

**Samsung Electro-Mechanics Co., Ltd.
and Subsidiaries**

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

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Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Shareholders and Board of Directors of
Samsung Electro-Mechanics Co., Ltd.

Opinion

We have audited the accompanying consolidated financial statements of Samsung Electro-Mechanics Co., Ltd. and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as at December 31, 2021 and 2020, and the consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

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

Basis for Opinion

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

Emphasis of Matter

Without modifying our opinion, we draw attention to Note 28 to the consolidated financial statements of the Group. As explained in Note 28, the Group classified the rigid flex printed circuit board business to discontinued operations for the year ended December 31, 2021. Accordingly, related gains or losses are classified and presented as the profit (loss) from discontinued operations in the consolidated statement of comprehensive income, and comparative consolidated statement of comprehensive income was restated.

Key Audit Matters

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

Revenue recognition cut-off related to sales of goods

Reason why the matter was determined to be a key audit matter

As described in Note 2 to the consolidated financial statements, the Group is engaged in manufacturing and selling electronics components. Revenue from contracts with customers is recognized when control of the goods is transferred to the customer with the relevant consideration.

The timing of the transfer of control of the Group's products may vary depending on transaction agreements with customers and export terms and conditions, and management's judgement on the timing of revenue recognition is required. Considering the possibility of deliberate manipulation or potential error, we determined the revenue recognition cut-off related to sales of goods as a Key Audit Matter.

How our audit addressed the Key Audit Matter

Key audit procedures we have performed in relation to the Group's revenue recognition cut-off are as follows.

- Evaluated reasonableness of the Group's accounting policy and standard for revenue recognition cut-off.
- Obtained an understanding of controls over sales and accounting systems and evaluated the design and operational effectiveness of those controls.
- Examined the relevant transaction agreements and evidences through audit sampling at transaction level from sales records that occurred before and after the end of the reporting period.
- Determined whether there are any unusual changes by analyzing monthly sales trend of major customers.
- Examined the cause of cancellation and the relevant evidences through audit sampling from sales records canceled within a short period after the end of the reporting period.

Other Matters

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

The accompanying consolidated financial statements as of and for the years ended December 31, 2021 and 2020, have been translated into the U.S. dollars solely for the convenience of the reader and have been translated on the basis set forth in Note 2 to the consolidated financial statements.

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

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

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

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

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

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

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

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

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

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

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

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

Seoul, Korea

February 22, 2022

This report is effective as of February 22, 2022, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

Samsung Electro-Mechanics Co., Ltd. and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2021 and 2020

	Notes	Korean won		U.S. dollar (Note 2)	
		2021	2020	2021	2020
Assets					
Current assets:					
Cash and cash equivalents	4,27	₩ 1,185,206,917,554	₩ 1,479,767,416,889	\$ 999,752,777	\$ 1,248,222,199
Other current financial assets	5,27	60,740,975,018	54,107,908,679	51,236,588	45,641,424
Trade and other receivables	6,24,27	1,287,006,556,417	995,621,015,867	1,085,623,413	839,832,152
Short-term loans	27	282,463,852	229,606,211	238,266	193,679
Advanced payments		2,730,711,549	963,181,023	2,303,426	812,468
Prepaid expenses		53,916,760,324	57,320,074,211	45,480,186	48,350,969
Prepaid income tax	22	11,699,702,443	7,596,883,891	9,869,002	6,408,169
Inventories, net	7	1,818,409,548,484	1,337,915,721,356	1,533,875,621	1,128,566,614
Right of return assets	15	22,614,441,772	17,784,713,460	19,075,868	15,001,867
Assets held for sale	28	155,660,681,334	198,996,129,936	131,303,822	167,858,397
		<u>4,598,268,758,747</u>	<u>4,150,302,651,523</u>	<u>3,878,758,970</u>	<u>3,500,887,939</u>
Non-current assets:					
Investment in associates	8	80,048,732,838	72,461,000,468	67,523,182	61,122,733
Financial assets measured at fair value	9,27	264,413,213,589	200,955,141,868	223,039,404	169,510,875
Long-term loans	27	2,625,594,696	2,315,313,819	2,214,757	1,953,027
Property, plant and equipment	10	4,639,381,068,128	4,424,362,287,775	3,913,438,269	3,732,064,351
Right-of-use assets	12	122,801,116,200	93,006,082,444	103,585,927	78,453,043
Intangible assets, net	11	141,837,666,532	138,250,894,764	119,643,751	116,618,216
Other non-current financial assets	5,27	21,241,136,304	18,867,166,086	17,917,449	15,914,944
Long-term advanced payments and prepaid expenses		29,560,582,803	26,323,605,646	24,935,118	22,204,644
Deferred tax assets	22	41,196,168,610	98,654,331,683	34,750,037	83,217,488
		<u>5,343,105,279,700</u>	<u>5,075,195,824,553</u>	<u>4,507,047,895</u>	<u>4,281,059,321</u>
Total assets		<u>₩ 9,941,374,038,447</u>	<u>₩ 9,225,498,476,076</u>	<u>\$ 8,385,806,865</u>	<u>\$ 7,781,947,259</u>

Samsung Electro-Mechanics Co., Ltd. and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2021 and 2020

	Notes	Korean won		U.S. dollar (Note 2)	
		2021	2020	2021	2020
Liabilities					
Current liabilities:					
Trade and other payables	13,24,27	₩ 1,475,009,292,693	₩ 1,126,272,811,004	\$ 1,244,208,598	\$ 950,040,330
Short-term borrowings	6,14,27	56,486,396,659	406,200,835,405	47,647,741	342,640,941
Advances received		29,806,129,501	26,897,880,317	25,142,243	22,689,060
Income tax payables		195,870,046,745	29,335,878,884	165,221,465	24,745,575
Current portion of long-term borrowings	14,27	316,116,596,463	204,681,307,130	266,652,549	172,653,992
Current lease liabilities	12,27	22,873,314,312	14,531,142,618	19,294,234	12,257,396
Provisions for product warranties	17	3,188,491,301	1,772,851,261	2,689,575	1,495,446
Refund liabilities	15	29,762,090,694	23,400,025,095	25,105,095	19,738,528
Liabilities directly associated with the assets held for sale	28	6,936,366,405	34,813,347,748	5,851,005	29,365,962
Other current liabilities	5,27	98,608,096,073	46,973,894,372	83,178,487	39,623,698
		<u>2,234,656,820,846</u>	<u>1,914,879,973,834</u>	<u>1,884,990,992</u>	<u>1,615,250,927</u>
Non-current liabilities:					
Long-term borrowings	14,27	619,762,226,818	1,233,208,708,882	522,785,514	1,040,243,533
Long-term other payables	13	77,745,406,424	80,567,012,080	65,580,267	67,960,364
Net employee defined benefit liabilities	16	24,176,013,712	30,567,570,059	20,393,095	25,784,538
Long-term lease liabilities	12,27	67,305,046,783	48,066,763,662	56,773,553	40,545,562
Deferred tax liabilities	22	971,824,634	1,127,598,377	819,759	951,158
Other non-current liabilities	5	45,631,056,419	6,684,909,685	38,490,980	5,638,895
		<u>835,591,574,790</u>	<u>1,400,222,562,745</u>	<u>704,843,167</u>	<u>1,181,124,051</u>
Total liabilities		<u>3,070,248,395,636</u>	<u>3,315,102,536,579</u>	<u>2,589,834,159</u>	<u>2,796,374,978</u>
Equity					
Issued capital	19	388,003,400,000	388,003,400,000	327,290,932	327,290,932
Share premium	19	1,053,516,215,437	1,045,201,199,091	888,668,254	881,654,322
Other components of equity	19	(146,701,455,500)	(146,701,455,500)	(123,746,483)	(123,746,483)
Accumulated other comprehensive income	19	616,908,618,407	412,519,337,686	520,378,421	347,970,761
Other capital reserves	19	2,716,865,257,472	2,481,265,257,472	2,291,746,316	2,093,011,605
Retained earnings		2,090,356,960,216	1,592,001,275,871	1,763,270,317	1,342,894,370
Equity attributable to owners of the parent		<u>6,718,948,996,032</u>	<u>5,772,289,014,620</u>	<u>5,667,607,757</u>	<u>4,869,075,508</u>
Non-controlling interests		152,176,646,779	138,106,924,877	128,364,949	116,496,773
Total equity		<u>6,871,125,642,811</u>	<u>5,910,395,939,497</u>	<u>5,795,972,706</u>	<u>4,985,572,281</u>
Total liabilities and equity		<u>₩ 9,941,374,038,447</u>	<u>₩ 9,225,498,476,076</u>	<u>\$ 8,385,806,865</u>	<u>\$ 7,781,947,259</u>

The U.S. dollar figures are provided for information purpose only and do not form part of the audited consolidated financial statements. See Note 2.

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

Samsung Electro-Mechanics Co., Ltd. and Subsidiaries
Consolidated Statements of Comprehensive Income
December 31, 2021 and 2020

	Notes	Korean won		U.S. dollar (Note 2)	
		2021	2020	2021	2020
Continuing operations					
Sales	3,20,24	₩ 9,675,036,127,726	₩ 7,753,259,286,388	\$ 8,161,143,929	\$ 6,540,075,315
Cost of sales	20,24	<u>7,127,098,008,982</u>	<u>5,784,472,159,213</u>	<u>6,011,892,036</u>	<u>4,879,352,306</u>
Gross profit		2,547,938,118,744	1,968,787,127,175	2,149,251,893	1,660,723,009
Selling and administrative expenses	20	<u>1,061,065,284,940</u>	<u>1,056,048,450,416</u>	<u>895,036,090</u>	<u>890,804,260</u>
Operating profit		1,486,872,833,804	912,738,676,759	1,254,215,802	769,918,749
Financial income	21,27	8,859,700,648	9,992,327,069	7,473,387	8,428,787
Financial costs	21,27	39,757,132,062	42,826,688,140	33,536,172	36,125,422
Share of profit of associates	8	10,354,076,645	9,943,017,745	8,733,932	8,387,193
Other income	21,27	225,459,258,605	253,666,806,805	190,180,733	213,974,531
Other expenses	21,27	<u>200,479,782,773</u>	<u>274,599,471,012</u>	<u>169,109,897</u>	<u>231,631,776</u>
Profit before tax from continuing operations		1,491,308,954,867	868,914,669,226	1,257,957,786	732,952,062
Income tax expense	22	<u>413,648,216,008</u>	<u>184,608,857,558</u>	<u>348,923,000</u>	<u>155,722,360</u>
Profit for the year from continuing operations		1,077,660,738,859	684,305,811,668	909,034,786	577,229,702
Discontinued operations					
Loss for the year from discontinued operations	28	<u>(162,228,286,164)</u>	<u>(60,494,633,827)</u>	<u>(136,843,767)</u>	<u>(51,028,793)</u>
Profit for the year		₩ 915,432,452,695	₩ 623,811,177,841	\$ 772,191,019	\$ 526,200,909
Other comprehensive income:					
<i>Other comprehensive income (loss) not to be reclassified to profit or loss in subsequent periods (net of tax):</i>					
Re-measurement loss on defined benefit plans		(52,580,804,869)	(20,328,932,337)	(44,353,273)	(17,147,982)
Net gains on valuation of financial assets measured at fair value		19,062,712,020	20,116,868,380	16,079,892	16,969,100
Net gains on disposal of financial assets measured at fair value		-	176,432,838	-	148,826
Capital changes in equity method		1,728,459,236	37,750,533	1,458,000	31,844
<i>Other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods (net of tax):</i>					
Exchange differences on translation of foreign operations		197,451,593,532	(35,315,627,778)	166,555,541	(29,789,648)
Other comprehensive income (loss) for the year, net of tax		165,661,959,919	(35,313,508,364)	139,740,160	(29,787,860)
Total comprehensive income for the year, net of tax		₩ 1,081,094,412,614	₩ 588,497,669,477	\$ 911,931,179	\$ 496,413,049

Samsung Electro-Mechanics Co., Ltd. and Subsidiaries
Consolidated Statements of Comprehensive Income
December 31, 2021 and 2020

Notes	Korean won		U.S. dollar (Note 2)	
	2021	2020	2021	2020
Profit for the year from continuing operations attributable to:				
Equity holders of the parent	₩ 1,055,411,299,515	₩ 664,471,771,830	\$ 890,266,807	\$ 560,499,175
Non-controlling interests	22,249,439,344	19,834,039,838	18,767,979	16,730,527
Profit for the year attributable to:				
Equity holders of the parent	₩ 892,445,316,914	₩ 603,961,888,869	\$ 752,800,773	\$ 509,457,519
Non-controlling interests	22,987,135,781	19,849,288,972	19,390,245	16,743,390
Total comprehensive income for the year attributable to:				
Equity holders of the parent	₩ 1,044,253,792,766	₩ 570,487,006,663	\$ 880,855,160	\$ 481,220,588
Non-controlling interests	36,840,619,848	18,010,662,814	31,076,018	15,192,461
Earnings per share:	23			
Basic and diluted, profit for the year attributable to ordinary shareholders of the parent	₩ 11,811	₩ 7,993	\$ 9.96	\$ 6.74
Basic and diluted, profit for the year attributable to preferred shareholders of the parent	₩ 11,861	₩ 8,043	\$ 10.01	\$ 6.78
Basic and diluted, profit for the year from continuing operations attributable to ordinary shareholders of the parent	₩ 13,968	₩ 8,794	\$ 11.78	\$ 7.42
Basic and diluted, profit for the year from continuing operations attributable to preferred shareholders of the parent	₩ 14,018	₩ 8,844	\$ 11.82	\$ 7.46

The U.S. dollar figures are provided for information purpose only and do not form part of the audited consolidated financial statements. See Note 2.

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

Samsung Electro-Mechanics Co., Ltd. and Subsidiaries
Consolidated Statements of Changes in Equity
December 31, 2021 and 2020

(in Korean won)

	Attributable to equity holders of the parent								
	Issued capital	Share premium	Other components of equity	Accumulated other comprehensive income	Other capital reserves	Retained earnings	Sub-total	Non-controlling interests	Total equity
January 1, 2020	₩ 388,003,400,000	₩ 1,045,201,199,091	₩ (146,701,455,500)	₩ 425,665,287,555	₩ 2,158,965,257,472	₩ 1,413,912,972,039	₩ 5,285,046,660,657	₩ 145,050,224,851	₩ 5,430,096,885,508
Profit for the year	-	-	-	-	-	603,961,888,869	603,961,888,869	19,849,288,972	623,811,177,841
Other comprehensive income:									
Re-measurement gains on defined benefit plans	-	-	-	-	-	(20,328,932,337)	(20,328,932,337)	-	(20,328,932,337)
Net gains on valuation of									
financial assets measured at fair value	-	-	-	20,116,868,380	-	-	20,116,868,380	-	20,116,868,380
Net gains on disposal of									
financial assets measured at fair value	-	-	-	176,432,838	-	-	176,432,838	-	176,432,838
Capital changes in equity method	-	-	-	37,750,533	-	-	37,750,533	-	37,750,533
Foreign currency translation adjustments	-	-	-	(33,477,001,620)	-	-	(33,477,001,620)	(1,838,626,158)	(35,315,627,778)
Total comprehensive income (loss)	-	-	-	(13,145,949,869)	-	583,632,956,532	570,487,006,663	18,010,662,814	588,497,669,477
Dividends	-	-	-	-	-	(83,244,652,700)	(83,244,652,700)	(24,991,002,788)	(108,235,655,488)
Appropriation of retained earnings	-	-	-	-	322,300,000,000	(322,300,000,000)	-	-	-
Changes in non-controlling interests	-	-	-	-	-	-	-	37,040,000	37,040,000
December 31, 2020	₩ 388,003,400,000	₩ 1,045,201,199,091	₩ (146,701,455,500)	₩ 412,519,337,686	₩ 2,481,265,257,472	₩ 1,592,001,275,871	₩ 5,772,289,014,620	₩ 138,106,924,877	₩ 5,910,395,939,497
January 1, 2021	₩ 388,003,400,000	₩ 1,045,201,199,091	₩ (146,701,455,500)	₩ 412,519,337,686	₩ 2,481,265,257,472	₩ 1,592,001,275,871	₩ 5,772,289,014,620	₩ 138,106,924,877	₩ 5,910,395,939,497
Profit for the year	-	-	-	-	-	892,445,316,914	892,445,316,914	22,987,135,781	915,432,452,695
Other comprehensive income:									
Re-measurement gains on defined benefit plans	-	-	-	-	-	(52,580,804,869)	(52,580,804,869)	-	(52,580,804,869)
Net gains on valuation of									
financial assets measured at fair value	-	-	-	19,062,712,020	-	-	19,062,712,020	-	19,062,712,020
Capital changes in equity method	-	-	-	1,728,459,236	-	-	1,728,459,236	-	1,728,459,236
Foreign currency translation adjustments	-	-	-	183,598,109,465	-	-	183,598,109,465	13,853,484,067	197,451,593,532
Total comprehensive income	-	-	-	204,389,280,721	-	839,864,512,045	1,044,253,792,766	36,840,619,848	1,081,094,412,614
Dividends	-	-	-	-	-	(105,908,827,700)	(105,908,827,700)	-	(105,908,827,700)
Appropriation of retained earnings	-	-	-	-	235,600,000,000	(235,600,000,000)	-	-	-
Changes in non-controlling interests	-	8,315,016,346	-	-	-	-	8,315,016,346	(22,770,897,946)	(14,455,881,600)
December 31, 2021	₩ 388,003,400,000	₩ 1,053,516,215,437	₩ (146,701,455,500)	₩ 616,908,618,407	₩ 2,716,865,257,472	₩ 2,090,356,960,216	₩ 6,718,948,996,032	₩ 152,176,646,779	₩ 6,871,125,642,811

Samsung Electro-Mechanics Co., Ltd. and Subsidiaries
Consolidated Statements of Changes in Equity
December 31, 2021 and 2020

(in U.S. dollars (Note 2))

	Attributable to equity holders of the parent								Non-controlling interests	Total equity
	Issued capital	Share premium	Other components of equity	Accumulated other comprehensive income	Other capital reserves	Retained earnings	Sub-total			
January 1, 2020	\$ 327,290,932	\$ 881,654,322	\$ (123,746,483)	\$ 359,059,711	\$ 1,821,143,195	\$ 1,192,672,267	\$ 4,458,073,944	\$ 122,353,627	\$ 4,580,427,571	
Profit for the year	-	-	-	-	-	509,457,519	509,457,519	16,743,390	526,200,909	
Other comprehensive income:	-	-	-	-	-	-	-	-	-	
Re-measurement gains on defined benefit plans	-	-	-	-	-	(17,147,982)	(17,147,982)	-	(17,147,982)	
Net gains on valuation of financial assets measured at fair value	-	-	-	16,969,100	-	-	16,969,100	-	16,969,100	
Net gains on disposal of financial assets measured at fair value	-	-	-	148,826	-	-	148,826	-	148,826	
Capital changes in equity method	-	-	-	31,844	-	-	31,844	-	31,844	
Foreign currency translation adjustments	-	-	-	(28,238,719)	-	-	(28,238,719)	(1,550,929)	(29,789,648)	
Total comprehensive income (loss)	-	-	-	(11,088,950)	-	492,309,537	481,220,588	15,192,461	496,413,049	
Dividends	-	-	-	-	-	(70,219,024)	(70,219,024)	(21,080,559)	(91,299,583)	
Appropriation of retained earnings	-	-	-	-	271,868,410	(271,868,410)	-	-	-	
Changes in non-controlling interests	-	-	-	-	-	-	-	31,244	31,244	
December 31, 2020	\$ 327,290,932	\$ 881,654,322	\$ (123,746,483)	\$ 347,970,761	\$ 2,093,011,605	\$ 1,342,894,370	\$ 4,869,075,508	\$ 116,496,773	\$ 4,985,572,281	
January 1, 2021	\$ 327,290,932	\$ 881,654,322	\$ (123,746,483)	\$ 347,970,761	\$ 2,093,011,605	\$ 1,342,894,370	\$ 4,869,075,508	\$ 116,496,773	\$ 4,985,572,281	
Profit for the year	-	-	-	-	-	752,800,773	752,800,773	19,390,245	772,191,019	
Other comprehensive income:	-	-	-	-	-	-	-	-	-	
Re-measurement gains on defined benefit plans	-	-	-	-	-	(44,353,273)	(44,353,273)	-	(44,353,273)	
Net gains on valuation of financial assets measured at fair value	-	-	-	-	-	-	-	-	-	
Capital changes in equity method	-	-	-	1,458,000	-	-	1,458,000	-	1,458,000	
Foreign currency translation adjustments	-	-	-	154,869,768	-	-	154,869,768	11,685,773	166,555,541	
Total comprehensive income	-	-	-	172,407,660	-	708,447,501	880,855,160	31,076,018	911,931,179	
Dividends	-	-	-	-	-	(89,336,843)	(89,336,843)	-	(89,336,843)	
Appropriation of retained earnings	-	-	-	-	198,734,711	(198,734,711)	-	-	-	
Changes in non-controlling interests	-	7,013,932	-	-	-	-	7,013,932	(19,207,843)	(12,193,911)	
December 31, 2021	\$ 327,290,932	\$ 888,668,254	\$ (123,746,483)	\$ 520,378,421	\$ 2,291,746,316	\$ 1,763,270,317	\$ 5,667,607,757	\$ 128,364,949	\$ 5,795,972,706	

The U.S. dollar figures are provided for information purpose only and do not form part of the audited consolidated financial statements. See Note 2.

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

Samsung Electro-Mechanics Co., Ltd. and Subsidiaries
Consolidated Statements of Cash Flows
December 31, 2021 and 2020

Notes	Korean won		U.S. dollar (Note 2)		
	2021	2020	2021	2020	
Cash flows from operating activities					
	W	W	\$	\$	
Cash generated from operations	25	1,866,485,418,998	1,747,183,037,233	1,574,428,865	1,473,794,211
Interest received		8,274,286,966	11,987,369,026	6,979,576	10,111,657
Income tax paid		(143,515,599,757)	(171,093,796,251)	(121,059,131)	(144,322,055)
Net cash inflow from operating activities		<u>1,731,244,106,207</u>	<u>1,588,076,610,008</u>	<u>1,460,349,309</u>	<u>1,339,583,813</u>
Cash flows from investing activities					
Increase in other financial assets, net		(9,792,962,368)	(2,189,674,704)	(8,260,618)	(1,847,047)
Disposal of financial assets measured at fair value		480,683,526	3,561,086,253	405,469	3,003,869
Acquisition of financial assets measured at fair value		(35,813,233,098)	(3,745,493,000)	(30,209,391)	(3,159,420)
Proceeds from disposal of property, plant and equipment		18,551,678,067	46,953,080,752	15,648,822	39,606,142
Acquisition of property, plant and equipment		(844,237,017,708)	(756,667,711,711)	(712,135,823)	(638,268,842)
Receipt of government grant		44,881,468,992	-	37,858,683	-
Proceeds from disposal of intangible assets		-	41,512,013	-	35,016
Acquisition of intangible assets		(30,879,134,770)	(23,726,796,020)	(26,047,351)	(20,014,168)
Acquisition of right-use assets		-	(2,797,607,939)	-	(2,359,855)
Dividends received		5,752,874,071	6,175,651,200	4,852,698	5,209,322
Disposal of discontinued operations		6,000,000,000	-	5,061,156	-
Net cash outflow from investing activities		<u>(845,055,643,288)</u>	<u>(732,395,953,156)</u>	<u>(712,826,355)</u>	<u>(617,794,984)</u>
Cash flows from financing activities					
Proceeds from short-term borrowings		200,193,000,000	841,894,567,078	168,867,988	710,159,905
Repayment of short-term borrowings		(553,411,118,644)	(1,001,788,923,295)	(466,816,633)	(845,034,942)
Repayment of current portion of long-term borrowings		(700,629,520,893)	(530,298,773,280)	(590,999,174)	(447,320,770)
Proceeds from long-term borrowings		79,250,455,886	630,847,814,570	66,849,815	532,136,495
Repayment of lease liabilities		(20,388,259,497)	(19,576,492,843)	(17,198,026)	(16,513,279)
Interest paid		(40,354,694,151)	(47,347,072,681)	(34,040,231)	(39,938,484)
Dividends paid		(131,170,767,451)	(83,242,156,460)	(110,645,945)	(70,216,918)
Increase (decrease) in non-controlling interests		(14,455,881,600)	37,040,000	(12,193,911)	31,244
Net cash outflow from financing activities		<u>(1,180,966,786,350)</u>	<u>(209,473,996,911)</u>	<u>(996,176,117)</u>	<u>(176,696,750)</u>
Net increase (decrease) in cash and cash equivalents		(294,778,323,431)	646,206,659,941	(248,653,162)	545,092,079
Effects of exchange rate changes on cash and cash equivalents		41,899,739,735	(16,241,358,281)	35,343,517	(13,700,007)
Cash and cash equivalents at January 1		1,485,454,092,038	855,488,790,378	1,253,019,057	721,626,985
Cash and cash equivalents at December 31	W	<u>1,232,575,508,342</u>	W <u>1,485,454,092,038</u>	\$ <u>1,039,709,412</u>	\$ <u>1,253,019,057</u>

The U.S. dollar figures are provided for information purpose only and do not form part of the audited consolidated financial statements. See Note 2.
The above consolidated statements of cash flows should be read in conjunction with the accompanying notes.

Samsung Electro-Mechanics Co., Ltd. and Subsidiaries
Notes to the Consolidated Financial Statements
December 31, 2021 and 2020

1. Organization and business

1.1 The Company

Samsung Electro-Mechanics Co., Ltd. (the "Company") was incorporated on August 8, 1973 under the laws of the Republic of Korea to engage in manufacture and sales of various electronic components. The ordinary shares of the Company have been publicly traded on the Korea Exchange since 1979.

As of December 31, 2021, the Company's manufacturing plants are located in Suwon, Sejong and Busan. The Company maintains its overseas business operations through 15 direct subsidiaries and one indirect subsidiary located in the Americas, Europe and Asia.

1.2 Consolidated subsidiaries

Details of consolidated subsidiaries as of December 31, 2021 are as follows (Korean won in thousands):

Subsidiary	Issued capital	Number of shares	Equity interest	Principal activities	Domicile
Samsung Electro-Mechanics (Thailand) Co., Ltd. (*1)	₩ 13,130,733	4,242,500	100.00%	Network module manufacturing	Thailand
Dongguan Samsung Electro-Mechanics Co., Ltd. (*2)(*3)	73,534,869	-	100.00%	Chip component manufacturing	China
Tianjin Samsung Electro-Mechanics Co., Ltd. (*2)	331,501,389	-	81.76%	Chip component manufacturing	China
Samsung Electro-Mechanics Philippines, Corp.	53,917,212	4,046,711	100.00%	Chip component manufacturing	Philippines
Samsung High-Tech Electro-Mechanics(Tianjin) Co., Ltd. (*2)	38,972,998	-	95.00%	Camera module manufacturing	China
Kunshan Samsung Electro-Mechanics Co., Ltd. (*2)(*4)	643,181,550	-	100.00%	Rigid flex printed circuit board manufacturing	China
Samsung Electro-Mechanics Vietnam Co., Ltd. (*2)(*5)	112,840,500	-	100.00%	Camera module, rigid flex printed circuit board manufacturing	Vietnam
Samsung Electro-Mechanics America, Inc.	3,420,160	5,000	100.00%	Trading	USA
Samsung Electro-Mechanics GmbH (*2)	3,089,662	-	100.00%	Trading	Germany
Calamba Premier Realty Corporation (*6)	3,383	398	39.80%	Real estate	Philippines
Samsung Electro-Mechanics Pte, Ltd.	1,215,800	1,760,200	100.00%	Trading	Singapore
Samsung Electro-Mechanics (Shenzhen) Co., Ltd. (*2)	2,368,283	-	100.00%	Trading	China
Samsung Electro-Mechanics Japan Co., Ltd.	4,696,119	330,000	100.00%	Trading	Japan
Batino Realty Corporation	2,704	1,000	39.80%	Real estate	Philippines
Samsung Electro-Mechanics Software India Bangalore Private Limited	16,790	100,000	100.00%	Software development	India
SVIC#47 (*2)	20,676,000	-	99.00%	Investment	Korea

The fiscal year for all subsidiaries ends on December 31.

Samsung Electro-Mechanics Co., Ltd. and Subsidiaries
Notes to the Consolidated Financial Statements
December 31, 2021 and 2020

1.2 Consolidated subsidiaries (cont'd)

(*1) Sale of Wi-Fi network module business including shares in Samsung Electro-Mechanics (Thailand) Co., Ltd. is in process and the related assets are classified as assets held for sale as of December 31, 2021 (Note 28).

(*2) These subsidiaries are limited liability entities that do not issue shares in accordance with local law.

(*3) Dongguan Samsung Electro-Mechanics Co., Ltd. is under liquidation process as of December 31, 2021.

(*4) Kunshan Samsung Electro-Mechanics Co., Ltd. discontinued its operations, and is under disposal process of the remaining assets and classified them as assets held for sale (Note 28).

(*5) Samsung Electro-Mechanics Vietnam Co., Ltd. discontinued its rigid flex printed circuit board (RFPCB) business and disposed of related assets.

(*6) The subsidiary owns 100% of Batino Realty Corporation, an indirect subsidiary.

Although the Company's equity interests in Calamba Premier Realty Corporation and Batino Realty Corporation are less than 50%, it is assessed that the Group holds *de facto* control over these entities as the retirement pension fund for the employees of Samsung Electro-Mechanics Philippines, Corp. owns more than 50% of the equity interests.

The summary of the consolidated subsidiaries' financial position as of December 31, 2021 and the results of their financial performance for the year then ended, which have been included in the accompanying consolidated financial statements are as follows (Korean won in thousands):

Subsidiary	Total assets	Total liabilities	Sales	Profit (loss) for the year
Samsung Electro-Mechanics (Thailand) Co., Ltd.	₩ 101,834,279	₩ 9,202,141	₩ 212,784,598	₩ 10,092,353
Dongguan Samsung Electro-Mechanics Co., Ltd.	146,915,004	1,055,716	110	2,684,075
Tianjin Samsung Electro-Mechanics Co., Ltd.	2,154,748,762	1,390,654,188	3,041,759,787	93,040,599
Samsung Electro-Mechanics Philippines, Corp.	848,216,758	540,790,620	1,393,993,213	39,254,918
Samsung High-Tech Electro-Mechanics (Tianjin) Co., Ltd.	457,297,193	207,131,229	1,277,049,658	31,718,784
Kunshan Samsung Electro-Mechanics Co., Ltd.	166,791,062	684,149	61,311	(65,624,830)
Samsung Electro-Mechanics Vietnam Co., Ltd.	1,289,365,089	714,364,038	2,187,626,511	57,123,309
Samsung Electro-Mechanics America, Inc.	122,102,241	98,613,871	509,312,818	2,670,554
Samsung Electro-Mechanics GmbH	120,782,525	79,751,210	298,345,275	6,563,319
Calamba Premier Realty Corporation	8,410,197	6,463,650	-	322,428
Samsung Electro-Mechanics Pte, Ltd.	104,099,552	72,704,593	403,001,034	2,537,653
Samsung Electro-Mechanics (Shenzhen) Co., Ltd.	774,471,359	586,724,589	2,875,808,685	38,038,132
Samsung Electro-Mechanics Japan Co., Ltd.	43,232,810	37,721,790	129,877,140	651,928
Batino Realty Corporation	5,013,613	3,922,564	-	166,990
Samsung Electro-Mechanics Software India Bangalore Private Limited	5,624,742	3,788,087	6,387,910	677,705
SVIC#47	18,826,032	255,399	-	(934,354)
	₩ 6,367,731,218	₩ 3,753,827,834	₩ 12,336,008,050	₩ 218,983,563

1.2 Consolidated subsidiaries (cont'd)

Profit attributable to non-controlling interests

Details of profit or loss attributable to non-controlling interests for the year ended December 31, 2021 are as follows (Korean won in thousands):

Subsidiary	Non-controlling ownership	Profit or loss allocated to non-controlling interests	Remaining non-controlling interests
Samsung Electro-Mechanics (Thailand) Co., Ltd. (*)	-	₩ 2,550,904	₩ -
Tianjin Samsung Electro-Mechanics Co., Ltd.	18.24%	18,598,286	139,799,030
Samsung High-Tech Electro-Mechanics (Tianjin) Co., Ltd.	5.00%	1,552,660	12,239,204
Calamba Premier Realty Corp.	60.20%	194,102	(447,008)
Batino Realty Corporation	60.20%	100,528	566,475
SVIC#47	1.00%	(9,344)	18,946
		₩ 22,987,136	₩ 152,176,647

(*) The Group acquired the remaining shares of Samsung Electro-Mechanics (Thailand) Co., Ltd. during the year ended December 31, 2021.

2. Significant Accounting Policies

2.1 Basis of financial statements preparation

Samsung Electro-Mechanics Co., Ltd. and its subsidiaries (collectively referred to as the "Group") prepare statutory financial statements in the Korean language in accordance with Korean International Financial Reporting Standards (Korean IFRS) enacted by the *Act on External Audit of Stock Companies*.

The accompanying consolidated financial statements have been prepared on a historical cost basis, except for financial instruments that have been measured at fair value and when otherwise noted. The consolidated financial statements are presented in Korean won (KRW) with all values rounded to the nearest thousands, except when otherwise indicated. The accompanying consolidated financial statements have been condensed, restructured, and translated into English from the Korean language financial statements.

United States dollar amounts

The U.S. dollar amounts provided herein represent supplementary information solely for the convenience of the reader. All Korean won amounts of the 2021 and 2020 financial statements are translated to U.S. dollars at US\$1:₩1,185.5, the exchange rate in effect on December 31, 2021. Such presentation is not in accordance with Korean International Financial Reporting Standards and should not be construed as a representation that the won amounts shown could be readily converted, realized or settled in U.S. dollars at this or at any other rate.

2.2 Principles of consolidation

The consolidated financial statements comprise the financial statements of the Group and its subsidiaries as of December 31, 2021. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if and only if the Group has:

- Power over the investee (i.e., existing rights that give it the current ability to direct the relevant activities of the investee)
- Exposure, or rights, to variable returns from its involvement with the investee, and
- The ability to use its power over the investee to affect its returns

2.2 Principles of consolidation (cont'd)

When the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- The contractual arrangement with the other vote holders of the investee
- Rights arising from other contractual arrangements
- The Group's voting rights and potential voting rights

The Group re-assesses whether it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income, and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the date the Group gains control until the date the Group ceases to control the subsidiary.

Profit or loss and each component of other comprehensive income (OCI) are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies. All intra-group assets and liabilities, equity, income, expenses, and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognizes the related assets (including goodwill), liabilities, non-controlling interest, and other components of equity while any related gain or loss is recognized in profit or loss. Any remaining investment is recognized at fair value.

2.3 Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value and the amount of any non-controlling interest in the acquiree. For each business combination, the acquirer measures the non-controlling interest in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition costs incurred are expensed and included in administrative expenses.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances, and pertinent conditions as of the acquisition date.

If the business combination is achieved in stages, any previously held equity interest is re-measured at its acquisition date fair value and any resulting gain or loss is recognized in profit or loss. It is then considered in the determination of goodwill.

Any contingent consideration to be transferred by the acquirer will be measured at fair value at the acquisition date. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity. Contingent consideration classified as an asset or liability that is a financial instrument and within the scope of Korean IFRS 1109 *Financial Instruments*, is measured at fair value with the changes in fair value recognized in the statement of profit or loss in accordance with Korean IFRS 1109. Other contingent consideration that is not within the scope of Korean IFRS 1109 is measured at fair value at each reporting date with changes in fair value recognized in profit or loss.

2.3 Business combinations and goodwill (cont'd)

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

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash generating units that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill has been allocated to a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the disposed operation is included in the carrying amount of the operation when determining the gain or loss on disposal. Goodwill disposed in these circumstances is measured based on the relative values of the disposed operation and the portion of the cash-generating unit retained.

2.4 Investment in associates and joint arrangements

Investment in associates

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The Group's investments in its associate and are accounted for using the equity method. Under the equity method, the investment in an associate is initially recognized at cost. The carrying amount of the investment is adjusted to recognize changes in the Group's share of net assets of the associate since the acquisition date. Goodwill relating to the associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment.

The consolidated statement of comprehensive income reflects the share of the results of financial performance of the associate. Where there has been a change recognized directly in the equity of the associate, the Group recognizes its share of any changes and discloses this, when applicable, in the statement of changes in equity. Unrealized gains and losses resulting from transactions between the Group and the associate are eliminated to the extent of the interest in the associate.

The share of profit of associates is shown on the face of the statements of profit or loss and other comprehensive income. This is the profit attributable to equity holders of the associate and therefore is profit after tax and non-controlling interests in the subsidiaries of the associates.

The financial statements of the associate are prepared for the same reporting period as the Group. Where necessary, adjustments are made to bring the accounting policies in line with those of the Group.

After application of the equity method, the Group determines whether it is necessary to recognize an additional impairment loss on the Group's investment in its associates. At each reporting date, the Group determines whether there is objective evidence that the investment in the associate is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognizes the amount in the statements of profit or loss and other comprehensive income.

Upon loss of significant influence over the associate, the Group measures and recognizes any retaining investment at its fair value. Any difference between the carrying amount of the associate upon loss of significant influence and the fair value of the retaining investment and proceeds from disposal is recognized in profit or loss.

2.4 Investment in associates and Joint arrangements (cont'd)

Joint arrangements

A joint arrangement, wherein two or more parties have joint control, is classified as either a joint operation or a joint venture. A joint operator recognizes its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. Interests in joint ventures are accounted for using the equity method, after initially being recognized at cost in the consolidated statement of financial position.

2.5 Current versus non-current classification

The Group presents assets and liabilities in the statement of financial position based on current/non-current classification.

An asset is current when it is:

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

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in the normal operating cycle
- It is held primarily for the purpose of trading
- It is due to be settled within twelve months after the reporting period, or
- There is no unconditional right to defer the settlement of the liability for at least twelve months after the reporting period

The Group classifies all other liabilities as non-current.

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

2.6 Foreign currency translation

The Group's consolidated financial statements are presented in Korean won, which is also its functional currency. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency.

Transactions and balances

Transactions in foreign currencies are initially recorded by the Group entities at their respective functional currency rates prevailing at the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange ruling at the reporting date.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as of the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined.

In determining the spot exchange rate to use on initial recognition of the related asset, expense or income (or part of it) on the derecognition of a non-monetary asset or non-monetary liability relating to advance consideration, the date of the transaction is the date on which the Group initially recognizes the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, the Group determines the transaction date for each payment or receipt of advance consideration.

2.6 Foreign currency translation (cont'd)

Foreign operations

The assets and liabilities of foreign operations are translated into Korean won at the rate of exchange prevailing at the reporting date and their statements of profit or loss and other comprehensive incomes are translated at average exchange rate during the applicable period. The exchange differences arising on the translation are recognized in other comprehensive income. On disposal of a foreign operation, the gain or loss on translation of foreign operations recorded in other comprehensive income is reclassified to the statements of profit or loss and other comprehensive income. Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition are treated as assets and liabilities of the foreign operation and translated at the spot rate of exchange at the reporting date.

2.7 Cash and cash equivalents

Cash and cash equivalents in the consolidated statement of financial position comprise cash at banks and on hand and short-term deposits with a maturity of three months or less, which represent cash and cash equivalents on the consolidated statements of cash flows.

2.8 Financial instruments: Initial recognition and subsequent measurement

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Financial assets

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income (OCI), and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under Korean IFRS 1115.

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the marketplace (regular way trades) are recognised on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

Subsequent measurement

For purposes of subsequent measurement, financial assets are classified in four categories:

- Financial assets measured at amortised cost (debt instruments)
- Financial assets measured at fair value through OCI with recycling of cumulative gains and losses (debt instruments)
- Financial assets measured at fair value through OCI with no recycling of cumulative gains and losses upon
- Financial assets measured at fair value through profit or loss

2.8 Financial instruments: Initial recognition and subsequent measurement (cont'd)

Financial assets measured at amortised cost (debt instruments)

This category is the most relevant to the Group. The Group measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

Financial assets at amortised cost are subsequently measured using the effective interest (EIR) method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

Financial assets measured at fair value through OCI (debt instruments)

The Group measures debt instruments at fair value through OCI if both of the following conditions are met:

- The financial asset is held within a business model with the objective of both holding to collect contractual cash flows and selling, and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

For debt instruments measured at fair value through OCI, interest income, foreign exchange revaluation and impairment losses or reversals are recognized in the statement of profit or loss and computed in the same manner as for financial assets measured at amortised cost. The remaining fair value changes are recognized in OCI. Upon derecognition, the cumulative fair value change recognized in OCI is recycled to profit or loss.

The Group's debt instruments at fair value through OCI includes investments in quoted debt instruments included under other non-current financial assets.

Financial assets measured at fair value through OCI (equity instruments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity instruments designated at fair value through OCI when they meet the definition of equity under Korean IFRS 1032 Financial Instruments: Presentation and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to profit or loss. Dividends are recognised as other income in the statement of profit or loss when the right of payment has been established, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in OCI. Equity instruments designated at fair value through OCI are not subject to impairment assessment.

The Group elected to classify irrevocably its non-listed equity investments under this category.

2.8 Financial instruments: Initial recognition and subsequent measurement (cont'd)

Financial assets measured at fair value through profit or loss

Financial assets measured at fair value through profit or loss include financial assets held for trading and financial assets designated upon initial recognition at fair value through profit or loss. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit or loss, irrespective of the business model. Notwithstanding the criteria for debt instruments to be classified at amortised cost or at fair value through OCI, as described above, debt instruments may be designated at fair value through profit or loss on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

Financial assets measured at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognized in the statement of profit or loss.

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if: the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value recognised in profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset at fair value through profit or loss.

Derecognition

A financial asset (or, where applicable a part of a financial asset or part of a group of similar financial assets) is derecognized when:

- The rights to receive cash flows from the asset have expired.
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group continues to recognize the transferred asset to the extent of the Group's continuing involvement. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

2.8 Financial instruments: Initial recognition and subsequent measurement (cont'd)

Impairment of financial assets

Further disclosures relating to impairment of financial assets are also provided in the following notes:

- Disclosures for significant assumptions
- Debt instruments at fair value through OCI
- Trade receivables, including contract assets

The Group recognises an allowance for expected credit losses (ECLs) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade receivables and contract assets, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

Financial liabilities

Initial recognition and measurement

Financial liabilities within the scope of Korean IFRS 1039 are classified at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and in the case of loans and borrowings and payable, net of directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts, financial guarantee contracts and derivative financial instruments.

Subsequent measurement

The measurement of financial liabilities depends on their classification.

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss includes financial liabilities held for trading and financial liabilities designated upon initial recognition as of fair value through profit or loss.

Financial liabilities are classified as held for trading if they are acquired for the purpose of selling in the near term. This category includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by Korean IFRS 1109. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Gains or losses on liabilities held for trading are recognized in the consolidated statement of profit or loss.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated at the initial date of recognition, and only if the criteria in Korean IFRS 1109 are satisfied. The Group has not designated any financial liability as of fair value through profit or loss.

2.8 Financial instruments – impairment of financial assets (cont'd)

Loans and borrowings

After initial recognition, interest bearing loans and borrowings are subsequently measured at amortised cost using the effective interest rate method. Gains and losses are recognized in the consolidated statement of profit or loss when the liabilities are derecognized as well as through the effective interest rate method (EIR) amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the EIR.

Derecognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the statements of profit or loss.

Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

2.9 Fair value measurement

The Group measures financial instruments, at fair value at each balance sheet date. Fair value related disclosures for financial instruments that are measured at fair value or where fair values are disclosed, are summarized in the following notes:

	<u>Notes</u>
Quantitative disclosures of fair value measurement hierarchy	27
Investment in unquoted equity shares	9
Financial instruments (including those carried at amortised cost)	27

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability, or
- In the absence of a principal market, in the most advantageous market for the asset or liability

The principal or the most advantageous market must be accessible by the Group.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

2.9 Fair value measurement (cont'd)

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

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

For assets and liabilities that are recognized in the consolidated financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

For the purpose of fair value disclosures, the Group has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

2.10 Inventories

Inventories are valued at the lower of cost and net realizable value. Purchase costs, transfer costs and costs incurred in bringing each product to its present location and conditions are accounted for initial cost of inventories. Unit costs of inventories are measured by weighted average basis. Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

2.11 Property, plant and equipment

Property, plant and equipment is stated at cost, net of accumulated depreciation and/or accumulated impairment losses, if any. Such cost includes the cost of replacing part of the property, plant and equipment and borrowing costs for long-term construction projects if the recognition criteria are met. When significant parts of property, plant and equipment are required to be replaced at intervals, the Group recognizes such parts as individual assets with specific useful lives and depreciates them accordingly. Likewise, when a major inspection is performed, its cost is recognized in the carrying amount of the plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognized in profit or loss as incurred. The residual values, useful lives and methods of depreciation of property, plant and equipment are reviewed at each financial year end and adjusted prospectively, if appropriate.

Depreciation of property, plant and equipment are calculated by using the straight-line method over the estimated useful life of the assets as follows:

	<u>Years</u>
Buildings	17 – 52
Structures	20 – 40
Machinery	4 – 5
Equipment	4 – 5
Vehicles	4 – 5

2.12 Leases

The Group assess whether the contract contains lease when the contract is settled, by considering if the right to control the use of the identified asset is transferred in exchange for price.

Group as lessee

The Group applies a single approach on identification and measurement, except for short-term leases and leases of low-value assets. The Group identifies lease liability, as obligation to pay for the lease, and right-of-use asset, as right to control the underlying asset.

At the commencement date, the day that the underlying asset of the lease becomes available, the Group identifies the right-of-use asset. The right-of-use asset is measured as cost initially, and as cost model in subsequent measurements. Besides of accumulated depreciation and impairment loss being deducted, adjustments from remeasurement of lease liability is reflected in the cost model. The cost of right-of-use assets includes the amount of the recognized lease liability, the initial direct cost, and the lease fee paid on lease commencement date or before, less the incentive received. Right-of-use assets are depreciated on a straight-line basis over a short period of the lease term and the estimated useful life of the following assets:

If the ownership on the underlying asset is transferred to the Group when the lease is terminated, or the exercise price of a purchase option is reflected on the cost of right-of-use asset, depreciation will be calculated based on estimated useful life of the underlying asset.

Rights-of-use assets are also susceptible to impairment. See note 2.15, accounting policy on the impairment of non-financial assets.

On the commencement date, the Group measures the lease liability with the present value of the lease payments to be made during the lease term. The lease payments consist of fixed payments (including in-substance fixed payments), less lease incentives receivable, variable payments that depend on an index or a rate and amounts expected to be payable under residual value guarantees. Lease payments also contains exercise price, when it is reasonably certain that the purchase option will be exercised, and penalties for terminating lease when the lease term reflects the Group's exercise of an option to terminate the lease.

The variable payments that do not depend on an index or a rate will be recognized as expense in the period in which the event or condition that triggers those payments occurs, unless the payments are accrued in regard of manufacturing the inventory assets.

The Group utilizes incremental borrowing rate on the commencement date as the interest rates implicit in the lease are cannot be readily determined to calculate the present value of the lease payment. After the commencement date, lease liability will be increased by the interests accrued and decreased by payments made. Additionally, book value of lease liability will be remeasured with the change in lease term, lease payments (e.g., fluctuation of unpaid lease payments occurred by an index or a rate) or reassessment on exercise of purchase option on underlying asset.

The Group's lease liabilities are included in interest bearing debts (See note 27).

The Group applies recognition exemption on short-term leases of machineries and equipment. It is same on lease of low-value assets, furniture and fixtures. Lease payments on those leases will be recognized on straight-line basis.

2.13 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of the respective assets. All other borrowing costs are expensed in the period they occur.

2.14 Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is its fair value as of the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses. Internally generated intangible assets, excluding capitalized development costs, are not capitalized and expenditure is reflected in the statements of profit or loss and other comprehensive income in the year in which the expenditure is incurred.

The useful lives of intangible assets are assessed as either finite or indefinite. Intangible assets with finite lives are amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life is reviewed at least at each financial year end. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset is accounted for by changing the amortisation period or method, as appropriate, and are treated as changes in accounting estimates. The amortisation expense on intangible assets with finite lives is recognized in the statements of profit or loss and other comprehensive income in the expense category consistent with the function of the intangible asset.

Intangible assets with indefinite useful lives are not amortised, but are tested for impairment annually, either individually or at the cash generating unit level. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable. If not, the change in useful life from indefinite to finite is made on a prospective basis.

Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in the consolidated statement of loss or profit when the asset is derecognized.

Research and development costs

Expenditures on research activities are recognized as expense in the period in which they incur. Expenditures on development activities are capitalized as intangible assets (development costs) when the assets become ready to use (development activities for the project are finished). The expenditures on specific projects are recognized as an intangible asset when the Group can demonstrate:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale
- Its intention to complete and its ability to use or sell the asset
- How the asset will generate future economic benefits
- The availability of resources to complete the asset
- The ability to measure reliably the expenditure during development

Goodwill

Goodwill is accounted for as an intangible asset and is initially measured consideration paid which exceeds the cost of the investment over the Company's share of the fair value of the subsidiary's net identifiable assets.

Patents, licenses, software, and membership

The patents have been granted for a period of 7~10 years by the relevant government agency with the option of renewal at the end of this period. Licenses for the use of intellectual property and software are granted for periods 5 and 4~5 years, respectively. Memberships for usage rights that are not kept for investment purposes, are regarded to have indefinite useful lives and are not amortised.

The Group amortises intangible assets with a limited useful life using the straight-line method over the following periods:

	<u>Estimated useful life</u>
Patents	7~10 years
Industrial property rights	5 years
Other intangible assets	5 years
Software	4 ~ 5 years

2.15 Impairment of non-financial assets

The Group assesses at each reporting date whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Group estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's (CGU) fair value less costs of disposal and its value in use. Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining net fair value costs to sell, an appropriate valuation model is used. These calculations are corroborated by valuation multiples, quoted share prices for publicly traded subsidiaries or other available fair value indicators.

The Group bases its impairment calculation on detailed budgets and forecast calculations, which are prepared separately for each of the Group's CGUs to which the individual assets are allocated. These budgets and forecast calculations generally cover a period of five years. For longer periods, a long-term growth rate is calculated and applied to project future cash flows after the fifth year.

Impairment losses of continuing operations are recognized in the consolidated statement of comprehensive income in expense categories consistent with the function of the impaired asset, except for property previously revalued with the revaluation was taken to other comprehensive income. In this case, the impairment is also recognized in other comprehensive income up to the amount of any previous revaluation.

For assets excluding goodwill, an assessment is made at each reporting date to determine whether there is an indication that previously recognized impairment losses no longer exist or have decreased. If such indication exists, the Group estimates the asset's or cash-generating unit's recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the statements of profit or loss and other comprehensive income unless the asset is carried at a revalued amount, in which case the reversal is treated as a revaluation increase.

The following criteria are also applied in assessing impairment of specific assets:

Intangible assets

Intangible assets with indefinite useful lives are tested for impairment annually as of December 31 either individually or at the cash generating unit level, as appropriate and when circumstances indicate that the carrying value may be impaired.

2.16 Trade and Other Payables

These amounts represent liabilities for goods and services provided to the Group prior to the end of reporting period which are unpaid. Trade and other payables are presented as current liabilities, unless payment is not due within 12 months after the reporting period.

2.17 Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. When the Group expects some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the consolidated statement of comprehensive income net of any reimbursement.

If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, when appropriate, the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

Provision for product warranties

The Group accrues provision for warranty corresponding to the estimated costs of future repairs and returns, based on the past experience. The provision for product warranties is charged to selling and administrative expenses when the goods covered by warranties are sold to customers.

Asset (allowance) and liability (emission obligation)

The Group is allocated with emission allowances free of charge by the government in accordance with the Act on Allocation and Trading of Emission Allowances in the Republic of Korea. The allowances are allocated to the Group every year for planned periods, and the Group should submit the equivalent number of emission allowances for actual emissions.

The Group measures the emission allowances that it receives from the government free of charge at nil, and measures any purchased emission allowances at cost. In addition, emission allowances are derecognized in the financial statements when they are delivered to the government or sold.

A liability (emission obligation) is recognized only where actual emissions exceed the allocated emission allowances, and the cost of emissions is recognized as an operating cost. The liability is measured by adding the following (1) and (2).

- (1) The carrying value of emission allowances for the year to be delivered to the government
- (2) The best estimate of expenditures, as of the end of a reporting period, in performing emission obligations exceeding the above emission allowances

2.18 Employee benefits

Post-employment benefits

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

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

The Group operates a defined benefit pension plan in Korea, the cost of providing benefits under the defined benefit plan is determined using the projected unit credit method. Re-measurements, comprising of actuarial gains and losses, the effect of the asset ceiling, excluding net interest (not applicable to the Group) and the return on plan assets (excluding net interest), are recognized immediately in the statement of financial position with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. Re-measurements are not reclassified to profit or loss in subsequent periods.

Past service costs are recognized in profit or loss on the earlier of:

- The date of the plan amendment or curtailment, and
- The date that the Group recognizes restructuring-related costs

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset. The Group recognizes the following changes in the net defined benefit obligation under 'cost of sales' and 'Selling and administrative expenses' in consolidated statement of comprehensive income.

Other long-term employee benefits

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

2.19 Treasury shares

Own equity instruments which are reacquired (treasury shares) are recognized at cost and deducted from equity. No gain or loss is recognized in the statements of profit or loss and other comprehensive income on the purchase, sale, issue or cancellation of the Group's own equity instruments. Any difference between the carrying amount and the consideration is recognized in other capital reserves.

2.20 Cash dividend

The Company recognizes a liability to pay a dividend when the distribution is authorized and the distribution is no longer at the discretion of the Company. A distribution is authorized when it is approved by the shareholders. A corresponding amount is recognized directly in equity.

2.21 Revenue recognition

Sale of goods

The Group is in the business of manufacturing and selling electronics equipment. Revenue from contracts with customers is recognised when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. Revenue from sale of equipment is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the equipment.

Royalty revenue

The Group entered into royalty agreements with its subsidiaries. The Group is obligated to provide know-how to customers over the service period; therefore, the Group will recognize a certain amount of the allocated transaction price for each performance obligation over the service period as revenue.

Warranty obligations

The Group typically provides warranties for general repairs of defects that existed at the time of sale, as required by law. These assurance-type warranties are accounted for under Korean IFRS 1037 *Provisions, Contingent Liabilities and Contingent Assets*. See the Note 16 on warranty provisions.

Assets and liabilities arising from rights of return

Right of return asset represents the Group's right to recover the goods expected to be returned by customers. The asset is measured at the former carrying amount of the inventory, less any expected costs to recover the goods, including any potential decreases in the value of the returned goods. The Group updates the measurement of the asset recorded for any revisions to its expected level of returns, as well as any additional decreases in the value of the returned products.

A refund liability is the obligation to refund some or all of the consideration received (or receivable) from the customer and is measured at the amount the Group ultimately expects it will have to return to the customer. The Group updates its estimates of refund liabilities (and the corresponding change in the transaction price) at the end of each reporting period. See above accounting policy on variable consideration.

2.22 Taxes

Current income tax

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted, at the reporting date in the countries where the Group operates and generates taxable income.

Current income tax relating to items recognized directly in equity is recognized in equity and not in the statements of profit or loss and other comprehensive income. Management periodically evaluates positions taken in the tax returns with respect to situations in which applicable tax regulations are subject to interpretation and establishes provisions where appropriate.

Deferred tax

Deferred tax is provided using the liability method on temporary differences between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

- When the deferred tax liability arises from the initial recognition of goodwill.
- When the deferred tax liability arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

2.22 Taxes (cont'd)

Deferred tax assets are recognized for all deductible temporary differences, the carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilized except:

- When the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.
- In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognized outside profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

2.23 Government grants

Government grants relating to assets are recognized as deferred income and they are credited to profit or loss in depreciation expenses over the useful life of the related assets and the period necessary to match them with the costs that they are intended to compensate.

2.24 Greenhouse Gas Emission Permits and Obligations

Emission permits and emission obligations for compliance

With enforcement of The Act on the Allocation and Trading of Greenhouse Gas Emission Permits, emission permits that are allocated free of charge from the government are measured at zero, and emission permits purchased are recognized at acquisition cost by including any directly attributable costs incurred during the normal course of business. Emission permits are carried at cost less accumulated impairment losses, and those to be submitted to the government within one year from the end of reporting period are classified as current assets.

2.24 Greenhouse Gas Emission Permits and Obligations (cont'd)

Emission obligation is a present obligation of submitting the allowances to the government. Emissions obligations are measured as the sum of the carrying amount of the allocated allowances that will be submitted to the government and the best estimate of expenditure required to settle the obligation at the end of reporting period for any excess emission. The emission obligations to be settled within one year from the end of the reporting period are classified as current liabilities.

The Group derecognizes the emission permits when the emission allowance is disposed or submitted to the government or becomes unable to be disposed or submitted, and accordingly, the future economic benefits are no longer expected to be probable. The Group derecognizes the emission obligations when the Group submits the emission permits to the government. The emission permits and emission obligations are classified as intangible assets and provisions, respectively, in the statement of financial position.

Emission permits held for trading

Emission permits held for trading are classified as current assets and measured at fair value, and changes in fair value are recognized as profit or loss for the year. Changes in fair value and gain (loss) on disposal are recognized as other income and other expenses, respectively.

2.25 New and amended standards adopted by the Group

The Group has applied the following standards and amendments for the first time for their annual reporting period commencing January 1, 2021.

Amendments to Korean IFRS 1116 Lease - Practical expedient for COVID-19 - Related Rent Concessions

As a practical expedient, a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification. A lessee that makes this election shall account for any change in lease payments resulting from the rent concession the same way it would account for the change applying this Standard if the change were not a lease modification. The amendment does not have a significant impact on the consolidated financial statements.

Amendments to Korean IFRS 1109 Financial Instruments, Korean IFRS 1039 Financial Instruments: Recognition and Measurement, Korean IFRS 1107 Financial Instruments: Disclosure, Korean IFRS 1104 Insurance Contracts and Korean IFRS 1116 Lease – Interest Rate Benchmark Reform (Phase 2 amendments)

In relation to interest rate benchmark reform, the amendments provide exceptions including adjust effective interest rate instead of book amounts when interest rate benchmark of financial instruments at amortised costs is replaced and apply hedge accounting without discontinuance although the interest rate benchmark is replaced in hedging relationship. The amendment does not have a significant impact on the consolidated financial statements.

2.26 New standards and interpretations not yet adopted by the Group

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

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

The application of the practical expedient, a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification, is extended to lease payments originally due on or before June 30, 2022. The amendment should be applied for annual periods beginning on or after April 1, 2021, and earlier application is permitted. The Group is in review for the impact of these amendments on the consolidated financial statements.

2.26 New standards and interpretations not yet adopted by the Group (cont'd)

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

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

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

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group is in review for the impact of these amendments on the consolidated financial statements.

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

The amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts when assessing whether the contract is onerous. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group is in review for the impact of these amendments on the consolidated financial statements.

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

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the expectations of management. Also, the settlement of liability includes the transfer of the entity's own equity instruments, however, it would be excluded if an option to settle them by the entity's own equity instruments if compound financial instruments is met the definition of equity instruments and recognized separately from the liability. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the consolidated financial statements.

Korean IFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies

The amendments to Korean IFRS 1001 define and require entities to disclose their material accounting policies. The IASB amended IFRS Practice Statement 2 Disclosure of Accounting Policies to provide guidance on how to apply the concept of materiality to accounting policy disclosures. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the consolidated financial statements.

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

The amendments define accounting estimates and clarify how to distinguish them from changes in accounting policies. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the consolidated financial statements.

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

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

2.26 New standards and interpretations not yet adopted by the Group (cont'd)

Annual improvements to Korean IFRS 2018-2020

Annual improvements of Korean IFRS 2018-2020 Cycle should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group is in review for the impact of these amendments on the consolidated financial statements.

- Korean IFRS 1101 *First time Adoption of Korean International Financial Reporting Standards* – Subsidiaries that are first-time adopters
- Korean IFRS 1109 *Financial Instruments* – Fees related to the 10% test for derecognition of financial liabilities
- Korean IFRS 1116 *Leases* – Lease incentives
- Korean IFRS 1041 *Agriculture* – Measuring fair value

2.27 Significant accounting judgments, estimates and assumptions

The preparation of consolidated financial statements requires the Group to make estimates and assumptions concerning the future. Management also needs to exercise judgement in applying the Group's accounting policies. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. As the resulting accounting estimates will, by definition, seldom equal the related actual results, it can contain a significant risk of causing a material adjustment.

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below. Additional information of significant judgement and assumptions of certain items are included in relevant notes.

Impairment of non-financial assets

The Group assesses, at each reporting date, whether there is an indication that an asset may be impaired. Goodwill and intangible assets with indefinite useful lives are tested for impairment annually, or when circumstances indicate that the carrying value may be impaired. Other non-financial assets are tested for impairment when circumstances indicate that its carrying amount may not be recoverable. In determining a value in use, management estimates future cash flows to be derived from the asset or CGU and applies the appropriate discount rate to those future cash flows.

2.27 Significant accounting judgments, estimates and assumptions (cont'd)

Deferred tax assets

Deferred tax assets are recognized for unused tax losses in the extent that it is probable that future taxable income will be available for tax losses. Management of the associate makes key judgments to determine the amount of deferred tax assets that are recognized based on the timing and level of future tax strategy and tax benefits.

Net defined benefit liabilities

The cost of defined benefit pension plans and the present value of the pension obligation are determined using actuarial valuations. An actuarial valuation involves making various assumptions. These include the determination of the discount rate, future salary increases, mortality rates and future pension increases. Due to the complexity of the valuation, the underlying assumptions and its long-term nature, a defined benefit obligation is highly sensitive to changes in these assumptions. All assumptions are reviewed at each reporting date.

Fair value of financial instruments

When the fair values of financial assets and financial liabilities recorded in the statement of financial position cannot be measured based on quoted prices in active markets, their fair value is measured using valuation techniques including the DCF model. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgment is required in establishing fair values. Judgments include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments.

Impact of Coronavirus disease 2019 (“COVID-19”)

The spread of COVID-19 from 2020 has a material impact on the global economy. It may have a negative impact, such as, decrease in productivity, decrease, or delay in sales, collection of existing receivables and others. Accordingly, it may have a negative impact on the financial position and financial performance of the Group.

2.28 Approval of the financial statements

Approval of the consolidated financial statements of the Group for the year ended December 31, 2021 were approved by the Board of Directors' meeting on January 26, 2022 for submission to the general shareholders' meeting.

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3. Operating segment information

The Group has three reportable operating segments, which are organized based on each segment's products and sales.

- Component: Chip components (MLCC, inductors, chip resistors and others)
- Optics & Communication Solution: Camera module, Network module
- Package Solution: Semiconductor PKG board

Sales to Samsung Electronics Co., Ltd. & its subsidiaries and Xiaomi are more than 10% of its total sales, amounted to ₩2,769 billion (2020: ₩2,727 billion) and ₩1,003 billion (2020: ₩574 billion) for the year ended December 31, 2021, respectively.

The following table summarizes the results of financial performance of the Group by operating segment for the years ended December 31, 2021 and 2020 (Korean won in millions):

	2021			
	Component	Optics & Communication Solution	Package Solution	Consolidated
Sales	₩ 4,771,830	₩ 3,224,056	₩ 1,679,150	₩ 9,675,036
Depreciation	541,662	95,736	111,920	749,318
Amortisation	16,183	15,698	5,943	37,824
Depreciation of right-of use assets	13,719	6,129	995	20,843
Operating profit	1,063,540	161,129	262,204	1,486,873

	2020			
	Component	Optics & Communication Solution	Package Solution	Consolidated
Sales	₩ 3,644,957	₩ 2,802,452	₩ 1,305,850	₩ 7,753,259
Depreciation	440,534	182,772	56,473	679,779
Amortisation	14,701	12,257	5,787	32,745
Depreciation of right-of use assets	12,138	6,860	1,070	20,068
Operating profit	557,683	171,342	183,714	912,739

Geographic information is as follows:

	Major products	Major customers
Korea	Passive element, camera module, semiconductor package substrate, and others	Samsung Electronics, Google, Amkor Technology Korea, and others
China and Southeast Asia	Passive element, camera module and others	Samsung Electronics, Xiaomi, Apple, and others
Japan	Passive element, semiconductor package substrate and others	SOMC, Shinko, and others
America	Passive element, semiconductor package substrate and others	Intel, Dell, Future, and others
Europe	Passive element and others	Rutronik, Bosch, AVNET, and others

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3. Operating segment information (cont'd)

The results of financial performance of the Group by geographic segment for the years ended December 31, 2021 and 2020 (Korean won in millions) are as follows:

	Korea		Overseas					Adjustment	Consolidated
	Domestic	Export	China	Southeast Asia	2021				
					America	Europe	Japan		
Sales(*1)	₩ 401,765	₩ 2,504,684	₩ 3,976,357	₩ 1,857,914	₩ 508,521	₩ 295,917	₩ 129,878	₩ -	₩ 9,675,036
Non-current assets(*2)		2,165,369	1,675,856	1,110,828	655	2,398	870	(51,956)	4,904,020

	Korea		Overseas					Adjustment	Consolidated
	Domestic	Export	China	Southeast Asia	2020				
					America	Europe	Japan		
Sales(*1)	₩ 516,645	₩ 1,988,346	₩ 2,820,890	₩ 1,679,588	₩ 420,745	₩ 207,575	₩ 119,470	₩ -	₩ 7,753,259
Non-current assets(*2)		2,039,097	1,439,751	1,241,043	262	2,414	1,165	(68,113)	4,655,619

(*1) This amount excludes internal sales within the Group.

(*2) This amount excludes financial assets, deferred tax assets, investment in associates and others.

4. Cash and cash equivalents

Cash and cash equivalents as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Cash on hand	₩ 20,318	₩ 25,245
Short-term deposits	1,185,186,600	1,479,742,172
	<u>₩ 1,185,206,918</u>	<u>₩ 1,479,767,417</u>

5. Other assets and liabilities

Other assets and liabilities as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020	
	Current	Non-current	Current	Non-current
Other financial assets:				
Financial instruments	₩ 39,000,000	₩ 19,230	₩ 39,000,000	₩ 19,080
Government and public bonds	-	97,330	1,055	97,330
Accrued income	1,082,010	-	602,693	-
Business guarantee deposits	4,142,837	-	187,185	-
Lease guarantee deposits	16,516,128	21,124,576	14,316,976	18,750,756
	<u>₩ 60,740,975</u>	<u>₩ 21,241,136</u>	<u>₩ 54,107,909</u>	<u>₩ 18,867,166</u>
Other liabilities:				
Withholdings	₩ 55,059,135	₩ -	₩ 36,227,791	₩ -
Withholding deposits	5,504,416	-	2,676,642	-
Unearned income	38,044,545	45,631,056	8,069,461	6,684,910
	<u>₩ 98,608,096</u>	<u>₩ 45,631,056</u>	<u>₩ 46,973,894</u>	<u>₩ 6,684,910</u>

5. Financial assets and liabilities (cont'd)

Restricted deposits as of December 31, 2021 and 2020 consist of the following (Korean won in thousands):

	Financial institution	2021		2020		Description
Short-term financial instruments	Woori Bank and 1 other bank	₩	39,000,000	₩	39,000,000	Financial support reserve for strategic alliances
Long-term financial instruments	Woori Bank and 6 other banks		19,230		19,080	Overdraft facilities
		₩	<u>39,019,230</u>	₩	<u>39,019,080</u>	

6. Trade and other receivables

Trade and other receivables as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020	
	Current	Non-current	Current	Non-current
Trade receivables	₩ 1,219,392,294	₩ -	₩ 943,793,120	₩ -
Allowance for doubtful accounts	-	-	-	-
Other receivables	67,899,033	445,375	52,127,868	530,396
Allowance for doubtful accounts	(284,771)	(445,375)	(299,972)	(530,396)
	<u>₩ 1,287,006,556</u>	<u>₩ -</u>	<u>₩ 995,621,016</u>	<u>₩ -</u>

The changes in allowance for doubtful accounts for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
As of January 1	₩ 830,368	₩ 5,462,071
Allowance (reversal) for doubtful accounts - trade	-	(27,685)
Allowance (reversal) for doubtful accounts - others	(78,898)	(255,012)
Write-off	(21,324)	(4,349,006)
As of December 31	<u>₩ 730,146</u>	<u>₩ 830,368</u>

As of December 31, 2021, and 2020, the aging analysis of trade and other receivables are as follows (Korean won in thousands):

	2021	2020
Neither past due nor impaired	₩ 1,252,928,021	₩ 974,386,109
Past due but not impaired:		
Within 30 days	28,774,166	17,309,194
31 ~ 180 days	5,202,196	3,288,435
181 ~ 365 days	44,646	73,329
Over 365 days	787,674	1,394,317
	<u>34,808,682</u>	<u>22,065,275</u>
	<u>₩ 1,287,736,703</u>	<u>₩ 996,451,384</u>

6. Trade and other receivables (Cont'd)

The Group disposed of its trade receivables in accordance with a factoring agreement entered into with various financial institutions. The Group did not derecognize the trade receivables, as the financial institutions hold recourse rights, and the Group retains the related risk and rewards. The financial liability was recognized as short-term borrowings on the statements of financial position for the years ended December 31, 2021 and 2020 (Note 14).

Trade receivables factored with recourse as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Book value of trade receivables disposed(*)	₩ 14,993,897	₩ 368,120,835
Book value of related borrowings	14,993,897	368,120,835

(*) Trade receivables disposed include inter-company trade-receivables.

7. Inventories

Inventories as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021			2020		
	Acquisition cost	Valuation allowance	Book value	Acquisition cost	Valuation allowance	Book value
Finished goods and merchandise	₩ 795,619,685	₩ (37,903,622)	₩ 757,716,063	₩ 574,918,547	₩ (41,585,924)	₩ 533,332,623
Work-in-process	544,677,062	(19,370,995)	525,306,067	476,682,430	(12,400,047)	464,282,383
Raw materials	415,675,420	(9,429,036)	406,246,384	224,173,137	(6,987,612)	217,185,525
Supplies	60,414,013	-	60,414,013	56,469,388	-	56,469,388
Materials in-transit	68,727,021	-	68,727,021	66,645,802	-	66,645,802
	<u>₩ 1,885,113,201</u>	<u>(66,703,653)</u>	<u>₩ 1,818,409,548</u>	<u>₩ 1,398,889,304</u>	<u>(60,973,583)</u>	<u>1,337,915,721</u>

Changes in inventories included in cost of sales and loss on valuation of inventories (reversal) included in cost of sales for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Inventories recognized as an expense(*)	₩ 7,747,810,259	₩ 6,525,650,332
Reversal of loss on valuation of inventories(*)	<u>(2,052,656)</u>	<u>(51,175,309)</u>
	<u>₩ 7,745,757,603</u>	<u>₩ 6,474,475,023</u>

(*) Includes profit (loss) for the year from discontinued operations.

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8. Investment in associates

Investment in associates as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	Stemco Co., Ltd.		Samsung Global Research(*)	
	2021	2020	2021	2020
Number of shares	1,440,000	1,440,000	2,856,000	2,856,000
Equity interest	30.00%	30.00%	23.80%	23.80%
Acquisition cost	₩ 7,200,000	₩ 7,200,000	₩ 14,280,000	₩ 14,280,000
Shareholder portion	₩ 58,873,610	₩ 53,329,825	₩ 21,175,123	₩ 19,131,175
Book value	₩ 58,873,610	₩ 53,329,825	₩ 21,175,123	₩ 19,131,175
Domicile	Korea	Korea	Korea	Korea
Fiscal year end	December 31	December 31	December 31	December 31
Principal activities	Manufacturing and trading of semiconductor parts	Manufacturing and trading of semiconductor parts	Research and development, human resource development	Research and development, human resource development

(*) Its name was changed from Samsung Economic Research Institute to Samsung Global Research during the year ended December 31, 2021.

The following table summarizes the financial position of associates as of December 31, 2021 and 2020, and the results of their financial performance for the years then ended December 31, 2021 and 2020 (Korean won in thousands):

	Stemco Co., Ltd.		Samsung Global Research	
	2021	2020	2021	2020
Current assets	₩ 109,942,155	₩ 99,993,643	₩ 107,199,701	₩ 88,346,473
Non-current assets	151,466,254	156,203,898	67,817,430	55,537,797
Total assets	₩ 261,408,409	₩ 256,197,541	₩ 175,017,131	₩ 143,884,270
Current liabilities	₩ 58,142,754	₩ 69,259,119	₩ 69,681,851	₩ 47,590,664
Non-current liabilities	7,020,289	9,172,337	16,364,175	15,910,517
Total liabilities	₩ 65,163,043	₩ 78,431,456	₩ 86,046,026	₩ 63,501,181
Total equity	₩ 196,245,366	₩ 177,766,085	₩ 88,971,105	₩ 80,383,089

	Stemco Co., Ltd.		Samsung Global Research	
	2021	2020	2021	2020
Sales	₩ 324,726,168	₩ 330,100,574	₩ 191,460,964	₩ 164,358,099
Profit for the year	34,315,841	33,080,701	249,262	79,023
Other comprehensive income (expense)	1,170,440	360,580	8,338,754	(245,257)
Total comprehensive income (expense)	35,486,281	33,441,281	8,588,016	(166,234)

Details of changes in the carrying amount of equity method investments (Korean won in thousands):

	Jan. 1, 2021	Share of profit or loss in investee	Equity adjustments of investment in associates	Dividends income	Dec. 31, 2021
	Stemco Co., Ltd.	₩ 53,329,825	₩ 10,294,753	₩ 351,132	₩ (5,102,100)
Samsung Global Research(*)	19,131,175	59,324	1,984,624	-	21,175,123
	₩ 72,461,000	₩ 10,354,077	₩ 2,335,756	₩ (5,102,100)	₩ 80,048,733

(*) Its name was changed from Samsung Economic Research Institute to Samsung Global Research during the year ended December 31, 2021.

	Jan. 1, 2020	Share of profit or loss in investee	Equity adjustments of investment in associates	Dividends income	Dec. 31, 2020
	Stemco Co., Ltd.	₩ 49,089,141	₩ 9,924,210	₩ 108,174	₩ (5,791,700)
Samsung Global Research	19,170,739	18,807	(58,371)	-	19,131,175
	₩ 68,259,880	₩ 9,943,017	₩ 49,803	₩ (5,791,700)	₩ 72,461,000

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8. Investment in associates (Cont'd)

Details of changes in the book value of investment in associates based on their net assets as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021			
	Net assets (A)	Ownership (B)	Shareholder portion (A*B)	Book value
Stemco Co., Ltd.	₩ 196,245,366	30.00%	₩ 58,873,610	₩ 58,873,610
Samsung Global Research(*)	88,971,105	23.80%	21,175,123	21,175,123
	<u>₩ 285,216,471</u>		<u>₩ 80,048,733</u>	<u>₩ 80,048,733</u>

(*) Its name was changed from Samsung Economic Research Institute to Samsung Global Research during the year ended December 31, 2021.

	2020			
	Net assets (A)	Ownership (B)	Shareholder portion (A*B)	Book value
Stemco Co., Ltd.	₩ 177,766,085	30.00%	₩ 53,329,825	₩ 53,329,825
Samsung Global Research	80,383,089	23.80%	19,131,175	19,131,175
	<u>₩ 258,149,174</u>		<u>₩ 72,461,000</u>	<u>₩ 72,461,000</u>

9. Financial assets measured at fair value

Details of financial assets measured at fair value as of December 31, 2021 and 2020 are as follows (Korea won in thousands):

	2021		2020
	Acquisition cost	Book value	Book value
Marketable securities	₩ 114,100,522	₩ 213,869,644	₩ 101,361,219
Non-marketable securities	34,987,589	50,543,570	99,593,923
	<u>₩ 149,088,111</u>	<u>₩ 264,413,214</u>	<u>₩ 200,955,142</u>

Marketable securities

Marketable securities as of December 31, 2021 and 2020 are as follows (Korea won in thousands):

	2021				2020	
	Number of shares	Equity interest	Acquisition cost	Book value	Book value	Domicile
Samsung Heavy Industries Co., Ltd.	18,150,855	2.06%	₩ 111,468,896	₩ 102,915,348	₩ 96,001,397	Korea
iMarketkorea Inc.	613,252	1.83%	306,626	6,561,796	5,359,822	Korea
SoluM Co., Ltd.(*)	4,650,000	9.30%	2,325,000	104,392,500	-	Korea
			<u>₩ 114,100,522</u>	<u>₩ 213,869,644</u>	<u>₩ 101,361,219</u>	

(*) It was listed on the stock market during the year ended December 31, 2021.

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9. Financial assets measured at fair value (cont'd)

Non-marketable securities

Non-marketable securities as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	Number of shares	Equity interest (%)	2021		2020
			Acquisition cost	Book value	Book value
Financial assets measured at fair value through OCI					
Samsung Venture Investment Co., Ltd.(*1)	1,020,000	17.00	₩ 5,100,000	₩ 23,104,020	₩ 22,960,200
SoluM Co., Ltd. (*2)	-	-	-	-	62,189,100
KMAC fund	8,000	1.00	40,000	40,000	40,000
IMA(*1)	347,696	8.69	4,028,477	8,634,683	7,884,703
Inkel Co., Ltd.	40	0.00	200	200	200
Posco Social Corporation Fund	1	1.67	10,000	10,000	40,000
			<u>9,178,677</u>	<u>31,788,903</u>	<u>93,114,203</u>
Financial assets measured at fair value through profit or loss					
Intellectual Discovery	7,212	0.22	250,004	-	-
Korea Orbcom Ltd.	16,000	3.42	600,000	-	-
KBI cosmolink Co., Ltd.(*3)	29,033	1.42	6,451,253	-	-
Optis Co., Ltd.	10,963	0.05	54,816	-	-
DS Asia Holdings	3,208,399	1.80	16,276	-	-
Others	-	-	18,436,563	18,754,667	6,479,720
			<u>25,808,912</u>	<u>18,754,667</u>	<u>6,479,720</u>
			<u>₩ 34,987,589</u>	<u>₩ 50,543,570</u>	<u>₩ 99,593,923</u>

(*1) Valuations on the non-marketable securities were performed by an independent professional appraiser, using fair values calculated using the discounted future cash flows method other relevant information.

(*2) It was listed on the stock market during the year ended December 31, 2021.

(*3) Its name was changed from Cosmolink Co., Ltd. to KBI cosmolink Co., Ltd. during the year ended December 31, 2021.

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9. Financial assets measured at fair value (cont'd)

Details of changes in accumulated other comprehensive income arising from valuation of financial instruments measured at fair value for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021				December 31
	January 1	Increase (decrease)	Current year tax effect	Others(*)	
Marketable securities	₩ 9,659,967	₩ 27,161,002	₩ (8,368,806)	₩ 45,376,987	₩ 73,829,150
Non-marketable securities	63,032,042	893,800	(623,284)	(45,376,987)	17,925,571
	<u>₩ 72,692,009</u>	<u>₩ 28,054,802</u>	<u>₩ (8,992,090)</u>	<u>₩ -</u>	<u>₩ 91,754,721</u>

(*) SoluM Co., Ltd. was listed on the stock market during the year ended December 31, 2021.

	2020				December 31
	January 1	Increase	Current year tax effect		
Marketable securities	₩ 12,809,008	₩ (4,154,408)	₩ 1,005,367		₩ 9,659,967
Non-marketable securities	39,766,133	30,693,812	(7,427,903)		63,032,042
	<u>₩ 52,575,141</u>	<u>₩ 26,539,404</u>	<u>₩ (6,422,536)</u>		<u>₩ 72,692,009</u>

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10. Property, plant and equipment

Property, plant and equipment as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021			2020		
	Acquisition cost	Accumulated depreciation(*)	Book value	Acquisition cost	Accumulated depreciation(*)	Book value
Land	₩ 206,489,285	₩ -	₩ 206,489,285	₩ 206,186,873	₩ -	₩ 206,186,873
Buildings	2,690,519,299	(715,131,751)	1,975,387,548	2,046,151,631	(620,286,655)	1,425,864,976
Structures	164,783,509	(71,821,699)	92,961,810	121,890,161	(64,113,717)	57,776,444
Machinery	6,689,221,591	(4,834,725,656)	1,854,495,935	6,418,455,887	(4,494,788,639)	1,923,667,248
Vehicles	5,068,711	(3,322,313)	1,746,398	4,738,302	(3,444,372)	1,293,930
Equipment	432,551,125	(293,091,427)	139,459,698	355,125,492	(248,337,660)	106,787,832
Construction-in-progress	329,369,777	-	329,369,777	677,978,337	-	677,978,337
Machinery-in-transit	39,470,617	-	39,470,617	24,806,648	-	24,806,648
	<u>₩ 10,557,473,914</u>	<u>₩ (5,918,092,846)</u>	<u>₩ 4,639,381,068</u>	<u>₩ 9,855,333,331</u>	<u>₩ (5,430,971,043)</u>	<u>₩ 4,424,362,288</u>

(*) Accumulated impairment losses are included.

Changes in the book value of property, plant and equipment for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021							
	January 1	Additions	Disposals and scrap	Transfers	Depreciation	Impairment loss	Others (*)	December 31
Land	₩ 206,186,873	₩ -	₩ -	₩ -	₩ -	₩ -	₩ 302,412	₩ 206,489,285
Buildings	1,425,864,976	56,527,068	(321,196)	476,892,673	(75,528,818)	-	91,952,845	1,975,387,548
Structures	57,776,444	6,422,552	-	33,300,008	(6,446,160)	-	1,908,966	92,961,810
Machinery	1,923,667,248	103,825,883	(44,884,278)	458,403,324	(677,463,557)	(1,796,362)	92,743,677	1,854,495,935
Vehicles	1,293,930	797,396	(8,507)	106,539	(602,130)	-	159,170	1,746,398
Equipment	106,787,832	30,115,541	(269,289)	39,213,669	(47,156,461)	-	10,768,406	139,459,698
Construction-in-progress	677,978,337	525,712,048	-	(894,080,374)	-	-	19,759,766	329,369,777
Machinery-in-transit	24,806,648	144,964,776	-	(113,835,839)	-	-	(16,464,968)	39,470,617
	<u>₩ 4,424,362,288</u>	<u>₩ 868,365,264</u>	<u>₩ (45,483,270)</u>	<u>₩ -</u>	<u>₩ (807,197,126)</u>	<u>₩ (1,796,362)</u>	<u>₩ 201,130,274</u>	<u>₩ 4,639,381,068</u>

	2020							
	January 1	Additions	Disposals and scrap	Transfers	Depreciation	Others (*)	Classified as held for sale	December 31
Land	₩ 210,770,683	₩ -	₩ -	₩ -	₩ -	₩ (344,895)	₩ (4,238,915)	₩ 206,186,873
Buildings	1,355,474,782	1,990,457	(845,327)	158,862,317	(55,446,685)	(33,375,031)	(795,537)	1,425,864,976
Structures	65,739,788	65,018	-	1,978,416	(5,524,545)	(857,800)	(3,624,433)	57,776,444
Machinery	1,830,207,419	125,245,999	(10,677,588)	712,832,662	(689,632,446)	(40,791,033)	(3,517,765)	1,923,667,248
Vehicles	1,423,690	210,138	(7,957)	325,814	(583,364)	(26,094)	(48,297)	1,293,930
Equipment	87,647,158	25,885,359	(255,372)	34,691,043	(36,227,163)	(1,976,590)	(2,976,603)	106,787,832
Construction-in-progress	925,338,587	469,613,032	-	(777,729,687)	-	60,822,901	(66,496)	677,978,337
Machinery-in-transit	37,908,041	118,920,816	-	(130,960,565)	-	(815,436)	(246,208)	24,806,648
	<u>₩ 4,514,510,148</u>	<u>₩ 741,930,819</u>	<u>₩ (11,786,244)</u>	<u>₩ -</u>	<u>₩ (787,414,203)</u>	<u>₩ (17,363,978)</u>	<u>₩ (15,514,254)</u>	<u>₩ 4,424,362,288</u>

(*) Others represent transfer to another account foreign exchange rate adjustments and others.

Line items including depreciation in the statements of comprehensive income for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Cost of sales	₩ 769,988,722	₩ 729,156,976
Selling and administrative expenses	37,208,404	58,257,227
Total amount(*)	<u>₩ 807,197,126</u>	<u>₩ 787,414,203</u>

(*) Includes expenses for the year from discontinued operations.

10. Property, plant and equipment (cont'd)

If a tangible asset is acquired at a price less than its fair value due to government subsidies, the acquisition cost of the tangible asset is the fair value at the acquisition date. Government subsidies are recognized unearned income and are depreciated over the useful life of the asset. The amount offset by depreciation is ₩10,660,784 thousand (2020: ₩6,104,502 thousand).

Borrowing costs incurred amounting to ₩4,526,071 thousand (2020: ₩14,770,941 thousand) for the year ended December 31, 2021, which were directly attributable to the acquisition and construction of qualifying property, plant and equipment, are capitalized as part of the cost of those assets.

The Group revalued certain property, plant and equipment in accordance with the *Korean Asset Revaluation Act* on January 1, 1981 and July 1, 1998. The revalued amounts are recorded as deemed cost at the revaluation date in accordance with Korean IFRS 1101. The difference between the revaluation amount and book value prior to revaluation is recorded as revaluation surplus in retained earnings and may not be utilized for cash dividends.

Property, plant and equipment are insured against fire and other casualty losses for up to ₩11,416,607,275 thousand and ₩9,188,026,580 thousand as of December 31, 2021 and 2020, respectively.

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11. Intangible assets

Intangible assets as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021			2020		
	Acquisition cost	Accumulated amortisation(*)	Book value	Acquisition cost	Accumulated amortisation(*)	Book value
Patent/industrial proprietary rights	₩ 60,730,876	₩ (27,342,577)	₩ 33,388,299	₩ 51,431,263	₩ (21,120,954)	₩ 30,310,309
Software and others	237,942,893	(157,461,492)	80,481,401	215,341,235	(135,325,407)	80,015,828
Membership	30,684,560	(2,716,593)	27,967,967	30,641,351	(2,716,593)	27,924,758
	<u>₩ 329,358,329</u>	<u>₩ (187,520,662)</u>	<u>₩ 141,837,667</u>	<u>₩ 297,413,849</u>	<u>₩ (159,162,954)</u>	<u>₩ 138,250,895</u>

(*) Accumulated impairment losses are included.

Changes in the book value of intangible assets for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021					
	January 1	Additions	Disposals and scrap	Amortisation	Others (*)	December 31
Patent/industrial proprietary rights	₩ 30,310,309	₩ 11,371,991	₩ (594,731)	₩ (7,699,270)	₩ -	₩ 33,388,299
Software and others	80,015,828	13,136,913	(29,659)	(30,264,495)	17,622,814	80,481,401
Membership	27,924,758	-	-	-	43,209	27,967,967
	<u>₩ 138,250,895</u>	<u>₩ 24,508,904</u>	<u>₩ (624,390)</u>	<u>₩ (37,963,765)</u>	<u>₩ 17,666,023</u>	<u>₩ 141,837,667</u>

(*) Others represent transfer to another account foreign exchange rate adjustments and others.

	2020						
	January 1	Additions	Disposals and scrap	Amortisation	Others (*)	Classified as held for sale	December 31
Patent/industrial proprietary rights	₩ 24,055,513	₩ 12,333,558	₩ (80,238)	₩ (5,998,524)	₩ -	₩ -	₩ 30,310,309
Software and others	88,975,378	11,096,039	(1,001,445)	(27,675,591)	9,180,868	(559,421)	80,015,828
Membership	28,120,010	1,404,228	-	-	(1,599,480)	-	27,924,758
	<u>₩ 141,150,901</u>	<u>₩ 24,833,825</u>	<u>₩ (1,081,683)</u>	<u>₩ (33,674,115)</u>	<u>₩ 7,581,388</u>	<u>₩ (559,421)</u>	<u>₩ 138,250,895</u>

(*) Others represent transfer to another account foreign exchange rate adjustments and others.

Details of expensed research and development costs incurred in 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Cost of Sales(*)	₩ 39,643,391	₩ 49,600,155
Selling and administrative expenses(*)	558,264,676	460,076,901
	<u>₩ 597,908,067</u>	<u>₩ 509,677,056</u>

(*) Includes expenses for the year from discontinued operations.

Impairment tests for intangible assets with indefinite useful lives

The Group conducted impairment tests on membership and on intangible assets with indefinite useful lives and did not recognize any impairment loss in 2021.

The recoverable amount of membership is the higher of a membership's fair value costs of disposal and its value in use. The Group uses net fair value if it is available. If it is not available, the Group estimates value in use and determines recoverable amounts.

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12. Leases

Changes in book value of right-of-use assets and lease liabilities for the years ended December 31, 2021 and 2020 (Korean Won in thousands).

	2021				
	Right-of-use assets				
	Land and Buildings	Vehicles and transportation equipment	Other equipment	Total	Lease Liability
As of January 1, 2021	₩ 84,315,529	₩ 8,353,918	₩ 336,635	₩ 93,006,082	₩ 62,597,906
New and renewal of contract	25,967,636	18,497,728	160,364	44,625,728	43,711,681
Write-off due to early termination of contract	(3,358,155)	-	(100,302)	(3,458,457)	(3,519,402)
Changes of contract	74,845	-	-	74,845	112,570
Others(*)	8,362,827	1,341,991	114,919	9,819,737	5,851,209
Depreciation	(14,109,792)	(6,969,851)	(187,176)	(21,266,819)	-
Interest cost	-	-	-	-	1,812,656
Payment	-	-	-	-	(20,388,259)
As of December 31, 2021	₩ 101,252,890	₩ 21,223,786	₩ 324,440	₩ 122,801,116	₩ 90,178,361

(*) Including effect of foreign currency transition and translation.

	2020				
	Right-of-use assets				
	Land and Buildings	Vehicles and transportation equipment	Other equipment	Total	Lease Liability
As of January 1, 2020	₩ 60,898,228	₩ 17,641,876	₩ 201,730	₩ 78,741,834	₩ 48,671,224
New and renewal of contract	42,526,516	1,280,808	2,414,819	46,222,143	45,640,362
Write-off due to early termination of contract	(81,786)	(3,710,836)	(1,652,291)	(5,444,913)	(5,620,591)
Changes of contract	(4,219,799)	-	-	(4,219,799)	(7,080,048)
Others(*)	(2,297,215)	311,643	6,096	(1,979,476)	(844,185)
Depreciation	(12,510,415)	(6,944,939)	(633,719)	(20,089,073)	-
Interest cost	-	-	-	-	1,637,220
Payment	-	-	-	-	(19,576,493)
Transfer to assets held for sale	-	(224,634)	-	(224,634)	(229,583)
As of December 31, 2020	₩ 84,315,529	₩ 8,353,918	₩ 336,635	₩ 93,006,082	₩ 62,597,906

(*) Including effect of foreign currency transition and translation.

In 2021, the Group recognized ₩9,001,711 thousand (2020: ₩7,932,590 thousand) and ₩3,182,509 thousand (2020: ₩2,249,421 thousand) from short-term leases and leases of low-value assets, respectively.

The total cash outflow for leases in 2021 was ₩32,572,479 thousand (2020: ₩29,758,504 thousand).

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13. Trade and other payables

Trade and other payables as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020	
	Current	Non-current	Current	Non-current
Trade payables	₩ 591,676,450	₩ -	₩ 434,514,202	₩ -
Other payables	392,153,189	2,343,717	317,878,670	2,024,857
Accrued expenses	491,168,624	75,401,689	349,091,174	78,542,155
Dividends payables	11,030	-	24,788,765	-
	<u>₩ 1,475,009,293</u>	<u>₩ 77,745,406</u>	<u>₩ 1,126,272,811</u>	<u>₩ 80,567,012</u>

14. Borrowings

Short-term borrowings as of December 31, 2021 and 2020 consist of the following (Korean won in thousands):

Financial institution	Description	Annual interest rate (%) as of Dec. 31, 2021	2021	2020
Woori Bank and 2 other banks	Discount of commercial paper	LIBOR + 0.50~0.60	₩ 14,993,897	₩ 368,120,835
KB Kookmin Bank	General borrowings	-	-	38,080,000
BoA	General borrowings	LIBOR +0.65	41,492,500	-
			<u>₩ 56,486,397</u>	<u>₩ 406,200,835</u>

The Group entered into factoring agreements with recourse for its trade receivables with Woori Bank and others. Factored receivables not overdue as of December 31, 2021 are accounted for as short-term borrowings (Note 6).

Long-term borrowings as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

Financial institution	Description	Annual interest rate (%) as of Dec. 31, 2021	2021	2020
Mizuho bank and 5 other banks	General borrowings	LIBOR + 0.85~1.36	₩ 536,979,996	₩ 854,267,546
BoA	General borrowings	4.88	122,931,600	116,873,267
ICBC bank	General borrowings	-	-	56,098,560
HSBC	General borrowings	LPR -0.254(*)	275,967,227	410,650,643
			935,878,823	1,437,890,016
Less current portion of borrowings			<u>(316,116,596)</u>	<u>(204,681,307)</u>
			<u>₩ 619,762,227</u>	<u>₩ 1,233,208,709</u>

(*) LPR refers to the Loan Prime Rate informed by the People's Bank of China.

15. Refund liabilities and Right of return assets

Details of refund liabilities and right of return assets are follows (Korean won in thousands):

	2021	2020
Refund liabilities	₩ 29,762,091	₩ 23,400,025
Right of return assets	22,614,442	17,784,713

Refund liabilities are estimated obligation to refund some or all of consideration received from customers and are measured at the amount the Group estimates. Rights of return assets show the right of the Group to receive return assets as customers exercise their rights.

16. Defined benefit liabilities

The Group has a defined benefit pension plan for its employees, for which the present value of defined benefits liabilities is calculated using the projected unit credit method by an independent actuary firm.

Details of net defined benefit liabilities recognized in the statements of financial position as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Present value of funded defined benefit obligations	₩ 796,052,634	₩ 678,505,335
Fair value of plan assets (*)	(771,876,620)	(647,937,765)
Net defined benefit liabilities	₩ 24,176,014	₩ 30,567,570

(*) The contributions to the National Pension Fund of ₩272,918 thousand are included in the fair value of plan assets as of December 31, 2021 (2020: ₩287,001 thousand).

Changes in defined benefit liabilities (assets) for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Changes in defined benefit liabilities:		
At January 1	₩ 30,567,570	₩ 38,962,230
Contributions by employer	(140,100,583)	(80,027,992)
Retirement benefits paid	(11,077,204)	(13,700,160)
Pension cost charged to profit or loss	63,376,512	59,913,807
Succession of defined benefit liabilities	3,215,754	3,894,892
Re-measurement losses in OCI	76,527,956	25,303,842
Exchange differences	1,666,009	(404,829)
Classified as held for sale	-	(3,374,220)
At December 31	24,176,014	30,567,570
Defined benefit liabilities in the statement of financial position:		
Present value of defined benefit obligation	796,052,634	678,505,335
Fair value of plan assets	(771,876,620)	(647,937,765)
	₩ 24,176,014	₩ 30,567,570

Re-measurement gains on defined benefit plans (net of tax) of ₩52,580,805 thousand (2020: ₩20,328,932 thousand) was recognized as other comprehensive income.

16. Defined benefit liabilities (cont'd)

Expenses recorded in relation to the defined benefit pension plan for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Current service cost	₩ 58,820,723	₩ 58,542,358
Past service cost	2,533,833	-
Interest cost on benefit obligation	19,031,468	13,889,954
Expected return on plan assets	(17,009,512)	(12,518,505)
	<u>₩ 63,376,512</u>	<u>₩ 59,913,807</u>

Changes in the present value of the defined benefit obligation for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
At January 1	₩ 678,505,335	₩ 619,283,872
Benefits paid	(39,026,187)	(37,509,003)
Current service cost	58,820,723	58,542,358
Interest cost	19,031,468	13,889,954
Succession of defined benefit obligation	3,215,754	3,894,892
Past service cost	2,533,833	-
Re-measurement losses		
based on changes of demographic assumptions	1,891,711	1,208,907
Re-measurement losses (gains)		
based on changes of financial assumptions	31,469,896	(3,716,337)
Re-measurement losses		
based on changes of experience adjustments	37,954,083	26,694,381
Exchange differences	1,656,018	(409,469)
Held for sale	-	(3,374,220)
At December 31	<u>₩ 796,052,634</u>	<u>₩ 678,505,335</u>

The weighted average duration of the defined benefit obligation is 8.11 years (2020: 7.25 years).

Changes in the fair value of plan assets for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
At January 1	₩ 647,937,765	₩ 580,321,642
Contributions by employer	140,100,583	80,027,992
Benefits paid	(27,948,983)	(23,808,843)
Expected return on plan assets	17,009,512	12,518,505
Re-measurement losses	(5,212,266)	(1,116,891)
Exchange differences	(9,991)	(4,640)
At December 31	<u>₩ 771,876,620</u>	<u>₩ 647,937,765</u>

The Group has funded 97% of its defined benefit obligation with Samsung Life Insurance Co., Ltd as of December 31, 2021. The Group's employees are individually nominated as the vested beneficiaries of the defined benefit plan assets. Contributions related to the defined benefit obligation are expected to be ₩120,101 million for the next fiscal year.

16. Defined benefit liabilities(cont'd)

The major categories of the fair value of total plan assets as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Cash and cash equivalents	₩ 771,121,224	₩ 647,265,041
Others	755,396	672,724
	<u>₩ 771,876,620</u>	<u>₩ 647,937,765</u>

The principal assumptions used in actuarial calculation as of December 31, 2021 and 2020 are as follows:

	2021	2020
Discount rate	0.10% ~ 5.15%	0.30% ~ 5.10%
Future salary increases	1.90% ~ 8.00%	2.81% ~ 8.00%

The following table demonstrates a sensitivity analysis on the effect of changes in the principal assumptions used in actuarial calculation on the present value of defined benefit obligation as of December 31, 2021 and 2020, respectively (Korean won in thousands):

Effect of changes in the discount rate (Korean won in thousands):

	2021		2020	
	1% point decrease	1% point increase	1% point decrease	1% point increase
Impact on defined benefit liabilities	₩ 67,303,481	₩ (58,531,598)	₩ 50,843,405	₩ (44,544,955)

Effect of changes in future salary increases. (Korean won in thousands):

	2021		2020	
	1% point decrease	1% point increase	1% point decrease	1% point increase
Impact on defined benefit liabilities	₩ (58,620,321)	₩ 66,169,886	₩ (44,895,240)	₩ 50,257,066

The Group also operates a defined contribution pension plan for its employees. The Group's liabilities consist of fixed contributions to be made to a separate pension fund. Future retirement benefits are based on the contributions of the Group and investment gains from plan assets. Plan assets are managed in a separate fund by independent trustees. For the years ended December 31, 2021 and 2020, defined contribution pension plan expenses amounted to ₩11,824,339 thousand and ₩10,110,768 thousand, respectively.

17. Provisions

Details of provisions for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020
Provisions for product warranties	₩ 2,772,457	₩	1,704,886
Emission liabilities	416,034		67,965
	<u>₩ 3,188,491</u>	₩	<u>1,772,851</u>

Provisions for product warranties

Provisions for warranty-related costs are recognized when the product is sold to the customers. Initial recognition is based on past experience on the level of repairs and returns. It is expected that most of these costs will be incurred in the next financial year.

Emission liabilities

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

<i>(in KAU)</i>	2021	2022	2023	2024	2025	Total
Allocated emission permits	458,946	458,946	458,946	454,648	454,648	2,286,134

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17. Provisions (cont'd)

Changes in emission permits quantities and the carrying amounts for the years ended December 31, 2021 and 2020, are as follows.

<i>(in KAU)</i>	2021														Total	
	2020		2021		2022		2023		2024		2025		Quantity	Amount		
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount		
At January 1 and allocation	467,034	₩ -	458,946	₩ -	458,946	₩ -	458,946	₩ -	454,648	₩ -	454,648	₩ -	2,753,168	₩ -		
Carry forward from prior period	-	-	22,973	-	-	-	-	-	-	-	-	-	22,973	-		
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Surrendered to the government	(444,061)	-	-	-	-	-	-	-	-	-	-	-	(444,061)	-		
Disposal	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Carry forward	(22,973)	-	-	-	-	-	-	-	-	-	-	-	(22,973)	-		
At December 31	-	₩ -	481,919	₩ -	458,946	₩ -	458,946	₩ -	454,648	₩ -	454,648	₩ -	2,309,107	₩ -		

<i>(in KAU)</i>	2020														Total	
	2019		2020		2021		2022		2023		2024		2025		Quantity	Amount
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
At January 1 and allocation	418,715	₩ -	420,786	₩ -	458,946	₩ -	458,946	₩ -	458,946	₩ -	454,648	₩ -	454,648	₩ -	3,125,635	₩ -
Carry forward from prior period	42,927	-	46,248	-	-	-	-	-	-	-	-	-	-	89,175	-	
Purchase	27,200	838,598	-	-	-	-	-	-	-	-	-	-	-	27,200	838,598	
Surrendered to the government	(442,594)	(838,598)	-	-	-	-	-	-	-	-	-	-	-	(442,594)	(838,598)	
Disposal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Carry forward	(46,248)	-	-	-	-	-	-	-	-	-	-	-	-	(46,248)	-	
At December 31	-	₩ -	467,034	₩ -	458,946	₩ -	458,946	₩ -	458,946	₩ -	454,648	₩ -	454,648	₩ -	2,753,168	₩ -

17. Provisions (cont'd)

Changes in emission liabilities for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands)

	2021	2020
Beginning	₩ 67,965	₩ 1,901,000
Addition (reversal)	348,069	(994,437)
Submission	-	(838,598)
Ending	<u>₩ 416,034</u>	<u>₩ 67,965</u>

A liability (emission obligation) is recognized only where actual emissions exceed the allocated emission allowances, and the cost of emissions is recognized as debt. Estimated emissions of the Group during 2021 are expected as 470,799KAU.

18. Commitments and contingencies

Significant lines of credit

Significant lines of credit with financial institutions as of December 31, 2021 are as follows (Korean won in thousands and U.S. dollar):

	Credit line (US\$)	Credit line (₩)	Description
Woori Bank and 4 other banks	US\$ 565,975,000	₩ 80,000,000	Overdraft
	(Equivalent to ₩670,963,500)		
Shinhan Bank and 1 other banks	US\$ 7,000,000	-	Import letter of credit
	(Equivalent to ₩8,298,500)		
Hana Bank	-	₩ 1,000,000	Local letter of credit
Woori Bank and 6 other banks	US\$ 850,000,000	₩ 100,000,000	Receivables factoring
	(Equivalent to ₩1,007,675,000)		

The Group provided security deposits for its bank overdraft facilities (Note 5).

In addition, the Group has loan facilities with accounts receivable pledged as collateral related to purchase payments with Woori Bank of Korea and 2 other banks (up to ₩120,360,000 thousand).

In addition, the Group entered into a payment guarantee agreement amounting to ₩32,044,705 thousand with JPMorgan Chase Bank and others for product supply contracts and performance guarantee related to the license and deposit.

Litigation

As of December 31, 2021, the Group is a defendant in a class action lawsuit filed by Cygnus and other entities in Canada in connection with alleged price-fixing for capacitors. Total claims against the Group are currently undeterminable.

In addition, the Group and its affiliates in Samsung Group have paid the imposed penalty in relation to violations of the Monopoly Regulation and Fair Trade Act of the Republic of Korea and have filed a claim for cancellation including the order to rectify injustices.

The outcome of the proceedings cannot be reasonably estimated at the end of the reporting period.

Contractual obligations to purchase property, plant and equipment as of December 31, 2021 are ₩418,083,263 thousand.

19. Issued capital

The Company is authorized to issue 200 million ordinary shares with a par value per share of ₩5,000. As of December 31, 2021, the Company holds 77,600,680 ordinary shares (including 2,906,984 preferred shares) amounting to ₩388,003,400 thousand, which were issued through a series of stock issuances since the Company's incorporation in 1973.

Under the Articles of Incorporation, the Company is authorized to issue 20 million shares of non-voting preferred shares. The Company may issue cumulative, participating and non-voting preferred shares with a dividend rate of more than 1% of par value of ordinary shares. As of December 31, 2021, 2,906,984 of non-cumulative and non-voting preferred shares have been issued and outstanding.

The Company's share premium of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Paid-in capital in excess of par value	₩ 931,477,700	₩ 931,477,700
Consideration for stock warrants	12,160,470	12,160,470
Gains on disposal of treasury stock	16,769,322	16,769,322
Exercise of stock option	1,201,580	1,201,580
Others	91,907,143	83,592,127
	<u>₩ 1,053,516,215</u>	<u>₩ 1,045,201,199</u>

Other components of equity as of December 31, 2021 and 2020 consist solely of treasury stock.

As of December 31, 2021, the Group's treasury stock comprising 2,000,000 ordinary shares and 53,430 preferred shares were repurchased by the Company to stabilize its stock price, which are expected to dispose depending on the stock price.

Accumulated other comprehensive income as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Fair value loss and gain on financial assets measured at FVOCI	₩ 91,754,721	₩ 72,692,009
Disposal loss and gain on financial assets measured at FVOCI	455,940,710	455,940,710
Equity adjustments of investment in associates	2,853,855	1,125,396
Exchange differences on translations of foreign operations	66,359,332	(117,238,777)
	<u>₩ 616,908,618</u>	<u>₩ 412,519,338</u>

Other capital reserves of the Company as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Legal reserve (*)	₩ 122,520,491	₩ 111,920,491
Business rationalization reserve	31,537,766	31,537,766
Capital expenditure reserve	7,895,000	7,895,000
Others	2,554,912,000	2,329,912,000
	<u>₩ 2,716,865,257</u>	<u>₩ 2,481,265,257</u>

(*) In accordance with the Korean Commercial Code, an amount equal to at least 10% of cash dividends is required to be appropriated as a legal reserve until the reserve equals 50% of Issued Capital. The legal reserve may not be utilized for cash dividends but may only be used to offset a deficit, if any, or be transferred to capital.

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19. Issued capital (cont'd)

Details of dividends declared for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Attributable to ordinary shares (2021: ₩2,100 per share, 2020: ₩1,400 per share)	₩ 152,656,762	₩ 101,771,175
Attributable to preferred shares (2021: ₩2,150 per share, 2020: ₩1,450 per share)	6,135,141	4,137,653
	<u>₩ 158,791,903</u>	<u>₩ 105,908,828</u>

20. Operating profit

Revenue from contracts with customers

Details of revenue from contracts with customers are as follows (Korean won in millions):

	2021			
	Component	Optics & Communication Solution	Package Solution	Total
Sales of Goods	₩ 4,743,991	₩ 3,191,975	₩ 1,639,682	₩ 9,575,648
Royalty revenue	27,839	32,081	39,468	99,388
Totally revenue from contracts with customers	<u>₩ 4,771,830</u>	<u>₩ 3,224,056</u>	<u>₩ 1,679,150</u>	<u>₩ 9,675,036</u>
	2020			
	Component	Optics & Communication Solution	Package Solution	Total
Sales of Goods	₩ 3,603,390	₩ 2,733,288	₩ 1,266,855	₩ 7,603,533
Royalty revenue	41,567	69,164	38,995	149,726
Total revenue from contracts with customers	<u>₩ 3,644,957</u>	<u>₩ 2,802,452</u>	<u>₩ 1,305,850</u>	<u>₩ 7,753,259</u>

Details of cost of sales and operating expenses for the years ended December 31, 2021 and 2020 by nature of expense are as follows (Korean won in thousands):

	2021	2020
Changes in inventories, etc.	₩ (285,407,124)	₩ (138,402,637)
Use of raw materials and supplies	4,083,456,869	3,337,986,588
Employee benefit expense	2,067,396,296	1,719,836,501
Depreciation and amortisation(*)	866,427,710	841,177,391
Outsourcing expenses	332,662,847	284,836,898
Commissions	195,828,967	143,916,867
Other expenses	1,625,553,954	1,478,703,831
Less: classified as profit (loss) from discontinued operation	(697,756,225)	(827,534,829)
	<u>₩ 8,188,163,294</u>	<u>₩ 6,840,520,610</u>

(*) Includes depreciation of right-of-use assets.

20. Operating profit (cont'd)

Details of employee benefit expenses for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	<u>2021</u>	<u>2020</u>
Salaries expenses	₩ 1,675,110,475	₩ 1,362,317,581
Pension costs	77,424,720	70,809,348
Employee welfare benefits	314,861,101	286,709,572
	<u>₩ 2,067,396,296</u>	<u>₩ 1,719,836,501</u>

(*) Includes expenses for the year from discontinued operation.

Depreciation of property, plant and equipment and amortisation of intangible assets for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	<u>2021</u>	<u>2020</u>
Depreciation (*1)(*2)	₩ 828,463,945	₩ 807,503,276
Amortisation(*2)	37,963,765	33,674,115
	<u>₩ 866,427,710</u>	<u>₩ 841,177,391</u>

(*1) Includes depreciation of right-of-use assets.

(*2) Includes expenses for the year from discontinued operation.

Details of selling and administrative expenses for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	<u>2021</u>	<u>2020</u>
Employee benefit expense	₩ 209,451,718	₩ 253,986,591
Employee welfare benefits	59,517,561	90,796,939
Commissions	75,965,615	52,469,815
Education and training expenses	10,104,676	6,865,352
Taxes and due	25,120,784	23,038,669
Allowance (reversal) for doubtful accounts	-	(27,889)
Utilities expenses	5,877,428	9,928,606
Sample expenses	3,671,024	4,496,791
Travel expenses	3,534,914	4,034,286
Research and development expense	526,153,387	415,219,545
IT expenses	31,254,155	30,538,831
Other expenses	110,414,023	164,700,914
	<u>₩ 1,061,065,285</u>	<u>₩ 1,056,048,450</u>

21. Non-operating profit and expenses

21.1 Finance income

Finance income consists solely of interest income and details for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020
Financial assets at amortised cost:			
Cash and cash equivalents	₩ 7,959,125	₩	7,325,077
Other financial assets	620,864		2,212,031
Financial assets measured at FVPL:			
Short-term financial instruments	279,712		455,219
	<u>₩ 8,859,701</u>	<u>₩</u>	<u>9,992,327</u>

21.2 Finance costs

Finance costs consist solely of interest costs and details for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020
Financial liabilities at amortised cost:			
Borrowings	₩ 36,119,472	₩	37,600,669
Other financial liabilities:			
Borrowings	1,820,339		3,588,799
Lease liabilities	1,817,321		1,637,220
	<u>₩ 39,757,132</u>	<u>₩</u>	<u>42,826,688</u>

21.3 Share of profit in associates

Details of share of profit in associates for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020
Share of profit in associates	₩ 10,354,077	₩	9,943,018

21.4 Other income

Details of other income for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020
Dividend income	₩ 612,029	₩	352,556
Gain on disposal of financial assets at fair value through PL	4,284		343,794
Gain on valuation of financial assets at fair value through PL	222,832		416,558
Commission income	-		74,579
Gain on disposal of property, plant and equipment	5,106,210		1,369,800
Gain on disposal of intangible assets	-		28,852
Reversal of allowance for other doubtful accounts	86,627		398,051
Gain on foreign currency translation	12,807,457		35,023,860
Gain on foreign currency transactions	197,843,033		199,787,187
Others	8,776,787		15,871,570
	<u>₩ 225,459,259</u>	<u>₩</u>	<u>253,666,807</u>

21. Non-operating profit and expenses (cont'd)

21.5 Other expenses

Details of other expenses for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Loss on disposal of property, plant and equipment	₩ 5,638,644	₩ 6,348,355
Loss on disposal of intangible assets	529,027	971,659
Impairment loss on intangible assets	-	1,459,736
Loss on valuation of financial assets at fair value through PL	155,408	110,083
Loss on disposal of financial assets at fair value through PL	987	-
Loss on disposal of trade receivables	14,829,180	6,951,853
Allowance for doubtful accounts - others	7,857	170,121
Loss on foreign currency translation	9,317,406	32,261,335
Loss on foreign currency transaction	152,194,166	208,553,767
Donations	3,420,534	3,937,270
Others	14,386,574	13,835,292
	<u>₩ 200,479,783</u>	<u>₩ 274,599,471</u>

22. Income tax expenses

The major components of income tax expense for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Current income tax	₩ 291,961,588	₩ 117,268,483
Adjustments in respect of prior years	12,879,189	(20,831,846)
Deferred income tax from temporary differences and tax credits	52,227,557	62,442,488
Deferred income tax charged directly to equity	-	(56,328)
Income tax expense	<u>₩ 357,068,334</u>	<u>₩ 158,822,797</u>
Income tax expense from continuing operations	₩ 413,648,216	₩ 184,608,858
Income tax expense (benefit) from discontinued operations	(56,579,882)	(25,786,061)

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

	2021			2020		
	Before tax	Tax effect	After tax	Before tax	Tax effect	After tax
Financial asset measured at fair value through OCI	₩ 28,054,802	₩ (8,992,090)	₩ 19,062,712	₩ 26,539,404	₩ (6,422,536)	₩ 20,116,868
Re-measurement losses on net defined benefit plans	(76,527,956)	23,947,151	(52,580,805)	(25,303,842)	4,974,910	(20,328,932)
Capital changes in equity method	2,335,756	(607,297)	1,728,459	49,803	(12,052)	37,751
Foreign currency translation adjustments	205,644,199	(22,046,090)	183,598,109	(52,387,768)	18,910,766	(33,477,002)
	<u>₩ 159,506,801</u>	<u>₩ (7,698,326)</u>	<u>₩ 151,808,475</u>	<u>₩ (51,102,403)</u>	<u>₩ 17,451,088</u>	<u>₩ (33,651,315)</u>

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22. Income tax expenses (cont'd)

Details of deferred income taxes charged directly to equity as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	<u>2021</u>	<u>2020</u>
Current income tax:		
Gain or loss on disposal of financial asset at fair value through OCI	₩ -	₩ (56,328)
Deferred income tax:		
Gain or loss on valuation of financial asset at fair value through OCI	(8,992,090)	(6,422,536)
Re-measurement losses on net defined benefit plans	23,947,151	4,974,910
Equity adjustments of investment in associates	(607,297)	(12,052)
Exchange differences on translation of foreign operations	(22,046,090)	18,910,766

A reconciliation of profit before tax at the Korea statutory tax rate to income tax expenses at the effective tax rate of the Group are summarized as follows (Korean won in thousands):

	<u>2021</u>	<u>2020</u>
Profit before tax	₩ 1,272,500,787	₩ 782,633,975
Tax at domestic tax rates applicable to profits in the respective countries	341,726,491	191,212,207
Adjustments:		
Income not taxable for tax purposes	(6,249,110)	(6,125,220)
Expenses not deductible for tax purposes	15,786,260	11,421,277
Effect of deferred income tax arising from temporary difference not recognized	-	17,820,990
Tax effects of investment in subsidiaries and associates	33,265,270	15,231,332
Tax credits	(39,560,416)	(31,256,516)
Adjustment in respect of prior years	13,062,091	(20,831,846)
Re-measurement of deferred tax – change in the tax rate	5,653,103	-
Others	(6,615,355)	(18,649,427)
Income tax expenses	<u>₩ 357,068,334</u>	<u>₩ 158,822,797</u>
Effective income tax rate	28.06%	20.29%

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22. Income tax expenses (cont'd)

Significant changes in tax credit carryforwards, cumulative temporary differences and deferred income tax assets and liabilities for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021				
	January 1	Recognized to income	Recognized directly to equity	Effects of exchange rate changes	December 31
Inventories	₩ 25,531,493	₩ (9,892,610)	₩ -	₩ 964,130	₩ 16,603,013
Property, plant and equipment	16,971,368	7,145,223	-	154,970	24,271,561
Defined benefit liabilities	4,200,643	(25,736,085)	23,947,151	(524)	2,411,185
Accrual expenses	43,342,123	9,841,541	-	579,250	53,762,914
Investment securities	(20,561,171)	168,498	(8,992,090)	-	(29,384,763)
Unused tax credit carry forwards from prior years	61,033,031	(6,192,301)	-	-	54,840,730
Investment in subsidiaries and associates	(33,910,284)	(38,239,348)	(22,653,387)	-	(94,803,019)
Others	919,530	10,677,525	-	925,668	12,522,723
	<u>₩ 97,526,733</u>	<u>₩ (52,227,557)</u>	<u>₩ (7,698,326)</u>	<u>₩ 2,623,494</u>	<u>₩ 40,224,344</u>
	2020				
	January 1	Recognized to income	Recognized directly to equity	Effects of exchange rate changes	December 31
Inventories	₩ 28,519,651	₩ (3,098,745)	₩ -	₩ 110,587	₩ 25,531,493
Property, plant and equipment	19,637,009	(2,582,053)	-	(83,588)	16,971,368
Defined benefit liabilities	3,517,355	(4,289,249)	4,974,910	(2,373)	4,200,643
Accrual expenses	39,846,066	3,595,774	-	(99,717)	43,342,123
Investment securities	(14,119,275)	(19,360)	(6,422,536)	-	(20,561,171)
Unused tax credit carry forwards from prior years	75,527,428	(14,494,397)	-	-	61,033,031
Investment in subsidiaries and associates	(18,823,556)	(33,985,442)	18,898,714	-	(33,910,284)
Others	8,534,037	(7,569,016)	-	(45,491)	919,530
	<u>₩ 142,638,715</u>	<u>₩ (62,442,488)</u>	<u>₩ 17,451,088</u>	<u>₩ (120,582)</u>	<u>₩ 97,526,733</u>

Deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when the temporary differences are expected to reverse.

Based on the Group's assessment of future taxable income, the Group's management concluded that it is probable that the recognized deferred tax assets will be realized in future periods.

The analysis of deferred tax assets and liabilities as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Deferred tax assets		
Deferred tax asset to be recovered after more than 12 months	₩ 266,599,914	₩ 272,417,372
Deferred tax asset to be recovered within 12 months	236,000,164	157,225,799
	<u>502,600,078</u>	<u>429,643,171</u>
Deferred tax liabilities		
Deferred tax liability to be recovered after more than 12 months	(453,325,757)	(331,915,269)
Deferred tax liability to be recovered within 12 months	(9,049,977)	(201,169)
	<u>(462,375,734)</u>	<u>(332,116,438)</u>
Deferred tax assets, net	<u>₩ 40,224,344</u>	<u>₩ 97,526,733</u>

23. Earnings per share

Earnings per share was calculated by dividing net profit by the number of ordinary shares, and diluted earnings per share was calculated by dividing net profit by the weighted average number of dilutive potential ordinary shares. Preferred shares are participating preferred shares, having right to participate in division of profits, therefore their earning per share were computed as well. No dilutive features exist for the years ended December 31, 2021 and 2020 thus basic earnings per share is equivalent to diluted earnings per share.

The Company's basic (diluted) earnings per share for the years ended December 31, 2021 and 2020 are computed as follows (Korean won in thousands, except per share amounts):

	2021	
	Net profit for the year	Profit for the year from continuing operations
Profit for the year attributable to equity holders of the parent	₩ 892,445,317	₩ 1,055,411,300
Preferred shares dividend	(6,135,141)	(6,135,141)
Additional dividends attributable to preferred shares	(27,711,394)	(33,866,909)
Profit for the year attributable to ordinary equity holders of the parent	858,598,782	1,015,409,250
Weighted-average number of shares of ordinary shares outstanding (*)	72,693,696	72,693,696
Basic (diluted) earnings per share	₩ 11,811	₩ 13,968

(*) There is no change in the number of shares.

	2020	
	Net profit for the year	Profit for the year from continuing operations
Profit for the year attributable to equity holders of the parent	₩ 603,961,889	₩ 664,471,772
Preferred shares dividend	(4,137,653)	(4,137,653)
Additional dividends attributable to preferred shares	(18,812,350)	(21,097,653)
Profit for the year attributable to ordinary equity holders of the parent	581,011,886	639,236,203
Weighted-average number of shares of ordinary shares outstanding (*)	72,693,696	72,693,696
Basic (diluted) earnings per share	₩ 7,993	₩ 8,794

(*) There is no change in the number of shares.

23. Earnings per share (cont'd)

The Company's basic (diluted) earnings per share attributable to preferred shares for the years ended December 31, 2021 and 2020 are computed as follows (Korean won in thousands, except per share amounts):

	2021	
	Net profit for the year	Profit for the year from continuing operations
Profit for the year attributable to preferred shares holders of the parent	₩ 33,846,535	₩ 40,002,050
Weighted-average number of shares of ordinary shares outstanding (*)	2,853,554	2,853,554
Basic (diluted) earnings per share	₩ 11,861	₩ 14,018

(*) There is no change in the number of shares.

	2020	
	Net profit for the year	Profit for the year from continuing operations
Profit for the year attributable to preferred shares holders of the parent	₩ 22,950,003	₩ 25,235,569
Weighted-average number of shares of ordinary shares outstanding (*)	2,853,554	2,853,554
Basic (diluted) earnings per share	₩ 8,043	₩ 8,844

(*) There is no change in the number of shares.

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24. Related party transactions

Samsung Electronics Co., Ltd. has significant influence on the Company. Related parties of the Company as of December 31, 2021 are as follows:

Related party	Category
Samsung Electronics Co., Ltd.	Company with significant influence
Samsung Global Research (*1)	Associate
Stemco Co., Ltd.	Associate
Samsung Electronics Vietnam THAINGUYEN Co., Ltd.	Others
Samsung Electronics Vietnam Co., Ltd.	Others
Samsung C&T Corporation	Others
Samsung Engineering Co., Ltd.	
Samsung SDS Co., Ltd.	Others
Samsung Welstory Inc.	
Samsung Display Vietnam Co., Ltd.	Others
Samsung Engineering Construction(Shanghai)Co., Ltd	Others
Samsung Life Insurance Co., Ltd. and other affiliates (*2)	Others

(*1) Its name was changed from Samsung Economic Research Institute to Samsung Global Research during the year ended December 31, 2021.

(*2) Includes subsidiaries and associates of Samsung Electronics Co., Ltd.

Outstanding balances resulted from the transactions among the Company and its related parties as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020	
	Receivables	Payables (*)	Receivables	Payables (*)
Company with significant influence:				
Samsung Electronics Co., Ltd.	₩ 109,997,555	₩ 174,353,538	₩ 75,336,507	₩ 86,833,381
Associate:				
Samsung Global Research	-	2,138,712	-	267,958
Others:				
Samsung Electronics Vietnam THAINGUYEN Co., Ltd.	135,947,411	18,466,035	106,770,355	19,160,021
Samsung Electronics Vietnam Co., Ltd.	42,107,188	-	45,057,953	14,249
Samsung C&T Corporation	19,089,009	135,235	19,087,409	230,440
Samsung Engineering Co., Ltd.	-	30,659,200	-	8,800,000
Samsung SDS Co., Ltd.	994	14,827,482	520	7,570,633
Samsung Welstory Inc.	-	3,024,874	22	3,469,181
Samsung Display Vietnam Co., Ltd.	8,649,348	-	43,613,374	-
Others	29,252,819	35,149,105	24,378,408	61,501,500
	<u>₩ 345,044,324</u>	<u>₩ 278,754,181</u>	<u>₩ 314,244,548</u>	<u>₩ 187,847,363</u>

(*) Includes lease liabilities.

The Group operated defined benefit plan with Samsung Life Insurance Co., Ltd. The fair value of the plan as of December 31, 2021 amounts to ₩307,053 million (2020: ₩327,329 million); and interest income recognized amounts to ₩9,984 million for the year ended December 31, 2021 (2020: ₩10,517 million).

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24. Related party transactions (cont'd)

Significant transactions among the Company and its related parties for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021				
	Sales	Purchases	Acquisition of assets	Cash dividends	
Company with significant influence:					
Samsung Electronics Co., Ltd.	₩ 1,008,729,738	₩ 596,912,638	₩ 915,000	₩ -	
Associate:					
Samsung Global Research	-	6,534,024	-	-	
Stemco Co., Ltd.	-	76,084	-	5,102,100	
Others:					
Samsung Electronics Vietnam THAINGUYEN Co., Ltd.	1,222,755,758	5,786,882	-	-	
Samsung Electronics Vietnam Co., Ltd.	362,515,554	544,086	-	-	
Samsung C&T Corporation	12,607	2,174,853	-	-	
Samsung Engineering Co., Ltd.	-	-	62,120,099	-	
Samsung SDS Co., Ltd.	10,189	94,472,770	14,596,804	-	
Samsung Welstory Inc.	160	34,882,394	8,475	-	
Samsung Display Vietnam Co., Ltd.	335,054,800	-	-	-	
Samsung Engineering Construction(Shanghai) Co., Ltd	-	46,512,570	117,441,345	-	
Others	342,756,092	288,149,805	23,533,567	-	
	<u>₩ 3,271,834,898</u>	<u>₩ 1,076,046,106</u>	<u>₩ 218,615,290</u>	<u>₩ 5,102,100</u>	
	2020				
	Sales	Disposal of assets	Purchases	Acquisition of assets	Cash dividends
Company with significant influence:					
Samsung Electronics Co., Ltd.	₩ 1,105,861,399	₩ 11,592	₩ 546,232,423	₩ -	₩ -
Associate:					
Samsung Global Research	-	-	5,513,945	-	-
Stemco Co., Ltd.	-	-	-	-	5,791,700
Others:					
Samsung Electronics Vietnam THAINGUYEN Co., Ltd.	966,338,864	-	6,099,034	-	-
Samsung Electronics Vietnam Co., Ltd.	653,113,568	-	518,036	-	-
Samsung C&T Corporation	12,607	-	2,765,557	133,700	-
Samsung Engineering Co., Ltd.	2,280	-	4,716,280	53,544,701	-
Samsung SDS Co., Ltd.	9,228	-	71,076,374	7,499,275	-
Samsung Welstory Inc.	240	-	35,645,677	20,710	-
Samsung Display Vietnam Co., Ltd.	289,200,379	-	-	-	-
Samsung Engineering Construction(Shanghai) Co., Ltd	-	-	18,946,220	165,070,190	-
Others	279,008,091	681,324	239,343,145	23,519,059	-
	<u>₩ 3,275,546,656</u>	<u>₩ 692,916</u>	<u>₩ 930,856,691</u>	<u>₩ 249,787,635</u>	<u>₩ 5,791,700</u>

Dividend paid to Samsung Electronics Co., Ltd. amounts to ₩24,770 million (2020: ₩19,462 million) and cash contributions to Samsung Heavy Industries Co., Ltd. amounts to ₩23,158 million.

Fund transactions with related parties for the years ended December 31, 2021 are as follows (Korean won in thousands):

	2021
	Dividend paid
Samsung Asia Pte. Ltd.	₩ 25,265,338

24. Related party transactions (cont'd)

The Group has no collateral or guarantees provided to or received from related parties as of December 31, 2021.

In accordance with a lease agreements entered with related parties, the Group has recognized rights-of-use assets and lease liabilities of ₩1,452 million (2020: ₩28,577 million), respectively. The repayment of lease liabilities paid to related parties amounts to ₩4,585 million (2020: ₩4,238 million) and interest expense recognized amounts to ₩388 million (2020: ₩421 million) for the year ended December 31, 2021.

In relation to key management compensation of the Group for the year ended December 31, 2021, the Group recognized expenses for short-term benefits, including short-term incentives of ₩4,414 million and long-term benefits, including other long-term employee benefits and pension benefits of ₩3,480 million.

25. Supplementary consolidated cash flow information

Cash flows from operating activities for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Profit for the year	₩ 915,432,453	623,811,178
Adjustments to reconcile profit before tax to net cash flows:		
Valuation of inventories	(2,052,656)	(51,175,309)
Loss on scrap of inventories	125,937,571	129,597,724
Loss on valuation of return assets	169,385	1,067,602
Pension costs	63,601,027	59,913,807
Long-term employee benefits	7,731,963	10,512,964
Depreciation	807,197,126	787,414,203
Depreciation of right-of-use assets	21,266,819	20,089,073
Amortisation of intangible assets	37,963,765	33,674,115
(Reversal of) provision for product warranties	(390,375)	337,987
Gain on foreign exchange translation	(13,323,537)	(35,306,065)
Gain on disposal of financial asset at FV through PL	(3,297)	(343,794)
Gain on disposal of financial asset at FV through PL	(67,424)	(306,475)
Reversal of allowance for doubtful accounts - trade receivables	-	(27,685)
Loss on disposal of trade receivables	14,832,442	6,967,302
Reversal of allowance for doubtful accounts - other receivables	(78,898)	(255,012)
Gain on disposal of property, plant and equipment	(6,603,444)	(19,376,203)
Gain on disposal of intangible assets	-	(30,827)
Loss on foreign currency translation	9,602,154	36,295,046
Loss on disposal of property, plant and equipment	45,218,868	10,625,609
Loss on disposal of intangible assets	624,390	1,070,978
Finance income	(9,304,095)	(12,344,881)
Finance costs	41,076,599	48,139,204
Dividend income	(647,915)	(383,951)
Share of profit in associates	(10,354,077)	(9,943,017)
Income tax expense	357,068,334	158,822,797
Reversal of refund liabilities	1,210,834	(737,198)
(Reversal of) provision for emission liabilities	348,069	(994,437)
Impairment loss on property, plant and equipment	84,349,460	-
Impairment loss on intangible assets	58,860	1,586,561
Others	27,765	(67,140)
	1,575,459,713	1,174,822,978

25. Supplementary consolidated cash flow information (cont'd)

	<u>2021</u>	<u>2020</u>
Working capital adjustments:		
Other financial assets	₩ 2,606	₩ 36,149
Trade and other receivables	(196,094,985)	33,367,201
Advance payments	(1,593,214)	4,181,910
Prepaid expenses	24,410,957	(756,681)
Inventories	(475,610,745)	(284,211,259)
Long-term advance payments and prepaid expenses	140,961	(209,618)
Short-term and long-term loans	(114,240)	268,915
Trade and other payables	129,185,013	256,589,078
Advances received	(5,752,361)	7,868,673
Other financial liabilities	52,264,207	14,479,858
Long-term other payables	(2,652,902)	6,767,915
Net defined benefit liabilities	<u>(148,592,044)</u>	<u>(89,833,260)</u>
	<u>(624,406,747)</u>	<u>(51,451,119)</u>
Net cash flows from operating activities	<u>₩ 1,866,485,419</u>	<u>₩ 1,747,183,037</u>

Significant transactions not involving cash flows for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	<u>2021</u>	<u>2020</u>
Reclassification of construction-in-progress	₩ 894,080,374	₩ 777,729,687
Reclassification of machinery-in-transit	113,835,839	130,960,565
Transfer of current portion of long-term borrowings	787,587,240	570,410,491
Acquisition of PPE with account payables	82,133,464	57,854,060

25. Supplementary consolidated cash flow information (cont'd)

Changes in liability arising from financial activities as of December 31, 2021 and 2020 (Korean won in thousands):

	2021			
	January 1	Net cash flows from financing activities	Others (*)	December 31
Short-term borrowings	₩ 406,200,835	₩ (353,218,119)	₩ 3,503,681	₩ 56,486,397
Current portion of long-term borrowings	204,681,307	(700,629,521)	812,064,810	316,116,596
Long-term borrowings	1,233,208,709	79,250,456	(692,696,938)	619,762,227
Lease liability	62,597,906	(20,388,259)	47,968,714	90,178,361
Dividend payables	24,788,765	(131,170,767)	106,393,032	11,030
	<u>₩ 1,931,477,522</u>	<u>₩ (1,126,156,210)</u>	<u>₩ 277,233,299</u>	<u>₩ 1,082,554,611</u>

(*) Others represent effect of foreign currency transition and translation, non-cash transactions and others.

	2020			
	January 1	Net cash flows from financing activities	Others (*)	December 31
Short-term borrowings	₩ 569,189,648	₩ (159,894,356)	₩ (3,094,457)	₩ 406,200,835
Current portion of long-term borrowings	173,835,740	(530,298,773)	561,144,340	204,681,307
Long-term borrowings	1,219,727,736	630,847,815	(617,366,842)	1,233,208,709
Lease liability	48,671,224	(19,576,493)	33,503,175	62,597,906
Dividend payables	10,383	(83,242,156)	108,020,538	24,788,766
	<u>₩ 2,011,434,731</u>	<u>₩ (162,163,963)</u>	<u>₩ 82,206,754</u>	<u>₩ 1,931,477,522</u>

(*) Others represent effect of foreign currency transition and translation, non-cash transactions and others.

26. Financial risk management objectives and policies

The Group's principal financial liabilities, comprise borrowings, trade and other payables, and lease liabilities and other liabilities. The main purpose of these financial liabilities is to finance the Group's operations and to provide guarantees to support its operations. Also, the Group has various financial assets including trade receivables, cash and short-term deposits that arrive directly from its operations.

The Group is exposed to market risk, credit risk and liquidity risk. The Group's senior management oversees the management of these risks. It is the Group's policy that no trading in derivatives for speculative purposes shall be undertaken.

26.1 Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market prices comprise three types of risk: interest rate risk, currency risk and other price risk, such as equity price risk.

The sensitivity analyses in the following sections are related to the position as of December 31, 2021 and 2020.

26.1.1 Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's long-term debt obligations with floating interest rates. The Group manages its interest rate risk by having a balanced portfolio of fixed and variable rate loans and borrowings.

Borrowings with floating interest rates amounts to ₩854,439,723 thousand (2020: ₩1,359,096,749 thousand) as of December 31, 2021. The following table demonstrates a sensitivity analysis to a reasonably possible change in interest rates on that portion of borrowings. With all other variables held constant, the effect of changes in interest rates of floating rate borrowings on profit before tax is as follows (Korean won in thousands):

	2021		2020	
	100bp increase	100bp decrease	100bp increase	100bp decrease
Impact on interest costs	₩ (8,544,397)	₩ 8,544,397	₩ (13,590,967)	₩ 13,590,967

26.1.2 Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Group's exposure to the risk of changes in foreign exchange rates relates primarily to the Group's operating activities and the Group's net investments in foreign subsidiaries. The book values of monetary assets and liabilities which are not presented in functional currency as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020	
	Assets	Liabilities	Assets	Liabilities
USD	₩ 2,150,317,087	₩ 1,500,382,235	₩ 1,830,858,647	₩ 1,818,228,410
EUR	76,885,385	29,148,804	31,747,946	23,617,926
JPY	3,097,194	62,099,768	1,063,783	39,495,316
PHP	10,108,929	52,556,682	11,407,443	38,594,921
VND	4,344,977	18,734,918	1,835,337	31,857,734
SGD	539,999	4,308,424	473,983	1,548,130
Others	527,908	1,702,366	70,491,116	100,765
	<u>₩ 2,245,821,479</u>	<u>₩ 1,668,933,197</u>	<u>₩ 1,947,878,255</u>	<u>₩ 1,953,443,202</u>

The Group manages its foreign currency risk periodically. The following table demonstrates a sensitivity analysis of a reasonably possible change in the foreign currency exchange rates, with all other variables held constant, on the Group's profit before tax as of December 31, 2021 and 2020. (Korean won in thousands):

	2021		2020	
	5% increase	5% decrease	5% increase	5% decrease
USD	₩ 32,496,743	₩ (32,496,743)	₩ 631,511	₩ (631,511)
EUR	2,386,829	(2,386,829)	406,501	(406,501)
JPY	(2,950,129)	2,950,129	(1,921,577)	1,921,577
PHP	(2,122,388)	2,122,388	(1,359,374)	1,359,374
VND	(719,497)	719,497	(1,501,120)	1,501,120
SGD	(188,421)	188,421	(53,708)	53,708
Others	(58,723)	58,723	3,519,518	(3,519,518)
	<u>₩ 28,844,414</u>	<u>₩ (28,844,414)</u>	<u>₩ (278,249)</u>	<u>₩ 278,249</u>

The sensitivity analyses were conducted on monetary assets and liabilities which are presented in foreign currency other than functional currency as of the reporting date.

26.1.3 Other price risk

The Group's marketable equity securities are susceptible to market price risk arising from the fluctuation in the price of the securities. The following table demonstrates a sensitivity analysis of a reasonably possible change in the price of marketable equity securities on the financial statements of the Group as of December 31, 2021 (Korean won in thousands):

	5% increase	5% decrease
Other comprehensive income before tax	₩ 10,693,482	₩ (10,693,482)
Income tax effect	(2,780,305)	2,780,305
Other comprehensive income after tax	₩ 7,913,177	₩ (7,913,177)

26.2 Credit risk

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss of the Group. The Group is exposed to credit risk from its operating activities (primarily for trade receivables) and from its financing activities.

26.2.1 Trade receivables and other receivables

Customer credit risk is managed by each business unit subject to the Group's established policy, procedures and control related to customer credit risk management. Credit quality of the customer is assessed based on an extensive credit rating scorecard and individual credit limits are defined in accordance with this assessment. Outstanding customer receivables are regularly monitored. The maximum exposure to credit risk at the reporting date is as follows (Korean won in thousands):

	2021	2020
Trade receivables	₩ 1,219,392,294	₩ 943,793,120
Other receivables	67,614,262	51,827,896

The Group assesses the expected credit losses at the end of every reporting period based on a forward-looking information. The impairment methodology applied depends on whether there has been a significant increase in credit risk. For trade receivables and other receivables, the Group applies the simplified approach, which requires expected lifetime credit losses to be recognized from initial recognition of the receivables. In addition, the Group entered into guarantee insurance contracts with Korea Trade Insurance Corporation and other insurance corporations for the credit risk of foreign customers.

26.2.2 Other assets

Credit risks associated with the Group's other assets which consist of cash, short-term deposits and short-term and long-term loans arise from the default by the counterparties. Maximum exposure to credit risks will be the book value of the related assets. The Group deposits its surplus funds in Woori Bank and other financial institutions whose credit ratings are high, therefore credit risk related to financial institutions is considered limited.

26.3 Liquidity risk

Liquidity risk refers to the risk that the Group may default on the contractual obligations that become due. The Group manages its risk to a shortage of funds using a recurring liquidity planning tool. The Group matches the financial liabilities with the financial assets taking into account the maturity dates and cash flow from operating activities of those financial assets.

The table below summarises the maturity profile of the Group's financial liabilities based on contractual undiscounted payments (Korean won in thousands):

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26.3 Liquidity risk (cont'd)

The future cash flows of financial liabilities are nominal amounts but not discounted. The remaining maturities indicate the earliest timing when the creditors can request repayments.

	2021				Total
	Less than 3 months	3 to 12 months	1 to 5 years	Over 5 years	
Trade and other payables	₩ 1,045,109,193	₩ 21,165,415	₩ 12,008	₩ -	₩ 1,066,286,616
Short-term borrowings	15,082,069	41,565,976	-	-	56,648,045
Current portion of long-term borrowings	2,319,896	319,219,252	-	-	321,539,148
Long-term borrowings	4,174,271	12,754,718	656,425,478	-	673,354,467
Other financial liabilities	7,270,211	20,780,783	58,634,150	20,144,622	106,829,766
Lease liability	-	5,504,416	-	-	5,504,416
	<u>₩ 1,073,955,640</u>	<u>₩ 420,990,560</u>	<u>₩ 715,071,636</u>	<u>₩ 20,144,622</u>	<u>₩ 2,230,162,458</u>

	2020				Total
	Less than 3 months	3 to 12 months	1 to 5 years	Over 5 years	
Trade and other payables	₩ 892,192,824	₩ 4,456,802	₩ 4,446	₩ -	₩ 896,654,072
Short-term borrowings	368,281,080	38,218,879	-	-	406,499,959
Current portion of long-term borrowings	22,901,161	185,500,978	-	-	208,402,139
Long-term borrowings	8,824,378	26,963,376	1,297,620,904	-	1,333,408,658
Other financial liabilities	3,993,993	11,268,180	34,657,026	15,601,308	65,520,507
Lease liability	-	2,676,642	-	-	2,676,642
	<u>₩ 1,296,193,436</u>	<u>₩ 269,084,857</u>	<u>₩ 1,332,282,376</u>	<u>₩ 15,601,308</u>	<u>₩ 2,913,161,977</u>

26.4 Capital management

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business and maximize shareholder value.

The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions. To maintain the sound capital structure, the Group may adjust the dividend payment to shareholders, reduce capital stock, or issue new shares.

No changes were made in the objectives, policies or processes for managing capital during the years ended December 31, 2021 and 2020.

The Group monitors a gearing ratio, which is net debt divided by total capital (sum of total equity and net debt). Net debt refers to trade and other payables, borrowings and other liabilities, less cash and cash equivalents.

The gearing ratios as of the reporting date are computed as follows (Korean won in thousands):

	2021	2020
Trade and other payables	₩ 1,552,754,699	₩ 1,206,839,823
Borrowings	992,365,220	1,844,090,851
Other liabilities	144,239,152	53,658,804
Less: Cash and cash equivalent	<u>(1,185,206,918)</u>	<u>(1,479,767,417)</u>
Net debt	1,504,152,153	1,624,822,061
Total equity	<u>6,871,125,643</u>	<u>5,910,395,939</u>
Total capital (Net debt and shareholder's equity)	<u>₩ 8,375,277,796</u>	<u>₩ 7,535,218,000</u>
Gearing ratio	17.96%	21.56%

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27. Fair value

27.1 Fair value of financial instruments

Details of book values and fair values of financial assets and liabilities as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021		2020	
	Book value	Fair value	Book value	Fair value
Financial assets:				
Financial assets at amortised cost				
Cash and cash equivalents	₩ 1,185,206,918	(*)	₩ 1,479,767,417	(*)
Trade and other receivables	1,258,135,790	(*)	979,997,652	(*)
Short-term and long-term loans	2,908,059	(*)	2,544,920	(*)
Other financial assets	42,982,111	(*)	33,975,075	(*)
Financial assets measured at FVOCI				
Listed equity investments	213,869,644	₩ 213,869,644	101,361,219	₩ 101,361,219
Non-listed equity investments	31,788,903	31,788,903	93,114,203	93,114,203
Financial assets measured at FVPL				
Short-term financial instruments and others	57,754,667	57,754,667	45,479,720	45,479,720
Total financial assets	₩ 2,792,646,092		₩ 2,736,240,206	
Financial liabilities:				
Financial liabilities at amortised cost:				
Trade and other payables	₩ 1,066,286,616	(*)	₩ 896,654,072	(*)
Other liabilities	5,504,416	(*)	2,676,642	(*)
Short-term borrowings	41,492,500	(*)	38,080,000	(*)
Current portion of long-term borrowings	316,116,596	(*)	204,681,307	(*)
Long-term borrowings	619,762,227	(*)	1,233,208,709	(*)
Other financial liabilities:				
Borrowings	14,993,897	(*)	368,120,835	(*)
Lease liability	90,178,361	(*)	62,597,906	(*)
Total financial liabilities	₩ 2,154,334,613		₩ 2,806,019,471	

(*) Book value is a reasonable approximation of fair value are excluded from the fair value disclosures.

27.2 Fair value measurement

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

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

Meanwhile, financial assets at fair value through other comprehensive income of ₩62,189,100 thousands were transferred from level 3 to level 1 as SoluM Co., Ltd., an investee, was listed on the stock market during the year ended December 31, 2021.

There have been no significant transfers between Level 1, Level 2 and Level 3.

27. Fair value (cont'd)

27.3 Fair value on the statement of financial position:

As of December 31, 2021 and 2020, the Group held the following assets and liabilities carried at fair value on the statement of financial position (Korean won in thousands):

	2021			
	Level 1	Level 2	Level 3	Total
Financial assets measured at FVOCI				
Listed equity investment	₩ 213,869,644	₩ -	₩ -	₩ 213,869,644
Non-listed equity investment	-	-	31,788,903	31,788,903
Financial assets measured at FVPL				
Short-term financial instruments and others	-	-	57,754,667	57,754,667
	2020			
	Level 1	Level 2	Level 3	Total
Financial assets measured at FVOCI				
Listed equity investment	₩ 101,361,219	₩ -	₩ -	₩ 101,361,219
Non-listed equity investment	-	-	93,114,203	93,114,203
Financial assets measured at FVPL				
Short-term financial instruments and others	-	-	45,479,720	45,479,720

27.4 Valuation Techniques and the Inputs

(1) The Group is using cash flow discount model as valuation methods for the assets and liabilities classified as level 2.

(2) The valuation method, input variables in assets and liabilities classified as level 3 are as follows (Korean won in thousands)

Classification	Fair value	Valuation method	2021	
			Input variables	Range of Input variables (weighted average)
Financial assets measured at FVOCI				
Samsung Venture Investment Co., Ltd.	₩ 23,104,020	Discounted Cash flow model	Growth rate	-1.00%~1.00% (0%)
			Discount rate(WACC)	19.68%~21.68% (20.68%)
IMA	8,634,683	Discounted Cash flow model	Growth rate	0.00%~1.00% (0%)
			Discount rate(WACC)	9.22%~11.22% (10.22%)

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27. Fair value (cont'd)

Classification	Fair value	Valuation method	2020	
			Input variables	Range of Input variables (weighted average)
Financial assets measured at FVOCI				
Samsung Venture Investment Co., Ltd.	₩ 22,960,200	Discounted Cash flow model	Growth rate Discount rate(WACC)	-1.00%~1.00% (0%) 18.69%~20.69% (19.69%)
SoluM Co., Ltd.(*)	62,189,100	Discounted Cash flow model	Growth rate Discount rate(WACC)	-1.00%~1.00% (0%) 13.90%~15.90% (14.90%)
IMA	7,884,703	Discounted Cash flow model	Growth rate Discount rate(WACC)	-1.00%~1.00% (0%) 10.02%~12.00% (11.00%)

(*) Transferred from level 3 to level 1 as it was listed on the stock market during the year ended December 31, 2021.

(3) Changes in financial instruments classified as level 3 are as follows (Korean won in thousands):

	2021			
	Beginning	Valuation	Transfers(*)	Ending
Financial assets measured at FVOCI				
Samsung Venture Investment Co., Ltd.	₩ 22,960,200	₩ 143,820	₩ -	₩ 23,104,020
SoluM Co., Ltd.(*)	62,189,100	-	(62,189,100)	-
IMA	7,884,703	749,980	-	8,634,683

(*) Transferred from level 3 to level 1 as it was listed on the stock market during the year ended December 31, 2021.

	2020		
	Beginning	Valuation	Ending
Financial assets measured at FVOCI			
Samsung Venture Investment Co., Ltd.	₩ 13,274,280	₩ 9,685,920	₩ 22,960,200
Solu-M Co., Ltd.	40,389,900	21,799,200	62,189,100
IMA	8,804,010	(919,307)	7,884,703

27.5 Sensitivity analysis of fair value measurement classified as level 3 of the fair value hierarchy

Sensitivity analysis of financial instrument is based on changes in financial instrument's value accordance with changes in unobservable input variables derived from statistical method

Impact of changes in unobservable input variables are as follows (Korean won in thousands):

	2021			
	Favorable changes		Unfavorable changes	
	gain and loss	Equity	gain and loss	Equity
Financial assets measured at FVOCI(*)	₩ -	1,275,347	₩ -	₩ (833,143)

27.5 Sensitivity analysis of fair value measurement classified as level 3 of the fair value hierarchy (cont'd)

(*) Fair value changes of equity securities in Samsung Venture Investment Co., Ltd. were measured by increasing or decreasing of correlation between two main unobservable variable input, the growth rate (-1.00%~1.00%) and discount rate (19.68%~21.68%). Also, the fair value changes of equity securities in IMA were measured by increasing or decreasing of correlation between two main unobservable inputs, the growth rate (-0.00%~1.00%) and discount rate (9.22%~11.22%).

	2020			
	Favorable changes		Unfavorable changes	
	gain and loss	Equity	gain and loss	Equity
Financial assets measured at FVOCI(*)	₩ -	10,350,896	₩ -	₩ (7,972,575)

(*) Fair value changes of equity securities in Samsung Venture Investment Co., Ltd. were measured by increasing or decreasing of correlation between two main unobservable variable input, the growth rate (-1.00%~1.00%) and discount rate (18.69%~20.69%). The fair value changes of equity securities in IMA were measured by increasing or decreasing of correlation between two main unobservable inputs, the growth rate (-0.00%~1.00%) and discount rate (10.00%~12.00%). Also, the fair value changes of equity securities in SoluM Co., Ltd. were measured by increasing or decreasing of correlation between two main unobservable inputs, the growth rate (-1.00%~1.00%) and discount rate (13.90%~15.90%).

27. Fair value

27.6 Details of gain and losses by categories

Details of gains and losses arising from financial instruments by categories for the year ended December 31, 2021 are as follows (Korean won in thousands):

	Financial assets at amortised cost	Financial assets measured at FVOCI	Financial assets measured at FVPL	Financial liabilities at amortised cost	Other financial liabilities	Total
Interest income	₩ 8,579,989	₩ -	₩ 279,712	₩ -	₩ -	₩ 8,859,701
Dividend income	-	612,029	-	-	-	612,029
Foreign exchange gains and losses	54,550,341	-	-	(5,944,441)	533,018	49,138,918
Interest expenses	-	-	-	(36,119,472)	(3,637,660)	(39,757,132)
Loss on disposal of trade receivables	(14,829,180)	-	-	-	-	(14,829,180)
Reversal of allowance for other doubtful accounts—others	78,770	-	-	-	-	78,770
Gain/loss on financial assets measured at fair value through OCI	-	19,062,712	-	-	-	19,062,712
Gain or loss on valuation of FVPL	-	-	67,424	-	-	67,424
Gain or loss on disposal of FVPL	-	-	4,284	-	-	4,284

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27. Fair value (cont'd)

Details of gains and losses arising from financial instruments by categories for the year ended December 31, 2020 are as follows (Korean won in thousands):

	Financial assets at amortised cost	Financial assets measured at FVOCI	Financial assets measured at FVPL	Financial liabilities at amortised cost	Other financial liabilities	Total
Interest income	₩ 9,537,108	₩ -	₩ 455,219	₩ -	₩ -	₩ 9,992,327
Dividend income	-	352,556	-	-	-	352,556
Foreign exchange gains and losses	(89,309,159)	-	-	78,995,829	4,309,275	(6,004,055)
Interest expenses	-	-	-	(37,600,669)	(5,226,019)	(42,826,688)
Loss on disposal of trade receivables	(6,951,853)	-	-	-	-	(6,951,853)
Reversal of allowance for doubtful accounts – trade	27,889	-	-	-	-	27,889
Reversal of allowance for other doubtful accounts– others	227,930	-	-	-	-	227,930
Gain/loss on financial assets measured at fair value through OCI	-	20,116,868	-	-	-	20,116,868
Gain/loss on disposal of financial assets measured at FVOCI	-	176,433	-	-	-	176,433
Gain or loss on valuation of FVPL	-	-	306,475	-	-	306,475
Gain or loss on disposal of FVPL	-	-	343,794	-	-	343,794

28. Discontinued operations

From 2020, management of the Group has been in the process of selling the Wi-Fi network module business including investments in Samsung Electro-Mechanics (Thailand) Co., Ltd., and the Group entered into a business and share transfer agreement with Hanwha Solutions Corporation on December 30, 2021. Accordingly, related assets and liabilities are classified as held for sale, and related gains or losses are classified as profit (loss) from discontinued operation.

In addition, the Board of Directors of the Group decided to discontinue production and sales of rigid flex printed circuit board and dispose of residual assets on October 15, 2021. As the production and operation have been terminated in December, related gains and losses were classified as profit (loss) from discontinued operations. On December 12, 2019, Kunshan Samsung Electro-Mechanics Co., Ltd. decided to discontinue its operations. Accordingly, related assets and liabilities are classified as held for sale, and related gains or losses are classified as profit (loss) from discontinued operation.

The comparative statement of comprehensive income was rewritten to show related income or loss from discontinued operations.

The consolidated statements of profit or loss for the years ended December 31, 2021 and 2020, included in the comprehensive income statement, are as follows (Korean won in thousands):

	2021	2020
Sales	₩ 606,532,657	₩ 719,224,392
Cost of sales	618,659,594	690,002,864
Gross profit (loss)	(12,126,937)	29,221,528
Selling and administrative expenses	79,096,631	137,531,965
Operating loss	(91,223,568)	(108,310,437)
Non-operating income (loss)	(127,584,600)	22,029,743
Loss before tax	(218,808,168)	(86,280,694)
Income tax benefit	(56,579,882)	(25,786,060)
Loss for the year from discontinued operation after tax	₩ (162,228,286)	₩ (60,494,634)
Basic and diluted, loss for the year from discontinued operations attributable to ordinary shareholders of the parent	₩ (2,147)	₩ (801)
Basic and diluted, loss for the year from discontinued operations attributable to preferred shareholders of the parent	(2,147)	(801)

28. Discontinued operations (cont'd)

Assets held for sale and liabilities directly associated with the assets held for sale as of December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2021	2020
Current assets		
Cash and cash equivalents	₩ 47,368,591	₩ 5,686,675
Trade and other receivables	2,436,127	752,627
Other current assets	449,710	812,729
Inventories, net	10,987,819	35,539,206
Non-current assets		
Property, plant and equipment	88,191,410	149,597,324
Other non-current assets	6,209,360	6,283,036
Deferred tax assets	17,664	324,533
Assets held for sale	<u>₩ 155,660,681</u>	<u>₩ 198,996,130</u>
Current liabilities		
Other current liabilities	₩ 4,195,462	₩ 31,350,459
Non-current liabilities	<u>2,740,904</u>	<u>3,462,889</u>
Liabilities directly associated with the assets held for sale	<u>₩ 6,936,366</u>	<u>₩ 34,813,348</u>
Net assets classified as held for sale	<u>₩ 148,724,315</u>	<u>₩ 164,182,782</u>

Cashflows from discontinued operations are as follows (Korean won in thousands):

	2021	2020
Net cash flows from operating activities	₩ (217,345,395)	₩ (82,253,446)
Net cash flows from investing activities	(28,634,558)	9,704,822
Net cash flows from financing activities	(25,407,828)	(20,058,766)
Effects of exchange rate changes on cash and cash equivalents	1,250,830	1,119,158
Net increase (decrease) in cash and cash equivalents	(270,136,951)	(91,488,232)

The Group recognized impairment of property, plant and equipment and others of Kunshan Samsung Electro-Mechanics Co., Ltd. which were classified as assets held for sale and disposal group of Samsung Electro-Mechanics (Thailand) Co., Ltd. during the current period, and its recoverable amount is measured at the fair value less disposal costs. (Korean won in thousands)

	Impairment loss
Property, plant and equipment and others	₩ 63,225,894
Disposal group	<u>19,386,065</u>
	<u>₩ 82,611,959</u>