value of trade and other receivables is equal to the total contractual amount.

The revenue and net loss reflected in the consolidated statement of income contributed by Aveo Pharmaceuticals, Inc. after the acquisition were ₩31,634 million and ₩3,727 million, respectively.

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Revenue and profit or loss of the Group for the three-month period ended March 31, 2023 would have been ₩14,498,007 million and ₩642,732 million, respectively as though the acquisition of Aveo Pharmaceuticals, Inc. had occurred as at the beginning of 1st quarter 2023.

The Group accounts for the business combination with provisional amounts as at March 31, 2023 and the amounts may be adjusted if there is new information obtained about facts and circumstances related to business combination within the measurement period of one year from the acquisition date.

(2) On February 28, 2022, the Group acquired 100% shares of LG Energy Solution Vertech Inc., an electricity storage batteries installation service provider in the USA. The acquisition is expected to increase sales through expanded vertical integration by strengthening contact points with customers of electricity storage batteries.

Details of consideration transferred, assets and liabilities recognized as a result of the business combination paid to LG Energy Solution Vertech Inc, are as follows:

Gain from a bargain purchase amounting to ₩30,673 million that occurred from the acquisition is recognized as other non-operating income in the consolidated statements of profit or loss.

(In millions of Korean won)

Amount

Consideration transferred

Cash and cash equivalents	₩	16,168
Total consideration		<u>16,168</u>

Identifiable assets acquired and liabilities assumed

Cash and cash equivalents	7,748
Trade and other receivables ¹	56,333
Inventories	5,477
Property, plant and equipment	7,251
Intangible assets	1,503
Other assets	12,295
Trade and non-trade payables	(25,859)
Other payables	(15,543)
Deferred tax liabilities	(2,364)
Fair value of net identifiable assets acquired	<u>46,841</u>
Goodwill (gain from a bargain purchase)	<u>(30,673)</u>
	₩ <u>16,168</u>

¹ The fair value of trade and other receivables is equal to the total contractual amount.

38. Events after the Reporting Period:

(1) On April 24, 2023, pursuant to a shareholder agreement, Zhejiang Huayou Cobalt Co., Ltd. invested ₩51,400 million in its subsidiary, LG BCM Co., Ltd. As a result, the ownership stake in the Group decreased to 51%, and the name of the company was changed to LG HY BCM Co., Ltd.