

**GS Engineering & Construction
Corporation and Subsidiaries**
Consolidated Financial Statements
December 31, 2020 and 2019

GS Engineering & Construction Corporation and Subsidiaries
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December 31, 2020 and 2019

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Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of
GS Engineering & Construction Corporation

Opinion

We have audited the accompanying consolidated financial statements of GS Engineering & Construction Corporation and its subsidiaries (collectively referred to as the "Group") which comprise the consolidated statement of financial position as of December 31, 2020, and the consolidated statement of profit or loss, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of GS Engineering & Construction Corporation and its subsidiaries as of December 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS).

Basis for Opinion

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

Key Audit Matters

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

A. Revenue recognition based on input method

Why it is determined to be a key audit matter

As explained in the Note 2 to the consolidated financial statements, the Group recognizes revenue over the construction periods for the construction services, which the Group creates or enhances an asset that the customer controls as the asset is created or enhanced, such as construction of a building on the customer's land. The Group measures progress towards completion (percentage-of-completion method) based on input method for construction services. Meanwhile, for housing contracts satisfying conditions under Korea Accounting Institute's Question and Answer, 2017-I-KQA015, the Group recognizes revenue over the period that controls are transferred and also measures progress towards completion based on input method for those services.

As explained in the Note 3 to the consolidated financial statements (Accounting Estimates and Assumptions), the measurement of total contract revenue is affected by the uncertainty of future events relating to project scope changes, claims and incentive payments and penalties, etc. arising from the course of construction. In addition, total contract costs are estimated based on future estimates of material costs, labor costs, construction period and others involving uncertain changes.

We considered the revenue recognition based input method is a key audit matter for certain contracts which are judged to have a significant impact on the consolidated financial statements due to significant uncertainty in the estimation of total contract revenue and total contract costs by management among the total construction contracts of the Group.

How our audit addressed the key audit matter

In respect of the above-mentioned material construction contracts, we performed the following audit procedures.

- Appropriateness of revenue recognition based on input method
 - We obtained an understanding of the accounting policies regarding recognition of revenue for construction contract adopted by the Group.
 - We assessed the appropriateness of applying input method in case that it was used for revenue recognition.
 - We determined whether the revenue recognition for housing contract is in compliance with Korean IFRS.
- Appropriateness of total contract revenue
 - We obtained an understanding the internal control in relation to engagement or amendment of construction contracts and tested the effectiveness of design and operations of the key controls.
 - We tested the contract amount and material terms and conditions by inspecting construction contracts.
 - We inquired of management if there were any variations in project scope which affected total contract revenue and verified whether the contacts have been modified.

- We reviewed the reasonableness of the Group's review on possibilities of liquidated damages.
- Uncertainty of estimated total contract costs
 - We obtained an understanding the internal controls in relation to amendment or approval of contract costs and tested the effectiveness of design and operations of the key controls.
 - We examined if the total contract cost used for input method were finally approved by the appropriate approvers, and reconciled the total contract cost used for input method with total contract cost on accounting management system.
 - We evaluated the appropriateness of estimation by comparing accumulated incurred contract costs against the estimated total contract costs of construction sites that construction has been completed.
 - We examined whether there were any significant changes in total contract costs after at the end of reporting period.
 - We inquired for projects with significant changes in total contract costs and reviewed the reason for changes.
- Accumulated incurred contract costs of construction site and accuracy of revenue calculation
 - We obtained an understanding the internal controls in relation to aggregated and approved cost incurred of construction sites and tested the effectiveness of design and operations of the key controls.
 - We tested the completeness and accuracy of the accumulated costs incurred of construction sites by reconciling the costs incurred with the amount recorded in general ledger.
 - We tested the occurrence of constructions costs and accuracy of corresponding construction sites by inspecting external support documents.
 - We performed independent recalculation of revenue based on percentage-of-completion method of construction sites.

B. Recoverability of financial assets and contract assets for contracts with impairment indicators

Why it is determined to be a key audit matter

As explained in the Note 6 (Trade and Other Receivables) and Note 7 (Construction Contracts) to the consolidated financial statements, the Group recognized ₩ 483,684 million of allowance for doubtful accounts for receivables from construction contracts, receivables from apartment sales and contract assets as of December 31, 2020. Certain construction contracts involve the management's significant accounting estimates and judgments regarding the recoverability of financial assets including trade receivables and contract assets due to disagreement with the customer, deteriorating financial status of the customer, and the increase in unsold apartment sales. Therefore, we considered the recoverability of financial assets and contract assets for contracts with impairment indicators is a key audit matter.

How our audit addressed the key audit matter

In respect of the aforementioned recoverability of financial assets and contract assets for contracts with impairment indicators, we performed the following audit procedures.

- We obtained an understanding the internal controls in relation to contracts with impairment indicators and tested the effectiveness of design and operations of the key controls.
- We reviewed the reasons for the delayed invoicing for contract assets of contracts with impairment indicators and examined customers' financial status.
- We assessed the appropriateness of management's analysis on collectability of financial assets and contract assets held by construction sites with impairment indicators.

Emphasis of Matter

Without modifying our opinion, we draw attention to Note 3 to the consolidated financial statements of the Group. Note 3 to the consolidated financial statements describes management's plans and action taken to resolve uncertainty relating to the impact of Coronavirus disease 2019 (COVID-19) on the Group's operating circumstances.

Other Matters

The consolidated financial statements of the Company for the year ended December 31, 2019, were audited by Ernst & Young Han Young who expressed an unqualified opinion on those statements on March 19, 2020.

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

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

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

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

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

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

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

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

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

Seoul, Korea
March 18, 2021

This report is effective as of March 18, 2021, the review 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.

GS Engineering & Construction Corporation and its subsidiaries

Consolidated financial statements
for the years ended December 31, 2020 and 2019

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

Byeong Yong Lim
Chief Executive Officer
GS Engineering & Construction Corporation

GS Engineering & Construction Corporation and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2020 and 2019

(in millions of Korean won)

	Notes	2020	2019
Assets			
Current assets			
Cash and cash equivalents	5,9,32,33	₩ 2,118,919	₩ 1,792,956
Trade and other receivables, net	6,9,30,32,33	1,957,065	2,407,744
Contract assets	7,32	1,023,757	1,097,436
Inventories	8	1,430,061	875,114
Short-term financial assets	5,9,11,32,33	257,870	284,372
Other current assets	8	464,238	871,235
Total current assets		<u>7,251,910</u>	<u>7,328,857</u>
Non-current assets			
Property, plant and equipment, net	13	1,426,773	1,176,032
Intangible assets, net	14	744,305	489,994
Investment properties	15	1,021,872	918,272
Right-of-use assets	16	411,820	519,044
Investments in associates	12	101,687	52,395
Long-term trade and other receivables, net	6,9,30,32,33	866,621	922,558
Long-term financial assets	5,9,30,32,33	616,806	677,334
Deferred income tax assets	28	962,406	846,852
Financial assets at fair value through profit or loss	9,10,33	249,466	239,868
Other non-current assets	8	117,012	-
Total non-current assets		<u>6,518,768</u>	<u>5,842,349</u>
Total assets		<u>₩ 13,770,678</u>	<u>₩ 13,171,206</u>
Liabilities			
Current liabilities			
Trade and other payables	9,17,30,32,33	₩ 1,403,146	₩ 1,629,980
Short-term financial liabilities	9,11,16,18,32,33	1,193,472	991,732
Contract liabilities	7	1,781,861	2,176,743
Income tax payable	28	196,998	133,844
Current provisions	7,20	195,710	135,707
Other current liabilities	7,9,17,30,33	957,674	732,885
Total current liabilities		<u>5,728,861</u>	<u>5,800,891</u>
Non-current liabilities			
Long-term trade and other payables	9,17,33	189,394	-
Long-term financial liabilities	9,15,16,18,32,33	2,957,979	2,685,035
Net defined benefit liabilities	19	17,772	49,810
Non-current provisions	20,32	353,727	285,855
Deferred income tax liabilities	28	155,825	130,340
Other non-current liabilities	9,17,33	55,003	76,248
Total non-current liabilities		<u>3,729,700</u>	<u>3,227,288</u>
Total liabilities		<u>9,458,561</u>	<u>9,028,179</u>
Equity			
Equity attributable to owners of the parent			
Share capital	1,22	403,541	400,489
Share premium	22	815,676	802,294
Other components of equity	22	(36,716)	(9,428)
Accumulated other comprehensive loss	11,22	(117,391)	(46,036)
Retained earnings	23	3,076,110	2,827,363
		<u>4,141,220</u>	<u>3,974,682</u>
Non-controlling interests		170,897	168,345
Total equity		<u>4,312,117</u>	<u>4,143,027</u>
Total liabilities and equity		<u>₩ 13,770,678</u>	<u>₩ 13,171,206</u>

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

GS Engineering & Construction Corporation and Subsidiaries
Consolidated Statements of Profit or Loss
Years Ended December 31, 2020 and 2019

<i>(in millions of Korean won)</i>	Notes	2020	2019
Sales	4,7,30		
Construction operations		₩ 9,010,369	₩ 9,672,557
Housing construction and sales operations		435,913	398,192
Other operations		676,649	345,840
		<u>10,122,931</u>	<u>10,416,589</u>
Cost of sales	7,29,30		
Cost of construction operations		7,701,477	8,397,454
Cost of housing construction and sales operations		300,048	302,090
Cost of other operations		586,318	319,177
		<u>8,587,843</u>	<u>9,018,721</u>
Gross profit		<u>1,535,088</u>	<u>1,397,868</u>
Selling and administrative expenses	25,29	<u>784,690</u>	<u>630,601</u>
Operating profit	4	750,398	767,267
Other operating income	9,11,26	244,439	264,177
Other operating expenses	9,11,26	457,808	389,312
Share of loss of associates and joint ventures	12	(6,139)	(2,904)
Finance income	9,11,27,30	210,320	260,442
Finance costs	9,11,27,32	<u>222,770</u>	<u>225,936</u>
Profit before income tax	4	518,440	673,734
Income tax expenses	28	<u>188,764</u>	<u>226,255</u>
Profit for the year		<u>₩ 329,676</u>	<u>₩ 447,479</u>
Profit is attributable to:			
Equity holders of the parent		₩ 311,695	₩ 443,360
Non-controlling interests		17,981	4,119
Earnings per share attributable to the equity holders of the parent (in Korean won)	24		
Basic earnings per share		₩ 3,919	₩ 5,590
Diluted earnings per share		3,814	5,046

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

GS Engineering & Construction Corporation and Subsidiaries
Consolidated Statements of Comprehensive Income
Years Ended December 31, 2020 and 2019

(in millions of Korean won)

	Notes	2020	2019
Profit for the year		₩ 329,676	₩ 447,479
Other comprehensive income (loss)			
Other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods (net of tax):			
Gain (loss) on exchange differences on translations of foreign operations	22,28	(102,688)	17,218
Gain on valuation of derivative instruments	11,22,28	4,300	5,550
Share of other comprehensive income of associates and joint ventures	12,28	(1,916)	-
Other comprehensive income (loss) not to be reclassified to profit or loss in subsequent periods (net of tax):			
Remeasurements on net defined benefit liabilities	19,23,28	16,233	(14,495)
Other comprehensive income (loss) for the year		<u>(84,071)</u>	<u>8,273</u>
Total comprehensive income for the year		<u>₩ 245,605</u>	<u>₩ 455,753</u>
Total comprehensive income for the year is attributable to:			
Equity holders of the parent		₩ 256,893	₩ 453,516
Non-controlling interests		(11,288)	2,237

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

GS Engineering & Construction Corporation and Subsidiaries
Consolidated Statements of Changes in Equity
Years Ended December 31, 2020 and 2019

<i>(in millions of Korean won)</i>									
	Notes	Share capital	Share premium	Other components of equity	Accumulated other comprehensive income (loss)	Retained earnings	Total	Non-controlling Interests	Total
As of January 1, 2019		₩ 397,179	₩ 811,768	₩ (77,045)	₩ (70,463)	₩ 2,487,073	₩ 3,548,512	₩ 76,173	₩ 3,624,685
Cumulative effect of changes in accounting policy		-	-	-	-	(6,232)	(6,232)	-	(6,232)
Restated total equity at the beginning of the financial year		<u>397,179</u>	<u>811,768</u>	<u>(77,045)</u>	<u>(70,463)</u>	<u>2,480,841</u>	<u>3,542,280</u>	<u>76,173</u>	<u>3,618,453</u>
Total comprehensive income (loss)									
Profit for the year	23	-	-	-	-	443,360	443,360	4,119	447,479
Gain on exchange differences on translations of foreign operations	22,28	-	-	-	18,817	-	18,817	(1,599)	17,218
Gain on valuation of derivative instruments	11,22,28	-	-	-	5,610	-	5,610	(60)	5,550
Remeasurements on net defined benefit liabilities	19,23,28	-	-	-	-	(14,271)	(14,271)	(224)	(14,495)
Total comprehensive income (loss) for the year		<u>-</u>	<u>-</u>	<u>-</u>	<u>24,427</u>	<u>429,089</u>	<u>453,516</u>	<u>2,236</u>	<u>455,752</u>
Transactions with equity holders of the parant									
Interest payment in relation to the hybrid securities	23	-	-	-	-	(795)	(795)	-	(795)
Dividends to equity holders of the parent	23	-	-	-	-	(78,743)	(78,743)	(4,250)	(82,993)
Changes in the non-controlling interest		-	-	-	-	-	-	2,366	2,366
Changes in consolidation		-	-	-	-	-	-	91,403	91,403
Changes in shares of subsidiaries		-	(25,235)	67,617	-	510	42,892	1,055	43,947
Conversion of convertible bond	18	3,310	15,761	-	-	-	19,071	-	19,071
Others		-	-	-	-	(3,539)	(3,539)	(638)	(4,177)
Total transactions with equity holders of the parant		<u>3,310</u>	<u>(9,474)</u>	<u>67,617</u>	<u>-</u>	<u>(82,567)</u>	<u>(21,114)</u>	<u>89,936</u>	<u>68,822</u>
As of December 31, 2019		<u>₩ 400,489</u>	<u>₩ 802,294</u>	<u>₩ (9,428)</u>	<u>₩ (46,036)</u>	<u>₩ 2,827,363</u>	<u>₩ 3,974,682</u>	<u>₩ 168,345</u>	<u>₩ 4,143,027</u>
As of January 1, 2020		₩ 400,489	₩ 802,294	₩ (9,428)	₩ (46,036)	₩ 2,827,363	₩ 3,974,682	₩ 168,345	₩ 4,143,027
Total comprehensive income (loss)									
Profit for the year	23	-	-	-	-	311,695	311,695	17,981	329,676
Gain on exchange differences on translations of foreign operations	22,28	-	-	-	(76,664)	-	(76,664)	(26,024)	(102,688)
Gain on valuation of derivative instruments	11,22,28	-	-	-	7,226	-	7,226	(2,925)	4,301
Share of other comprehensive income of associates and joint ventures	12,28	-	-	-	(1,917)	-	(1,917)	-	(1,917)
Re-measurements on net defined benefit liabilities	19,23,28	-	-	-	-	16,553	16,553	(320)	16,233
Total comprehensive income (loss) for the year		<u>-</u>	<u>-</u>	<u>-</u>	<u>(71,355)</u>	<u>328,248</u>	<u>256,893</u>	<u>(11,288)</u>	<u>245,605</u>
Transactions with equity holders of the parant									
Interest payment in relation to the hybrid securities	23	-	-	-	-	(398)	(398)	-	(398)
Redemption of hybrid securities	22	-	-	(27,015)	-	-	(27,015)	-	(27,015)
Dividends to equity holders of the parent	23	-	-	-	-	(79,405)	(79,405)	(9,715)	(89,120)
Changes in the non-controlling interest		-	-	-	-	-	-	963	963
Changes in consolidation		-	-	-	-	1,739	1,739	13,938	15,677
Changes in shares of subsidiaries		-	15	-	-	(4)	11	(11)	-
Conversion of convertible bond	18	3,052	13,333	-	-	-	16,385	-	16,385
Others		-	34	(273)	-	(1,433)	(1,672)	8,665	6,993
Total transactions with equity holders of the parant		<u>3,052</u>	<u>13,382</u>	<u>(27,288)</u>	<u>-</u>	<u>(79,501)</u>	<u>(90,355)</u>	<u>13,840</u>	<u>(76,515)</u>
As of December 31, 2020		<u>₩ 403,541</u>	<u>₩ 815,676</u>	<u>₩ (36,716)</u>	<u>₩ (117,391)</u>	<u>₩ 3,076,110</u>	<u>₩ 4,141,220</u>	<u>₩ 170,897</u>	<u>₩ 4,312,117</u>

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

GS Engineering & Construction Corporation and Subsidiaries
Consolidated Statements of Cash Flows
Years Ended December 31, 2020 and 2019

<i>(in millions of Korean won)</i>	Notes	2020	2019
Cash flows from operating activities			
Cash generated from operations	₩	933,204	₩ 1,161,512
Interest received		42,896	69,066
Interest paid		(135,124)	(137,342)
Dividends received		600	750
Income tax paid		(287,697)	(334,716)
Net cash inflow from operating activities		<u>553,879</u>	<u>759,270</u>
Cash flows from investing activities			
Decrease in other receivables		422,737	349,000
Decrease in short-term financial assets		255,489	520,789
Decrease in long-term other receivables		409,351	140,054
Decrease in long-term financial assets		408,352	71,809
Disposal of financial assets at fair value through profit or loss		14,070	24,785
Disposal of investments in associates		210	291
Disposal of property, plant and equipment		30,136	7,045
Disposal of intangible assets		15,672	1,308
Disposal of investment properties		1,652	859
Changes in consolidation		-	9,786
Increase in other receivables		(359,020)	(169,507)
Increase in short-term financial assets		(246,291)	(477,447)
Increase in long-term other receivables		(404,105)	(546,224)
Increase in long-term financial assets		(330,330)	(123,644)
Acquisition of financial assets at fair value through profit or loss		(12,371)	(13,281)
Acquisition of investments in associates		(61,227)	(24,680)
Acquisition of property, plant and equipment		(127,651)	(142,819)
Acquisition of intangible assets		(18,388)	(17,235)
Acquisition of investment properties		(60,902)	(69,598)
Acquisition of subsidiaries		(206,370)	(288,904)
Changes in consolidation		-	(7)
Net cash outflow from investing activities		<u>(268,986)</u>	<u>(747,620)</u>
Cash flows from financing activities			
Increase in short-term financial liabilities		1,074,040	2,155,082
Increase in long-term financial liabilities		1,712,400	1,025,746
Increase in other non-current liabilities		4,719	3,272
Increase in non-controlling interests		7,443	45,952
Decrease in short-term financial liabilities		(1,885,403)	(2,672,926)
Decrease in other current liabilities		(8,471)	(5,439)
Decrease in long-term financial liabilities		(636,401)	(110,485)
Decrease in other non-current liabilities		(14,554)	(2,245)
Acquisition of subsidiaries		-	(67,616)
Dividends paid		(89,167)	(83,017)
Redemption of hybrid securities		(27,426)	-
Interest payment in relation to the hybrid securities		(398)	(795)
Payment of stock issuance costs		(13)	(39)
Payment of principal portion of lease liabilities		(85,836)	(103,963)
Net cash inflow from financing activities		<u>50,933</u>	<u>183,527</u>
Net foreign exchange difference		<u>(9,863)</u>	<u>5,160</u>
Net increase in cash and cash equivalents		325,963	200,337
Cash and cash equivalents at the beginning of the year		<u>1,792,956</u>	<u>1,592,619</u>
Cash and cash equivalents at the end of the year	₩	<u>2,118,919</u>	₩ <u>1,792,956</u>

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

GS Engineering & Construction Corporation and Subsidiaries

Notes to the Consolidated Financial Statements

December 31, 2020 and 2019

1. General Information

General information of GS Engineering & Construction Corporation (the “Company”) and its subsidiaries including Xi S&D Inc. (collectively referred to as the “Group”) in accordance with Korean IFRS 1110 *Consolidated Financial Statement* are as follows.

1.1 Information of the Company

The Company was incorporated on December 19, 1969, under the laws of the Republic of Korea to engage in civil works and architectural construction, construction and sales of new houses, repairs and maintenance, overseas general construction and technology consultation. The Company acquired Lucky Foreign Construction Co., Ltd., LG Engineering Co., Ltd. and Baekyang Development Co., Ltd. on January 4, 1979, August 1, 1999 and October 1, 2000, respectively.

The Company listed its shares on the Korea Exchange on August 3, 1981, and changed its name from LG Engineering & Construction Co., Ltd. to GS Engineering & Construction Corporation on March 18, 2005. Also, in accordance with the *Monopoly Regulation and Fair Trade Act*, the Korea Fair Trade Commission has designated the Group as the related entities to GS Group and placed restrictions on mutual investments between the Group and the entities within GS Group.

As of December 31, 2020, the Company operates overseas branches and construction sites in several foreign countries, including the United Arab Emirates, Kuwait, China, Canada, China and Singapore.

The Company's issued capital as of December 31, 2020 amounts to ₩ 403,541 million.

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1.2 Summary of the Consolidated Subsidiaries

Name of subsidiary	Percentage of ownership (%)		Location	Year end	Principal business activity
	2020	2019			
Xi S&D Inc.	61.17	61.17	Korea	12.31	Construction management
Xi - Estec Co., Ltd.	100.00	100.00	Korea	12.31	Construction service
GCS	100.00	99.85	Korea	12.31	Service
BSM Co., Ltd.	100.00	100.00	Korea	12.31	Processing
Zeit O&M Co., Ltd.	100.00	100.00	Korea	12.31	Service
GVESCO Corporation	100.00	100.00	Korea	12.31	Service
Pohang Yeongliman Ocean Cable car Co., Ltd.	60.00	60.00	Korea	12.31	Service
GPC Corp. ¹	100.00	-	Korea	12.31	Manufacture
Xi Mechanics Corp. ¹	100.00	-	Korea	12.31	Manufacture
Pavilion Professional Investment Private Placement Real Estate Investment Trust No. 40 ^{1,2}	100.00	-	Korea	12.31	Collective investment
K Safe Salmon Co.,Ltd. ¹	62.38	-	Korea	12.31	Fishery
XIGEIST ¹	100.00	-	Korea	12.31	Manufacture
Enerma Corp. ¹	100.00	-	Korea	12.31	Manufacture
GVESCO Investment Management Corp. ¹	100.00	-	Korea	12.31	Service
GS E&C Nanjing Co.,Ltd.	100.00	100.00	China	12.31	Construction
Vietnam GS Industry One-Member LLC	100.00	100.00	Vietnam	12.31	Real estate
Vietnam GS Enterprise One Member LLC	100.00	100.00	Vietnam	12.31	Real estate
ZEITGEIST EDUCATION CO., LTD ¹	100.00	-	Vietnam	12.31	Service
GS E&C Delhi Pvt. Ltd.	100.00	100.00	India	3.31	Construction service
GS Engineering & Construction Mumbai Pvt. Ltd.	100.00	100.00	India	3.31	Construction service
PT. GSENC Development Indonesia	100.00	100.00	Indonesia	12.31	Construction service
GS Construction Arabia Co.,Ltd. ²	100.00	100.00	Saudi Arabia	12.31	Construction
GS Real Estate Development Company	100.00	100.00	Saudi Arabia	12.31	Construction
GS Construction Middle East L.L.C. ³	49.00	49.00	UAE	12.31	Construction
GS E&C Thai Co., Ltd. ⁴	-	49.00	Thailand	8.31	Real estate
GS E&C Poland SP.ZO.O	100.00	100.00	Poland	12.31	Construction
Danwood S.A. ¹	100.00	-	Poland	12.31	Construction
Danwood GmbH ¹	100.00	-	Poland	12.31	Construction
GS Engineering & Construction Spain, S.L.	100.00	100.00	Spain	12.31	Construction
GS Inima Environment S.A.U. ⁵	100.00	100.00	Spain	12.31	Construction

GS Engineering & Construction Corporation and Subsidiaries
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Name of subsidiary	Percentage of ownership (%)		Location	Year end	Principal business activity
	2020	2019			
Chervona Gora EKO	100.00	100.00	Ukraine	12.31	Construction
GS E&C Ukraine, LLC	100.00	100.00	Ukraine	12.31	Construction
Elements (Europe) Limited ¹	75.00	-	UK	12.31	Construction
GS Real Estate Development Company London LTD. ¹	100.00	-	UK	12.31	Real estate
GS E&C Construction Canada Ltd.	100.00	100.00	Canada	12.31	Construction
GS E&C Panama S.A.	100.00	100.00	Panama	12.31	Lease
GS Village Lake LLC	100.00	100.00	USA	12.31	Real estate
GS Property Mountain View LLC	100.00	100.00	USA	12.31	Real estate
GS MIRAMAR 700 EC, LLC	90.00	90.00	USA	12.31	Real estate
777 WMF, LLC ¹	100.00	-	USA	12.31	Real estate
GS MIRAMAR VILLAGE LAKES MANAGER, LLC ¹	80.00	-	USA	12.31	Real estate
CDCF III FORTBAY MV, LLC ¹	91.52	-	USA	12.31	Real estate
GS Redlands, LLC ¹	100.00	-	USA	12.31	Construction
700 EC PROPERTY, LLC	90.00	90.00	USA	12.31	Real estate
MOUNTAIN VIEW MEZZ, LLC ¹	91.52	-	USA	12.31	Real estate
MOUNTAIN VIEW OWNER, LLC ¹	91.52	-	USA	12.31	Real estate
PALA-POWER GENERAL CONSRUCTION SERVICE (PROPRIETARY) LIMITED	100.00	100.00	Botswana	12.31	Construction
GS Engineering & Construction Australia Pty Ltd	100.00	100.00	Australia	12.31	Construction

¹ Newly included in consolidation for the year ended December 31, 2020.

² Includes securities held by subsidiaries.

³ In accordance with a contractual arrangement with other shareholders, the Group is able to exercise control over the entity and has been included in consolidation.

⁴ Liquidated and excluded from the consolidated subsidiaries for the year ended December 31, 2020.

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⁵ Summarized information of its subsidiaries are as follows:

Name of subsidiary	Location	Principal business activity	Year end	Percentage of ownership (%)
Aguas de Ensenada, S.A. de C.V.	Mexico	Construction	12.31	100.00
Ambient Servicos Ambientais de Ribeirao Preto, S.A.	Brazil	Construction	12.31	100.00
Aquaria Water LLC	USA	Construction	12.31	87.50
Araucaria Saneamento, S.A.	Brazil	Construction	12.31	51.00
GS Inima Chile S.A.	Chile	Construction	12.31	100.00
GS Inima Mexico, S.A. de C.V.	Mexico	Construction	12.31	100.00
GS Inima USA Construction Corporation	USA	Construction	12.31	100.00
GS Inima USA Corporation	USA	Construction	12.31	100.00
GS Inima Brasil Ltda.	Brazil	Construction	12.31	100.00
Promoaqua Desalacion de los Cabos, S.A. de C.V.	Mexico	Construction	12.31	100.00
Saneamento do Vale do Paraiba, S.A.	Brazil	Construction	12.31	50.10
Servicos de Saneamento de Mogi Mirim, S.A.	Brazil	Construction	12.31	64.00
Tecnicas y Gestion Medioambiental, S.A.	Spain	Construction	12.31	100.00
Tractament Metropolita de Fangs, S.L.	Spain	Construction	12.31	50.40
CASINIMA - Empreitada Ponte da Baia, A.C.E.	Portugal	Construction	12.31	50.00
GS Inima Servicios Corporativos, S.A. de C.V.	Mexico	Construction	12.31	100.00
SOCIEDAD DE ECONOMIA MIXTA AGUAS DE SORIA S.L.	Spain	Construction	12.31	59.20
VALORINIMA S.L.	Spain	Construction	12.31	80.00
Sanama Saneamento Alta Maceio S.A.	Brazil	Construction	12.31	60.00
INIMA-CVV S.A.	Chile	Construction	12.31	65.00
CAEPA COMPANHIA DE AGUA E EGOSTO DE PARIBUNA S.A.	Brazil	Construction	12.31	95.00
COMASA COMPANHIA AGUAS DE SANTA RITA S.A	Brazil	Construction	12.31	75.00
SAMAR SOLUCOES AMBIENTAIS DE ARACATUBA S.A.	Brazil	Construction	12.31	100.00
Inima Water Services, S.L.	Spain	Construction	12.31	100.00
GS Inima Water Management S.L.	Spain	Construction	12.31	100.00
GS Inima Inversiones S.L.U.	Spain	Construction	12.31	100.00
GS Inima Gestion S.L.U.	Spain	Construction	12.31	100.00
Shariket Miyeh Ras Djinet, Spa ¹	Algeria	Construction	12.31	25.49
GS Inima Environment Colombia S.A.S	Colombia	Construction	12.31	100.00
GS Inima Industrial S.A.	Brazil	Construction	12.31	100.00
Aquapolo Ambiental S.A.	Brazil	Construction	12.31	51.00
Jeceaba Ambiental S.A.	Brazil	Construction	12.31	84.50
Distribuidora de Aguas Triunfo S.A.	Brazil	Construction	12.31	100.00
GS Inima Servicos de Saneamento Eireli	Brazil	Construction	12.31	100.00
Ouro Preto Servicos de Saneamento S.A. - Saneouro	Brazil	Construction	12.31	60.00

¹ In accordance with a contractual arrangement with other shareholders, the Group is able to exercise control over the entity and has been included in consolidation.

GS Engineering & Construction Corporation and Subsidiaries

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1.3 Summarized Financial Information

(in millions of Korean won)

	2020				
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
Xi S&D Inc.	₩ 414,088	₩ 251,574	₩ 162,514	₩ 356,212	₩ 20,880
Xi - Estec Co., Ltd.	815	350	465	4,253	44
GCS	24,196	5,852	18,344	58,408	1,203
BSM Co., Ltd.	3,651	1,427	2,224	12,679	1,187
Zeit O&M Co., Ltd.	17,498	13,109	4,389	60,990	(5,165)
GVESCO Corporation	5,278	492	4,786	1,289	157
Pohang Yeongliman Ocean Cable car Co., Ltd.	6,225	2,008	4,217	-	(388)
GPC Corp.	50,256	4,538	45,718	-	(559)
Xi Mechanics Corp.	4,787	83	4,704	-	(296)
Pavilion Professional Investment Private Placement Real Estate Investment Trust No. 40	8,814	14	8,800	1	(63)
K Safe Salmon Co., Ltd.	2,547	-	2,547	-	(18)
XIGEIST	3,449	-	3,449	-	(56)
Enerma Corp.	4,972	-	4,972	-	(28)
GS E&C Nanjing Co., Ltd.	143,438	120,144	23,294	174,618	11,052
Vietnam GS Industry One- Member LLC	307,490	295,485	12,005	4,842	(11,778)
Vietnam GS Enterprise One Member LLC	383,661	440,469	(56,808)	-	(3,671)
GS E&C Delhi Pvt. Ltd.	14,654	17,239	(2,585)	7,312	(6,704)
GS Engineering & Construction Mumbai Pvt. Ltd.	14,306	17,312	(3,006)	8,875	(7,633)
PT. GSENC Development Indonesia	22,460	1,227	21,233	-	(338)
ZEITGEIST EDUCATION CO., LTD	318	-	318	-	-
GS Construction Arabia Co., Ltd.	39,403	748,732	(709,329)	141,969	(58,639)
GS Construction Middle East L.L.C.	7,312	20,598	(13,286)	6,587	(5,830)
GS Real Estate Development Company	281	125	156	-	(432)
GS E&C Poland SP.ZO.O ¹	468,763	257,059	211,704	274,013	14,386
GS Inima Environment S.A.U. ¹	1,148,222	605,195	543,027	295,648	30,378
GS Engineering & Construction Spain, S.L.	136,573	40,199	96,374	1,421	(4,474)
Chervona Gora EKO	27,100	21,842	5,258	3,990	(1,893)
GS E&C Ukraine, LLC	-	-	-	-	-
Elements (Europe) Limited	32,327	3,389	28,938	22,192	4
GS Real Estate Development Company London LTD	222	1	221	-	(1)
GS E&C Construction Canada Ltd.	111	1,338	(1,227)	-	1
GS E&C Panama S.A.	1,091	-	1,091	-	11

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(in millions of Korean won)

	2020				
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
GS Village Lake LLC	38,271	2,202	36,069	-	(3,403)
GS Property Mountain View LLC	22,395	5,735	16,660	-	830
GS MIRAMAR 700 EC, LLC ¹	44,122	29,218	14,904	4,223	740
777 WMF, LLC	21,976	-	21,976	-	(2)
GS MIRAMAR VILLAGE LAKES MANAGER, LLC	27,200	-	27,200	-	-
CDCF III FORTBAY MV, LLC ¹	177,886	164,623	13,263	5,993	(6,779)
GS Redlands, LLC	5,840	-	5,840	-	(38)
PALA-POWER GENERAL CONSTRUCTION SERVICE(PROPRIETARY) LIMITED	29	67	(38)	-	(6)
GS Engineering & Construction Australia Pty Ltd	17,055	21,113	(4,058)	-	(1,942)

¹ Includes financial information of subsidiaries.

(in millions of Korean won)

	2019				
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
Xi S&D Inc.	₩ 278,481	₩ 133,345	₩ 145,136	₩ 277,945	₩ 12,433
Xi - Estec Co., Ltd.	894	473	421	4,613	20
GCS	24,479	7,338	17,141	64,257	2,444
BSM Co., Ltd.	4,084	2,022	2,062	18,161	1,858
Zeit O&M Co., Ltd.	18,925	9,371	9,554	67,089	496
GVESCO Corporation	5,031	376	4,655	-	(345)
Pohang Yeongliman Ocean Cable car Co., Ltd.	6,696	2,091	4,605	-	(395)
GS E&C Nanjing Co., Ltd.	181,176	139,385	41,791	362,893	28,055
Vietnam GS Industry One- Member LLC	224,008	199,912	24,096	-	(1,814)
Vietnam GS Enterprise One Member LLC	378,836	435,528	(56,692)	14,773	(21,439)
GS E&C Delhi Pvt. Ltd.	14,274	15,641	(1,367)	8,231	(7,305)
GS Engineering & Construction Mumbai Pvt. Ltd.	14,766	10,268	4,498	7,268	(10,097)
GS E&C Thai Co., Ltd.	36	-	36	-	-
GS E&C MALAYSIA SDN.BHD. PT. GSENC Development	-	-	-	-	(21)
Indonesia	24,248	1,106	23,142	-	(1,045)
GS Construction Arabia Co., Ltd.	53,434	750,801	(697,367)	11,807	(27,486)
GS Saudi Co., Ltd.	-	-	-	-	-
GS Construction Middle East L.L.C.	2,580	10,998	(8,418)	253	(7,253)
GS Real Estate Development Company	155	29	126	-	(28)

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<i>(in millions of Korean won)</i>	2019				
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
GS E&C Poland SP.ZO.O	365	302	63	-	2
GS Engineering & Construction Spain, S.L.	134,141	43,827	90,314	4,525	(3,556)
GS Inima Environment S.A. ¹	1,453,639	927,948	525,691	287,856	23,467
Chervona Gora EKO	24,980	15,894	9,086	-	365
GS E&C Ukraine, LLC	-	-	-	-	-
GS E&C Construction Canada Ltd.	129	1,405	(1,276)	-	9
GS E&C Panama S.A.	1,172	22	1,150	-	-
GS Village Lake LLC	17,222	2,246	14,976	-	(113)
GS Property Mountain View LLC	28,556	11,641	16,915	-	737
GS MIRAMAR 700 EC, LLC ¹	47,812	31,126	16,686	4,523	829
PALA-POWER GENERAL CONSTRUCTION	30	65	(35)	-	(7)
GS Engineering & Construction Australia Pty Ltd	12,282	14,279	(1,997)	-	(1,364)

¹ Includes financial information of subsidiaries.

The summarized financial information of the subsidiaries is based on amounts before inter-company eliminations. If the significant accounting treatments of the subsidiaries are different from those of the Company, such differences are adjusted.

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2. Basis of Preparation and a Summary of Significant Accounting Policies

2.1 Basis of Preparation

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

Certain information attached to the Korean language financial statements, but not required for a fair presentation of the Group's financial position, financial performance or cash flows, is not presented in the accompanying consolidated financial statements.

The consolidated financial statements of the Group have been prepared in accordance with Korean IFRS. These are the standards, subsequent amendments and related interpretations issued by the International Accounting Standards Board (IASB) that have been adopted by the Republic of Korea.

The consolidation financial statements have been prepared on a historical cost basis, except for investment properties, land and buildings classified as property, plant and equipment, derivative financial instruments, debt and equity securities of financial assets, contingent consideration and non-cash distribution liabilities that have been measured at fair value. The carrying values of recognized assets and liabilities that are designated as hedged items in fair value hedges that would otherwise be carried at amortized cost are adjusted to record changes in the fair values attributable to the risks that are being hedged in effective hedge relationships. The consolidation financial statements are presented in Korean won (KRW) and all values are rounded to the nearest millions, except when otherwise indicated.

2.2 Basis of Consolidation

The consolidated financial statements comprise the financial statements of the Company and its subsidiaries as of December 31, 2020. 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

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

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- Rights arising from other contractual arrangements
- The Group's voting rights and potential voting rights

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. 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 statement of profit or loss 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 resultant gain or loss is recognized in profit or loss. Any investment retained is recognized at fair value.

2.3 Summary of Significant Accounting Policies

2.3.1 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, which is measured at acquisition date fair value, and the amount of any non-controlling interests in the acquiree. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

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. This includes the separation of embedded derivatives in host contracts by the acquiree. 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.

The consideration the acquirer transfers in exchange for the acquiree includes any asset or liability resulting from a contingent consideration arrangement. The acquirer shall recognize the acquisition-

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date fair value of contingent consideration as part of the consideration transferred in exchange for the acquiree. Contingent consideration classified as assets or liabilities within the scope of Korean IFRS 1109 shall be measured at fair value at each reporting date and changes in fair value shall be recognized in profit or loss, or other comprehensive income, in accordance with Korean IFRS 1109. Contingent consideration classified as equity shall not be remeasured and its subsequent settlement shall be accounted for within equity. Other contingent consideration that is not within the scope of Korean IFRS 1109 shall be measured in accordance with other appropriate standards.

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.

2.3.2 Investment in Associates and Joint Ventures

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. A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. The considerations made in determining significant influence or joint control are similar to those necessary to determine control over subsidiaries.

The Group's investments in its associate and joint venture are accounted for using the equity method. Under the equity method, the investment in an associate or a joint venture 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 or joint venture since the acquisition date. Goodwill relating to the associate or joint venture is included in the carrying amount of the investment and is neither amortized nor individually tested for impairment.

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The statement of profit or loss reflects the Group's share of the results of operations of the associate or joint venture. Any change in OCI of those investees is presented as part of the Group's OCI. In addition, when there has been a change recognized directly in the equity of the associate or joint venture, the Group recognizes its share of any changes, when applicable, in the statement of changes in equity. Unrealized gains and losses resulting from transactions between the Group and the associate or joint venture are eliminated to the extent of the interest in the associate or joint venture.

The aggregate of the Group's share of profit or loss of an associate and a joint venture is shown on the face of the statement of profit or loss outside operating profit and represents profit or loss after tax and non-controlling interests in the subsidiaries of the associate or joint venture.

The financial statements of the associate or joint venture are prepared for the same reporting period as the Company. When 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 impairment loss on its investment in its associate or joint venture. The Group determines whether there is objective evidence that the investment in the associate or joint venture is impaired.

The Group calculates the amount of impairment as the difference between the recoverable amount of the associate or joint venture and its carrying value, then recognizes the loss as 'Share of profit of an associate and a joint venture' in the statement of profit or loss.

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

2.3.3 Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker (Note 4). The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the board of directors who is responsible for the Group's strategic decisions.

2.3.4 Current versus Non-current Classification

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

An asset is current when it is:

- Expected to be realized or intended to be sold or consumed in the normal operating cycle
- Held primarily for the purpose of trading
- Expected to be realized within twelve months after the reporting period, or

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- 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. However, deferred tax assets and liabilities are classified as non-current assets and liabilities.

2.3.5 Fair Value Measurement

The Group measures financial instruments such as derivatives at fair value at each balance sheet date. Fair values of financial instruments and fair value hierarchy are disclosed in Note 33.

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.

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.

All assets and liabilities for which fair value is measured or disclosed in the consolidated financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest

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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.

2.3.6 Foreign Currency Translation

The Group's financial statements are presented in Korean won, which is also the Group's functional and reporting currency.

(1) Transactions and balances

Transactions in foreign currencies are initially recorded by the Group's entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rates of exchange at the reporting date. Differences arising on settlement or translation of monetary items are recognized in profit or loss.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at 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. The gain or loss arising on translation of non-monetary items measured at fair value is treated in line with the recognition of gain or loss on change in fair value of the item (i.e., translation differences on items whose fair value gain or loss is recognized in other comprehensive income or profit or loss is also recognized in other comprehensive income or profit or loss, respectively).

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.

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(2) Translation to the presentation currency

The results and financial position of foreign operations that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities for each statement of financial position presented are translated at the closing rate at the end of the reporting period,
- income and expenses for each statement of profit or loss are translated at average exchange rates,
- equity is translated at the historical exchange rate, and
- all resulting exchange differences are recognized in other comprehensive income.

(3) Translation in 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 income and their income statements are translated at exchange rates prevailing at the dates of the transactions. The exchange differences arising on translation of foreign operations are recognized in other comprehensive income (OCI). On disposal of a foreign operation, the component of OCI relating to that particular foreign operation is recognized in profit or loss.

2.3.7 Financial Instruments - Initial Recognition and Subsequent Measurement

(1) Financial assets

1) Initial recognition and measurement

The Group classifies financial assets, as subsequently measured at amortized 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. And, in the case of a financial asset not at fair value through profit or loss, transaction costs are adjusted. 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 to a financial asset to be classified and measured at amortized 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.

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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 market place (regular way trades) are recognized on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

2) Subsequent measurement

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

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

① Financial assets at amortized cost (debt instruments)

The Group measures financial assets at amortized 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, 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

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

② Financial assets 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

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For debt instruments at fair value through OCI, interest income, foreign exchange revaluation and impairment losses or reversals are recognized in the statement of income and computed in the same manner as for financial assets measured at amortized 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.

③ Financial assets designated 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 recognized as other income in the statement of income 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.

④ Financial assets at fair value through profit or loss

Financial assets 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 amortized 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 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 income.

This category includes derivatives and equity instruments which the Group had not irrevocably elected to treat changes in fair value as other comprehensive income. Dividends on equity instruments are recognized in profit or loss when the right is determined.

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 consolidated derivative if: the economic characteristics and risks are not closely related to the host; a consolidated 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 recognized 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.

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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.

3) Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognized (i.e., removed from the Group's statement of financial position) when:

- The rights to receive cash flows from the asset have expired, or
- 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 its 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.

4) Impairment of financial assets

The Group has applied the new expected credit loss (ECL) model of Korean IFRS 1109 in three types. The expected credit loss model applied to each type of financial asset is as follows.

① Trade receivables

For the purpose of measuring the expected credit losses of trade receivables under Korean IFRS 1109, the Group applies the practical expedient and uses the expected credit loss model for the life-time for trade receivables subject to the expected credit loss model.

② Debt instruments other than trade receivables

For which there has not been a significant increase in credit risk since initial recognition, the Group uses expected credit loss model for the next 12 months. For which there has been a significant increase in credit risk since initial recognition, the Group uses expected credit loss model for the entire period.

(2) Financial liabilities

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1) Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, 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, 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.

2) Subsequent measurement

The measurement of financial liabilities depends on their classification, as described below:

- Loans and borrowings

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the EIR amortization process. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included as finance costs in the statement of income.

- Financial guarantee contracts

Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. Financial guarantee contracts are recognized initially as a liability at fair value, deducted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequently, the liability is measured at the higher of the best estimate of the expenditure required to settle the present obligation at the reporting date and the amount initially recognized less, where appropriate, the cumulative amount of income recognized in accordance with Korean IFRS 1115 *Revenue from Contracts with Customers*.

- Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include 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 incurred for the purpose of repurchasing in the near term. This category also 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 statement of income.

Gains and losses arising from financial liabilities held for trading are recognized in profit or loss.

Financial liabilities designated upon initial recognition at fair value through profit or loss are

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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.

3) 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 the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in the statement of income.

4) Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the 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, to realize the assets and settle the liabilities simultaneously.

2.3.8 Derivative Financial Instruments and Hedge Accounting

In accordance with the transition rules, the financial statements have been prepared by applying the requirements of Korean IFRS 1039 to hedge accounting without applying the requirements of Korean IFRS 1109.

Derivatives are initially recognized at fair value on the date when a derivative contract is entered into and are subsequently re-measured at their fair value. Changes in the fair value of the derivatives that are not qualified for hedge accounting are recognized in the statements of profit or loss within 'other income (expenses)' or 'finance income (costs)' according to the nature of transactions.

The Group designates certain derivatives as:

- Cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction

At the inception of a hedge relationship, the Group formally designates and documents the hedge relationship to which the Group wishes to apply hedge accounting and the risk management objective and strategy for undertaking the hedge. The documentation includes identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

The fair values of various derivative instruments used for hedging purposes are disclosed in Note 11. Movements on the hedging reserve in OCI are shown in Note 11. The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged

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item is longer than the Group's normal business cycle and as a current asset or liability when the remaining maturity of the hedged item is shorter than the Group's normal business cycle. Trading derivatives are classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months and as a current asset or liability when the remaining maturity of the hedged item is less than 12 months.

Hedges that meet the criteria for hedge accounting are accounted for, as described below:

- Cash flow hedge: The effective portion of changes in the fair value of derivatives that is designated and qualified as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the statements of profit or loss within other income (expenses). Amounts accumulated in equity are reclassified to income in the periods when the hedged item affects profit or loss (for example, when the forecast purchase that is hedged takes place).

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognized when the forecast transaction is ultimately recognized in the statements of profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the statements of profit or loss within other income (expenses).

2.3.9 Inventories

Inventories are stated at the lower of cost and net realizable value. Raw materials, goods and products, and supplies are determined using the gross average method. Other inventories are determined using the specific identification method.

2.3.10 Property, Plant and Equipment

All property, plant and equipment are stated at cost, net of accumulated depreciation and 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. 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.

Land is not depreciated but depreciation on other assets is calculated using the straight-line method to allocate the difference between their cost and their residual values over their estimated useful lives, as follows:

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	Useful lives
Buildings	3 - 50 years
Structures	4 - 40
Machinery	3 - 16
Construction equipment	4 - 12
Vehicles	4 - 10
Tools	3 - 10
Equipment	2 - 10

The assets' residual values, useful lives and methods of depreciation are reviewed at each fiscal year end, and adjusted prospectively, if appropriate.

2.3.11 Leases

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

(1) The Group as a lessee

The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognizes lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

1) Right-of-use assets

The Group recognizes right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost and subsequently measured using the cost model. In order to apply the cost model, accumulated depreciation and impairment losses are deducted from the cost of right-of-use assets and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognized, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets.

If ownership of the leased asset transfers to the Group at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

The right-of-use assets are also subject to impairment. Refer to the accounting policies in section 2.3.15 Impairment of non-financial assets.

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2) Lease liabilities

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

In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

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

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

(2) The Group as a lessor

Leases in which the Group does not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. Rental income arising is accounted for on a straight-line basis over the lease terms and is included in revenue in the statement of income due to its operating nature. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized over the lease term on the same basis as rental income. Contingent rents are recognized as revenue in the period in which they are earned.

If the Group is an intermediate lessor, the Group accounts for the head lease and the sublease as two separated contracts. The subleases are classified as finance lease or operating lease by reference to the right-of-use asset arising from the head lease, rather than by reference to the underlying asset.

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2.3.12 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 asset. All other borrowing costs are expensed in the period in which they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

2.3.13 Intangible Assets

Amortization of intangible assets is calculated using the straight-line method over their estimated useful lives. Membership rights are regarded as intangible assets with indefinite useful life and not amortized because there is no foreseeable limit to the period over which the asset is expected to be utilized.

	Useful lives
Rental rights	20 years
Technical rights	10
Concession assets	30
Software	4 - 5
Others	5 - 15

2.3.14 Investment Properties

Investment properties is held to earn rentals or for capital appreciation or both. Investment property is measured initially at its cost, including transaction costs incurred in acquiring the asset. After recognition as an asset, investment property is carried at cost less accumulated depreciation and impairment losses. Investment property, except for land, is depreciated using the straight-line method over their useful lives of 40 years.

2.3.15 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. The 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 fair value less costs of disposal, recent market transactions are taken into account. If no

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such transactions can be identified, an appropriate valuation model is used. These calculations are corroborated by valuation multiples, quoted share prices for publicly traded companies or other available fair value indicators. Impairment losses of continuing operations are recognized in the statement of income in expense categories consistent with the function of the impaired asset.

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 CGU'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 statement of income unless the asset is carried at a revalued amount, in which case, the reversal is treated as a revaluation increase.

Intangible assets with indefinite useful lives are tested for impairment annually as of December 31, either individually or at the CGU level.

2.3.16 Employee Benefits

(1) 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 contribution is recognized as employee benefit expense when they are due.

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

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

(2) Other long-term employee benefits

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The Parent Company 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.

2.3.17 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 consolidated asset, but only when the reimbursement is virtually certain. The expense relating to a provision is presented in the statement of 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.

(1) Warranty provision

The Group provides warranties for general repairs of defects that existed at the time of sale, as required by law. Provisions related to these assurance-type warranties are recognized when the product is sold or the service is provided to the customer. Initial recognition is based on historical experience. The initial estimate of warranty-related costs is revised annually.

(2) Onerous contracts

If the Group has a contract that is onerous, the present obligation under the contract is recognized and measured as a provision. However, before a consolidated provision for an onerous contract is established, the Group recognizes any impairment loss that has occurred on assets dedicated to that contract.

An onerous contract is a contract under which the unavoidable costs (i.e., the costs that the Group cannot avoid because it has the contract) of meeting the obligations under the contract exceed the economic benefits expected to be received under it. The unavoidable costs under a contract reflect the least net cost of exiting from the contract, which is the lower of the cost of fulfilling it and any compensation or penalties arising from failure to fulfil it.

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2.3.18 Current and Deferred Income Tax

(1) 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 statement of 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.

(2) Deferred tax

Deferred tax is provided using the liability method on temporary differences at the reporting date 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:

- Where the deferred tax liability arises from the initial recognition of goodwill
- 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

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:

- Where 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

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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 OCI 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.

2.3.19 Revenue Recognition

(1) Identifying performance obligations

The Group identifies the consolidated performance obligations if; i) the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer; and ii) the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract.

(2) Performance obligation satisfied over time

Construction contracts for the Group include apartments, commercial facilities, factories, roads and bridges those are ordered by customers, and usually require about three to four years of construction.

In accordance with Korean IFRS 1115, the timing of revenue recognition may vary depending on whether each performance obligation is satisfied at a point in time or over a period of time.

Performance obligations satisfied over time shall meet any of the following criteria:

- The customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs.
- The Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced.
- The Group's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

The Group is obliged to provide construction and maintenance services to the customer during the contract period for a majority of its construction contract. Also, it is determined that the customer controls the asset as the Group creates or enhances its value. Therefore, the Group recognizes the transaction price allocated to the performance obligation by revenue over a contract period.

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For housing contracts meeting conditions under Korea Accounting Institute's Question and Answer, 2017-I-KQA015, revenue of the number of residential units the Group built and sold is recognized using percentage of completion method and the accounting treatment is effective only under the Korean IFRS.

(3) Percentage-of-completion measurement using input method

In accordance with Korean IFRS 1115, revenue is recognized when the goods or services promised to the customer are transferred and the performance obligation is fulfilled or when the performance obligation is fulfilled over a period of time. The obligation to perform during the period is to measure the percentage-of-completion until the obligation is fulfilled and the revenue is recognized over the period. The method of measuring the percentage-of-completion includes the output method and the input method, and they are applied if the percentage-of-completion of the performance obligation can be reasonably measured. In most construction contracts, the Group applies percentage-of-completion measurement.

In accordance with Korean IFRS 1115, if the Group expects that the goods are not distinct at contract inception and the entity is expected to significantly control the goods or services before transferring to the customer, and that the costs of the goods transferred are significant in comparison to the total costs expected to be fully satisfied, and that the entity receives the goods from a third party and does not significantly engage in the design and production of those goods, then recognizing the cost of the goods used to fulfill the performance obligation as revenue demonstrates the entity's performance well.

The construction contracts in plant sector are contracts including the purchase and installation of special equipment, and most of the projects are carried out over a long period of time of 3 years or more. The Group carries out the accounting by considering total planning costs versus special equipment costs, whether the customer has significant control over the special equipment under consolidated contracts, and whether the Group is deeply involved in design and production of the special equipment.

(4) Incremental cost of obtaining a contract and cost to fulfil a contract

The Group capitalizes incremental costs of obtaining a contract or contract costs incurred directly related to contract and created resources used to fulfill a contract and expected to be recovered. If capitalization requirements are not met, it is accounted for as current expenses.

2.3.20 Approval of Issuance of the Financial Statements

The consolidated financial statements 2020 were approved for issue by the Board of Directors on February 4, 2021 and are subject to change with the approval of shareholders at their Annual General Meeting.

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2.4 New and Amended Standards Adopted by the Group

The Group has applied the following standards and amendments for the first time for their annual reporting period commencing January 1, 2020.

2.4.1 Amendments to Korean IFRS 1103 Business Combination – Definition of a Business

The amended definition of a business requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs and the definition of output excludes the returns in the form of lower costs and other economic benefits. If substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets, an entity may elect to apply an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business. The amendments do not have an impact on the financial statements.

2.4.2 Amendments to Korean IFRS 1107 Financial Instruments: Disclosure, Korean IFRS 1109 Financial Instruments and Korean IFRS 1039 Financial Instruments: Recognition and Measurement – Interest Rate Benchmark Reform

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

2.4.3 Amendments to Korean IFRS 1001 Presentation of Financial Statements and Korean IFRS 1008 Accounting policies, changes in accounting estimates and errors – Definition of Material

The amendments clarify the definition of material. Information is material if omitting, misstating or obscuring it could reasonably be expected to influence the decisions that the primary users of general-purpose financial statements make on the basis of those financial statements. The amendments do not have a significant impact on the financial statements.

2.5 New Standards and Interpretations Not Yet Adopted by the Group

The following new accounting standards and interpretations have been published that are not mandatory for December 31, 2020 reporting periods and have not been early adopted by the Group.

2.5.1 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

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instruments if compound financial instruments is met the definition of equity instruments and recognized separately from the liability. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the financial statements.

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

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

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

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

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

The amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts when assessing whether the contract is onerous. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

2.5.5 Amendments to Korean IFRS 1116 Lease – Practical expedient for COVID-19 - Related Rent Exemption, Concessions, Suspension

As a practical expedient, a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification, and the amounts recognized in profit or loss as a result of applying this exemption should be disclosed. The amendments should be applied for annual periods beginning on or after June 1, 2020, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

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

In relation to interest rate benchmark reform, the amendments provide exceptions including adjust effective interest rate instead of book amounts when interest rate benchmark of financial instruments at amortized costs is replaced, and apply hedge accounting without discontinuance although the interest rate benchmark is replaced in hedging relationship. The amendments should be applied for annual periods beginning on or after January 1, 2021, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

2.5.7 Annual improvements to Korean IFRS 2018-2020

Annual improvements of Korean IFRS 2018-2020 Cycle should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

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

3. Accounting Estimates and Assumptions

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, 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. The Group based its assumptions and estimates on parameters available when the financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising beyond the control of the Group. Such changes are reflected in the assumptions when they occur.

3.1 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 as of December 31 either individually or at the CGU level, as appropriate, or when circumstances indicate that the carrying value may be impaired. Other non-financial assets are assessed for impairment when circumstances indicate that its asset may be impaired.

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To calculate the value in use, the Group estimates the expected future cash inflows derived from CGUs and applies the appropriate discount rate to those future cash inflows.

3.2 Income Tax

The Group recorded, based on its best estimate, current taxes and deferred taxes that the Group will be liable in the future for the operating results as at the financial year end. However, the final tax outcome in the future may be different from the amounts that were initially recorded. Such differences will impact the current and deferred income tax assets and liabilities in the period in which such determination is made.

3.3 Defined Benefit Plans

The present value of the defined benefit pension plan is determined using actuarial valuations. An actuarial valuation involves making various assumptions that may differ from actual developments in the future. These include the determination of the discount rate, future salary increases and mortality rates. Due to the complexities involved in the valuation 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.

In determining the appropriate discount rate, management considers the interest rates of corporate bonds in currencies consistent with the currencies of the post-employment benefit obligation with at least an 'AA' rating or above, as set by an internationally acknowledged rating agency. The mortality rate is based on publicly available mortality tables for the specific countries. Future salary increases and pension increases are based on expected future inflation rates for the respective countries.

Further details about pension obligations are disclosed in Note 19.

3.4 Revenue Recognition

Revenue for construction contracts is recognized on the basis of the percentage-of-completion method, under which revenue is recognized as work progress in the ratio of actual cost incurred to estimated total cost. A variation is an instruction by the customer for a change in the scope of the work to be performed under the contract. A variation may lead to an increase or a decrease in contract revenue. Examples of variations are changes in the specifications or design of the asset and changes in the duration of the contract.

Contract revenue is measured at the fair value of the initial amount of revenue agreed in the contract. The measurement of contract revenue is affected by a variety of uncertainties that depend on the outcome of future events such as delays caused by the contractor, claim, and incentive. The estimates often need to be revised as events occur and uncertainties are resolved. Therefore, the amount of contract revenue may increase or decrease from one period to the next. A variation is recognized in contract revenue when the following four circumstances are satisfied. It is probable that the customer will approve the variation and the amount of revenue arising from the variation. Negotiations have reached an advanced stage such that it is probable that the customer will accept the claim. The contract is sufficiently advanced that it is probable that the specified performance standards will be met or exceeded and only to the extent that it is highly probable that a significant

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reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with variable consideration has resolved.

The total contract cost is measured at the end of each reporting period. However, the measurement of contract revenue is affected by various uncertainties that depend on the outcome of future events including project, geographic and economic characteristics. When the uncertainties that prevented the cost of the contract being estimated reliably no longer exist, expenses associated with the construction contract shall be recognized.

3.5 Fair Value of Financial Instruments

For the fair value of financial instruments that are not traded in an active market, the Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period.

3.6 Impairment of Financial Assets and Contract Assets

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

Also, the Group considered that financial assets and contract assets are impaired based on the estimated revenue and expenses of business in relation to certain construction contracts.

3.7 Provisions

As of the end of the reporting period, the Group recognizes provisions for construction warranty, litigations, payment guarantees and others. These provisions are determined under the estimates based on past experience and forecasts of future events. However, future events may have a significant difference from past experiences and forecasts, and estimates based on these future events have uncertainty that may cause significant differences from actual values.

3.8 Lease

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

3.9 Impact of Coronavirus disease 2019 ("COVID-19")

During 2020, the spread of Coronavirus disease 2019 ("COVID-19") has a material impact on the global economy. It may have an impact to contract activity, construction performance, collection of existing receivables and others. Accordingly, it may have a negative impact on the financial position and financial performance of the Group. However, the impact cannot be reasonably estimated as at the end of the reporting period.

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4. Segment information and Revenue from Contracts with Customers

(1) Details of the Group's reportable segments are as follows:

Operating segments	Principal business activity
Architectural & housing construction	Office building, factory, apartment and others
New business ¹	Overseas development and others
Plant construction	Petroleum refining facility, waste water treatment plant and others
Infra works	Road, railroad and others
Decentralized energy ¹	Power plant, power control facility and others
Others	Resort and others

¹ In 2020, decentralized energy segment was separated from plant construction segment and new business segment was newly established. The comparative information was restated by reflecting these changes.

(2) Sales and operating profit (loss) for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020								
	Architectural & housing construction	New business	Plant construction	Infra works	Decentralized energy	Others	Total	Consolidation adjustments	Consolidated total
Sales	₩ 5,920,916	₩ 615,097	₩ 2,421,813	₩ 890,269	₩ 366,674	₩ 119,749	₩ 10,334,518	₩ (211,587)	₩ 10,122,931
Inter-company sales	(117,080)	(3,970)	(33,534)	(6,078)	(463)	(50,462)	(211,587)	211,587	-
Net sales	5,803,836	611,127	2,388,279	884,191	366,211	69,287	10,122,931	-	10,122,931
Operating profit (loss) ¹	1,107,992	44,598	(213,282)	(58,193)	(126,017)	(4,700)	750,398	-	750,398
Profit (loss) before income tax ¹	1,238,970	(39,223)	(449,709)	(36,043)	(161,315)	(34,240)	518,440	-	518,440

¹ Operating profit (loss) and profit (loss) before income tax are net of eliminating intercompany transactions.

(in millions of Korean won)	2019								
	Architectural & housing construction	New business	Plant construction	Infra works	Decentralized energy	Others	Total	Consolidation adjustments	Consolidated total
Sales	₩ 6,130,985	₩ 295,833	₩ 2,721,487	₩ 889,958	₩ 484,994	₩ 135,130	₩ 10,658,387	₩ (241,798)	₩ 10,416,589
Inter-company sales	(116,379)	(2,225)	(57,421)	(10,090)	(538)	(55,145)	(241,798)	241,798	-
Net sales	6,014,606	293,608	2,664,066	879,868	484,456	79,985	10,416,589	-	10,416,589
Operating profit (loss) ¹	691,003	56,804	78,553	(8,632)	(50,841)	380	767,267	-	767,267
Profit (loss) before income tax ¹	891,699	31,803	(97,414)	(67,763)	(77,010)	(7,581)	673,734	-	673,734

¹ Operating profit (loss) and profit (loss) before income tax are net of eliminating intercompany transactions.

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(3) Revenue of segments for the years ended December 31, 2020 and 2019, are as follows:

(in millions of
Korean won)

	2020						
	Architectural & housing construction	New business	Plant construction	Infra works	Decentralized energy	Others	Total
Major product & service							
Construction contract as a constructor	₩ 5,239,105	₩ 18,799	₩ 2,255,540	₩ 852,023	₩ 342,604	₩ -	₩ 8,708,071
Construction contract as a developer & constructor	435,913	-	-	-	-	-	435,913
Engineering service and others	93,624	280,968	131,604	31,309	19,585	-	557,090
Lease and others	35,194	311,360	1,135	859	4,022	25,254	377,824
Resort	-	-	-	-	-	44,033	44,033
	<u>₩ 5,803,836</u>	<u>₩ 611,127</u>	<u>₩ 2,388,279</u>	<u>₩ 884,191</u>	<u>₩ 366,211</u>	<u>₩ 69,287</u>	<u>₩ 10,122,931</u>
Timing of revenue recognition							
Recognition over time	₩ 5,795,577	₩ 611,127	₩ 2,388,279	₩ 884,191	₩ 366,211	₩ 25,254	₩ 10,070,639
Recognition at a point in time	8,259	-	-	-	-	44,033	52,292
	<u>₩ 5,803,836</u>	<u>₩ 611,127</u>	<u>₩ 2,388,279</u>	<u>₩ 884,191</u>	<u>₩ 366,211</u>	<u>₩ 69,287</u>	<u>₩ 10,122,931</u>

(in millions of
Korean won)

	2019						
	Architectural & housing construction	New business	Plant construction	Infra works	Decentralized energy	Others	Total
Major product & service							
Construction contract as a constructor	₩ 5,462,586	₩ 49,101	₩ 2,590,407	₩ 850,193	₩ 455,942	₩ -	₩ 9,408,229
Construction contract as a developer & constructor	397,002	1,190	-	-	-	-	398,192
Engineering service and others	114,928	239,334	71,566	25,597	28,351	-	479,776
Lease and others	40,090	3,983	2,093	4,078	163	32,275	82,682
Resort	-	-	-	-	-	47,710	47,710
	<u>₩ 6,014,606</u>	<u>₩ 293,608</u>	<u>₩ 2,664,066</u>	<u>₩ 879,868</u>	<u>₩ 484,456</u>	<u>₩ 79,985</u>	<u>₩ 10,416,589</u>
Timing of revenue recognition							
Recognition over time	₩ 5,941,234	₩ 293,608	₩ 2,664,066	₩ 879,868	₩ 484,456	₩ 45,321	₩ 10,308,553
Recognition at a point in time	73,372	-	-	-	-	34,664	108,036
	<u>₩ 6,014,606</u>	<u>₩ 293,608</u>	<u>₩ 2,664,066</u>	<u>₩ 879,868</u>	<u>₩ 484,456</u>	<u>₩ 79,985</u>	<u>₩ 10,416,589</u>

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(4) There are no customers, who contribute more than 10% of sales for the years ended December 31, 2020 and 2019.

(5) Sales information by location for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020				
	Korea	Middle East	China and South-East Asia	Others	Total
Sales	₩ 8,236,482	₩ 626,113	₩ 660,477	₩ 811,446	₩ 10,334,518
Inter-company sales	(213,515)	16,438	(12,629)	(1,881)	(211,587)
Net sales	₩ 8,022,967	₩ 642,551	₩ 647,848	₩ 809,565	₩ 10,122,931

(in millions of Korean won)	2019				
	Korea	Middle East	China and South-East Asia	Others	Total
Sales	₩ 7,520,143	₩ 1,447,788	₩ 993,008	₩ 697,448	₩ 10,658,387
Inter-company sales	(187,635)	(19,739)	(33,202)	(1,222)	(241,798)
Net sales	₩ 7,332,508	₩ 1,428,049	₩ 959,806	₩ 696,226	₩ 10,416,589

5. Cash and Cash Equivalents and Others

(1) Cash and cash equivalents and others as of December 31, 2020 and 2019, consist of:

(in millions of Korean won)		2020	2019
Cash and cash equivalents	Cash	₩ 4,578	₩ 3,158
	Deposits	2,114,341	1,789,798
		2,118,919	1,792,956
Short-term financial assets	Short-term financial instruments	197,641	216,687
	Current financial lease receivables and others	60,229	67,685
		257,870	284,372
Long-term financial assets	Long-term financial instruments	1,085	2,731
	Leasehold deposits provided and others	615,721	674,603
		616,806	677,334
		₩ 2,993,595	₩ 2,754,662

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(2) Details of restricted financial instruments as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	Bank	2020	2019	Remarks
Cash and cash equivalents	Wells Fargo and others	₩ 298	₩ 276	Restricted cash and others
	Subtotal	298	276	
Short-term financial assets	Shinhan	-	7,930	Subcontractor Account
	Shinhan and others	11,056	3,376	Loan repayment accumulation
	Shinhan	4,831	4,616	Leasehold deposits
	Shinhan	6,850	6,050	Loans for employees' housing
	Shinhan and others	30,000	30,000	Supports interest for cooperative firm
	NH and others	958	698	Special provisions for construction warranty account
	SC	33,773	35,892	L/C issued for overseas sites
	Shinhan and others	-	1,600	-
	Woori	-	4,343	-
	Shinhan	1,669	1,669	Pledge of Collateral for HUG
	Banobras and others	1,181	1,260	Cash Restricted
	Subtotal	90,318	97,434	
Long-term financial assets	Shinhan and others	273	487	Leasehold deposits
	Shinhan and others	20	20	Deposit for overdraft
	Subtotal	293	507	
		₩ 90,909	₩ 98,217	

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6. Trade and Other Receivables

(1) Trade and other receivables as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

		2020¹		
		Receivables	Allowance for bad debts	Receivables, net
Current assets				
Trade and other receivables	Receivables from construction contracts	₩ 1,508,677	₩ (216,024)	₩ 1,292,653
	Receivables from apartment sales	8,665	(1,129)	7,536
	Notes receivable	136,502	(802)	135,700
	Other trade receivables	27,264	(734)	26,530
	Other receivables	611,287	(278,796)	332,491
	Accrued revenue	75,066	(30,175)	44,891
	Short-term loans	202,741	(85,477)	117,264
		<u>₩ 2,570,202</u>	<u>₩ (613,137)</u>	<u>₩ 1,957,065</u>
Non-current assets				
Long-term trade and other receivables	Long-term other receivables	₩ 59,400	₩ -	₩ 59,400
	Long-term loans	956,813	(203,183)	753,630
	Deposits provided for business	53,790	(199)	53,591
		<u>₩ 1,070,003</u>	<u>₩ (203,382)</u>	<u>₩ 866,621</u>

¹ Unbilled amount related to construction and leasehold deposits are excluded due to reclassification of accounts.

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(in millions of Korean won)

(in millions of Korean won)

		2019 ¹					
		Receivables		Allowance for bad debts		Receivables, net	
Current assets							
Trade and other receivables	Receivables from construction contracts	₩	1,967,019	₩	(180,400)	₩	1,786,619
	Receivables from apartment sales		16,658		(1,741)		14,917
	Notes receivable		96,694		-		96,694
	Other trade receivables		14,641		(462)		14,179
	Other receivables		596,433		(248,452)		347,981
	Accrued revenue		60,187		(26,078)		34,109
	Short-term loans		195,221		(81,976)		113,245
		₩	2,946,853	₩	(539,109)	₩	2,407,744
Non-current assets							
Long-term trade and other receivables	Long-term other receivables	₩	45,884	₩	-	₩	45,884
	Long-term loans		892,204		(297,443)		594,761
	Deposits provided for business		290,397		(8,484)		281,913
		₩	1,228,485	₩	(305,927)	₩	922,558

¹ Unbilled amount related to construction and leasehold deposits are excluded due to reclassification of accounts.

(2) Aging schedule on trade and other receivables are as follows:

(in millions of Korean won)

		2020 ¹		2019 ¹	
		Trade receivables	Other receivables	Trade receivables	Other receivables
Receivables not impaired ²					
Up to 1 year		₩ 1,015,998	₩ 286,320	₩ 1,296,000	₩ 317,567
1 to 2 years		141,795	38,123	162,696	75,133
Over 2 years		269,623	98,835	326,836	121,575
		1,427,416	423,278	1,785,532	514,275
Individually impaired		253,692	465,816	309,481	337,566
		₩ 1,681,108	₩ 889,094	₩ 2,095,013	₩ 851,841
Allowance for bad debts		₩ (218,689)	₩ (394,448)	₩ (182,603)	₩ (356,506)

¹ Unbilled amount related to construction are excluded due to reclassification of accounts.

² Includes receivables with deferred collection due to contract conditions (2020: ₩ 290,584 million, 2019: ₩ 387,450 million)

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(3) Changes in allowance for bad debts as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

		2020¹			
		Beginning	Bad debt expenses	Reversal / write-off	Ending
Trade and other receivables	Receivables from construction contracts	₩ 180,400	₩ 48,800	₩ (13,176)	₩ 216,024
	Receivables from apartment sales	1,741	28	(640)	1,129
	Notes receivable	-	802	-	802
	Other receivables	248,452	45,034	(14,690)	278,796
	Accrued revenue	26,078	4,557	(460)	30,175
	Short-term loans	81,976	3,641	(140)	85,477
	Other trade receivables	462	1,135	(863)	734
		<u>₩ 539,109</u>	<u>₩ 103,997</u>	<u>₩ (29,969)</u>	<u>₩ 613,137</u>
Long-term trade and other receivables	Long-term loans	₩ 297,443	₩ 65,005	₩ (159,265)	₩ 203,183
	Deposits provided for business	8,484	29	(8,314)	199
		<u>₩ 305,927</u>	<u>₩ 65,034</u>	<u>₩ (167,579)</u>	<u>₩ 203,382</u>

¹ Unbilled amount related to construction and leasehold deposits are excluded due to reclassification of accounts.

(in millions of Korean won)

		2019¹			
		Beginning	Bad debt expenses	Reversal / write-off²	Ending
Trade and other receivables	Receivables from construction contracts	₩ 166,021	₩ 22,876	₩ (8,497)	₩ 180,400
	Receivables from apartment sales	885	1,621	(765)	1,741
	Other receivables	215,802	50,684	(18,034)	248,452
	Accrued revenue	22,767	4,219	(908)	26,078
	Short-term loans	81,605	1,410	(1,039)	81,976
	Other trade receivables	254	2,034	(1,826)	462
		<u>₩ 487,334</u>	<u>₩ 82,844</u>	<u>₩ (31,069)</u>	<u>₩ 539,109</u>
Long-term trade and other receivables	Long-term loans	₩ 269,215	₩ 62,840	₩ (34,612)	₩ 297,443
	Deposits provided for business	7,346	1,749	(611)	8,484
		<u>₩ 276,561</u>	<u>₩ 64,589</u>	<u>₩ (35,223)</u>	<u>₩ 305,927</u>

¹ Unbilled amount related to construction and leasehold deposits are excluded due to reclassification of accounts.

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7. Construction Contracts

(1) Changes in the outstanding balances of construction contracts for the years ended December 31, 2020 and 2019, are as follows:

	2020			
	Beginning	Increase	Sales recognized	Ending
<i>(in millions of Korean won)</i>				
Architectural & housing construction	₩ 9,189,474	₩ 5,766,777	₩ 5,183,832	₩ 9,772,419
Plant construction	2,739,597	679,545	2,314,858	1,104,284
Infra works	2,747,334	771,391	845,446	2,673,279
Decentralized energy	507,400	18,362	346,213	179,549
	<u>15,183,805</u>	<u>7,236,075</u>	<u>8,690,349</u>	<u>13,729,531</u>
Housing construction and sales operations ¹	890,425	(3,151)	414,705	472,569
	<u>₩ 16,074,230</u>	<u>₩ 7,232,924</u>	<u>₩ 9,105,054</u>	<u>₩ 14,202,100</u>

¹ Apartment sales contracts of which the revenue is recognized at a point in time are excluded.

	2019			
	Beginning	Increase	Sales recognized	Ending
<i>(in millions of Korean won)</i>				
Architectural & housing construction	₩ 8,362,139	₩ 6,263,523	₩ 5,436,188	₩ 9,189,474
Plant construction	3,052,422	2,338,036	2,650,861	2,739,597
Infra works	2,729,107	872,988	854,761	2,747,334
Decentralized energy	865,718	108,699	467,017	507,400
	<u>15,009,386</u>	<u>9,583,246</u>	<u>9,408,827</u>	<u>15,183,805</u>
Housing construction and sales operations ¹	1,149,795	65,453	324,823	890,425
	<u>₩ 16,159,181</u>	<u>₩ 9,648,699</u>	<u>₩ 9,733,650</u>	<u>₩ 16,074,230</u>

¹ Apartment sales contracts of which the revenue is recognized at a point in time are excluded.

The amounts above do not include the construction contracts which are before commencement.

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(2) Details of construction contracts in progress as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	2020			
	Accumulated sales	Accumulated cost	Accumulated profit (loss)	Retention for receivables¹
Architectural & housing construction	₩ 34,529,301	₩ 29,341,958	₩ 5,187,343	₩ 11,941
Plant construction	35,467,933	35,487,648	(19,715)	157,809
Infra works	10,381,441	10,005,189	376,252	75,061
Decentralized energy	5,188,323	5,374,244	(185,921)	45,773
	<u>85,566,998</u>	<u>80,209,039</u>	<u>5,357,959</u>	<u>290,584</u>
Housing construction and sales operations ¹	1,719,594	1,378,746	340,848	-
	<u>₩ 87,286,592</u>	<u>₩ 81,587,785</u>	<u>₩ 5,698,807</u>	<u>₩ 290,584</u>

¹ Included in trade receivables

(in millions of Korean won)

	2019			
	Accumulated sales	Accumulated cost	Accumulated profit (loss)	Retention for receivables¹
Architectural & housing construction	₩ 30,132,918	₩ 26,050,021	₩ 4,082,897	₩ 12,468
Plant construction	33,223,551	33,117,620	105,931	180,583
Infra works	9,778,016	9,412,092	365,924	126,278
Decentralized energy	5,906,454	6,028,082	(121,628)	68,121
	<u>79,040,939</u>	<u>74,607,815</u>	<u>4,433,124</u>	<u>387,450</u>
Housing construction and sales operations ¹	1,636,861	1,334,877	301,984	-
	<u>₩ 80,677,800</u>	<u>₩ 75,942,692</u>	<u>₩ 4,735,108</u>	<u>₩ 387,450</u>

¹ Included in trade receivables

(3) Details of contract assets and liabilities (unbilled and overbilled amount) related to construction as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	2020		2019	
	Contract assets¹	Contract liabilities	Contract assets¹	Contract liabilities
Architectural & housing construction	₩ 326,308	₩ 1,263,402	₩ 269,760	₩ 1,393,967
Plant construction	285,586	220,368	244,998	240,148
Infra works	358,420	114,727	424,286	182,521
Decentralized energy	52,411	48,089	150,252	85,928
	<u>₩ 1,022,725</u>	<u>₩ 1,646,586</u>	<u>₩ 1,089,296</u>	<u>₩ 1,902,564</u>

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¹ As of December 31, 2020, allowance for bad debts which the Group recognized for contract assets in accordance with Korean IFRS 1109 amounts to ₩ 264,995 million (2019: ₩ 115,076 million).

As of December 31, 2020, the unbilled amount from housing construction and sales operations is ₩ 747 million (2019: ₩ 8,140 million) and overbilled amount from housing construction and sales operations is ₩ 59,597 million (2019: ₩ 255,990 million).

(4) As of December 31, 2020, the cost of fulfilling a contract which the Group has recognized as an asset is ₩ 103,096 million (2019: ₩ 84,234 million). In connection with construction contracts, the Group recognized cost directly related to the contract (or expected contract) and that creates or increases the value of the entity's resources to be used in fulfilling its future performance obligations and recoverable, as cost to fulfill a contract.

(5) Details of major joint construction contracts as of December 31, 2020, are as follows:

(in millions of Korean won)

		Total contract amount	Amounts attributable to the Group	Equity interest attributable to the Group	Principal contractee
Karbala Refinery Project (Iraq)	₩	6,780,835	₩ 2,542,813	37.5%	Hyundai E&C
Clean Fuels Project(MAA) (Kuwait)		5,056,026	1,685,342	33.3%	JGC
P10-Project (Gyeonggi)		1,878,696	958,135	51.0%	The Group
STAR Project		2,366,043	788,602	33.3%	The Group
PP-12 Combined Thermal Power (Saudi)		1,362,936	681,468	50.0%	Arabian Bemco Contracting Co. Ltd.
Qatar Doha Metro (Qatar)		2,261,760	565,440	25.0%	QDVC
New Hanul Nuclear Power Plant #1,2 main facility construction (Gyeongbuk)		1,861,864	465,466	25.0%	Hyundai E&C
Samcheok Green Energy Park Co.,Ltd Conditional purchase of boiler installation (Gangwon)		826,380	404,926	49.0%	Hyundai E&C
P9-Project (Gyeonggi)		703,263	358,664	51.0%	The Group
Kais CCPP Project (Algeria)		639,028	319,514	50.0%	The Group
Gaepo 8 complex		2,602,958	866,785	33.3%	Hyundai E&C

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(6) Provision for construction losses under the stage-of-completion method, changes in contract revenues and costs arising from accounting estimates changes and unbilled amount related to construction for the years ended December 31, 2020 and 2019, are as follows:

(in millions of
Korean won)

		2020						
		Provision for Construction losses	Changes in contract revenues	Changes in estimated contract costs	Profit (loss) for current year due to changes in estimates	Expected profit due to changes in estimates	Total	Changes in unbilled amount related to construction
Architectural & housing construction	₩	761	₩ 374,919	₩ (784,380)	₩ 819,856	₩ 339,442	₩ 1,159,298	₩ 819,856
Plant construction		40,823	517,227	720,282	(253,380)	50,325	(203,055)	(253,380)
Infra works		226	91,483	92,783	(28,469)	27,169	(1,300)	(28,469)
Decentralized energy		11,643	8,572	(12,692)	19,956	1,308	21,264	19,956
	₩	53,453	₩ 992,201	₩ 15,993	₩ 557,963	₩ 418,244	₩ 976,207	₩ 557,963

(in millions of
Korean won)

		2019						
		Provision for Construction losses	Changes in contract revenues	Changes in estimated contract costs	Profit (loss) for prior year due to changes in estimates	Expected profit due to changes in estimates	Total	Changes in unbilled amount related to construction
Architectural & housing construction	₩	7,912	₩ 910,604	₩ 80,875	₩ 457,029	₩ 372,700	₩ 829,729	₩ 457,029
Plant construction		22,626	1,795,974	1,612,360	54,334	129,280	183,614	54,334
Infra works		2,831	87,661	105,537	(26,276)	8,400	(17,876)	(26,276)
Decentralized energy		25,026	77,767	114,156	(47,611)	11,222	(36,389)	(47,611)
	₩	58,395	₩ 2,872,006	₩ 1,912,928	₩ 437,476	₩ 521,602	₩ 959,078	₩ 437,476

(7) Under the stage-of-completion method, the construction contracts of which the contract revenue exceeds 5% of the preceding year's total revenue for the year ended December 31, 2020, are as follows:

(in millions of
Korean won)

		2020							
		Contract date	Contract due	Progress rate	Unbilled amount related to construction		Receivables from construction contracts		
					Amount	Accumulated impairment	Amount	Allowance for bad debts	
Architectural & housing construction	P10-Project	2015-10-20	2022-03-31	99.27	₩ -	₩ -	₩ 1,233	₩ 7	
	Gaepo Presidents Xi	2019-11-04	2023-02-28	16.85	-	-	-	-	
	Grand City Xi	2016-10-01	2020-02-18	100.00	-	-	-	-	
	Second Grand City Xi	2017-05-01	2020-10-31	98.68	-	-	1	-	
	Gwacheon Xi	2018-12-13	2021-11-12	60.51	-	-	15	-	
	Ng Teng Fong Hospital	2012-06-01	2015-10-30	100.00	8,934	-	-	-	
	Marina South Parcel	2013-08-01	2018-05-30	100.00	31	-	11,966	-	
	Tapseok Central Xi	2018-11-01	2021-12-31	62.82	46,841	-	5	-	

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		2020						
		Contract date	Contract due	Progress rate	Unbilled amount related to construction		Receivables from construction contracts	
					Amount	Accumulated impairment	Amount	Allowance for bad debts
Plant construction	Gaepo 8 complex	2018-03-14	2021-07-31	50.98	-	-	-	-
	GP3 (Architectural-construction)	2017-07-07	2021-06-30	94.98	-	-	25,850	-
	Han River Metro Xi 2 Complex(Gyeonggi)	2017-05-15	2020-07-14	100.00	-	-	-	-
	Karbala Refinery Project	2014-04-22	2022-02-16	88.56	-	-	167,074	-
	Ruwais Refinery Expansion Project PKG-2	2009-12-14	2016-11-15	100.00	-	-	3,967	-
	ERC Refinery Project	2007-08-29	2020-02-29	100.00	41,875	-	166,081	-
	RRW Unit Restoration	2017-06-29	2019-06-30	100.00	10,880	-	-	-
	Clean Fuels Project(MAA) ¹	2014-04-13	2021-06-30	98.15	10,978	-	5,892	-
	NSRP Project	2013-07-22	2018-11-14	100.00	-	-	96	-
	MFC Project	2018-08-07	2021-04-30	86.40	12	-	1,004	5
	Rabigh II CP4	2012-06-25	2017-07-17	100.00	-	-	21,760	-
	Takreer Inter Refinery Pipeline-2 Project	2010-09-16	2016-08-31	100.00	4	-	7,790	-
	Rumaitha/Shanayel Facilities PhaseIII	2014-04-14	2018-06-28	100.00	2,144	-	5,064	-
	Yeosu No.2 Complex Project	2018-12-04	2021-06-30	87.32	94,672	-	30,162	162
	LPIC Project PKG 3	2015-12-17	2020-04-24	100.00	937	-	14,217	-
	KNPC North LPG Tank Farm	2011-04-10	2019-08-28	100.00	44	-	1,474	-
	KOC Wara Pressure Maintenance Project	2011-09-15	2020-12-31	100.00	70,490	70,490	1,465	-
Infra works	Bahrain LNGIT Project ¹	2015-12-02	2021-06-30	99.40	26,202	-	4,547	-
	Star Project	2013-05-20	2019-12-19	100.00	-	-	36,583	-
	Thomson-East Coast line Contract T301	2016-03-18	2024-02-28	61.51	149,028	-	43,076	-
	Doha Link project	2014-12-30	2019-06-20	100.00	-	-	5,924	-
	Dohametro Qatar Contract N101	2013-06-13	2020-04-05	100.00	54,427	54,427	1,229	-
	ITTC Project	2020-05-11	2024-12-30	2.33	-	-	310	-
	PP-12 Combined Thermal Power Plant	2012-05-16	2020-11-17	100.00	90,589	90,589	-	-
Decentralized energy	Anyang Cogeneration Power Plant No.2 Construction	2015-09-22	2021-12-31	93.81	4,363	-	-	-

¹ Expected construction period

Of the construction contracts whose total contract revenue amounts to 5% or more of the previous fiscal year's sales, construction contracts before commencement which did not generate profits are excluded. Contracts of which revenue is recognized as the percentage of completion method due to construction warranty after delivery are included. On the other side, there are no construction contracts that are excluded from the disclosure due to related laws or contracts with the client.

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8. Inventories and Other Assets

(1) Inventories as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Land for construction ¹	₩ 899,197	₩ 305,909
Finished housing	-	822
Goods and products	9,466	1,173
Raw materials	50,361	55,542
Unfinished housing construction	424,837	511,040
Supplies	44,068	514
Incompletion construction	2,132	114
	<u>₩ 1,430,061</u>	<u>₩ 875,114</u>

¹ Land for construction amounting to ₩ 244,001 million (2019: ₩ 243,374 million) has been pledged as collateral for borrowings.

(2) Other current assets as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Prepaid construction costs	₩ 103,096	₩ 84,234
Advance payments	258,741	596,348
Prepaid expenses	31,780	103,933
Purchase value added tax	48,333	58,732
Prepaid income taxes	22,287	27,988
	<u>₩ 464,237</u>	<u>₩ 871,235</u>

(3) Other non-current assets as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Long-term advance payments	₩ 18,495	₩ -
Long-term prepaid expenses	96,390	-
Other non-current assets	2,127	-
	<u>₩ 117,012</u>	<u>₩ -</u>

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9. Categories of Financial Assets and Liabilities

(1) Categories of financial assets as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	2020			
	Financial assets at fair value through profit or loss	Derivative financial instruments	Financial assets at amortized cost	Total
Cash and cash equivalents	₩ -	₩ -	₩ 2,118,919	₩ 2,118,919
Trade and other receivables	-	-	1,957,065	1,957,065
Short-term financial assets	30,000	19,128	208,742	257,870
Long-term trade and other receivables	-	-	866,621	866,621
Long-term financial assets	-	29	616,777	616,806
Financial assets at fair value through profit or loss	249,466	-	-	249,466
	<u>₩ 279,466</u>	<u>₩ 19,157</u>	<u>₩ 5,768,124</u>	<u>₩ 6,066,747</u>

(in millions of Korean won)

	2019			
	Financial assets at fair value through profit or loss	Derivative financial instruments	Financial assets at amortized cost	Total
Cash and cash equivalents	₩ -	₩ -	₩ 1,792,956	₩ 1,792,956
Trade and other receivables ¹	-	-	2,407,744	2,407,744
Short-term financial assets	30,000	14,869	200,031	244,900
Long-term trade and other receivables ²	-	-	922,558	922,558
Long-term financial assets ^{2,3}	-	-	677,334	677,334
Financial assets at fair value through profit or loss	239,868	-	-	239,868
	<u>₩ 269,868</u>	<u>₩ 14,869</u>	<u>₩ 6,000,623</u>	<u>₩ 6,285,360</u>

¹ Reclassification of accounts to contract assets is reflected.

² Reclassification of leasehold deposit is reflected.

³ Reclassification of government bond is reflected.

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(2) Categories of financial liabilities as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

		2020			
		Financial liabilities at fair value through profit or loss	Derivative financial instruments	Other financial liabilities at amortized cost	Total
Trade and other payables	₩	-	₩ -	₩ 1,403,146	₩ 1,403,146
Short-term financial liabilities		38,722	6,740	1,148,010	1,193,472
Other current liabilities ¹		-	-	463,657	463,657
Long-term trade and other payables		-	-	189,393	189,393
Long-term financial liabilities		-	2,270	2,955,709	2,957,979
Other non-current liabilities		-	-	55,003	55,003
	₩	38,722	₩ 9,010	₩ 6,214,918	₩ 6,262,650

¹ Consists of accrued expenses, accrued dividends, current membership guarantee deposits and deposits received and, except for short-term employee benefits.

(in millions of Korean won)

		2019			
		Financial liabilities at fair value through profit or loss	Derivative financial instruments	Other financial liabilities at amortized cost	Total
Trade and other payables	₩	-	₩ -	₩ 1,629,980	₩ 1,629,980
Short-term financial liabilities		14,268	3,734	956,615	974,617
Other current liabilities ¹		-	-	219,356	219,356
Long-term financial liabilities		-	2,016	2,683,019	2,685,035
Other non-current liabilities		-	-	76,248	76,248
	₩	14,268	₩ 5,750	₩ 5,565,218	₩ 5,585,236

¹ Consists of accrued expenses, accrued dividends, current membership guarantee deposits and deposits received and, except for short-term employee benefits.

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(3) Net gains and losses on financial instruments by category for the years ended December 31, 2020 and 2019, are as follows:

(in millions of
Korean won)

	2020			
	Financial instruments at fair value through profit or loss	Derivative financial instruments	Financial instruments at amortized cost	Total
Interest income ¹	₩ 80	₩ -	₩ 38,872	₩ 38,952
Interest expense ¹	-	-	(94,246)	(94,246)
Loss on foreign currency translation	-	-	(71,837)	(71,837)
Loss on foreign currency transaction	-	-	(21,484)	(21,484)
Loss on derivatives valuation	(28,384)	(8,953)	-	(37,337)
Gain (loss) on derivatives transaction	(430)	61	-	(369)
Dividend income	600	-	-	600
Other finance income (loss)	24,338	-	(212,272)	(187,934)
	<u>₩ (3,796)</u>	<u>₩ (8,892)</u>	<u>₩ (360,967)</u>	<u>₩ (373,655)</u>

¹ Interest expenses for lease liabilities and interest income from subleases are excluded.

(in millions of
Korean won)

	2019			
	Financial instruments at fair value through profit or loss	Derivative financial instruments	Financial instruments at amortized cost	Total
Interest income ¹	₩ 47	₩ -	₩ 46,919	₩ 46,966
Interest expense ¹	-	-	(123,663)	(123,663)
Gain on foreign currency translation	-	-	31,090	31,090
Gain on foreign currency transaction	-	-	(3,479)	(3,479)
Gain on derivatives valuation ¹	27,896	6,917	-	34,813
Loss on derivatives transaction	(18,221)	(59,002)	-	(77,223)
Dividend income	750	-	-	750
Other finance loss	(27,454)	-	(3,357)	(30,811)
	<u>₩ (16,982)</u>	<u>₩ (52,085)</u>	<u>₩ (52,490)</u>	<u>₩ (121,557)</u>

¹ Interest expenses for lease liabilities and interest income from subleases are excluded.

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10. Financial Assets at Fair Value through Profit or Loss

(1) Details of financial assets at fair value through profit or loss as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020¹		2019¹	
Debt securities	₩	-	₩	5,210
Non-marketable equity securities		249,466		234,658
	₩	249,466	₩	239,868

¹ Government bonds are excluded due to reclassification of accounts.

(2) Changes in financial assets at fair value through profit of loss for the years ended December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020		2019	
Beginning	₩	239,868	₩	228,835
Acquisition		12,057		9,400
Disposal		(18,635)		(12,272)
Valuation		32,514		(36,783)
Transfer		(17,653)		43,292
Changes in exchange rate		1,314		477
Changes in consolidation		1		6,919
Ending	₩	249,466	₩	239,868

(3) Details of non-marketable equity securities as of December 31, 2020, and 2019, are as follows:

<i>(in millions of Korean won)</i>	Number of shares	Equity interest (%)	Acquisition cost		Book value ¹	
			2020	2019	2020	2019
Uijeongbu LRT Inc.	8,663,394	47.54	₩ 45,226	₩ 45,226	₩ -	₩ -
Seoul-Munsan Highway Co., Ltd.	9,667,840	36.40	48,339	48,339	42,248	48,339
Oksan Ochang Highway Corporation	5,988,000	60.00	29,940	29,940	3,515	6,371
Daegu Green Energy Center Co., Ltd.	474,400	10.20	2,372	2,372	-	-
Eun Pyung New Road Corp.	435,200	55.06	2,176	2,176	2,176	2,176
Jeonju Sewage Pipe Co., Ltd.	207,060	7.90	1,035	1,035	-	-
Nonsan Drain Co., Ltd.	91,868	11.90	459	459	459	459
Masan Drain Co., Ltd.	220,890	8.14	1,104	1,104	503	503
Youngduk & Bio Co., Ltd.	34,870	4.22	174	174	174	174
The 2nd YoungDong Highway Co., Ltd.	1,437,483	2.69	7,187	7,187	511	507
Gaya Railway Co., Ltd.	305,490	2.30	1,527	1,527	167	158
S-Y highway Co., Ltd.	4,737,712	7.00	23,689	23,689	-	11,896

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(in millions of Korean won)	Number of shares	Equity interest (%)	Acquisition cost		Book value ¹	
			2020	2019	2020	2019
Kangreung Sewage Pipe Co., Ltd.	50,682	3.30	253	253	253	253
Eumseong Sewage Pipe Co., Ltd.	67,210	6.30	336	336	336	336
Mileseum Co., Ltd.	86,645	1.63	433	433	433	433
Seoul Northern Highway Co., Ltd.	2,730,560	5.60	13,653	13,653	2,845	2,624
Daejeon Sewage Pipe Co., Ltd.	108,456	4.00	830	830	830	830
Gyeonggi Railroad Cd., Ltd.	495,000	2.45	2,475	2,475	-	-
Green Energy Development Co., Ltd.	81,000	27.00	405	405	405	405
Dangyul Co., Ltd.	128,228	11.29	641	641	641	641
Wonju Green Co., Ltd.	226,376	11.03	1,132	1,132	242	395
Gumi Green Water Co., Ltd.	335,412	18.90	1,677	1,677	1,257	1,348
Ulsan green Co., Ltd.	701,368	19.74	3,507	3,507	3,533	4,034
Seoul Tunnel Co., Ltd.	1,147,200	6.00	5,736	5,736	5,736	5,736
Paju-Yangju Powerful Army Co., Ltd.	89,289	8.00	447	447	-	-
Evergreen Goyang Co., Ltd.	24,267	1.76	121	121	121	121
The 2nd Outer Circular Highway Co., Ltd.	2,894,436	13.32	14,472	14,472	14,472	14,472
Midan City Development Co., Ltd.	2,391,480	13.40	13,240	13,240	-	-
Dream Hub Project Financial Investment	4,000,000	2.00	20,000	20,000	-	-
Alpha Dome City Co., Ltd. (deferred shares)	13,175	0.48	66	66	-	-
Bichaenoori Co., Ltd.	-	-	-	58	-	-
Bichaenoori Development Co., Ltd.	-	-	-	3,289	-	-
Alpharos PFV Co., Ltd.	-	-	-	11,496	-	-
Alpharos Mixed-use Development Co., Ltd.	9,580	9.58	48	48	-	-
Tropical Bintan Pte., Ltd.	625,000	12.50	2,444	2,444	-	-
The Korea Economic Daily	646	-	14	14	14	14
Asiad Country Club Co., Ltd. (Formerly, Busan Travel & Development Co., Ltd.)	80,000	2.67	400	400	-	-
International Convention Center Jeju	100,000	0.26	500	500	500	500
Public Development Co., Ltd.	276,259	17.09	2,669	3,947	2,496	3,773
Construction Guarantee Cooperative ²	16,363	0.41	17,095	17,095	24,838	24,449
Engineering Construction Financial Cooperative ²	13,700	1.07	6,612	6,612	9,387	8,855
Electric Construction Financial Cooperative	600	0.01	98	98	98	98
Information & Communication Financial Cooperative	440	0.04	61	61	61	61
Fire Guarantee Cooperative	40	0.01	20	20	20	20
Siheung Ecopia Co., Ltd.	30,530	3.51	153	153	153	153
Pumyang Asset Management	-	-	-	4	-	4
Seo-seoul City Expressway Co., Ltd.	600,087	3.53	3,000	3,000	53,850	3,000
Daejeon Green Energy Center Co., Ltd.	396,792	10.20	1,984	1,984	-	-

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(in millions of Korean won)	Number of shares	Equity interest (%)	Acquisition cost		Book value ¹	
			2020	2019	2020	2019
Dong Yang Engineering and Construction Corp.	545	0.02	3	3	3	3
Jinsung Construction Co., Ltd.	10,095	1.39	101	101	-	101
Gyeongnam Enterprise Ltd.	292	-	1	1	1	1
Pyeongtaek EOS	328,200	6.00	1,641	1,641	1,641	1,641
Ansan 4dong 90 block PFV Co., Ltd.	320,000	16.00	3,200	3,200	3,037	2,809
Pusan New Road Co., Ltd.	2,201,310	32.13	11,007	11,007	11,007	11,007
KIAMCO Gyeonggi Railway Investment Private Investment Trust	8,104,011,384	10.31	8,107	8,107	-	-
Gyeongbuk Green Energy	286,552	8.40	1,433	1,433	1,515	1,433
North Han-River Barraks	8,847	0.33	44	44	44	44
Central Yongin Corp.	-	-	-	400	-	400
Sejong Industry Complex Corp	-	-	-	10	-	10
Ssangyong E&C Co., Ltd.	1,726	-	9	9	9	9
Pureun seobu environment	13,488	1.30	68	68	68	68
Hwaseong Ecotec Co., Ltd.	8,689	0.90	43	43	43	43
Blue Core PFV Co., Ltd.	1,000,000	10.00	5,000	5,000	5,000	5,000
Gunsan Green Energy Center Co., Ltd.	246,962	10.05	1,235	1,235	1,235	1,235
GUMIMAKEUNMUL Co., Ltd	116,721	12.15	584	584	584	584
Donghae International Resources Terminal Co., Ltd	138,000	10.00	690	190	690	190
SAMBU CONSTRUCTION CO., LTD	13,615	0.01	14	14	14	14
Angelswing Co., Ltd.	5,291	4.53	1,500	-	1,431	-
Chemico Advanced Materials Co., Ltd.	34,970	14.54	1,500	-	360	-
Gangnam Metro Co., Ltd.	3,900	39.00	20	-	20	-
Korea Painting Artists Cooperative	10	5.21	10	-	10	-
Others ³	-	-	63,209	68,419	50,480	66,928
			<u>₩ 377,169</u>	<u>₩ 395,384</u>	<u>₩ 249,466</u>	<u>₩ 234,658</u>

¹ The book value is the amount of net asset value or after fair value evaluation.

² The financial assets have been pledged as collateral in relation to its construction performance guarantee, etc.

³ Non-marketable equity security held by a subsidiary. Of these, amounting to ₩ 1,478 million has been pledged as collateral in connection with the construction payment guarantee.

Certain equity securities held by the Group are pledged as collateral (Note 21).

Equity securities held by the Group with 20% or more of the voting power of the investee over which it does not have significant influence are classified as financial assets at fair value through profit of loss.

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11. Derivative Instruments

Details of derivative instruments as of December 31, 2020 and 2019, are as follows:

(in millions of
Korean won)

	2020								
	Valuation			Gain or loss			Accumulated other comprehensive loss ¹		
	Assets	Liabilities		Gain	Loss	Net	Gain	Loss	Net
For sale	₩ -	₩ 15,876	₩ -	₩ 12,165	₩ (12,165)	₩ -	₩ -	₩ -	₩ -
Option ^{2,3}	-	22,846	8,355	24,574	(16,219)	-	-	-	-
Hedging	19,156	9,010	26,937	35,890	(8,953)	61,602	67,114	(5,512)	
	₩ 19,156	₩ 47,732	₩ 35,292	₩ 72,629	₩ (37,337)	₩ 61,602	₩ 67,114	₩ (5,512)	

¹ Gain (loss) on valuation of derivatives are presented prior to income tax effects.

² In relation to investments in business recognized as financial assets as fair value through profit or loss, financial investors granted a right to sell the shares to the Group.

³ The conversion right in relation to foreign convertible bond was provided to the bond holder, and the fair value of the conversion right assessed by the external institution was accounted for as derivative liabilities.

(in millions of
Korean won)

	2019								
	Valuation			Gain or loss			Accumulated other comprehensive loss ¹		
	Assets	Liabilities		Gain	Loss	Net	Gain	Loss	Net
Derivatives that are not designated as hedging instruments									
For sale	₩ -	₩ 5,277	₩ -	₩ 5,277	₩ (5,277)	₩ -	₩ -	₩ -	₩ -
Option ²	-	8,991	33,173	-	33,173	-	-	-	-
	-	14,268	33,173	5,277	27,896	-	-	-	-
Derivatives that are designated as hedging instruments									
Hedging	6,451	4,629	2,274	2,683	(409)	5,874	22,933	(17,059)	
	6,451	4,629	2,274	2,683	(409)	5,874	22,933	(17,059)	
	₩ 6,451	₩ 18,897	₩ 35,447	₩ 7,960	₩ 27,487	₩ 5,874	₩ 22,933	₩ (17,059)	

¹ Gain (loss) on valuation of derivatives are presented prior to income tax effects.

² The conversion right in relation to foreign convertible bond was provided to the bond holder, and the fair value of the conversion right assessed by the external institution was accounted for as derivative liabilities.

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12. Investments in Associates and Joint Ventures

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

(in millions of Korean won)	2020						
	Equity ownership (%)	Beginning	Increase (decrease)	Share of profit or loss	Share of other comprehensive income	Others	Ending
Major Development Co., Ltd.	45.00	₩ -	₩ -	₩ -	₩ -	₩ -	-
GS KOCREF New Stay REIT Co., Ltd.	25.24	-	-	-	-	-	-
Hakun 7 Industry Complex Co., Ltd. ¹	-	15	-	(15)	-	-	-
Beopwon Industry Urban Development Corp.	20.00	-	-	-	-	-	-
HyangSan 2 Urban Development Corp.	50.00	1	-	(1)	-	-	-
Tongjin Industry Complex CO., Ltd. ¹	-	10	(10)	-	-	-	-
SoBaek Co., Ltd.	29.99	-	-	-	-	-	-
Yeouido MBC Site MXD PFV. Inc. ²	10.00	631	-	(631)	-	-	-
Gwancheon Sangsang PFV ²	19.00	1,799	-	(473)	-	-	1,326
FGS East Asia Technical Resource Management, Inc.	25.00	30	-	1	-	-	31
Cadiz San Fernando, A.I.E.	21.95	1,581	-	361	-	(283)	1,659
Participes de Biorreciclaje S.A.	33.33	7,288	-	653	-	225	8,166
Gestion de Participes de Biorreciclaje	33.33	-	-	-	-	-	-
Cheongju Hi Tech Valley	20.00	60	-	148	-	-	208
BKT Co., Ltd.	29.00	16,675	-	(2,503)	-	1	14,173
PT. CORE RESOURCE	49.00	655	-	(649)	-	(6)	-
Zero Tech Co., Ltd. ²	19.00	-	-	-	-	-	-
Cheonan Techno Park Inc.	20.00	365	-	(201)	-	-	164
Camp Stanton Co., Ltd. ²	0.58	2	-	-	-	-	2
ORIGIN LATPHRAO CO.,LTD. ³	49.00	-	7,102	(480)	-	(97)	6,525
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED ³	49.00	-	13,413	(378)	(1,726)	(1,023)	10,286
Jincheon smart bokhap Industrial danji development Inc. ³	20.00	-	100	(100)	-	-	-

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(in millions of
Korean won)

	2020						
	Equity ownership (%)	Beginning	Increase (decrease)	Share of profit or loss	Share of other comprehensive income	Others	Ending
PARK PILLAR R4 CO., LTD. ³	49.00	-	10,611	(1,023)	-	(515)	9,073
GYEONGGIPYEON GTAEK GLOBAL CO., LTD. ³	30.00	-	1,305	(14)	-	-	1,291
GS Collective Fund I LLC ^{2,3}	6.45	-	1,201	(121)	-	(103)	977
CHEMICO ADVANCED MATERIALS CO., LTD. ^{2,3,4}	14.54	-	-	-	-	-	-
EPOCH PFV Co., LTD ³	22.91	-	8,223	(612)	-	-	7,611
Jerotaekmuan Co., LTD ³	30.00	-	2	(2)	-	-	-
		₩ 29,112	₩ 41,947	₩ (6,040)	₩ (1,726)	₩ (1,801)	₩ 61,492

¹ Disposed of shares for the year ended December 31, 2020.

² The corporation has categorized as associates due to the Group has significant influence with the seniority right of directors.

³ Newly acquired for the year ended December 31, 2020.

⁴ Classified as financial assets at fair value through profit or loss in accordance with Korean IFRS 1109 as it is determined that the profits linked to the ownership interest in the associates through the financial instruments are not substantially accessible by investing in convertible preferred shares issued by investee over which the Group has significant influence (Note 10).

(in millions of
Korean won)

(in millions of Korean won)	2019									
	Equity ownership (%)	Beginning		Increase (decrease)		Share of profit or loss		Others		Ending
Major Development Co., Ltd.	45.00	₩	-	₩	-	₩	-	₩	-	₩
GS KOCREF New Stay REIT	25.24		-		-		-		-	
Sejong Industry Complex Corp. ¹	1.01		-		-		-		-	
Hakun 7 Industry Complex Co., Ltd	20.00		122		-		(107)		-	15
Beopwon Industry Urban Development Corp.	20.00		-		-		-		-	-
HyangSan 2 Urban Development Corp.	50.00		4		-		(3)		-	1
Tongjin Industry Complex CO., Ltd	20.00		10		-		-		-	10
SoBaek Co., Ltd.	29.99		-		-		-		-	

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(in millions of Korean won)	2019					
	Equity ownership (%)	Beginning	Increase (decrease)	Share of profit or loss	Others	Ending
Yeouido MBC Site MXD PFV. Inc. ²	10.00	6,448	-	(5,817)	-	631
Gwancheon Sangsang PFV ²	19.00	2,016	-	(217)	-	1,799
FGS East Asia Technical Resource Management, Inc.	25.00	11	16	1	2	30
Cadiz San Fernando, A.I.E.	21.95	1,536	-	340	(295)	1,581
Participes de Biorreciclaje S.A.	33.33	6,455	-	746	87	7,288
Gestion de Participes de Biorreciclaje	33.33	-	-	-	-	-
Shariket Miyeh Ras Djinet, Spa ³	25.49	10,792	(10,792)	-	-	-
Shariket Tahlya Miyah Mostaganem, Spa ⁴	25.50	31,076	(35,271)	4,195	-	-
Cheongju Hi Tech Valley ⁵	20.00	-	160	(100)	-	60
BKT Co., Ltd. ⁵	29.00	-	18,000	(1,325)	-	16,675
PT. CORE RESOURCE ⁵	49.00	-	1,124	(502)	33	655
Zero Tech Co., Ltd. ^{2,5}	19.00	-	1	(1)	-	-
Cheonan Techno Park Inc. ⁵	20.00	-	600	(235)	-	365
Camp Stanton Co., Ltd. ⁵	29.00	-	2	-	-	2
		₩ 58,470	₩ (26,160)	₩ (3,025)	₩ (173)	₩ 29,112

¹ Due to the change in the equity ratio during the current period, the shares of Sejong Industrial Complex Co., Ltd. have been reclassified from investments in associates to financial assets at fair value through profit or loss.

² The corporation has categorized as associates due to the Group has significant influence with the seniority right of directors.

³ Newly included in consolidation by the shareholder's agreement for the year ended December 31, 2019.

⁴ Due to the loss of significant influence by the shareholder's agreement, shares of Shariket Tahlya Miyah Mostaganem, Spa were reclassified as financial assets at fair-value through profit or loss from investments in associates.

⁵ Newly acquired for the year ended December 31, 2019.

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(2) Changes in investments in joint ventures for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020					
	Equity ownership (%)	Beginning	Increase	Share of profit or loss	Others	Ending
G&M Estate Co., Ltd.	50.00	₩ 489	₩ -	₩ 13	₩ -	502
GS Korea for Project Management Company	49.00	21	-	(2)	(1)	18
Hialeah Water, LLP	50.00	446	-	-	(23)	423
PT. Daria Mulia Properti	50.00	22,327	-	144	(1,538)	20,933
Lignana LLC ¹	50.00	-	2	(3)	1	-
Lignana LLP ¹	95.00	-	17,761	(248)	9	17,522
GS MINH HUNG SIKICO CO.,LTD. ¹	34.06	-	819	(5)	(17)	797
		₩ 23,283	₩ 18,582	₩ (101)	₩ (1,569)	₩ 40,195

¹ Newly acquired for the year ended December 31, 2020.

(in millions of Korean won)	2019					
	Equity ownership (%)	Beginning	Increase	Share of profit or loss	Others	Ending
G&M Estate Co., Ltd.	50.00	₩ 508	₩ -	₩ (19)	₩ -	489
GS Korea for Project Management Company	49.00	20	-	-	1	21
Hialeah Water, LLP	50.00	454	-	(22)	14	446
PT. Daria Mulia Properti	50.00	14,038	6,974	162	1,153	22,327
		₩ 15,020	₩ 6,974	₩ 121	₩ 1,168	₩ 23,283

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(3) As of December 31, 2020, the following entities with more than 20% of voting rights of the Group were judged to have no significant influence because the Group's ability to participate in business policies and decision making and the scope of discretion is considerably limited by the Private Investment Act and concession agreements.

	Percentage of ownership (%)
Uijeongbu LRT Inc.	47.54
Seoul-Munsan Highway Co., Ltd.	36.40
Oksan Ochang Highway Corporation	60.00
Eun Pyung New Road Corp.	55.06
Green Energy Development Co., Ltd.	27.00
Pusan New Road Co., Ltd.	32.13
Gangnam Metro Co.,Ltd.	39.00
Shariket Tahlya Miyah Mostaganem, Spa	25.50

(4) Equity method of accounting has been suspended due to accumulated losses, and unrecognized losses in equity for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	2020		
	Beginning	Increase	Ending
Major Development Co., Ltd.	₩ 7,713	₩ 828	₩ 8,541
GS KOCREF New Stay REIT Co., Ltd.	21,582	11,680	33,262
Beopwon Industry Urban Development Corp.	983	285	1,268
HyangSan 2 Urban Development Corp.	-	1	1
SoBaek Co., Ltd.	5,446	3,663	9,109
Yeouido MBC Site MXD PFV. Inc.	-	2,982	2,982
Gestion de Participes de Biorreciclaje	11	-	11
Zero Tech Co., Ltd	48	19	67
PT. CORE RESOURCE	-	140	140
Lignana LLP	-	9	9
Jincheon smart bokhap Industrial danji development Inc	-	34	34
Jerotaekmuan Co.,LTD	-	3	3
	₩ 35,783	₩ 19,644	₩ 55,427

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(in millions of Korean won)

	2019					
	Beginning		Increase (decrease)		Ending	
Major Development Co., Ltd.	₩	9,074	₩	(1,361)	₩	7,713
GS KOCREF New Stay REIT Co., Ltd.		11,320		10,262		21,582
Beopwon Industry Urban Development Corp.		660		323		983
SoBaek Co., Ltd.		1,112		4,334		5,446
Gestion de Participes de Biorreciclaje		11		-		11
Zero Tech Co., Ltd		-		48		48
	₩	22,177	₩	13,606	₩	35,783

(4) A summary of financial information on associates and joint ventures is as follows:

(in millions of
Korean won)

(in millions of Korean won)	2020									
	Asset		Liabilities		Net assets		Sales		Profit (loss) for the year	
Associates										
Major Development Co., Ltd.	₩	11,110	₩	34,105	₩	(22,995)	₩	-	₩	(1,351)
GS KOCREF New Stay REIT Co., Ltd.		360,444		321,245		39,199		1,111		(10,169)
Beopwon Industry Urban Development Corp.		84,465		90,893		(6,428)		-		(1,425)
HyangSan 2 Urban Development Corp.		393		396		(3)		-		(2)
SoBaek Co., Ltd.		231,764		262,129		(30,365)		-		(12,206)
Yeouido MBC Site MXD PFV. Inc.		653,258		650,982		2,276		57,506		(22,815)
Gwancheon Sangsang PFV		69,579		66,283		3,296		-		(2,491)
FGS East Asia Technical Resource Management, Inc.		1,128		1,003		125		300		2
Cadiz San Fernando, A.I.E.		11,744		4,186		7,558		6,055		1,651
Participes de Biorreciclaje S.A.		98,776		71,054		27,722		24,993		1,999
Gestion de Participes de Biorreciclaje		93		373		(280)		-		-
Cheongju Hi Tech Valley		1,528		1,028		500		-		(216)
BKT Co., Ltd.		34,961		17,659		17,302		21,350		(5,708)
PT. CORE RESOURCE		5,095		5,855		(760)		1,953		(993)
Zero Tech Co., Ltd.		1,292		1,644		(352)		-		(101)

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(in millions of Korean won)	2020				
	Asset	Liabilities	Net assets	Sales	Profit (loss) for the year
Cheonan Techno Park Inc.	1,023	645	378	-	(1,008)
Camp Stanton Co., Ltd.	447	-	447	-	(53)
ORIGIN LATPHRAO CO.,LTD.	21,075	13,455	7,620	-	(2,036)
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED	20,956	3,875	17,081	435	(772)
Jincheon smart bokhap Industrial danji development Inc	35	210	(175)	-	(675)
PARK PILLAR R4 CO., LTD.	26,553	17,935	8,618	20	(3,398)
GYEONGGIPYEONGT AEK GLOBAL CO.,LTD	4,275	-	4,275	-	(48)
GS Collective Fund I LLC	15,152	18	15,134	-	(1,876)
CHEMICO ADVANCED MATERIALS CO.,LTD	2,918	13	2,905	-	(201)
EPOCH PFV Co., LTD	62,000	30,729	31,271	-	(2,657)
Jerotaekmuan Co.,LTD	1,464	1,473	(9)	-	(13)
Joint ventures					
G&M Estate Co., Ltd.	1,103	100	1,003	1,003	25
GS Korea for Project Management Company	100	64	36	102	(3)
Hialeah Water, LLP	1,258	257	1,001	-	-
PT. Daria Mulia Properti	29,364	5	29,359	-	287
Lignana LLC	5	26	(21)	-	(23)
Lignana LLP	18,542	98	18,444	-	(260)
GS MINH HUNG SIKICO CO.,LTD.	2,353	12	2,341	-	(14)

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(in millions of Korean won)	2019									
	Asset		Liabilities		Net assets		Sales	Profit (loss) for the year		
Associates										
Major Development Co., Ltd.	₩	22,566	₩	43,723	₩	(21,157)	₩	-	₩	111
GS KOCREF New Stay REIT Co., Ltd.		322,402		273,016		49,386		1,241		(10,328)
Hakun 7 Industry Complex Co.,Ltd		2,503		2,422		81		-		(547)
Beopwon Industry Urban Development Corp.		64,167		69,170		(5,003)		-		(1,616)
HyangSan 2 Urban Development Corp.		393		393		-		-		(7)
Tongjin Industry Complex CO., Ltd		50		1		49		-		-
SoBaek Co., Ltd.		202,994		221,154		(18,160)		-		(11,731)
Yeouido MBC Site MXD PFV. Inc.		637,679		599,268		38,411		17,757		(26,073)
Gwancheon Sangsang PFV		6,269		482		5,787		-		(1,151)
FGS East Asia Technical Resource Management, Inc.		1,014		892		122		375		(16)
Cadiz San Fernando, A.I.E.		10,758		3,556		7,202		5,783		1,552
Participes de Biorreciclaje S.A.		96,535		74,301		22,234		24,223		2,283
Gestion de Participes de Biorreciclaje		90		361		(271)		-		-
Cheongju Hi Tech Valley		14		257		(243)		-		(1,043)
BKT Co., Ltd.		39,666		14,855		24,811		23,811		(5,028)
PT. CORE RESOURCE		6,840		5,754		1,086		9,634		(995)
Zero Tech Co., Ltd.		1,299		1,550		(251)		-		(256)
Cheonan Techno Park Inc.		1,441		57		1,384		-		(1,572)
Camp Stanton Co., Ltd.		10		-		10		-		-
Joint ventures										
G&M Estate Co., Ltd.		1,088		111		977		815		(39)
GS Korea for Project Management Company		111		70		41		349		(1)
Hialeah Water, LLP		1,220		326		894		-		(43)
PT. Daria Mulia Properti		31,243		16		31,227		-		324

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13. Property, Plant and Equipment

(1) Details of property, plant and equipment as of December 31, 2020 and 2019, are as follows:

	2020			2019		
	Acquisition cost	Accumulated depreciation	Net book value	Acquisition cost	Accumulated depreciation	Net book value
(in millions of Korean won)						
Land	₩ 764,292	₩ -	₩ 764,292	₩ 533,615	₩ -	₩ 533,615
Buildings	598,868	(155,917)	442,951	638,515	(163,751)	474,764
Structures	146,910	(51,002)	95,908	113,333	(46,238)	67,095
Machinery	70,413	(45,001)	25,412	52,308	(37,543)	14,765
Construction equipment	42,233	(28,302)	13,931	45,894	(28,767)	17,127
Vehicles	26,658	(20,735)	5,923	24,394	(19,592)	4,802
Tools	32,318	(19,124)	13,194	27,682	(18,481)	9,201
Equipment	131,180	(114,032)	17,148	133,109	(113,419)	19,690
Construction-in-progress	48,015	-	48,015	34,973	-	34,973
	₩ 1,860,887	₩ (434,113)	₩ 1,426,774	₩ 1,603,823	₩ (427,791)	₩ 1,176,032

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

	2020							
	Beginning	Acquisition	Disposal	Depreciation	Transfer	Exchange differences	Change in consolidation	Ending
(in millions of Korean won)								
Land	₩ 533,615	₩ 31,111	₩ (399)	₩ -	₩ -	₩ (12,478)	₩ 212,443	₩ 764,292
Buildings	474,764	2,282	(25,372)	(16,638)	12,906	(35,679)	30,688	442,951
Structures	67,095	1,240	(199)	(3,882)	29,162	(116)	2,608	95,908
Machinery	14,765	3,409	(1,055)	(5,414)	8,542	(2,874)	8,039	25,412
Construction equipment	17,127	4,152	(2,300)	(4,172)	-	(876)	-	13,931
Vehicles	4,802	1,603	(410)	(1,854)	562	(126)	1,346	5,923
Tools	9,201	4,141	(746)	(3,729)	4,716	(1,333)	944	13,194
Equipment	19,690	4,440	(1,063)	(6,341)	46	(139)	515	17,148
Construction-in-progress	34,973	74,884	-	-	(55,890)	(6,538)	586	48,015
	₩ 1,176,032	₩ 127,262	₩ (31,544)	₩ (42,030)	₩ 44	₩ (60,159)	₩ 257,169	₩ 1,426,774

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(in millions of Korean won)		2019														
		Beginning		Acquisition		Disposal		Depreciation		Transfer ¹		Exchange differences		Change in consolidation		Ending
Land	₩	456,855	₩	62,792	₩	-	₩	-	₩	14,017	₩	(92)	₩	43	₩	533,615
Buildings		247,949		27,682		(100)		(13,056)		32,471		(343)		180,161		474,764
Structures		69,319		524		-		(2,760)		-		12		-		67,095
Machinery		7,376		4,184		(275)		(2,794)		-		94		6,180		14,765
Construction equipment		24,235		1,010		(4,508)		(5,729)		-		367		1,752		17,127
Vehicles		5,410		1,272		(299)		(1,636)		-		55		-		4,802
Tools		5,860		4,705		(494)		(2,492)		-		76		1,546		9,201
Equipment		20,704		5,832		(343)		(6,708)		-		183		22		19,690
Construction- in-progress		3,340		33,099		-		-		(3,478)		117		1,895		34,973
	₩	841,048	₩	141,100	₩	(6,019)	₩	(35,175)	₩	43,010	₩	469	₩	191,599	₩	1,176,032

¹ Land and building are transferred from investment property, and construction in progress is transferred to cost of sales.

(3) Details of allocation of depreciation for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020	2019
Cost of sales	₩ 32,804	₩ 28,087
Selling and administrative expenses (including technology development costs)	9,225	7,087
Construction-in-progress	1	1
	₩ 42,030	₩ 35,175

(4) There are no payables related to acquisition of property, plant and equipment at the end of the reporting period.

(5) Collateral pledged to financial institutions for borrowings as of December 31, 2020, is as follows:

(in millions of Korean won)	Carrying amount	Secured amount	Related account	Related amount	Secured party
Lang	₩ 102,185				
Buildings	114,438	₩ 142,136	Borrowings	₩ 12,136	Banco Santander and others

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14. Intangible Assets

(1) Intangible assets as of December 31, 2020 and 2019, consist of:

(in millions of Korean won)	2020				2019			
	Acquisition cost	Accumulated amortization	Accumulated impairment	Net book value	Acquisition cost	Accumulated amortization	Accumulated impairment	Net book value
Goodwill	₩ 346,789	₩ -	₩ -	₩ 346,789	₩ 108,302	₩ -	₩ -	₩ 108,302
Memberships	48,913	-	(2,931)	45,982	43,416	-	(2,931)	40,485
Computer software	18,496	(10,396)	-	8,100	14,447	(6,128)	-	8,319
Concession assets	289,687	(52,794)	-	236,893	442,058	(120,913)	-	321,145
Technical rights	38,839	(33,660)	-	5,179	37,654	(28,868)	-	8,786
Trademark	78,816	-	-	78,816	-	-	-	-
Others	28,199	(5,653)	-	22,546	5,472	(2,515)	-	2,957
	<u>₩ 849,739</u>	<u>₩ (102,503)</u>	<u>₩ (2,931)</u>	<u>₩ 744,305</u>	<u>₩ 651,349</u>	<u>₩ (158,424)</u>	<u>₩ (2,931)</u>	<u>₩ 489,994</u>

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

(in millions of Korean won)	2020				
	Beginning	Acquisition	Disposal	Amortization	Transfer
Goodwill	₩ 108,302	₩ -	₩ -	₩ -	₩ -
Memberships	40,485	374	(35)	-	5,200
Computer software	8,319	1,821	(39)	(2,573)	43
Concession assets	321,145	10,210	(15,586)	(19,645)	-
Technical rights	8,786	-	-	(3,906)	-
Trademark	-	-	-	-	-
Others	2,957	1,751	(28)	(12,071)	5,546
	<u>₩ 489,994</u>	<u>₩ 14,156</u>	<u>₩ (15,688)</u>	<u>₩ (38,195)</u>	<u>₩ 10,789</u>

(in millions of Korean won)	2020			
	Change in consolidation	Exchange differences	Others	Ending
Goodwill	₩ 251,298	₩ (9,028)	₩ (3,783)	₩ 346,789
Memberships	-	(42)	-	45,982
Computer software	908	(379)	-	8,100
Concession assets	4,831	(64,062)	-	236,893
Technical rights	-	299	-	5,179
Trademark	78,816	-	-	78,816
Others	25,207	(816)	-	22,546
	<u>₩ 361,060</u>	<u>₩ (74,028)</u>	<u>₩ (3,783)</u>	<u>₩ 744,305</u>

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	2019							
	Beginning	Acquisition	Disposal	Amortization	Change in consolidation	Exchange differences	Ending	
Goodwill	₩ 56,286	₩ -	₩ -	₩ -	₩ 51,652	₩ 364	₩ 108,302	
Memberships	40,573	50	(164)	-	-	26	40,485	
Computer software	4,505	6,202	(806)	(1,816)	237	(3)	8,319	
Concession assets	100,182	10,016	-	(10,056)	221,044	(41)	321,145	
Technical rights	12,375	-	-	(3,787)	-	198	8,786	
Others	1,743	1,227	-	(375)	365	(3)	2,957	
	<u>₩ 215,664</u>	<u>₩ 17,495</u>	<u>₩ (970)</u>	<u>₩ (16,034)</u>	<u>₩ 273,298</u>	<u>₩ 541</u>	<u>₩ 489,994</u>	

(3) Details of allocation of amortization for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	2020	2019
Cost of sales	₩ 21,219	₩ 10,819
Selling and administrative expenses (including technology development costs)	16,976	5,215
	<u>₩ 38,195</u>	<u>₩ 16,034</u>

(4) Impairment tests for goodwill

Goodwill is monitored by the management at the operating segment level (CGU or group of CGU). The following is a summary of goodwill allocation for each operating segment:

(in millions of
Korean won)

	2020			
	Beginning	Increase	Other adjustments	Ending
Architectural construction	₩ 1,132	₩ -	₩ -	₩ 1,132
New business	107,038	251,298	(12,811)	345,525
Plant construction	5	-	-	5
Infra works	71	-	-	71
Others	56	-	-	56
	<u>₩ 108,302</u>	<u>₩ 251,298</u>	<u>₩ (12,811)</u>	<u>₩ 346,789</u>

(in millions of
Korean won)

	2019			
	Beginning	Increase	Other adjustments	Ending
Architectural construction	₩ 1,132	₩ -	₩ -	₩ 1,132
New business	55,093	51,581	364	107,038
Plant construction	5	-	-	5
Infra works	-	71	-	71
Others	56	-	-	56
	<u>₩ 56,286</u>	<u>₩ 51,652</u>	<u>₩ 364</u>	<u>₩ 108,302</u>

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Goodwill impairment reviews are undertaken annually. The recoverable amount of the CGU is calculated on a basis of the value in use. Value in use is estimated by using the DCF Method, which discounts the estimated future cash flows at a market discount rate based on the 5~6 year business budgets and plans approved by the management. Cash flows after 5~6 years use the estimated long-term growth rate as explained below. This growth rate does not exceed the long-term average growth rate forecasts included in the related industry report.

The following table sets out the key assumptions (discount rate, perpetual rate and others used in the value-in-use calculations) for those CGUs that have significant goodwill allocated to them. Also, the recoverable amount is as follows in case where the impairment loss exists in CGUs.

	Sales growth rate	Operating profit rate	Discount rate	Perpetual growth rate	Recoverable amount ¹
GS Inima Environment S.A.U.	8.4%	15.0%~26.9%	8.5%	1.0%	N/A
Danwood S.A.	10.1%	6.1%~7.6%	9.7%	1.0%	N/A
Elements (Europe) Limited	43.7%	1.4%~3.7%	10.2%	1.0%	N/A
CDCF III Fortbay MV, LLC	26.8%	-501.7%~34.1%	12.3%	0.0%	N/A

¹ Since there is no impairment loss incurred, it is presented as not applicable (N/A).

Management has determined the values assigned to each of the above key assumptions as follows:

Sales growth rate is the average growth rate for sales over the 5-6 years forecast period. It is based on past performance and sales mix, with adjustments made to reflect the expected future price. Discount rates reflect specific risks relating to the relevant segments and the countries in which they operate. Perpetual growth rate is the weighted average growth rate used to extrapolate cash flows beyond the budget period. The rates do not exceed the long-term average growth rate forecasts included in industry reports.

The impairment test suggests that the carrying amount of cash generating units does not exceed the recoverable amount.

If the discount rate used in the estimation of recoverable amounts for the CGU had been 1% higher than management's estimates, the Group would have had to recognize an impairment against goodwill of ₩ 17,835 million.

If the perpetual growth rate used in the estimation of recoverable amounts for the CGU had been 1% lower than management's estimates, the Group would have not had to recognize an impairment against goodwill.

(5) The Group has entered into LIB recycle technology transfer contract with GHP and another company and the amount of related purchase agreement is USD 3,700,000.

(6) The Group has entered into elevator control panel technology transfer contract with G-Tech and in relation to this, the Group pays 1 % of sales from the elevator control panel as a technical fee.

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15. Investment Properties

(1) Details of investment properties as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020				2019			
	Acquisition cost	Accumulated depreciation	Accumulated impairment	Net book value	Acquisition cost	Accumulated depreciation	Accumulated impairment	Net book value
Land	₩ 742,527	₩ -	₩ (13,651)	₩ 728,876	₩ 686,738	₩ -	₩ (13,651)	₩ 673,087
Buildings	299,392	(33,696)	(24,091)	241,605	295,041	(25,765)	(24,091)	245,185
Right-of-use assets	76,776	(19,379)	(6,006)	51,391	-	-	-	-
	<u>₩ 1,118,695</u>	<u>₩ (53,075)</u>	<u>₩ (43,748)</u>	<u>₩ 1,021,872</u>	<u>₩ 981,779</u>	<u>₩ (25,765)</u>	<u>₩ (37,742)</u>	<u>₩ 918,272</u>

Fair values of investment properties approximate their book values as of December 31, 2020 and 2019.

(2) Changes in investment properties for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)		2020													
		Beginning		Acquisition		Disposal		Depreciation		Impairment		Transfer		Ending	
Land		₩	673,087	₩	56,072	₩	(780)	₩	-	₩	-	₩	497	₩	728,876
Buildings			245,185		4,829		(774)		(7,981)		-		346		241,605
Right-of-use assets			-		-		-		-		(6,006)		57,397		51,391
		₩	918,272	₩	60,901	₩	(1,554)	₩	(7,981)	₩	(6,006)	₩	58,240	₩	1,021,872

(in millions of Korean won)		2019															
		Beginning		Acquisition		Disposal		Depreciation		Impairment		Transfer ¹		Exchange differences		Ending	
Land		₩	625,793	₩	69,363	₩	(316)	₩	-	₩	(8,307)	₩	(14,017)	₩	571	₩	673,087
Buildings			290,035		234		(520)		(6,919)		(6,500)		(32,470)		1,325		245,185
		₩	915,828	₩	69,597	₩	(836)	₩	(6,919)	₩	(14,807)	₩	(46,487)	₩	1,896	₩	918,272

¹ ₩ 46,487 million of investment properties were reclassified to property, plant and equipment.

(3) Gain and loss on investment properties recognized in profit or loss for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020	2019
Lease income	₩ 24,706	₩ 6,407
Operating expenses	17,831	16,739
	<u>₩ 6,876</u>	<u>₩ (10,332)</u>

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(4) Collateral pledged to financial institutions for borrowings as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

		2020			
	Carrying amount	Secured amount	Related account	Related amount	Secured party
Land	₩ 205,261	₩ 232,613	Long-term borrowings and others	₩ 192,843	Woori and others
Buildings	205,308				

(in millions of Korean won)

		2019			
	Carrying amount	Secured amount	Related account	Related amount	Secured party
Land	₩ 149,189	₩ 156,718	Long-term borrowings and others	₩ 130,893	Woori and others
Buildings	207,863				

(5) The future minimum lease payments expected to be received in relation to the above operating lease agreement for investment property as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	2020		2019	
Within one year	₩	23,596	₩	23,697
Between 1 and 2 years		17,030		23,383
Between 2 and 3 years		14,963		16,841
Between 3 and 4 years		6,967		14,849
Between 4 and 5 years		3,444		6,925
	₩	<u>66,000</u>	₩	<u>85,695</u>

The minimum lease payments incurred from sublease are included.

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16. Leases

Set out below is information for leases when the Company is a lessee (intermediate lessor).

(1) The statement of financial position shows the following amounts relating to leases:

<i>(in millions of Korean won)</i>	2020	2019
Right-of-use assets		
Land	₩ 2,356	₩ 2,846
Buildings ¹	475,394	559,700
Machinery	8	44
Construction equipment	7,542	19,169
Vehicles	4,224	708
Tools	1	2
Equipment	868	1,259
Sublease ²	(78,573)	(64,684)
	<u>₩ 411,820</u>	<u>₩ 519,044</u>
Lease liabilities ²		
Current	₩ 88,621	₩ 95,169
Non-current	479,911	497,291
	<u>₩ 568,532</u>	<u>₩ 592,460</u>

¹ ₩ 57,397 million was reclassified to investment properties for the year ended December 31, 2020.

² Additions to the right-of-use assets during the 2020 financial year were ₩ 60,292 million. In addition, as the sublease was recognized as finance lease in 2020, the amount of right-of-use assets deducted from book amount is ₩ 38,121 million.

(2) The statement of profit or loss shows the following amounts relating to leases:

<i>(in millions of Korean won)</i>	2020	2019
Depreciation of right-of-use assets		
Land	₩ 2,354	₩ 1,769
Buildings	47,658	55,523
Machinery	47	64
Construction equipment	19,207	18,178
Vehicles	2,018	426
Tools	4	6
Equipment	440	370
	<u>₩ 71,728</u>	<u>₩ 76,336</u>
Interest expense relating to lease liabilities	₩ 20,955	₩ 23,472
Expense relating to short-term leases	110,333	96,283

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<i>(in millions of Korean won)</i>	2020	2019
Expense relating to leases of low-value assets that are not short-term leases	11,933	12,262
Expense relating to variable lease payments not included in lease liabilities	11,511	9,828
Interest income from sublease	2,916	2,795

The total cash outflow for leases in 2020 was ₩ 240,568 million.

(3) Details of finance lease receivables as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Finance lease receivables		
Current	₩ 21,026	₩ 13,333
Non-current	56,658	48,898
	<u>₩ 77,684</u>	<u>₩ 62,231</u>

<i>(in millions of Korean won)</i>	2020	2019
Lease payments		
Within one year	₩ 21,132	₩ 21,818
Between 1 and 2 years	23,571	21,132
Between 2 and 3 years	23,143	23,571
Between 3 and 4 years	8,092	23,143
Between 4 and 5 years	1,864	8,092
Over 5 years	5,361	7,225
	<u>83,163</u>	<u>104,981</u>
Non-guaranteed residual values	-	-
Gross investment in the lease	<u>83,163</u>	<u>104,981</u>
Less: unrealized interest income	(5,479)	(42,750)
Less: loss allowance for lease receivables	-	-
Net investment in the lease	<u>₩ 77,684</u>	<u>₩ 62,231</u>

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17. Trade and Other Payables, Other Liabilities

(1) Trade and other payables as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Trade payables	₩ 1,124,774	₩ 1,394,222
Other payables	278,372	235,758
	<u>₩ 1,403,146</u>	<u>₩ 1,629,980</u>

(2) Details of other current liabilities as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Advance from customers	₩ 182,050	₩ 130,013
Withholdings	152,443	236,352
Deposits received	663	1,166
Accrued expenses	388,077	164,883
Dividends payable	9	6
Unearned revenue	37,668	397
Value added tax withheld	19,062	22,922
Membership guarantee deposits	177,702	177,146
	<u>₩ 957,674</u>	<u>₩ 732,885</u>

¹ Advances from construction contracts, advances from apartment sales and overbilled amounts related to construction are excluded due to reclassification of accounts.

(3) Details of long-term trade and other payables as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Long-term other payables	₩ 189,393	₩ -

(4) Details of other non-current liabilities as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Long-term deposits received	₩ 34,121	₩ 49,471
Membership guarantee deposits	20,882	26,777
	<u>₩ 55,003</u>	<u>₩ 76,248</u>

¹ Leasehold deposits received are excluded due to reclassification of accounts.

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18. Financial Liabilities

(1) Details of short-term financial liabilities as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020		2019	
Short-term borrowings	₩	391,697	₩	450,893
Current portion of long-term debts		605,015		410,553
Discount on debentures		(176)		-
Conversion right adjustments		(2,601)		-
Current lease liabilities		88,621		95,169
Derivative liabilities ¹		45,462		35,117
Financial guarantee liabilities ²		28,925		-
Current portion of leasehold deposits received ³		36,529		-
	₩	<u>1,193,472</u>	₩	<u>991,732</u>

¹ The fair value of conversion rights that are granted to creditors in relation to the issuance of foreign convertible bonds are included in derivative liabilities.

² Financial guarantee liabilities are included due to reclassification of accounts.

³ Current portion of leasehold deposits received is included due to reclassification of accounts.

(2) Details of long-term financial liabilities as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020		2019	
Long-term borrowings	₩	1,459,461	₩	1,187,750
Debentures		788,027		667,565
Discount on debentures		(2,620)		(1,772)
Conversion right adjustments		-		(8,242)
Non-current lease liabilities		479,911		497,290
Derivative liabilities		2,270		2,016
Financial guarantee liabilities ¹		59,787		125,237
Leasehold deposits received ²		171,143		215,191
	₩	<u>2,957,979</u>	₩	<u>2,685,035</u>

¹ Financial guarantee liabilities are included due to reclassification of accounts.

² Leasehold deposits received is included due to reclassification of accounts.

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(3) Details of short-term borrowings as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	Creditor	Maturity	Annual interest rate (%)		2020		2019
Usance	KEB Hana	2021-06-07	0.35~1.00	₩	2,708	₩	451
	Kookmin	2021-06-28	0.55~0.65		2,278		2,966
	Suhyup	-	-		-		5,574
	Woori	2021-02-16	0.30~0.60		959		3,105
	KDB	2021-05-24	0.61~0.71		529		843
	Shinhan	-	-		-		1,016
	Bank of China	-	-		-		6,595
	Citibank Korea	2021-04-14	0.45		1,425		-
General borrowings in foreign currency	HSBC	-	-		-		57,890
	Qatar National Bank Consortium	-	-		-		6,321
	United Overseas Bank	-	-		-		31,080
	Bank of Communications	2021-05-13	3M Libor + 1.90		16,320		-
	Industrial & Commercial Bank of China	2021-05-11	3M Libor + 2.30		32,640		34,734
	Industrial & Commercial Bank of China	-	-		-		23,156
	China Everbright Bank	2021-07-23	3M Libor + 2.20		21,760		23,156
	Bank of China	-	-		-		34,734
Subsidiaries	DB Madrid	2021-03-29	12M Libor + 3.00		39,747		57,048
	NH Bank	2021-05-31	3.07		12,000		-
	SC New York	2021-02-19	1M Libor + 1.90		163,200		-
	Smilegate	-	-		-		92,880
	Helios and others	-	-		-		11
	Caixa and others ^{1,2}	2021-06-30	TR + 8.70 and others		64,368		53,453
	JSC Credit Agricole Bank	2021-07-09	6M EURibor + 3.25		21,372		15,880
	PKO Bank Polski S.A.	2021-06-30	3M EURibor + 1.50~3.00		12,391		-
				₩	391,697	₩	450,893

¹ Future cash flows from the Service Concession Arrangements are pledged as collateral (Note 34).

² Interests held by the subsidiaries are pledged as collateral.

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(4) Details of long-term borrowings as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	Creditor	Maturity	Annual interest rate (%)	2020	2019
Long-term borrowings in Korean won	IBK Capital	-	-	₩ -	₩ 30,000
	NongHyup Life Insurance Co., Ltd.	-	-	-	20,000
	Dream Arena Co., Ltd.	-	-	-	75,000
	KDB Capital	-	-	-	5,000
	Elysia the 1st Co., Ltd.	-	-	-	16,500
	FN siksa 1st Co., Ltd.	-	-	-	12,981
	Woori ¹	2045-06-12	2.30~2.80	127,435	127,435
	Industrial & Commercial Bank of China	-	-	-	20,000
	Fairy Ilsan Co., Ltd. ²	2022-11-16	2.95	19,030	24,049
	HSBC	2021-05-10	2.95	100,000	100,000
	YKGAEPO.Co.,Ltd. ³	2021-10-08	2.85	100,000	100,000
	Korea Exim	2024-09-19	2.15	37,500	37,500
	Korea Exim	2021-04-12	3M Libor + 2.48	12,925	13,755
	Korea Exim	2027-03-10	6M EURibor + 1.66	149,883	-
Long-term borrowings in foreign currency	Korea Exim	-	-	-	118,096
	Korea Exim	2023-07-05	6M Libor + 1.75	163,200	-
	Korea Exim	2026-09-19	6M EURibor + 1.53	32,118	31,137
	Korea Exim	2026-09-23	6M EURibor + 1.68	123,118	119,364
	Korea Exim	2025-01-16	6M GBP Libor + 1.79	26,683	-
	Korea Exim	2025-05-08	6M Libor + 2.24	36,992	-
	Korea Exim	2027-08-24	6M EURibor + 1.76	66,912	-
	HSBC	2025-03-10	3M EURibor + 1.60	40,147	-
	Arab Bank, S'pore	2022-01-17	6M Libor + 1.60	54,400	57,890
	KEB Hana	2023-08-24	3M EUR Libor + 2.42	28,504	-
	Industrial & Commercial Bank of China	2022-02-11	3M Libor + 1.85	54,400	-
	Bank of China	2022-02-17	3M Libor + 1.85	65,280	-
	Caixa and others ^{4,5,6,7}	2038-11-07	TR + 8.70 and others	663,886	458,433
				1,902,413	1,367,140
Less: current portion				(442,952)	(179,390)
				₩ 1,459,461	₩ 1,187,750

¹ Part of the investment property held by the Group are pledged as collateral (Note 15).

² Land and buildings for the business are trusted and the preferred beneficiary right for future receivables is granted to the creditor with the limit of ₩ 357.6 billion.

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³ Future cash flows from the business are pledged as collateral and beneficiary right is provided with regard to it.

⁴ Future cash flows from the Service Concession Arrangements are pledged as collateral (Note 34).

⁵ Part of the lots held by the subsidiaries are pledged as collateral (Note 8).

⁶ Investments held by the subsidiaries are pledged as collateral (Note 12).

⁷ Part of the property, plant and equipment held by the subsidiaries is pledged as collateral (Note 13).

(5) Details of debentures as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	Creditor	Maturity	Annual interest rate (%)		2020		2019
Bonds in Korean won with fixed interest rate	The 135th unsecured bond (private)	2021-05-10	2.50	₩	20,000	₩	20,000
	The 136th unsecured bond (public)	2022-07-12	2.00		300,000		300,000
	The 137th unsecured bond (public)	2023-06-11	2.70		100,000		-
	Convertible bonds ¹	2021-04-12	2.90		54,500		62,000
Bonds in foreign currency	The 133th - secured bond (variable rate)	2022-04-26	3M Libor + 0.95		54,400		57,890
	The 134th - unsecured bond (variable rate)	2023-05-04	3M Libor + 1.85		54,400		57,890
	The 138th - unsecured bond (variable rate)	2023-10-21	6M Libor + 1.80		184,960		-
	Convertible bonds ²	2021-07-21	4.50		73,114		87,067
Bonds of subsidiaries in foreign currency	Bond ³	2021-03-03	CDI + 4.35		946		3,938
	Bond ³	2030-03-01	TR + 9.00		19,375		28,242
	Bond	-	-		-		148,833
	Bond ³	2027-05-15	CDI + 2.67		33,566		52,192
	Bond ³	2021-03-30	IGP-M + 12.50		874		1,345
	Bond ³	2029-08-01	TR + 8.75		53,955		79,331
					950,090		898,728
Less: current portion					(159,286)		(231,163)
					790,804		667,565
Less: discount on debentures					(2,796)		(1,772)
Less: conversion right adjustments					(2,601)		(8,242)
				₩	785,407	₩	657,551

¹ Convertible bonds

The Parent Company issued unsecured convertible bonds on April 8, 2016 in accordance with the resolution made at the Board of Directors' meeting. Details of the bonds are as follows:

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	Description
Aggregate principal amount of the bonds	₩ 250,000,000,000
Par interest rate	2.90%
Yield to maturity	2.90%
Conversion period	From April 12, 2017 to March 12, 2021
Type of shares to be issued in accordance with the conversion	Fully paid ordinary shares
Details of conversion rights	<ol style="list-style-type: none"> 1. Conversion price: ₩ 24,658 per share 2. Payments: paid at once on maturity, redemption at the option of the bondholders 3. Issued: private offering 4. Adjustments to conversion price: adjustments described under "Terms and Conditions of the Bonds" (consolidation, subdivision, reclassification or capital reduction, share dividends, capitalization of profits or reserves, distributions, rights issues of shares or options over shares, issues at less than current market price and others)

During the year ended December 31, 2020, the Company issued 304,157 shares of its ordinary share for the exercise of conversion rights to face par value of ₩ 7,500 million.

² Convertible bonds

The Parent Company issued unsecured convertible bonds on July 7, 2016 in accordance with the resolution made at the Board of Directors' meeting. Details of the bonds are as follows:

	Description
Aggregate principal amount of the bonds	USD 150,000,000
Par interest rate	4.50%
Yield to maturity	4.50%
Conversion period	From July 21, 2017 to July 14, 2021
Type of shares to be issued in accordance with the conversion	Fully paid ordinary shares
Details of conversion rights	<ol style="list-style-type: none"> 1. Conversion price: ₩ 30,239 per share 2. Payments: paid at once on maturity, redemption at the option of the bondholders, redemption at the option of the issuer 3. Issued: private offering (Korea) and public offering (Foreign) 4. Adjustments to conversion price: adjustments described under "Terms and Conditions of the Bonds" (consolidation, subdivision, reclassification or capital reduction, share dividends, capitalization of profits or reserves, distributions, rights issues of shares or options over shares, issues at less than current market price and others)

During the year ended December 31, 2020, the Parent Company issued 306,242 shares of its ordinary share for the exercise of conversion rights to face par value of USD 8,000,000.

³ Future cash flows from the Service Concession Arrangements are pledged as collateral (Note 34).

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19. Post-employment Benefits

(1) Defined contribution retirement pension

The Group operates a defined contribution pension plan under which the amount contributed by the Group is expensed. The amount recognized in the financial statement of profit or loss for the year ended December 31, 2020 is ₩ 3,543 million.

(2) Defined benefit retirement pension

The Group operates a defined benefit pension plan for its employees. In relation to this, actuarial gains and losses on the defined benefit obligation is calculated using the projected unit credit method.

1) The amounts recognized in the statements of financial position are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Present value of defined benefit obligations ¹	₩ 500,432	₩ 497,487
Fair value of plan assets	(482,660)	(447,678)
Net defined benefit liabilities	<u>₩ 17,772</u>	<u>₩ 49,809</u>

¹ The present value of the defined benefit obligation is calculated by deducting contributions to the National Pension Fund of ₩ 575 million as of December 31, 2020 (2019: ₩ 598 million).

2) Changes in the carrying amount of defined benefit liabilities for the years ended December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Beginning balance	₩ 497,487	₩ 460,767
Current service cost	68,773	55,359
Interest expenses	8,483	9,758
Remeasurements:	(20,931)	18,434
Actuarial gain and loss from changes in demographic assumptions	159	(810)
Actuarial gain and loss from changes in financial assumptions	(8,966)	12,437
Actuarial gain and loss from experience adjustments	(12,124)	6,807
Exchange differences	(263)	(40)
Payments from plans:	(53,011)	(46,950)
Benefit payments	(53,011)	(46,950)
Liabilities transferred from (to) a related party	(106)	159
Ending balance	<u>₩ 500,432</u>	<u>₩ 497,487</u>

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

<i>(in millions of Korean won)</i>	2020	2019
Beginning balance	₩ 447,678	₩ 387,979
Interest income	8,093	8,383
Remeasurements:	902	(1,010)
Return on plan assets (excluding amounts included in interest income)	902	(1,010)
Contributions:	72,369	92,364
Employers	72,369	92,364
Payments from plans:	(46,267)	(40,360)
Benefit payments	(45,540)	(39,650)
Management fee	(727)	(711)
Assets transferred to a related party	(115)	322
Ending balance	₩ 482,660	₩ 447,678

4) Fair value of plan assets as of December 31, 2020 and 2019, consists of:

<i>(in millions of Korean won)</i>	2020	2019
Financial instruments/Insurance	₩ 467,188	₩ 409,919
Time deposits	9,073	32,391
Cash and cash equivalents	1,816	1,552
Others	4,583	3,816
	₩ 482,660	₩ 447,678

5) The amounts recognized in the statements of profit or loss for the years ended December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Current service cost	₩ 68,773	₩ 55,359
Net interest	1,115	2,087
Ending balance ¹	₩ 69,888	₩ 57,446
¹ Represents total expenses for pension benefits:		
Cost of sales	₩ 44,858	₩ 38,167
Selling and general administrative expenses	25,030	19,279
	₩ 69,888	₩ 57,446

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6) The principal actuarial assumptions as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Discount rate	1.74 ~ 2.88%	1.88%
Future salary increase (including inflation)	2.50 ~ 3.43%	3.00%

Mortality rates used as actuarial assumptions are based on post-2018 figures announced by the Insurance Development Institute.

7) A quantitative sensitivity analysis for significant assumptions as of December 31, 2020, is as shown below:

Assumptions	Sensitivity level (%)	Impact on defined benefit obligation	
		1% increase	1% decrease
Discount rate	1.00	₩ (23,953)	₩ 26,757
Future salary increases	1.00	26,350	(24,071)

The Group reviews the funding level on an annual basis and has a policy of eliminating deficit from the fund.

Expected contributions to post-employment benefit plans for the year ending December 31, 2021, are ₩ 54,952 million.

The expected maturity analysis of undiscounted pension benefits as of December 31, 2020 and 2019, is as follows:

<i>(in millions of Korean won)</i>		Less than 1 year	Between 1-2 years	Between 2-5 years	Between 5-10 years	Total
Pension benefits						
December 31, 2020	₩	68,464	₩ 82,085	₩ 199,580	₩ 223,419	₩ 573,548
December 31, 2019		62,347	76,411	204,368	250,798	593,924

The weighted average duration of the defined benefit obligation is 5.61~9.50 years.

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(3) Other employee benefits

Employee benefits include paid absences recognized in respect of service rendered by employees in the current period and amount paid in respect of service rendered by employees with service period for certain years and above.

<i>(in millions of Korean won)</i>	2020		2019	
Employee benefits	₩	39,200	₩	27,878

20. Provisions

Details and changes in provisions for the years ended December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020							
	Beginning	Additions	Reversal	Utilization	Ending	Current	Non-current	
Provisions for construction loss	₩ 58,395	₩ 41,759	₩ (46,612)	₩ (89)	₩ 53,453	₩ 53,453	₩	-
Provisions for construction warranty	289,784	146,121	(6,712)	(40,068)	389,125	71,814		317,311
Provisions for others	73,384	52,955	(7,532)	(11,948)	106,859	70,443		36,416
	<u>₩ 421,563</u>	<u>₩ 240,835</u>	<u>₩ (60,856)</u>	<u>₩ (52,105)</u>	<u>₩ 549,437</u>	<u>₩ 195,710</u>	<u>₩</u>	<u>353,727</u>

<i>(in millions of Korean won)</i>	2019							
	Beginning	Additions	Reversal	Utilization	Ending	Current	Non-current	
Provisions for construction loss	₩ 86,783	₩ 6,275	₩ (35,004)	₩ 341	₩ 58,395	₩ 58,395	₩	-
Provisions for construction warranty	280,475	59,286	(4,375)	(45,602)	289,784	33,379		256,405
Provisions for others	52,892	37,964	(3,980)	(13,492)	73,384	43,933		29,451
	<u>₩ 420,150</u>	<u>₩ 103,525</u>	<u>₩ (43,359)</u>	<u>₩ (58,753)</u>	<u>₩ 421,563</u>	<u>₩ 135,707</u>	<u>₩</u>	<u>285,856</u>

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21. Commitments and Contingencies

(1) As of December 31, 2020, the Group has been provided with guarantees of ₩ 16,156,532 million (2019: ₩ 13,999,036 million) from the Construction Guarantee and its business partners in relation to its construction performance, sales of housing lots and construction warranties. As of December 31, 2020, the Group has been provided with guarantees of within the limit of ₩ 4,446,788 million from the Korea Development Bank and others in relation to opening of letters of credit and bond issuance, and USANCE borrowing limit (effective limit) is ₩ 30,365 million (2019: total limit of ₩ 4,696,716 million, USANCE borrowing limit (effective limit) of ₩ 44,859 million). Also, the Group has been provided with guarantees of ₩ 2,639,177 million (2019: ₩ 3,079,097 million) from the Korea Trade Insurance Corporation and others in relation to the performance of its overseas construction projects.

(2) As of December 31, 2020, the Group has provided payment guarantees of ₩ 133,715 million (2019: ₩ 104,666 million) in relation to its overseas construction projects and the Group has provided guarantees of ₩ 7,985,724 million (₩ 7,890,990 million after considering the Group's ownership) (2019: ₩ 7,588,031 million (₩ 7,476,310 million after considering the Group's ownership)) for apartment sales and others.

(3) As of December 31, 2020, in relation to housing loans and temporary relocation costs of future tenants during the construction period, the Group has provided payment guarantees of ₩ 1,429,344 million (2019: ₩ 1,966,368 million) within the limit of ₩ 3,428,019 million (2019: ₩ 4,130,916 million) through agreements with financial institutions. Also, in relation to refurbishment projects such as redevelopment of an area, the Group has provided payment guarantees of ₩ 493,346 million (2019: ₩ 538,286 million) within the limit of ₩ 1,202,544 million (2019: ₩ 688,400 million) through agreements with refurbishment project cooperatives as of December 31, 2020.

(4) As of December 31, 2020, for the Group's investees incorporated under the Act on Private Investment in Social Overhead Capital, the Group has provided payment guarantees of ₩ 651,837 million (2019: ₩ 527,839 million) within the limit of ₩ 2,832,664 million (2019: ₩ 2,837,707 million) provided together with its partners, and pledged investments with a carrying value of ₩ 374,796 million (2019: ₩ 222,862 million) as collateral as of December 31, 2020. Also, the Group and its partners have provided put options and other commitments of ₩ 270,828 million (₩ 62,324 million after considering the Group's ownership) (2019: ₩ 270,828 million (₩ 63,250 million after considering the Group's ownership)) to the financial investor and others.

(5) As of December 31, 2020, the Group has provided construction completion commitments of ₩ 3,668,845 million (2019: ₩ 2,018,401 million) for construction owners up to ₩ 4,889,410 million (2019: ₩ 3,125,173 million).

(6) As of December 31, 2020, the Group has provided 23 blank checks and 36 notes amounting to ₩ 471,961 million (2019: 22 blank checks and 42 notes amounting to ₩ 443,031 million) in face value as collateral to guarantee its construction contracts.

(7) As of December 31, 2020, the Group has entered into an interest-free loan agreement amounting to ₩ 7,464,761 million (₩ 5,770,348 million after considering the Group's ownership) (2019: ₩ 7,043,622 million (₩ 5,407,800 million after considering the Group's ownership)) in relation to the Group's refurbishment projects in progress. In addition, the Group has entered into an interest-bearing

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loan agreement amounting to ₩ 10,704,496 million (₩ 7,704,146 million after considering the Group's ownership) (2019: ₩ 10,310,948 million (₩ 7,672,745 million after considering the Group's ownership)) in relation to the refurbishment projects. There are 16 other interest-bearing loan agreements without limit. Meanwhile, the Group has entered into a loan agreement amounting to ₩ 26,104 million (2019: ₩ 19,878 million) in relation to outsourcing business.

(8) The Group is involved in 109 lawsuits with aggregated claims sued by the Group amounting to ₩ 872,011 million after considering the Group's ownership with total amount of ₩ 1,449,527 million (2019: 85 litigations amounting to ₩ 849,360 million after considering the Group's ownership with total amount of ₩ 1,004,322 million), and 144 lawsuits with aggregated claims against the Group amounting to ₩ 625,116 million after considering the Group's ownership with total amount of ₩ 1,656,397 million (2019: 115 litigations amounting to ₩ 1,089,880 million after considering the Group's ownership with total amount of ₩ 1,465,101 million) as the defendant. As of December 31, 2020, the outcome of these cases cannot be reasonably determined.

(9) As of December 31, 2020, the Group provided payment guarantees of ₩ 1,351,200 million (2019: ₩ 1,472,208 million) within the guarantee limit of ₩ 1,571,250 million (2019: ₩ 1,678,188 million) through agreements with financial institutions for the borrowings of the developers of the construction projects. Details of guaranteed borrowings are ABCP and ABSTB amounting to ₩ 1,030,100 million (2019: ₩ 1,197,108 million) within the guarantee limit of ₩ 1,155,720 million (2019: ₩ 1,333,488 million) and other PF loans amounting to ₩ 321,100 million (2019: ₩ 278,100 million) within the guarantee limit of ₩ 415,530 million (2019: ₩ 344,700 million), respectively (excluding borrowings for intermediate payments, relocation expenses, completion guarantee, SOC and others).

Major guarantees for the developers' debts that the Group provided as of December 31, 2020, are as follows:

(in millions of Korean won)

Location	Creditor	Loan balance	Guaranteed amount	Details	Loan period	Type
Gyeonggi province	Security	₩ 274,300	₩ 211,000	Debt guarantee	2020-08~2021-02	ABCP(ABSTB)
Busan	Security and others	247,900	213,400	Debt guarantee	2020-04~2021-08	ABCP(ABSTB) and other loans
Gyeonggi province	Security and others	239,630	202,100	Debt guarantee	2020-03~2021-09	ABCP(ABSTB) and other loans
Gyeonggi province	Security	159,000	159,000	Debt guarantee	2020-10~2021-01	ABCP(ABSTB)
Daegu	Security	156,000	120,000	Debt guarantee	2020-03~2021-06	ABCP(ABSTB)
Incheon	Security	70,700	66,700	Debt guarantee	2020-07~2021-03	ABCP(ABSTB)
Chungcheong province	Security	64,100	64,100	Debt guarantee	2020-03~2021-03	ABCP(ABSTB)
Jeolla province	Security	60,000	60,000	Debt guarantee	2020-09~2021-05	ABCP(ABSTB)
Gyeonggi province	Bank	68,900	53,000	Debt guarantee	2020-07~2021-03	Other loans
Gyeonggi province	Security	58,320	36,000	Debt guarantee	2020-11~2022-05	ABCP(ABSTB)

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(10) As of December 31, 2020, the Group has provided payment guarantees to the Korea Securities Finance Corporation by June 2, 2021 for the employees' personal loan for acquiring their company's share.

(11) The Group has entered into an operating lease contract for 20 years for the rental of Gran Seoul from Kocref Chungjin No.18 Entrust Management Real Estate Investment Group in 2014. The Group does not hold any purchase option to purchase the leased building upon maturity of the lease period in relation to the contracts above.

(12) In relation to the commitments and contingencies above, the Group may be required to make accelerated repayments or provide additional guarantees for the borrowings, payment guarantees, and major lease agreements under the contract if the credit rating of unsecured bonds issued by the Group falls below a certain level. The major trigger provisions are maintaining debt to equity ratio below 300%, EBITDA/interest rate below 200%, minimum credit rating A, non-guaranteed debenture rating of BBB+, and others. As of December 31, 2020, the credit rating of unsecured bonds is unlikely to be downgraded.

(13) GS Inima Environment S.A.U., a subsidiary, borrowed funds from financial institutions in relation to the Service Concession Arrangements. Cash flows from the Service Concession Arrangements and equity securities are pledged as collateral for the repayments of the borrowings. In addition, the Group has an obligation to supplement the funds for certain borrowings' repayments.

22. Share Capital and Share Premium

(1) Details of share capital as of December 31, 2020 and 2019, are as follows

<i>(in millions of Korean won)</i>	2020	2019
Authorized shares	200,000,000 shares	200,000,000 shares
Par value per share	₩ 5,000	₩ 5,000
Outstanding shares	80,708,203 shares	80,097,804 shares
Share capital	₩ 403,541 million	₩ 400,489 million

(2) Details of share premium as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Gain on disposal of treasury stock	₩ 2,384	₩ 2,384
Additional paid-in capital	796,463	783,111
Gain on business combination	15,002	15,002
Other share premium	1,827	1,797
	<u>₩ 815,676</u>	<u>₩ 802,294</u>

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(3) Details of other equity components as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Treasury stock ¹	₩ (36,443)	₩ (36,443)
Hybrid securities ²	-	27,015
Others	(273)	-
	<u>₩ (36,716)</u>	<u>₩ (9,428)</u>

¹ To stabilize the Group's share price, the Group purchased 692,595 shares of own stock and recognized the acquisition in other components of equity as of December 31, 2020.

² Hybrid securities were fully redeemed during the year ended December 31, 2020.

(4) Details of other comprehensive loss as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Loss on valuation of derivative instruments	₩ (4,576)	₩ (11,801)
Loss on exchange differences on translations of foreign operations	(111,995)	(35,330)
Share of other comprehensive income of associates	(821)	1,095
	<u>₩ (117,392)</u>	<u>₩ (46,036)</u>

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23. Retained Earnings

(1) Retained earnings as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Legal reserves	₩ 99,856	₩ 91,494
Appropriated retained earnings for business stabilization	1,004,653	884,653
Other voluntary reserves	1,896,270	1,669,391
Remeasurements of the net defined benefit liability	(52,266)	(68,819)
Other consolidated retained earnings	76,773	64,616
Unappropriated retained earnings	50,824	186,028
	<u>₩ 3,076,110</u>	<u>₩ 2,827,363</u>

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

<i>(in millions of Korean won)</i>	2020	2019
Beginning balance	₩ 2,827,363	₩ 2,487,073
Effect of changes in accounting policy	-	(6,232)
Annual dividends	(79,405)	(78,743)
Profit attributable to equity holders of the Parent Company	311,695	443,360
Remeasurements of the net defined benefit liability	16,553	(14,271)
Others	(96)	(3,824)
Ending balance	<u>₩ 3,076,110</u>	<u>₩ 2,827,363</u>

(3) Dividends paid during the years ended December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won, except per share)</i>	2020	2019
Type of shares	Ordinary shares	Ordinary shares
Total number of shares issued	80,097,804 shares	79,435,797 shares
Number of shares	79,405,209 shares	78,743,202 shares
Dividends per share	₩ 1,000	₩ 1,000
Total dividends	₩ 79,405	₩ 78,743

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24. Earnings per Share

Basic and diluted earnings per share of equity holders of the Group for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won and in shares)</i>	2020	2019
Profit attributable to equity holders of the parent Company ¹	₩ 311,297,494,898	₩ 442,565,074,982
Diluted effect:		
Profit related to convertible bonds ²	1,283,439,421	1,497,942,855
Profit related to hybrid securities ²	298,257,750	592,538,730
Loss related to foreign currency convertible bonds ³	-	(15,286,893,373)
Diluted profit for the year attributable to equity holders	₩ 312,879,192,069	₩ 429,368,663,194
Weighted average number of ordinary shares in issue ⁴	79,433,384	79,170,815
Diluted effect:		
Convertible bonds	2,395,454	2,558,449
Hybrid securities	194,905	692,595
Foreign currency convertible bonds	-	2,664,967
	82,023,743	85,086,826
Basic earnings per share	₩ 3,919	₩ 5,590
Diluted earnings per share	3,814	5,046

¹ Excludes interest payment of the hybrid securities.

² The amount is after deducting the income tax effect.

³ Potential ordinary shares with anti-dilutive effect, which was excluded from calculation of diluted earnings per share

⁴ Details of calculation of the weighted average number of ordinary shares outstanding for the years ended December 31, 2020 and 2019, are as follows:

<i>(in shares)</i>	2020		2019	
	Number of shares	Number of shares * number of days	Number of shares	Number of shares * number of days
Beginning	80,097,804	29,315,796,264	79,435,797	28,994,065,905
Conversion of convertible bonds	610,399	10,311,948	662,007	156,078,763
Treasury stock	(692,595)	(253,489,770)	(692,595)	(252,797,175)
		29,072,618,442		28,897,347,493
Weighted average number of ordinary shares outstanding		79,433,384		79,170,815

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25. Selling and General Administrative Expenses

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

<i>(in millions of Korean won)</i>	2020		2019	
Salaries	₩	264,200	₩	293,776
Pension benefits		25,029		19,279
Employee welfare benefits		38,098		31,903
Taxes and dues		22,204		19,451
Commissions		114,677		121,102
Rents		6,835		5,499
Depreciation		9,129		6,355
Amortization		16,947		4,834
Depreciation of investment properties		15		15
Depreciation of right-of-use assets		23,776		21,669
Advertising		21,533		27,104
Bad debt expenses		184,652		17,227
Development		24,162		32,973
Warranty		6,302		4,427
Insurance premium		10,192		8,888
Travel		3,572		8,141
Reversal of financial guarantee liability		-		(897)
Others		13,367		8,855
	₩	<u>784,690</u>	₩	<u>630,601</u>

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26. Other Operating Income and Expenses

(1) Other operating income for the years ended December 31, 2020 and 2019 are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Gain on disposal of property, plant and equipment	₩ 844	₩ 2,240
Gain on disposal of intangible assets	1	99
Gain on disposal of investment property	98	41
Gain on changes in leases	168	563
Gain on disposal of other assets	109	1,290
Gain on foreign currency transactions	28,940	56,464
Gain on foreign currency translation	10,183	47,362
Reversal of allowance for bad debts	46,543	31,497
Gain on valuation of derivatives	26,936	10,721
Gain on derivatives transactions	33,095	9,072
Gain on valuation of firm commitments	-	54,791
Gain on exchange differences on translations of foreign operations	10,728	6,838
Dividend income	600	750
Gain on valuation of financial assets at fair value through profit or loss	55,662	1,299
Gain on disposal of financial assets at fair value through profit or loss	52	2,642
Miscellaneous gain and others	30,479	38,509
	<u>₩ 244,438</u>	<u>₩ 264,178</u>

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(2) Other operating expenses for the years ended December 31, 2020 and 2019 are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Loss on disposal of property, plant and equipment	₩ 2,225	₩ 1,199
Loss on disposal of intangible assets	16	-
Loss on disposal of investment properties	-	19
Impairment loss on investment properties	6,006	14,807
Loss on changes in leases	8,053	31
Loss on disposal of other assets	374	4,363
Loss on foreign currency transactions	35,675	32,220
Loss on foreign currency translation	133,422	21,629
Bad debt expense	120,040	133,698
Loss on valuation of derivatives	48,981	9,081
Loss on derivatives transactions	33,464	86,295
Loss on valuation of firm commitments	-	15,312
Loss on disposal of trade receivables	-	1,946
Loss on exchange differences on translations of foreign operations	18,968	10,688
Loss on valuation of financial assets at fair value through profit or loss	23,049	37,405
Loss on disposal of financial assets at fair value through profit or loss	91	-
Miscellaneous loss and others	27,444	20,619
	<u>₩ 457,808</u>	<u>₩ 389,312</u>

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27. Finance Income and Costs

(1) Finance income for the years ended December 31, 2020 and 2019 are as follows:

<i>(in millions of Korean won)</i>	2020		2019	
Interest income	₩	41,868	₩	49,761
Gain on foreign currency transactions		34,863		30,029
Gain on foreign currency translation		78,376		21,978
Gain on valuation of financial assets at fair value through profit or loss		70		-
Gain on disposal of financial assets at fair value through profit or loss		-		8,383
Gain on valuation of derivatives		8,356		33,173
Gain on disposal of investments in associates		202		-
Reversal of financial guarantee liabilities		46,585		117,118
	₩	<u>210,320</u>	₩	<u>260,442</u>

(2) Finance costs for the years ended December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020		2019	
Interest expenses	₩	115,201	₩	147,136
Financial guarantee expenses		297		-
Loss on foreign currency transaction		49,612		57,750
Loss on foreign currency translation		26,974		16,621
Loss on valuation of financial assets at fair value through profit or loss		169		667
Loss on disposal of financial assets at fair value through profit or loss		4,791		1,705
Loss on valuation of derivatives		23,648		-
Loss on redemption of debentures		411		-
Loss on disposal of investments in associates		1,667		1,307
Impairment loss on investments in associates		-		750
	₩	<u>222,770</u>	₩	<u>225,936</u>

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28. Income Tax

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

<i>(in millions of Korean won)</i>	2020	2019
Current tax:		
Current tax on profits for the year	₩ 316,689	₩ 182,941
Adjustments in respect of the prior year	(33,817)	23,895
Total current tax	282,872	206,836
Deferred tax:		
Origination and reversal of temporary differences	(113,725)	22,287
Total income tax expense	₩ 169,147	₩ 229,123
Income tax charged directly to equity ¹	₩ (19,617)	₩ 2,868
Income tax expense	188,764	226,255

¹ Income tax credited (charged) directly to equity as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020			2019		
	Tax			Tax		
	Before tax	(charge) credit	After tax	Before tax	(charge) credit	After tax
Share of other comprehensive income	₩ (1,803)	₩ 114	₩ (1,917)	₩ -	₩ -	₩ -
Gain or loss on valuation of derivatives	6,089	1,788	4,301	8,640	2,191	6,449
Gain or loss on exchange differences on translations of foreign operations	(129,767)	(27,079)	(102,688)	26,604	7,792	18,812
Remeasurements of net defined benefit pension plans	21,799	5,567	16,232	(19,443)	(4,948)	(14,495)
Consideration for conversion rights	(26)	(7)	(19)	(134)	(34)	(100)
Retained earnings	-	-	-	-	(2,133)	2,133
	<u>₩ (103,708)</u>	<u>₩ (19,617)</u>	<u>₩ (84,091)</u>	<u>₩ 15,667</u>	<u>₩ 2,868</u>	<u>₩ 12,799</u>

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(2) A reconciliation between profit before tax at the Korea statutory tax rate to income tax expense at the effective income tax rate of the Group as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020		2019	
Profit before tax	₩	518,440	₩	673,734
Tax calculated at domestic tax rates applicable to profits in the respective countries		132,202		171,802
Tax effects of:				
Income not subject to tax		1		-
Expenses not deductible for tax purposes		5,106		10,466
Foreign income tax expense		23,159		7,268
Others		28,296		36,719
Adjustment in respect of prior years		56,562		54,453
Income tax expense	₩	188,764	₩	226,255

(3) The gross balances of deferred tax assets and liabilities as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020		2019	
Deferred tax assets				
Deferred tax asset to be recovered after more than 12 months	₩	750,438	₩	677,183
Deferred tax asset to be recovered within 12 months		455,693		417,509
		1,206,131		1,094,692
Deferred tax liabilities				
Deferred tax liability to be recovered after more than 12 months		277,797		261,581
Deferred tax liability to be recovered within 12 months		121,754		116,598
		399,551		378,179
Deferred tax assets, net	₩	806,580	₩	716,513

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

(in millions of Korean won)

	2020				
	Beginning balance	Profit or loss	Equity	Change in consolidation	Ending balance
Deferred tax liabilities					
Reserve for revaluation	₩ 44,436	₩ -	₩ -	₩ -	₩ 44,436
Deposits for severance benefits	109,853	4,380	234	-	114,467
Gain or loss on valuation of derivatives	1,498	-	14,191	-	15,689
Accrued interest on loans	8,857	982	-	-	9,839
Inventory construction interest	9,357	(135)	-	-	9,222
Gain on exchange differences on translations of foreign operations	58,591	-	(21,869)	-	36,722
Others	136,489	8,374	(7)	-	144,856
Consolidation adjustment	9,098	(8,476)	-	23,698	24,320
	<u>378,179</u>	<u>5,125</u>	<u>(7,451)</u>	<u>23,698</u>	<u>399,551</u>
Deferred tax assets					
Reversal of allowance for bad debts	238,666	30,141	-	-	268,807
Gain or loss on valuation of derivatives	7,665	1,992	12,403	-	22,060
Provisions	147,406	65,030	-	-	212,436
Allowance for pension benefits	122,467	4,111	(5,333)	-	121,245
Share of profit or loss of associates and joint ventures	23,991	5,809	-	-	29,800
Impairment loss on assets	71,965	21,247	-	-	93,212
Loss on exchange differences on translations of foreign operations	71,991	-	5,210	-	77,201
Others	81,001	(10,263)	-	-	70,738
Consolidation adjustment	329,540	(18,834)	(114)	40	310,632
	<u>1,094,692</u>	<u>99,233</u>	<u>12,166</u>	<u>40</u>	<u>1,206,131</u>
Deferred tax assets (liabilities), net	₩ <u>716,513</u>	₩ <u>94,108</u>	₩ <u>19,617</u>	₩ <u>(23,658)</u>	₩ <u>806,580</u>

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(in millions of Korean won)

	2019				
	Beginning balance	Profit or loss	Equity	Change in consolidation	Ending balance
Deferred tax liabilities					
Reserve for revaluation	₩ 44,436	₩ -	₩ -	₩ -	₩ 44,436
Deposits for severance benefits	94,902	14,991	(40)	-	109,853
Gain or loss on valuation of derivatives	400	-	1,098	-	1,498
Accrued interest on loans	7,905	952	-	-	8,857
Depreciation filing adjustment	1,344	(1,344)	-	-	-
Inventory construction interest	10,068	(711)	-	-	9,357
Gain on exchange differences on translations of foreign operations	50,558	-	8,033	-	58,591
Others	93,073	(124)	(192)	43,732	136,489
Consolidation adjustment	16,055	(6,957)	-	-	9,098
	<u>318,741</u>	<u>6,807</u>	<u>8,899</u>	<u>43,732</u>	<u>378,179</u>
Deferred tax assets					
Reversal of allowance for bad debts	219,610	19,056	-	-	238,666
Gain or loss on valuation of derivatives	8,534	224	(1,093)	-	7,665
Provisions	151,169	(3,763)	-	-	147,406
Allowance for pension benefits	106,984	10,575	4,908	-	122,467
Share of profit or loss of associates and joint ventures	14,759	9,232	-	-	23,991
Impairment loss on assets	71,965	-	-	-	71,965
Loss on exchange differences on translations of foreign operations	71,751	-	240	-	71,991
Others	134,358	(55,333)	1,976	-	81,001
Consolidation adjustment	322,142	7,398	-	-	329,540
	<u>1,101,272</u>	<u>(12,611)</u>	<u>6,031</u>	<u>-</u>	<u>1,094,692</u>
Deferred tax assets (liabilities), net	₩ <u>782,531</u>	₩ <u>(19,418)</u>	₩ <u>(2,868)</u>	₩ <u>(43,732)</u>	₩ <u>716,513</u>

(5) Details of unrecognized deductible (taxable) temporary differences as deferred tax assets (liabilities) as of December 31, 2020, are as follows:

(in millions of Korean won)	Deductible temporary differences and others	Reason
Foreign income tax expense	₩ 5,934	Uncertainty of feasibility and others

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29. Expenses Classified by Nature

Expenses classified by nature for the years ended December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Labor cost	₩ 1,103,012	₩ 1,188,728
Materials	2,045,144	2,336,357
Outsourcing	3,937,478	4,182,226
Employee welfare benefits	136,193	125,216
Bad debt expense	184,652	17,249
Rents	70,687	63,186
Depreciation and amortization	80,225	51,209
Taxes and dues	114,513	144,257
Service fees	646,858	733,164
Others	963,533	658,492
Changes in inventories and others	90,238	149,239
	<u>₩ 9,372,533</u>	<u>₩ 9,649,323</u>

The total amounts include cost of sales, selling and general administrative expenses.

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30. Related Party Transactions

(1) Related parties are as follows:

Relationship	Related parties
Associates ¹	GS KOCREF New Stay REIT Co., Ltd., Major Development Co., Ltd., FGS East Asia Technical Resource Management, Inc., SoBaek Co., Ltd, HyangSan 2 Urban Development Corp., Beopwon Industry Urban Development Corp., Yeouido MBC Site MXD PFV. Inc., PT. CORE RESOURCE, BKT Co., Ltd., Cheongju Hi Tech Valley, Gwancheon Sangsang PFV, Zero Tech Co., Ltd., Camp Stanton Co., Ltd., Cheonan Techno Park Inc., ORIGIN LATPHRA CO.,LTD ³ , RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED ³ , PARK PILLAR R4 CO., LTD ³ , GYEONGGIPYEONGTAEK GLOBAL CO.,LTD ³ , Jincheon smart bokhap industrial danji development Co.,LTD ³ , GS Collective Fund I LLC ³ , EPOCH PFV Co., LTD ³ , CHEMICO ADVANCED MATERIALS CO.,LTD ³ , Jerotaekmuan Co.,LTD ³ , PT. CORE RESOURCE INDONESIA, Cadiz San Fernando, A.I.E., Gestion de Participes de Biorreciclaje, Participes de Biorreciclaje S.A.
Joint ventures ¹	G&M Estate Co., Ltd., PT. Daria Mulia Properti, GS Korea for Project Management Company, GS MINH HUNG SIKICO CO.,LTD ³ , Hialeah Water, LLP, Lignana LLC ³ , Lignana LLP ³
Others ²	GS Holdings, GS Retail Co., Ltd., GS Global Corp., Samyangtongsang Ltd., GS Home Shopping Inc., GS Energy Corporation, GS Power Co., Ltd., Boryeong LNG Terminal Co., Ltd., GS Park 24 Co., Ltd., Incheon Total Energy Co., GS-Caltex Corporation, Inno Polytech Corporation, GS Mbiz Co., Ltd., Sangji Shipping Co., Ltd., GS BIO Co., Ltd., GS EcoMetal Co., Ltd., Fresh Serve CO., Ltd., GS Netvision Co., Ltd., CVS net Co., Ltd., Parnas Hotel Co., Ltd., PNS Co., Ltd., GSNetworks Co., Ltd., GS Teleservices Co., Ltd., TenByTen Inc., GS EPS Co., Ltd., PLS Co., Ltd., GS ENTEC Corp., GS E&R Corp., Donghae green energy Co., Ltd., GS Yeoyang Windpower Co., Ltd., GS Donghae Electric Power Co., Ltd., GS Pocheon Green Energy Corp., Yeongyang Wind Power Corporation-2, Gumi green Energe Co., Ltd., Yeongdeok Windpower Corporation1 Co., Ltd., Samcheok Green Energy Park Co.,Ltd., GS Sports Co., Ltd., Oksan Ochang Highway Corporation, Eun Pyeong New Road Corp., Pusan New road Co., Ltd., GUMIMAKEUNMUL, GS Neotek, Samyang INT'L Co., Ltd., Boheun Development Co., Ltd., Chemtech International Co., Ltd., Oksan Distribution, Seungsan Group Corporation, Gaseung Development Company, Happening People Inc., Central Motors Corp., Winasset Co., Ltd., Sam Joung Development Co., Ltd., Procure Co., Ltd., Kyung Won Construction Co., Ltd., Donghae International Resources Terminal Co.,Ltd., Epice Co.,Ltd., Kclavis No.19 Professional Investment Type Private Real Estate Investment LLC ⁴ , PANCOTEC LTD. ⁴ , GS Dangjin Solarfarm Co.Ltd. ⁴ , Hanul Love Co., Ltd. ⁴ , Gangnam Metro Co.,Ltd. ⁴

¹ Equity ownership information is disclosed in Note 12.

² Although the entity is not the related party of the Group in accordance with Korean IFRS 1024, the entity belongs to a large enterprise group in accordance with the Monopoly Regulation and Fair Trade

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Act. Electronic bills are provided to several entities to guarantee construction performance and others.

³ Newly acquired in 2020

⁴ Newly included as other related parties of the Group for the year ended December 31, 2020

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

(in millions of
Korean won)

(in millions of Korean won)	2020											
	Sales and others					Purchase and others					Changes in ownership	
	Sales		Other income	Total		Purchase		Other expenses	Total			
Associates												
GS KOCREF New Stay REIT	₩	1,688	₩	-	₩	1,688	₩	-	₩	-	₩	-
Major Development Co., Ltd.		16		-		16		-		-		-
FGS East Asia Technical Resource Management, Inc.		-		42		42		5		-	5	-
SoBaek Co., Ltd.		-		413		413		-		-	-	-
Beopwon Industry Urban Development Corp.		8,073		-		8,073		10		-	10	-
Yeouido MBC Site MXD PFV. Inc		40,847		194		41,041		144		-	144	-
PT. CORE RESOURCE		-		257		257		-		-	-	-
Gwancheon Sangsang PFV		348		594		942		-		-	-	-
Zero Tech Co., Ltd.		-		71		71		-		-	-	-
ORIGIN LATPHRA CO.,LTD.		-		-		-		-		-	-	7,102
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED		-		-		-		-		-	-	13,413
PARK PILLAR R4 CO., LTD.		-		-		-		-		-	-	10,611
GYEONGGIPYEONGTAEK GLOBAL CO.,LTD.		-		-		-		-		-	-	1,305
Jincheon smart bokhap industrial danji development Co.,LTD		-		-		-		-		-	-	100
GS Collective Fund I LLC		-		-		-		-		-	-	1,201
EPOCH PFV Co., LTD		640		-		640		-		-	-	-
CHEMICO ADVANCED MATERIALS CO.,LTD.		-		-		-		-		-	-	1,500
Jerotaekmuan Co.,LTD		-		9		9		-		-	-	2
Tongjin Industry Complex CO., Ltd. ¹		-		-		-		-		-	-	(10)
Hakun 7 Industry Complex Co., Ltd. ¹		-		-		-		-		-	-	(200)
Joint ventures												
G&M Estate Co., Ltd.		247		-		247		689		-	689	-
GS MINH HUNG SIKICO		-		-		-		-		-	-	819

GS Engineering & Construction Corporation and Subsidiaries

Notes to the Consolidated Financial Statements

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(in millions of
Korean won)

	2020						
	Sales and others			Purchase and others			Changes in ownership
	Sales	Other income	Total	Purchase	Other expenses	Total	
CO.,LTD.							
Others							
GS Holdings ²	25	-	25	-	17,612	17,612	-
GS Retail Co., Ltd.	383	-	383	1,278	115	1,393	-
GS Global Corp.	40	-	40	3,896	-	3,896	-
GS Home Shopping Inc.	669	-	669	-	-	-	-
GS Energy Corporation	283	-	283	169	-	169	-
GS Power Co., Ltd.	129,629	-	129,629	315	-	315	-
Boryeong LNG Terminal Co., Ltd.	88,412	-	88,412	-	-	-	-
GS Park 24Co., Ltd.	1,344	-	1,344	-	-	-	-
GS-Caltex Corporation	889,255	-	889,255	11	-	11	-
GS Mbiz Co., Ltd.	-	-	-	426	-	426	-
Parnas Hotel Co., Ltd.	81,844	-	81,844	71	-	71	-
GS EPS Co., Ltd.	76,174	-	76,174	11	-	11	-
GS ENTEC Corp.	-	-	-	784	-	784	-
GS E&R Corp.	2,953	-	2,953	-	-	-	-
GS Donghae Electric Power Co., Ltd.	11,848	-	11,848	70	-	70	-
GS Pocheon Green Energy Corp.	13,296	-	13,296	-	-	-	-
GS Sports Ltd.	605	-	605	-	5,918	5,918	-
Oksan Ochang Highway Corporation	3,574	-	3,574	-	-	-	-
Eun Pyeong New Road Corp.	1	11	12	-	-	-	-
Pusan New Road Co., Ltd.	20,985	-	20,985	-	-	-	-
GUMIMAKEUNMUL Co., Ltd.	9,043	-	9,043	-	-	-	-
GS Neotek	196	-	196	1,581	249	1,830	-
Samyang INT'L Co., Ltd.	-	-	-	11,858	36	11,894	-
Seungsan Group Corporation	-	-	-	-	15	15	-
Donghae International Resources Terminal Co., Ltd	2,565	12	2,577	-	-	-	500
Gangnam Metro Co.,Ltd.	-	-	-	-	-	-	20
	₩ 1,384,983	₩ 1,603	₩ 1,386,586	₩ 21,318	₩ 23,945	₩ 45,263	₩ 36,363

¹ The investee was disposed for the year ended December 31, 2020.

² The amount includes the trademark agreement.

GS Engineering & Construction Corporation and Subsidiaries

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(in millions of
Korean won)

(in millions of Korean won)	2019											
	Sales and others						Purchase and others				Changes in ownership	
	Sales		Other income		Total		Purchase		Other expenses			Total
Associates												
GS KOCREF New Stay REIT	₩	22	₩	-	₩	22	₩	-	₩	-	₩	-
Major Development Co., Ltd.		11		-		11		-		-		750
FGS East Asia Technical Resource Management, Inc.		-		49		49		264		-	264	16
SoBaek Co., Ltd.		-		621		621		-		-	-	-
Beopwon Industry Urban Development Corp.		2,737		-		2,737		20		-	20	-
Yeouido MBC Site MXD PFV. Inc		20,414		221		20,635		743		-	743	-
PT. CORE RESOURCE		-		242		242		-		-	-	1,124
BKT Co., Ltd		-		-		-		-		-	-	18,000
Cheongju High Tech Valley Co., Ltd		-		-		-		-		-	-	160
Zero Tech Co., Ltd		-		23		23		-		-	-	1
Camp Stanton Co., Ltd		-		-		-		-		-	-	3
Cheonan Techno Park Inc.		-		-		-		-		-	-	600
Joint ventures												
G&M Estate Co., Ltd.		334		-		334		515		-	515	-
PT. Daria Mulia Properti		-		-		-		-		-	-	6,974
Others												
GS Holdings		214		-		214		-		18,908	18,908	-
GS Retail Co., Ltd.		431		-		431		406		96	502	-
GS Global Corp.		17		-		17		13,053		-	13,053	-
GS Home Shopping Inc.		664		-		664		2		-	2	-
GS Energy Corporation		430		-		430		180		-	180	-
GS Power Co., Ltd.		104,974		-		104,974		382		-	382	-
Boryeong LNG Terminal Co., Ltd.		83,419		-		83,419		-		-	-	-
GS Park 24Co., Ltd.		1,455		-		1,455		-		3	3	-
GS-Caltex Corporation		392,083		-		392,083		624		508	1,132	-
GS Mbiz Co., Ltd.		3		-		3		98		-	98	-
Parnas Hotel Co., Ltd.		7,425		-		7,425		109		-	109	-
PNS Co., Ltd.		-		-		-		9		-	9	-
GS EPS Co., Ltd.		135,455		-		135,455		15		1	16	-
GS ENTEC Corp.		-		-		-		2,107		-	2,107	-
GS E&R Corp.		2,783		-		2,783		-		-	-	-
GS Donghae Electric Power Co., Ltd.		21,871		-		21,871		38		-	38	-
GS Pocheon Green Energy		14,901		-		14,901		-		-	-	-

GS Engineering & Construction Corporation and Subsidiaries

Notes to the Consolidated Financial Statements

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(in millions of
Korean won)

	2019						
	Sales and others			Purchase and others			Changes in ownership
	Sales	Other income	Total	Purchase	Other expenses	Total	
Corp.							
GS Sports Ltd.	564	-	564	29	4,216	4,245	-
Oksan Ochang Highway Corporation	18,047	-	18,047	82	-	82	-
Eun Pyeong New Road Corp.	1	11	12	-	-	-	-
Pusan New Road Co., Ltd.	5,249	-	5,249	-	-	-	6,997
GUMIMAKEUNMUL Co., Ltd.	3,536	-	3,536	-	-	-	-
GS Neotek	180	-	180	9,622	826	10,448	-
Samyang INT'L Co., Ltd.	-	-	-	10,205	-	10,205	-
Seungsan Group Corporation	-	-	-	-	15	15	-
Donghae International Resources Terminal Co., Ltd	-	-	-	-	-	-	190
GS ITM	-	-	-	167	42	209	-
	₩ 817,220	₩ 1,167	₩ 818,387	₩ 38,670	₩ 24,615	₩ 63,285	₩ 34,815

(3) Receivables and payables arising from related party transactions as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	2020						
	Receivables				Payables		
	Trade receivables	Other receivables	Loans	Total	Trade payables	Other payables	Total
Associates							
FGS East Asia Technical Resource Management, Inc.	₩ -	₩ 35	₩ 959	₩ 994	₩ -	₩ -	₩ -
SoBaek Co., Ltd.	-	1,033	6,856	7,889	-	-	-
HyangSan 2 Urban Development Corp.	-	-	-	-	-	5	5
Beopwon Industry Urban Development Corp.	11,408	-	-	11,408	-	-	-
Yeouido MBC Site MXD PFV. Inc	41,580	-	-	41,580	-	-	-
PT. CORE RESOURCE	-	505	2,763	3,268	-	-	-
Gwancheon Sangsang PFV	347	-	-	347	-	-	-
Zero Tech Co., Ltd.	-	95	1,550	1,645	-	-	-
Jerotaekmuan Co.,LTD	-	9	1,463	1,472	-	-	-
Cadiz San Fernando, A.I.E.	273	-	-	273	1,085	-	1,085
Gestion de Participes de Biorreciclaje	80	-	-	80	-	-	-
Participes de Biorreciclaje S.A.	2,682	-	-	2,682	-	-	-

GS Engineering & Construction Corporation and Subsidiaries

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(in millions of Korean won)

	2020						
	Receivables				Payables		
	Trade receivables	Other receivables	Loans	Total	Trade payables	Other payables	Total
Joint ventures							
G&M Estate Co., Ltd.	-	44	-	44	-	60	60
Others							
GS Holdings	4	-	-	4	-	2,824	2,824
GS Retail Co., Ltd.	-	98	-	98	348	4,152	4,500
GS Global Corp.	11	-	-	11	-	674	674
GS Home Shopping Inc.	59	-	-	59	-	1,911	1,911
GS Energy Corporation	5	169	-	174	-	4,061	4,061
GS Power Co., Ltd.	4,926	-	-	4,926	-	1,790	1,790
Boryeong LNG Terminal Co., Ltd.	4,496	-	-	4,496	-	46,760	46,760
GS Park 24Co., Ltd.	-	117	-	117	-	-	-
GS-Caltex Corporation	2,281	-	-	2,281	-	7,864	7,864
GS Mbiz Co., Ltd.	-	-	-	-	311	-	311
Parnas Hotel Co., Ltd.	15,906	90	-	15,996	4	1,599	1,603
GS Teleservices Co., Ltd.	-	-	-	-	-	345	345
GS EPS Co., Ltd.	30,958	-	-	30,958	-	10,974	10,974
GS E&R Corp.	269	-	-	269	-	-	-
GS Donghae Electric Power Co., Ltd.	1,165	8	-	1,173	-	-	-
GS Pocheon Green Energy Corp.	40,548	-	-	40,548	-	-	-
GS Sports Ltd.	17	-	-	17	-	825	825
Oksan Ochang Highway Corporation	1,508	362	-	1,870	-	-	-
Eun Pyeong New Road Corp.	1,949	84	163	2,196	-	-	-
Pusan New Road Co., Ltd.	22,622	324	-	22,946	-	-	-
GUMIMAKEUNMUL Co., Ltd.	6,065	35	-	6,100	-	-	-
GS Neotek	20	-	-	20	118	1,674	1,792
Samyang INT'L Co., Ltd.	-	-	-	-	3,984	147	4,131
Seungsan Group Corporation	-	3,149	-	3,149	-	303	303
Kyung Won Construction Co., Ltd.	-	-	-	-	-	114	114
Donghae International Resources Terminal Co., Ltd	-	33	-	33	-	-	-
	₩ 189,179	₩ 6,190	₩ 13,754	₩ 209,123	₩ 5,850	₩ 86,082	₩ 91,932

GS Engineering & Construction Corporation and Subsidiaries

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(in millions of Korean won)

		2019						
		Receivables				Payables		
		Trade receivables	Other receivables	Loans	Total	Trade payables	Other payables	Total
Associates								
GS KOCREF New Stay REIT	₩	21	₩	-	₩	21	₩	1,547
Major Development Co., Ltd.		-	-	-	-	-	5	5
FGS East Asia Technical Resource Management, Inc.		-	36	871	907	-	-	-
SoBaek Co., Ltd.		-	621	6,856	7,477	-	-	-
HyangSan 2 Urban Development Corp.		-	-	-	-	-	5	5
Beopwon Industry Urban Development Corp.		2,738	-	-	2,738	-	-	-
Yeouido MBC Site MXD PFV. Inc		5,696	157	-	5,853	-	157	157
PT. CORE RESOURCE		-	274	2,940	3,214	-	-	-
Zero Tech Co., Ltd		-	23	1,550	1,573	-	-	-
Cadiz San Fernando, A.I.E.		214	-	-	214	199	-	199
Gestion de Participes de Biorreciclaje		78	-	-	78	-	-	-
Participes de Biorreciclaje S.A.		2,137	-	-	2,137	-	-	-
Joint ventures								
G&M Estate Co., Ltd.		-	66	-	66	-	70	70
Others								
GS Holdings		-	-	-	-	-	2,825	2,825
GS Retail Co., Ltd.		-	35	-	35	77	4,143	4,220
GS Global Corp.		-	41	-	41	933	1,175	2,108
GS Home Shopping Inc.		68	10	-	78	-	2,511	2,511
GS Energy Corporation		-	339	-	339	-	4,254	4,254
GS Power Co., Ltd.		-	-	-	-	15	14,952	14,967
Boryeong LNG Terminal Co., Ltd.		7,138	-	-	7,138	-	30,937	30,937
GS Park 24Co., Ltd.		-	151	-	151	7	-	7
GS-Caltex Corporation		3,158	-	-	3,158	-	42,434	42,434
GS Mbiz Co., Ltd.		-	-	-	-	94	-	94
Parnas Hotel Co., Ltd.		781	90	-	871	15	1,600	1,615
PNS Co., Ltd.		-	-	-	-	1	-	1
GS Teleservices Co., Ltd.		-	-	-	-	-	345	345
GS EPS Co., Ltd.		-	-	-	-	-	9,132	9,132
GS ENTEC Corp.		-	-	-	-	131	-	131
GS E&R Corp.		251	-	-	251	-	-	-
GS Donghae Electric Power Co., Ltd.		3,653	17	-	3,670	-	-	-
GS Pocheon Green Energy		40,513	-	-	40,513	-	10,037	10,037

GS Engineering & Construction Corporation and Subsidiaries

Notes to the Consolidated Financial Statements

December 31, 2020 and 2019

(in millions of Korean won)

	2019						
	Receivables				Payables		
	Trade receivables	Other receivables	Loans	Total	Trade payables	Other payables	Total
Corp.							
GS Sports Ltd.	28	60	-	88	-	126	126
Oksan Ochang Highway Corporation	20,013	559	-	20,572	-	1,224	1,224
Eun Pyeong New Road Corp.	1,948	72	163	2,183	-	-	-
Pusan New Road Co., Ltd.	6,985	-	-	6,985	-	-	-
GUMIMAKEUNMUL Co., Ltd.	3,243	24	-	3,267	-	-	-
GS Neotek	14	60	-	74	2,388	1,736	4,124
Samyang INT'L Co., Ltd.	-	-	-	-	3,555	147	3,702
Seungsan Group Corporation	-	3,149	-	3,149	-	314	314
Kyung Won Construction Co., Ltd.	-	-	-	-	-	114	114
Donghae International Resources Terminal Co., Ltd	-	-	-	-	-	1,380	1,380
	₩ 98,677	₩ 5,784	₩ 12,380	₩ 116,841	₩ 7,415	₩ 131,170	₩ 138,585

Allowance for bad debts of receivables from related parties as of December 31, 2020, is ₩ 43,941 million (2019: ₩ 617 million), and bad debt expense recognized during the year ended December 31, 2020, is ₩ 43,324 million.

(4) Changes in loans to related parties for the years ended December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	2020									
	Annual interest rate (%)	Maturity date	Beginning	Increase	Transfer	Effects of changes in foreign exchange rates	Ending	Interest income	Equity transaction	
Associates										
FGS East Asia										
Technical Resource Management, Inc.	4.60	2021.01.17~ 2021.10.15	₩ 871	₩ 286	₩ 131	₩ (67)	₩ 959	₩ 42	₩ -	-
SoBaek Co., Ltd.	6.00	-	6,856	-	-	-	6,856	413	-	-
PT. CORE RESOURCE	8.00~12.00	2021.12.31	2,940	-	-	(177)	2,763	257	-	-
Gwancheon Sangsang PFV	-	-	-	50,000	50,000	-	-	594	-	-
Zero Tech Co., Ltd.	4.60	-	1,550	-	-	-	1,550	71	-	-
ORIGIN LATPHRA CO.,LTD.	-	-	-	-	-	-	-	-	-	7,102
RENEW SOLAR ENERGY	-	-	-	-	-	-	-	-	-	13,413

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	2020								
	Annual interest rate (%)	Maturity date	Beginning	Increase	Transfer	Effects of changes in foreign exchange rates	Ending	Interest income	Equity transaction
(JHARKHAND THREE) PRIVATE LIMITED									
PARK PILLAR R4 CO., LTD.	-	-	-	-	-	-	-	-	10,611
GYEONGGIPYEONG TAEK GLOBAL CO.,LTD.	-	-	-	-	-	-	-	-	1,305
Jincheon smart bokhap industrial danji development Co.,LTD	-	-	-	-	-	-	-	-	100
GS Collective Fund I LLC	-	-	-	-	-	-	-	-	1,201
CHEMICO ADVANCED MATERIALS CO.,LTD.	-	-	-	-	-	-	-	-	1,500
Jerotaekmuan Co.,LTD	4.60	-	-	1,463	-	-	1,463	9	2
Tongjin Industry Complex CO., Ltd. ¹	-	-	-	-	-	-	-	-	(10)
Hakun 7 Industry Complex Co., Ltd. ¹	-	-	-	-	-	-	-	-	(200)
Joint ventures									
GS MINH HUNG SIKICO CO.,LTD.	-	-	-	-	-	-	-	-	819
Others									
Eun Pyeong New Road Corp.	6.90	-	163	-	-	-	163	11	-
Donghae International Resources Terminal Co., Ltd	-	-	-	-	-	-	-	-	500
Gangnam Metro Co.,Ltd.	-	-	-	-	-	-	-	-	20
			<u>₩ 12,380</u>	<u>₩ 51,749</u>	<u>₩ 50,131</u>	<u>₩ (244)</u>	<u>₩ 13,754</u>	<u>₩ 1,397</u>	<u>₩ 36,363</u>

¹ The investee was disposed for the year ended December 31, 2020.

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(in millions of
Korean won)

	2019									
	Annual interest rate (%)	Maturity date	Beginning	Increase	Transfer	Effects of changes in foreign exchange rates	Ending	Interest income	Equity transaction	
Associates										
Major Development Co., Ltd.	-	-	₩	- ₩	- ₩	- ₩	- ₩	- ₩	- ₩	750
FGS East Asia Technical Resource Management, Inc.	4.60	2020.01.17 ~2020.07.11	1,006	-	171	36	871	49	16	
SoBaek Co., Ltd.	6.00	-	6,856	-	-	-	6,856	621	-	
PT. CORE RESOURCE	8.00~12.00	2020.10.16 ~2020.10.22	2,236	631	-	73	2,940	242	1,124	
BKT Co., Ltd.	-	-	-	-	-	-	-	-	18,000	
Cheongju Hi Tech Valley	-	-	-	-	-	-	-	-	160	
Zero Tech Co., Ltd.	4.60	-	-	1,550	-	-	1,550	23	1	
Camp Stanton Co., Ltd.	-	-	-	-	-	-	-	-	3	
Cheonan Techno Park Inc.	-	-	-	-	-	-	-	-	600	
Joint ventures										
PT. Daria Mulia Properti	-	-	-	-	-	-	-	-	6,974	
Others										
Pusan New Road Co., Ltd.	-	-	-	-	-	-	-	-	6,997	
Eun Pyeong New Road Corp.	6.90	-	163	-	-	-	163	11	-	
Donghae International Resources Terminal Co., Ltd	-	-	-	-	-	-	-	-	190	
			₩ 10,261	₩ 2,181	₩ 171	₩ 109	₩ 12,380	₩ 946	₩ 34,815	

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(5) Guarantees between related parties

Details of payment guarantees that the Company provides to the related parties as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	Type	Beneficiary	Period	2020	2019
Associates					
Major Development Co., Ltd.	Payment guarantee	Kyobo Securities Co., Ltd	-	₩ -	₩ 43,700
	Payment guarantee	Bookook Securities Co., Ltd	2020.05~2021.04	34,100	-
SoBaek Co., Ltd.	Payment guarantee	SC Bank	2019.05~2021.04	115,000	90,000
	Payment guarantee	BNK Securities	2019.08~2021.08	98,400	80,400
Beopwon Industry Urban Development Corp.	Conditional debt acquisition	NH Bank and others	2019.07~2021.04	41,600	60,000
Yeouido MBC Site MXD PFV. Inc.	Conditional debt acquisition	National Agricultural Cooperative Federation and others	2019.07~2024.01	505,580	551,031
Others					
Oksan Ochang Highway Corporation	Payment guarantee	Meritz Fire & Marine Insurance CO., Ltd and others	2015.10~2036.07	10,200	10,200
Pusan New Road Co., Ltd.	Performance guarantee	Construction Guarantee Cooperative	2018.01~2023.12	24,757	24,757

Meanwhile, the Group has provided joint guarantees of performing construction contracts within the limit of ₩ 277,330 million in relation to the guarantees of housing distribution to Yeouido MBC Site MXD PFV. Inc. The above amounts are included in contract amounts of contingencies and commitments (Note 21).

(6) Details of the assets pledged as collateral for the related parties as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	Type	Beneficiary	2020	2019
Others				
Oksan Ochang Highway Corporation	Equity securities	Meritz Fire & Marine Insurance Co., Ltd and others	₩ 29,940	₩ 29,940
	Electronic bill	Meritz Fire & Marine Insurance Co., Ltd and others	17,000	17,000
GUMIMAKEUNMUL Co., Ltd.	Equity securities	Mirae Asset green infrastructure special asset investment trust 2	584	584
Pusan New Road Co., Ltd.	Equity securities	KIAMCO Road Investment Private Fund Special Asset	11,007	-
	Blank checks	Trust 12 and 3 others	-	-

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December 31, 2020 and 2019

(7) Compensation for key management personnel of the Parent Company as of December 31, 2020 and 2019, consists of the following:

<i>(in millions of Korean won)</i>	2020		2019	
Salaries	₩	36,231	₩	43,409
Severance benefits		4,640		4,228
	₩	40,871	₩	47,637

31. Cash Flows

(1) Cash flows from operating activities for the years ended December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020		2019	
Profit for the year	₩	329,676	₩	447,479
Adjustments for:				
Income tax expenses		188,764		226,255
Interest expenses		115,201		147,136
Interest income		(41,868)		(49,761)
Dividend income		(600)		(750)
Depreciation		42,030		35,175
Amortization		38,195		16,034
Depreciation of investment property		7,981		6,919
Depreciation of right-of-use assets		71,728		76,336
Bad debt expense		320,251		159,103
Reversal of allowance for bad debt		(62,102)		(39,675)
Provision for severance benefits		69,888		60,160
Loss on disposal of trade receivables		-		1,946
Loss (gain) on foreign currency translation		71,837		(31,090)
Loss (gain) on disposal of property, plant and equipment		1,381		(1,041)
Loss (gain) on disposal of intangible assets		15		(99)
Gain on disposal of investment property		(98)		(22)
Impairment loss on investment property		6,006		14,807
Loss (gain) on valuation of derivatives		37,337		(34,813)
Loss on derivatives transactions		369		77,223
Gain on valuation of firm commitments		-		(39,479)
Financial guarantee expenses		297		-
Reversal of financial guarantee liabilities		(46,585)		(118,016)
Construction warranty expenses		146,121		85,929

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<i>(in millions of Korean won)</i>	2020	2019
Reversal of provision for construction warranties	(6,712)	(26,128)
Loss on disposal of other assets	265	3,073
Loss (gain) on valuation of financial assets at fair value through profit or loss	(32,514)	36,773
Loss (gain) on disposal of financial assets at fair value through profit or loss	4,830	(9,320)
Loss(gain) on redemption of debentures	411	-
Loss on overseas operations translation	18,968	10,688
Gain on overseas operations translation	(10,728)	(6,838)
Loss on disposal of investments in associates	1,465	1,307
Impairment loss on investments in associates	-	750
Share of loss of associates and joint ventures	6,139	2,904
Loss (gain) on changes in leases	7,885	(532)
Others	3,951	3,985
	<u>960,108</u>	<u>608,939</u>
Changes in operating assets and liabilities		
Trade receivables	343,847	(51,806)
Other receivables	16,403	29,929
Contract assets	(98,434)	839,251
Inventories	74,123	192,170
Settlement of derivatives transactions	21,527	(36,080)
Other current assets	(30,960)	(235,544)
Other non-current assets	(9,023)	(4,403)
Trade payables	(221,175)	(393,360)
Other payables	(106,459)	(54,971)
Contract liabilities	(388,599)	(231,278)
Other current liabilities	201,514	195,557
Other current provision	13,041	(16,746)
Non-current provision	(6,403)	(54,181)
Other non-current liabilities	(61,797)	22,678
Payment of severance benefits	(79,912)	(102,834)
Others	(24,273)	6,712
	<u>(356,580)</u>	<u>105,094</u>
	<u>₩ 933,204</u>	<u>₩ 1,161,512</u>

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(2) Significant non-cash transactions for the years ended December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>		2020		2019
Reclassification to current portion of borrowings	₩	760,360	₩	336,525
Reclassification of deposits for business to loans		229,629		29,938
Reclassification to current portion of debentures		101,499		-
Reclassification of right-of-use assets to investment properties		57,397		-
Reclassification to current portion of leasehold deposits received		36,529		-
Changes in subleases		35,050		-
Conversion of convertible bond		16,417		19,210
Reclassification of long-term and short-term loans		15,503		48,721
Changes in lease liabilities		14,447		28,288
Reclassification of membership guarantee deposits		11,162		17,576

(3) Details of changes in liabilities arising from financing activities for the year ended December 31, 2020, are as follows:

<i>(in millions of Korean won)</i>		Cash flows from financing activities		Impact on non-cash transactions								
	Beginning			Additional expenses	Current portion	Transfer	Change in consolidation	Exchange differences			Ending	
Short-term borrowings	₩ 450,893	₩ (180,077)	₩ -	₩ (70,265)	₩ 10,454	₩ 190,161	₩ (9,469)	₩ 391,697				
Current portion of debentures	231,163	(161,758)	2,797	101,499	(7,719)	-	(6,696)	159,286				
Current portion of long-term borrowing	179,390	(469,529)	-	760,360	(10,880)	-	(16,389)	442,952				
Current financial guarantee liabilities	-	-	-	28,761	164	-	-	28,925				
Current lease liabilities	95,169	(4,058)	2	(4,282)	1,956	-	(166)	88,621				
Current portion of leasehold deposits received	-	-	-	36,529	-	-	-	36,529				
Other current liabilities	177,146	(10,071)	-	11,162	-	-	(535)	177,702				
Debentures	657,551	237,078	3,412	(101,499)	(8,669)	-	(2,466)	785,407				
Long-term borrowings	1,187,750	833,341	-	(690,095)	-	114,512	13,953	1,459,461				
Financial guarantee liabilities	-	-	(58,369)	(28,761)	146,917	-	-	59,787				

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	Beginning	Cash flows from financing activities	Impact on non-cash transactions				Exchange differences	Ending
			Additional expenses	Current portion	Transfer	Change in consolidation		
Leasehold deposits received	-	(7,923)	-	(36,529)	215,191	218	186	171,143
Non-current lease liabilities	497,290	(81,778)	7,920	4,282	49,379	3,763	(945)	479,911
Other non-current liabilities	241,968	5,267	-	(11,162)	(215,191)	-	-	20,882
	₩ 3,718,320	₩ 160,492	₩ (44,238)	₩ -	₩ 181,602	₩ 308,654	₩ (22,527)	₩ 4,302,303

32. Financial Risk Management

The Group's activities are exposed to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Group supports to generate stable and continuous business performance and simultaneously focuses on improvement of cost competitiveness by improving financial structure and reducing financial cost.

The Group's overall risk management program focuses to minimize potential adverse effects on the Group's financial risk by monitoring periodical financial risk and rearranging the financial risk management policy.

(1) Financial risk

(a) Market risk

i) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures. The Group's principal monetary assets and liabilities denominated in currencies other than its functional currency as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won and in thousands of foreign currencies)	2020			
	Financial assets		Financial liabilities	
	Foreign currency	Korean won equivalent	Foreign currency	Korean won equivalent
USD	780,247	₩ 848,910	1,189,807	₩ 1,294,510
EUR	9,812	13,131	418,216	559,674
KWD	1,099	3,930	73	260
JPY	6	-	280,235	2,954
SGD	-	-	1	1

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(in millions of Korean won and in thousands of foreign currencies)	2019			
	Financial assets		Financial liabilities	
	Foreign currency	Korean won equivalent	Foreign currency	Korean won equivalent
USD	780,034 ₩	903,124	825,173 ₩	955,386
EUR	272,851	354,005	166,469	215,982
KWD	3,556	13,582	6,399	24,440
JPY	-	-	227,084	2,415
SGD	-	-	1	1

As of December 31, 2020 and 2019, if the Group's functional currency had weakened/ strengthened by 5% against foreign currencies with all other variables held constant, profit before income tax would have been affected as follows:

(in millions of Korean won)	2020		2019	
	Weakened (5%)	Strengthened (5%)	Weakened (5%)	Strengthened (5%)
USD	₩ (22,280)	₩ 22,280	₩ (2,613)	₩ 2,613
EUR	(27,327)	27,327	6,901	(6,901)
KWD	184	(184)	(543)	543
JPY	(148)	148	(121)	121

ii) Interest rate risk

The Group's interest rate risk arises from variable-rate borrowings, and related interest expense is exposed to interest rate risk. As of December 31, 2020, the financial liabilities that are exposed to interest rate risk are the variable-rate borrowings issued at variable rates amounting to ₩ 2,214,268 million (2019: ₩ 1,557,572 million).

As of December 31, 2020, and 2019, if interest rates had been fluctuated by 100bp with all other variables held constant, interest expenses would have been affected as follows:

(in millions of Korean won)	2020		2019	
	100bp increase	100bp decrease	100bp increase	100bp decrease
Interest expenses	₩ 16,526	₩ (16,526)	₩ 12,539	₩ (12,539)

(b) Credit risk

Credit risk occurs in the ordinary course of business and investment activities of the Group when the customers or counterparties could not comply with the obligations of the contract. To manage the credit risk, the Group evaluates the credit of customers periodically, considering past experience and other factors and sets individual credit limit considering the credit quality of customer.

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Credit risk arises from cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as credit risk to primary customers, including outstanding receivables and firm committed transactions.

The Group's credit risk is managed in accordance with the Group's credit policy with the purpose of minimizing possible loss through efficient credit risk management, support for rapid decision making and implementation of safety measures on the Group's accounts receivable. The Group appropriately evaluates and reflects the risks to the statement of financial position when a default is expected, as of December 31, 2020, for receivables with any signs of impairment or those for which recovery date has passed.

The allowance provision for the trade receivable as of December 31, 2020, is as follows

<i>(in millions of Korean won)</i>	Expected credit losses ratio (%)	Book value	Expected credit losses
Receivable not past due	0.54	₩ 229,727	₩ 1,233
Less than 3 months	0.62	240,237	1,473
Between 4 ~ 12 months	1.42~6.23	142,286	2,984
Between 13 ~ 24 months	9.69~16.63	7,476	1,018
Between 25 ~ 36 months	19.75~40.30	2,510	597
Over 36 months	52.90	9,742	5,154
		<u>₩ 631,978</u>	<u>₩ 12,459</u>

In addition, the Group has recognized for doubtful account on trade receivables of ₩ 206,230 million by individual basis assessment as of December 31, 2020.

Details of maximum exposure to credit risk as of December 31, 2020 and 2019, are as follows:

<i>(in millions of Korean won)</i>	2020	2019
Cash equivalents (excluding cash on hands)	₩ 2,114,341	₩ 1,789,799
Trade and other receivables	1,957,065	2,407,744
Contract assets ¹	1,023,757	1,097,436
Short-term financial assets	257,870	284,372
Long-term financial assets ²	616,806	677,334
Long-term trade and other receivables	866,621	922,558
Financial guarantee liabilities	6,291,409	4,650,941

¹ Due from customers related to construction is included due to reclassification of accounts.

² Leasehold deposits provided are included due to reclassification of accounts.

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(c) Liquidity risk

The Group's liquidity risk arises when it does not have sufficient cash to fulfill payment obligations from financial liabilities or to meet operational needs.

The Group manages possible liquidity risk in advance through monitoring forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs.

Major commitments related to the credit limit of domestic financial institutions as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	Financial institutions	2020		2019	
		Limited amount	Used amount	Limited amount	Used amount
Short-term and long-term financial liabilities ¹	Korea Exim bank and others	₩ 8,402,203	₩ 6,222,095	₩ 8,618,573	₩ 5,838,148

¹ Include amounts related to comprehensive trading limit (letter of credit and foreign bond) and the Group's borrowings and exclude lease liabilities.

The table below summarizes the maturity profile of the Group's financial liabilities based on contractual undiscounted payments:

(in millions of Korean won)	2020					
	Book value	Cash flow on contract	Residual maturity			Over 3 years
			Less than 1 year	Between 1 year and 2 years	Between 2 years and 3 years	
Trade and other payables	₩ 1,592,539	₩ 1,596,457	₩ 1,403,687	₩ 192,770	₩ -	₩ -
Short-term and long-term financial liabilities ¹	4,062,739	4,589,340	1,272,293	827,244	807,455	1,682,348
Financial guarantee liabilities ²	88,712	6,291,409	6,291,409	-	-	-
	₩ 5,743,990	₩ 12,477,206	₩ 8,967,389	₩ 1,020,014	₩ 807,455	₩ 1,682,348

¹ Includes interest income

² The cash flows on contract is the principal amount from the PF, redevelopment projects, SOC, overseas operations and others that are recognized as financial guarantee liabilities.

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(in millions of Korean won)	2019					
	Book value	Cash flow on contract	Less than 1 year	Residual maturity		
				Between 1 year and 2 years	Between 2 years and 3 years	Over 3 years
Trade and other payables	₩ 1,629,980	₩ 1,629,980	₩ 1,629,980	₩ -	₩ -	₩ -
Short-term and long-term financial liabilities ¹	3,319,224	3,715,055	1,222,486	684,774	481,804	1,325,991
Financial guarantee liabilities ²	125,237	4,650,941	2,414,676	963,619	435,987	836,659
	<u>₩ 5,074,441</u>	<u>₩ 9,995,976</u>	<u>₩ 5,267,142</u>	<u>₩ 1,648,393</u>	<u>₩ 917,791</u>	<u>₩ 2,162,650</u>

¹ Includes interest income

² The cash flows on contract is the principal amount from the PF, redevelopment projects, SOC, overseas operations and others that are recognized as financial guarantee liabilities.

In addition, the Group has provided several agreements regarding contract performance, housing guarantee, construction warranty, joint payment guarantee for intermediate payment and conditioned-level debt acquisition. The maximum exposure to credit risk is the amount provided in the agreements (Note 21).

(2) Capital risk management

The Group's capital management objectives are to safeguard the Group's ability to continue as a going concern in order to provide returns to shareholders and benefits to other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

Gearing ratios as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)	2020	2019
Total liabilities (A)	₩ 9,458,562	₩ 9,028,178
Total equity (B)	4,312,116	4,143,027
Deposits (C)	2,114,341	1,789,799
Borrowings (D)	3,238,803	2,706,747
Debt-to-equity ratio (A/B)	219%	218%
Net borrowings ratio ((D-C)/B)	26%	22%

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33. Fair Value

For the year ended December 31, 2020, there are no significant changes in the business environment and economic environment that affect the fair value of financial assets and financial liabilities of the Group.

(1) Fair value of financial instruments by category

Carrying amount and fair value of financial instruments by category as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

	2020		2019	
	Book value	Fair value	Book value	Fair value
Financial assets				
Cash and cash equivalents	₩ 2,118,919	₩ 2,118,919	₩ 1,792,956	₩ 1,792,956
Trade and other receivables ¹	1,957,065	1,957,065	2,407,744	2,407,744
Short-term financial assets	257,870	257,870	284,372	284,372
Long-term trade and other receivables ²	866,621	866,621	922,558	922,558
Long-term financial assets ^{2,6}	616,806	616,806	677,334	677,334
Financial assets at fair value through profit or loss ⁶	249,466	249,466	239,868	239,868
	<u>₩ 6,066,747</u>	<u>₩ 6,066,747</u>	<u>₩ 6,324,832</u>	<u>₩ 6,324,832</u>
Financial liabilities				
Trade and other payables	₩ 1,403,146	₩ 1,403,146	₩ 1,629,980	₩ 1,629,980
Short-term financial liabilities ³	1,193,472	1,193,472	991,732	991,732
Other current liabilities ⁴	463,657	463,657	219,356	219,356
Long-term trade and other payables	189,393	189,393	-	-
Long-term financial liabilities ⁵	2,957,979	2,962,010	2,685,035	2,685,035
Other non-current liabilities ⁵	55,003	55,003	76,248	76,248
	<u>₩ 6,262,650</u>	<u>₩ 6,266,681</u>	<u>₩ 5,602,351</u>	<u>₩ 5,602,351</u>

¹ Reclassification of accounts to contract assets is reflected.

² Reclassification of leasehold deposits provided is reflected.

³ Reclassification of financial guarantee liabilities is reflected.

⁴ Consists of deposits received, accrued expenses, accrued dividends and current membership guarantee deposits and, except for short-term employee benefits.

⁵ Reclassification of leasehold deposits received and financial guarantee liabilities is reflected.

⁶ Reclassification of government and public bonds is reflected.

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(2) Fair value hierarchy

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

- 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

Valuation methods used to measure the fair value of financial instruments include the following:

- Disclosed market price of similar product or dealer price
- Fair value of derivatives is measured by discounting to present value using forward exchange rate as of December 31, 2020 and 2019.
- Cash flow discount method is used for others.

(3) Fair value hierarchy classifications of the financial assets and financial liabilities that are measured at fair value

Fair value hierarchy classifications of the financial assets and financial liabilities that are measured at fair value or of which fair values are disclosed as of December 31, 2020 and 2019, are as follows:

(in millions of Korean won)

		2020			
		Level 1	Level 2	Level 3	Total
Financial assets					
Derivative assets	₩	- ₩	19,128 ₩	- ₩	19,128
Financial assets at fair value through profit or loss ¹		-	-	249,466	249,466
Financial liabilities					
Derivative liabilities		-	24,885	22,846	47,731

¹ Government and public bonds are excluded due to reclassification of accounts.

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(in millions of Korean won)

		2019			
		Level 1	Level 2	Level 3	Total
Financial assets					
Derivative assets	₩	-	₩ 54,341	₩ -	₩ 54,341
Financial assets at fair value through profit or loss ¹		-	-	239,868	239,868
Financial liabilities					
Derivative liabilities		-	37,133	-	37,133

¹ Government and public bonds are excluded due to reclassification of accounts.

(4) Transfers between levels of each fair value hierarchy

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

(5) Valuation techniques and inputs used in the fair value measurements categorized within Level 2 and Level 3 of the fair value hierarchy as of December 31, 2020, are as follows:

(in millions of Korean won)

(in millions of Korean won)		2020				
	Fair value	Level	Valuation techniques	Inputs	Range of inputs (weighted average)	
Financial assets at fair value through profit or loss						
Gyongbuk Green Energy	₩ 1,515	3	Dividend discount model	Discount rate	7.09%	
Ulsan green Co., Ltd.	3,533	3	Dividend discount model	Discount rate	11.46%	
Wonju Green Co., Ltd.	242	3	Discounted cash flow model	Discount rate	11.65%	
Public Development Co., Ltd.	2,496	3	Discounted cash flow mode	Discount rate	7.75%	
Angelswing Co., Ltd.	1,431	3	Binomial model	Discount rate	12.92%	
				Risk-free rate of return	1.69%	
CHEMICO ADVANCED MATERIALS CO.,LTD	360	3	Binomial model	Discount rate	18.30%	
				Risk-free rate of return	1.70%	
Gaya Railway Co., Ltd.	167	3	Discounted cash flow mode	Discount rate	5.70%	
Gumi Green Water Co., Ltd.	1,257	3	Discounted cash flow mode	Discount rate	6.74%	
Masan Drain Co., Ltd.	503	3	Dividend discount model	Discount rate	2.73%	
S-Y highway Co., Ltd.	-	3	Discounted cash flow mode	Discount rate	5.50%	
Seoul Northern Highway Co., Ltd.	2,845	3	Dividend discount model	Discount rate	8.57%	
Oksan Ochang Highway	3,515	3	Dividend discount	Discount rate	10.38%	

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2020					Range of inputs (weighted average)
	Fair value	Level	Valuation techniques	Inputs	
Corporation			model		
The 2 nd YoungDong Highway Co., Ltd.	511	3	SPA compliance assessment	-	-
Other equity securities	231,091	3	Precedent transactions analysis	-	-
Derivative assets					
Currency forward	19,128	2	Present value method	CD rate	0.63%~1.68%
Derivative liabilities					
Currency forward	24,885	2	Present value method	CD rate	0.63%~1.68%
	21,920	3	Binomial model	Discount rate	1.95%
				Risk-free rate of return	0.56%
Put option	926	3	Discounted cash flow mode	Discount rate	11.65%

(6) Valuation processes for fair value measurements categorized as level 3

The Group performs the fair value measurements, including level 3 fair values, for major equity securities by using the estimate of external independent valuer who holds a certified professional qualification and performing internal review.

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34. Service Concession Arrangements

GS Inima Environment S.A. has constructed, operated and maintained Service Concession Arrangements through its subsidiaries and details of significant business information are as follows:

<i>(in millions of Korean won)</i>	Principal business activity	Countries	Start date	Expiry date	Amount	Classification
Ambient Servicos Ambientais de Ribeirao Preto, S.A.	Sewage purifying plant and others, DBOOT (design, construction, operation, possession and transfer at the end of project period)	Brazil	1995.09	2033.09	₩ 57,226	Financial assets
Samar Solucoes Ambientais de Aracatuba S.A.	Water and sewage processing plan and others / BOT (construction, operation and transfer at the end of the project period)	Brazil	2012.09	2042.10	46,070	Intangible assets
Shariket Miyeh Ras Djinet, Spa	Seawater desalinating plant and others/ DBOOT (design, construction, operation, possession and transfer at the end of project period)	Algeria	2012.02	2037.09	66,636	Financial assets
Jeceaba Ambiental S.A.	Sewage processing plant and others / DBOT (design, construction, operation and transfer at the end of the project period)	Brazil	2009.05	2026.04	109,804	Financial assets, Intangible assets
Distribuidora de Aguas Triunfo S.A.	Industrial waterworks in chemical complex and others / AOO (Operation through acquisition of shares)	Brazil	2014.03	2054.02	93,861	Intangible assets

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35. Business Combination

(1) Acquisition of shares in Elements (Europe) Limited

The Group acquired 75% shares of Elements (Europe) Limited, a UK steel volumetric modular manufacturer, during the year ended December 31, 2020. The acquisition date is January 9, 2020.

(in millions of Korean won)

		Amount
Consideration transferred ¹		
Cash	₩	11,390
Additional share issuance		22,837
Total consideration	₩	<u>34,227</u>
Assets		
Cash and cash equivalents	₩	22,781
Trade and other receivables		11,759
Inventories		2,595
Property, plant and equipment		1,929
Intangible assets		337
Liabilities		
Trade and other payables		8,959
Other non-current liabilities		526
Total identifiable net assets		<u>29,916</u>
Non-controlling interest		(7,479)
Goodwill		<u>11,790</u>
	₩	<u>34,227</u>

¹ Cash flows related to the business combination are as follows:

(in millions of Korean won)

		Amount
Payment for business combinations	₩	34,227
Cash held by acquired subsidiaries		22,781
Net cash outflow		11,446

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(2) Acquisition of shares in CDCF III Fortbay MV, LLC

The Group acquires 100% shares of CDCF III Fortbay MV, LLC, the existing business corporation, for development project of Village Lake in Mountain View, CA, United States, during the year ended December 31, 2020. The acquisition date was February 20, 2020.

(in millions of Korean won)

	Amount	
Consideration transferred ¹		
Cash	₩	57,499
Equity exchange		12,538
Total consideration	₩	<u>70,037</u>
Assets		
Cash and cash equivalents	₩	20,030
Other current assets		1,050
Property, plant and equipment		224,921
Intangible assets		1,939
Liabilities		
Other current liabilities		754
Other non-current liabilities		13,344
Long-term borrowings		<u>182,385</u>
Total identifiable net assets		<u>51,457</u>
Goodwill		<u>18,580</u>
	₩	<u>70,037</u>

¹ Cash flows related to the business combination are as follows:

(in millions of Korean won)

	Amount	
Payment for business combinations	₩	57,499
Cash held by acquired subsidiaries		20,030
Net cash outflow		37,469

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(3) Acquisition of shares in Danwood S.A.

The Group acquires 100% shares of Danwood S.A., a Polish company that supplies Timber-Frame Prefabricated House to Germany and other countries, during the year ended December 31, 2020. The acquisition date was March 16, 2020.

(in millions of Korean won)

	Amount	
Consideration transferred ¹		
Cash	₩	188,811
Total consideration	₩	188,811
Assets		
Cash and cash equivalents	₩	31,841
Trade and other receivables		19,549
Inventories		49,063
Other current assets		1,982
Property, plant and equipment		37,006
Intangible assets		103,483
Other non-current assets		1,820
Liabilities		
Trade and other payables		29,530
Short-term borrowings		12,436
Other current liabilities		98,594
Long-term borrowings		112,158
Other non-current liabilities		31,139
Total identifiable net assets		(39,113)
Goodwill		227,924
	₩	188,811

¹ Cash flows related to the business combination is as follows:

(in millions of Korean won)

	Amount	
Payment for business combinations	₩	188,811
Cash held by acquired subsidiaries		31,841
Net cash outflow		156,970