

**GS Engineering & Construction  
Corporation and Subsidiaries**  
Consolidated Financial Statements  
December 31, 2022 and 2021

**GS Engineering & Construction Corporation and Subsidiaries**  
**Index**  
**December 31, 2022 and 2021**

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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 statements of financial position as at December 31, 2022 and 2021, and the consolidated statements of profit or loss, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2022 and 2021, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS)

### **Basis for Opinion**

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

## **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 separate 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 (Basis of Preparation and a Summary of Significant Accounting Policies) 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 (Accounting Estimates and Assumptions) to the consolidated financial statements, 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 contracts 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 examined appropriateness of replacement of costs among projects.
  - 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 W 393,037 million of allowance for doubtful accounts for receivables from construction contracts, receivables from apartment sales and contract assets as of December 31, 2022. 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 apartments. 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.

#### C. Obtaining control over subsidiaries (business combination)

##### **Why it is determined to be a key audit matter**

As explained in the Note 35 (Business combination) to the consolidated financial statements, on March 4, 2022, the Group acquired 60% of XI C&A Co., Ltd. (formerly, S&I Engineering & Construction Co., Ltd. ) for ₩ 289,989 million and obtained control. The Group accounted for the acquisitions in accordance with Korean IFRS 1103 *Business Combinations*. The purchase price was allocated to assets acquired and others based on fair value estimates. The Group engaged an independent external expert to assist the Group in valuation of the main intangible assets acquired. We considered that the business combination is a key audit matter given the size of the acquired amount and the significant level of management's judgment regarding the allocation of the purchase price.

##### **How our audit addressed the key audit matter**

In respect of the aforementioned obtaining control over subsidiaries (business combination), we performed the following audit procedures.

- We examined major commitments of the share purchase agreement.
- We performed the following procedures using our specialists for fair value measurement.
  - We assessed the appropriateness of the method applied by management in determining their fair valuation of acquired identifiable intangible assets and others.
  - We evaluated whether the underlying assumptions and variables used in determining fair value are consistent and reasonable.
  - We tested the accuracy of the calculation of fair value.
- We assessed the appropriateness of the disclosures in relation to business combination in the notes to the consolidated financial statements.

##### **Other Matter**

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 16, 2023

This report is effective as of March 16, 2023, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.



# **GS Engineering & Construction Corporation and its Subsidiaries**

Consolidated Financial Statements  
For the years ended December 31, 2022 and 2021

“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, 2022 and 2021**

<i>(in millions of Korean won)</i>	<b>Notes</b>	<b>2022</b>	<b>2021</b>
<b>Assets</b>			
Current assets			
Cash and cash equivalents	5,9,32,33	₩ 2,023,701	₩ 2,718,390
Trade and other receivables, net	6,9,30,32,33	3,251,679	2,200,132
Contract assets	7,32	1,555,865	960,337
Inventories	8	1,499,922	1,477,100
Short-term financial assets	5,9,11,32,33	582,067	395,042
Other current assets	8	498,361	444,112
Total current assets		<u>9,411,595</u>	<u>8,195,113</u>
Non-current assets			
Property, plant and equipment, net	13	1,819,806	1,543,377
Intangible assets, net	14	888,334	680,391
Investment properties, net	15	926,375	1,096,940
Right-of-use assets, net	16	291,723	295,725
Investments in associates and joint ventures	12	230,772	172,991
Long-term trade and other receivables, net	6,9,30,32,33	1,204,451	1,195,973
Long-term financial assets	5,9,30,32,33	713,678	600,464
Net defined benefit assets	19	97,469	45,704
Deferred income tax assets	28	960,552	949,180
Financial assets at fair value through profit or loss	9,10,33	273,951	250,735
Other non-current assets	8	127,910	157,134
Total non-current assets		<u>7,535,021</u>	<u>6,988,614</u>
<b>Total assets</b>		<u>₩ 16,946,616</u>	<u>₩ 15,183,727</u>
<b>Liabilities</b>			
Current liabilities			
Trade and other payables	9,17,30,32,33	₩ 1,874,115	₩ 1,656,079
Short-term financial liabilities	9,11,16,18,32,33	2,339,439	1,218,056
Contract liabilities	7	2,522,008	2,595,922
Income tax payable	28	97,780	130,621
Current provisions	7,20	290,332	179,484
Other current liabilities	7,9,17,30,33	1,081,797	989,165
Total current liabilities		<u>8,205,471</u>	<u>6,769,327</u>
Non-current liabilities			
Long-term financial liabilities	9,11,15,16,18,32,33	2,735,340	2,951,954
Net defined benefit liabilities	19	4,867	9,263
Non-current provisions	20,32	397,388	375,259
Deferred income tax liabilities	28	161,890	136,782
Other non-current liabilities	9,17,33	85,458	68,418
Total non-current liabilities		<u>3,384,943</u>	<u>3,541,676</u>
<b>Total liabilities</b>		<u>11,590,414</u>	<u>10,311,003</u>
<b>Equity</b>			
<b>Equity attributable to owners of the parent</b>			
Share capital	1,22	427,907	427,907
Share premium	22	942,699	951,257
Other components of equity	22	(36,808)	(36,801)
Accumulated other comprehensive loss	11,22	(161,984)	(122,760)
Retained earnings	23	3,659,818	3,405,713
		<u>4,831,632</u>	<u>4,625,316</u>
Non-controlling interests		<u>524,570</u>	<u>247,408</u>
<b>Total equity</b>		<u>5,356,202</u>	<u>4,872,724</u>
<b>Total liabilities and equity</b>		<u>₩ 16,946,616</u>	<u>₩ 15,183,727</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, 2022 and 2021**

<i>(in millions of Korean won)</i>	<b>Notes</b>	<b>2022</b>	<b>2021</b>
<b>Sales</b>	4,7,30		
Construction operations		₩ 10,329,874	₩ 7,384,311
Housing construction and sales operations		839,779	789,278
Other operations		1,129,543	862,986
		<u>12,299,196</u>	<u>9,036,575</u>
<b>Cost of sales</b>	7,29,30		
Cost of construction operations		9,301,876	6,344,802
Cost of housing construction and sales operations		699,483	585,682
Cost of other operations		1,011,230	755,334
		<u>11,012,589</u>	<u>7,685,818</u>
<b>Gross profit</b>		<u>1,286,607</u>	<u>1,350,757</u>
Selling and administrative expenses	25,29	<u>731,772</u>	<u>704,271</u>
<b>Operating profit</b>	4	554,835	646,486
Other operating income	9,11,26	454,311	319,805
Other operating expenses	9,11,26	263,773	258,750
Share of loss of associates and joint ventures	12	18,255	5,124
Finance income	9,11,27,30	196,448	127,724
Finance costs	9,11,27,32	<u>295,178</u>	<u>182,459</u>
<b>Profit before income tax</b>	4	664,898	657,930
Income tax expenses	28	<u>223,686</u>	<u>229,127</u>
<b>Profit for the year</b>		<u>₩ 441,212</u>	<u>₩ 428,803</u>
<b>Profit is attributable to:</b>			
Equity holders of the parent		₩ 339,274	₩ 408,477
Non-controlling interests		101,938	20,326
<b>Earnings per share attributable to the equity holders of the parent (in Korean won)</b>	24		
Basic earnings per share		₩ 3,997	₩ 4,834
Diluted earnings per share		3,997	4,815

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, 2022 and 2021**

<i>(in millions of Korean won)</i>	<b>Notes</b>	<b>2022</b>	<b>2021</b>
<b>Profit for the year</b>	₩	441,212	₩ 428,803
<b>Other comprehensive income (loss)</b>			
Other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods (net of tax):			
Loss on exchange differences on translations of foreign operations	22,28	(41,475)	(14,127)
Gain on valuation of derivative instruments	11,22,28	11,292	12,644
Share of other comprehensive income of associates and joint ventures	12,28	2,175	(104)
Other comprehensive income not to be reclassified to profit or loss in subsequent periods (net of tax):			
Remeasurements on net defined benefit liabilities	19,23,28	28,454	20,287
<b>Other comprehensive income for the year</b>		446	18,700
<b>Total comprehensive income for the year</b>	₩	441,658	₩ 447,503
<b>Total comprehensive income for the year is attributable to:</b>			
Equity holders of the parent	₩	325,055	₩ 423,568
Non-controlling interests		116,603	23,935

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, 2022 and 2021

					Accumulated other comprehensiv e income (loss)	Retained earnings			Non- controlling Interests		
	Notes	Share capital	Share premium	Other components of equity			Total			Total	
(in millions of Korean won)											
<b>As of January 1, 2021</b>		₩ 403,541	₩ 815,676	₩ (36,716)	₩ (117,391)	₩ 3,076,110	₩ 4,141,220	₩ 170,897	₩ 4,312,117		
<b>Total comprehensive income (loss)</b>											
Profit for the year	23	-	-	-	-	408,477	408,477	20,326	428,803		
Gain (loss) on exchange differences on translations of foreign operations	22,28	-	-	-	(14,230)	-	(14,230)	103	(14,127)		
Gain on valuation of derivative instruments	11,22,28	-	-	-	8,965	-	8,965	3,679	12,644		
Share of other comprehensive income of associates and joint ventures	12,28	-	-	-	(104)	-	(104)	-	(104)		
Re-measurements on net defined benefit liabilities	19,23,28	-	-	-	-	20,459	20,459	(172)	20,287		
<b>Total comprehensive income (loss) for the year</b>		-	-	-	(5,369)	428,936	423,567	23,936	447,503		
<b>Transactions with equity holders of the parant</b>											
Dividends to equity holders of the parent	23	-	-	-	-	(96,019)	(96,019)	(24,212)	(120,231)		
Equity transaction within the consolidated group		-	10,581	-	-	-	10,581	76,218	86,799		
Changes in consolidation		-	(720)	-	-	-	(720)	(1,681)	(2,401)		
Conversion of convertible bond	18	24,366	125,743	-	-	-	150,109	-	150,109		
Others		-	(23)	(85)	-	(3,314)	(3,422)	2,250	(1,172)		
<b>Total transactions with equity holders of the parant</b>		24,366	135,581	(85)	-	(99,333)	60,529	52,575	113,104		
<b>As of December 31, 2021</b>		₩ 427,907	₩ 951,257	₩ (36,801)	₩ (122,760)	₩ 3,405,713	₩ 4,625,316	₩ 247,408	₩ 4,872,724		
<b>As of January 1, 2022</b>		₩ 427,907	₩ 951,257	₩ (36,801)	₩ (122,760)	₩ 3,405,713	₩ 4,625,316	₩ 247,408	₩ 4,872,724		
<b>Total comprehensive income (loss)</b>											
Profit for the year	23	-	-	-	-	339,274	339,274	101,938	441,212		
Gain (loss) on exchange differences on translations of foreign operations	22,28	-	-	-	(52,929)	-	(52,929)	11,454	(41,475)		
Gain (loss) on valuation of derivative instruments	11,22,28	-	-	-	11,530	-	11,530	(238)	11,292		
Share of other comprehensive income of associates and joint ventures	12,28	-	-	(7)	2,175	-	2,168	-	2,168		
Re-measurements on net defined benefit liabilities	19,23,28	-	-	-	-	25,005	25,005	3,449	28,454		
<b>Total comprehensive income (loss) for the year</b>		-	-	(7)	(39,224)	364,279	325,048	116,603	441,651		
<b>Transactions with equity holders of the parant</b>											
Dividends to equity holders of the parent	23	-	-	-	-	(110,356)	(110,356)	(9,225)	(119,581)		
Equity transaction within the consolidated group		-	(8,558)	-	-	1,608	(6,950)	97,322	90,372		
Changes in consolidation		-	-	-	-	-	-	73,851	73,851		
Others		-	-	-	-	(1,426)	(1,426)	(1,389)	(2,815)		
<b>Total transactions with equity holders of the parant</b>		-	(8,558)	-	-	(110,174)	(118,732)	160,599	41,827		
<b>As of December 31, 2022</b>		₩ 427,907	₩ 942,699	₩ (36,808)	₩ (161,984)	₩ 3,659,818	₩ 4,831,632	₩ 524,570	₩ 5,356,202		

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, 2022 and 2021**

<i>(in millions of Korean won)</i>	<b>Notes</b>	<b>2022</b>	<b>2021</b>
<b>Cash flows from operating activities</b>			
Cash generated from operations	31 ₩	306,073 ₩	1,445,417 ₩
Interest received		81,293	49,834
Interest paid		(171,493)	(108,958)
Dividends received		10,803	3,626
Income tax paid		(233,972)	(282,450)
<b>Net cash inflow (outflow) from operating activities</b>		<u>(7,296)</u>	<u>1,107,469</u>
<b>Cash flows from investing activities</b>			
Decrease in other receivables		97,674	80,363
Decrease in short-term financial assets		948,467	744,665
Decrease in long-term other receivables		185,256	393,115
Decrease in long-term financial assets		158,220	184,928
Disposal of financial assets at fair value through profit or loss		10	3,283
Disposal of investments in associates		23,288	218
Disposal of property, plant and equipment		2,423	4,796
Disposal of intangible assets		8,960	1,489
Disposal of investment properties		-	35
Disposal of assets and liabilities held for sale		-	96,101
Increase in other receivables		(120,199)	(64,078)
Increase in short-term financial assets		(1,132,781)	(908,331)
Increase in long-term other receivables		(581,245)	(586,833)
Increase in long-term financial assets		(292,759)	(244,960)
Acquisition of financial assets at fair value through profit or loss		(18,868)	(6,907)
Acquisition of investments in associates		(65,474)	(63,519)
Acquisition of property, plant and equipment		(295,512)	(134,919)
Acquisition of intangible assets		(38,707)	(23,492)
Acquisition of investment properties		(7,609)	(7,107)
Changes in consolidation		(182,317)	(33)
<b>Net cash outflow from investing activities</b>		<u>(1,311,173)</u>	<u>(531,186)</u>
<b>Cash flows from financing activities</b>			
Increase in short-term financial liabilities		1,726,693	407,863
Increase in long-term financial liabilities		931,564	822,011
Increase in other non-current liabilities		3,080	15,235
Increase in non-controlling interests		101,184	84,605
Decrease in short-term financial liabilities		(1,616,858)	(738,850)
Decrease in other current liabilities		(1,965)	(2,510)
Decrease in long-term financial liabilities		(293,137)	(385,995)
Decrease in other non-current liabilities		(218)	(794)
Dividends paid		(119,600)	(120,567)
Payment of stock issuance costs		-	(205)
Payment of principal portion of lease liabilities		(106,090)	(85,648)
<b>Net cash inflow (outflow) from financing activities</b>		<u>624,653</u>	<u>(4,855)</u>
Effects of exchange rate changes on cash and cash equivalents		<u>(873)</u>	<u>28,043</u>
<b>Net increase (decrease) in cash and cash equivalents</b>		<u>(694,689)</u>	<u>599,471</u>
<b>Cash and cash equivalents at the beginning of the year</b>		<u>2,718,390</u>	<u>2,118,919</u>
<b>Cash and cash equivalents at the end of the year</b>		<u>₩ 2,023,701</u>	<u>₩ 2,718,390</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, 2022 and 2021**

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#### **1. General Information**

General information of GS Engineering & Construction Corporation (the “Company” or the “Parent 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 on April 4, 2005.

As of December 31, 2022, the Company operates overseas branches and construction sites in several foreign countries, including the United Arab Emirates, Kuwait, Vietnam, China and Singapore.

The Company's issued capital as of December 31, 2022 amounts to ₩ 427,907 million.

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

#### 1.2 Summary of the Consolidated Subsidiaries

Name of subsidiary	Percentage of ownership (%)		Location	Year end	Principal business activity
	2022	2021			
Xi S&D Inc. <sup>2</sup>	39.40	49.81	Korea	12.31	Construction management
Xi - Estec Co., Ltd.	100.00	100.00	Korea	12.31	Construction service
GCS	100.00	100.00	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
GVESCO Investment Management Corp.	100.00	100.00	Korea	12.31	Service
GVESCO Private Real Estate Fund No.1	99.80	99.84	Korea	12.31	Collective investment
GPC Corp.	100.00	100.00	Korea	12.31	Manufacture
GS ELEVATOR Co., Ltd	100.00	100.00	Korea	12.31	Manufacture
ECO AQUAFARM (formerly, K Eco Salmon Co., Ltd.)	75.00	66.67	Korea	12.31	Fishery
XiGEIST	100.00	100.00	Korea	12.31	Manufacture
XiGEIST Architects	100.00	100.00	Korea	12.31	Service
Enerma Corp.	100.00	100.00	Korea	12.31	Manufacture
GLOBAL WATER SOLUTION CO., LTD. <sup>7</sup>	100.00	100.00	Korea	12.31	Holding Business
DC Bridge Corp.	100.00	100.00	Korea	12.31	Information and communication
Bucheon Media Complex Management Inc.	100.00	100.00	Korea	12.31	Real estate
GFS Co., Ltd.	69.10	74.40	Korea	12.31	Service
Sun-field Solar Power Co., Ltd.	91.00	91.00	Korea	12.31	Service
XI C&A CO., LTD. (formerly, S&I Engineering & Construction Co., Ltd.) <sup>3,4</sup>	41.46	-	Korea	12.31	Construction
ZEIT C&A NANJING Co., Ltd (formerly, S&I Nanjing Company Limited) <sup>4,5</sup>	41.46	-	China	12.31	Construction service
ZEIT C&A POLAND SP. Z O. O. (formerly, S&I POLAND sp.zo.o.) <sup>4,5</sup>	41.46	-	Poland	12.31	Construction service
ZEIT C&A VIETNAM COMPANY LIMITED (formerly, S & I VIETNAM CONSTRUCTION CO., LTD) <sup>4,5</sup>	41.46	-	Vietnam	12.31	Construction service
HEIMLAB Corp. <sup>4</sup>	100.00	-	Korea	12.31	Construction
HAETDEULWON Rooftop PV 01 <sup>4</sup>	100.00	-	Korea	12.31	Service
XPLOR INVESTMENT Co., Ltd <sup>4</sup>	100.00	-	Korea	12.31	Finance 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



**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**December 31, 2022 and 2021**

Name of subsidiary	Percentage of ownership (%)		Location	Year end	Principal business activity
	2022	2021			
Vietnam GS Enterprise One Member LLC	100.00	100.00	Vietnam	12.31	Real estate
ZEITGEIST EDUCATION CO., LTD.	100.00	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 E&C Development (Thailand) Co., Ltd.	100.00	100.00	Thailand	12.31	Real estate
GS Construction Arabia Co., Ltd.	100.00	100.00	Saudi Arabia	12.31	Construction
GS Real Estate Development Company	100.00	100.00	Saudi Arabia	12.31	Real estate
GS CONSTRUCTION MIDDLE EAST - SOLE PROPRIETORSHIP L.L.C. (formerly, GS Construction Middle East L.L.C.)	100.00	49.00	UAE	12.31	Construction
GS E&C Poland SP.ZO.O	100.00	100.00	Poland	12.31	Construction
Danwood S.A.	100.00	100.00	Poland	12.31	Construction
Danwood GmbH	100.00	100.00	Switzerland	12.31	Construction
GS Engineering & Construction Spain, S.L.	100.00	100.00	Spain	12.31	Construction
Chervona Gora EKO	100.00	100.00	Ukraine	12.31	Construction
Elements (Europe) Limited	75.00	75.00	UK	12.31	Construction
GS Real Estate Development Company London LTD.	100.00	100.00	UK	12.31	Real estate
GS E&C Construction Canada Ltd. <sup>6</sup>	-	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	100.00	100.00	USA	12.31	Real estate
GS MIRAMAR VILLAGE LAKES MANAGER, LLC	80.00	80.00	USA	12.31	Real estate
CDCF III FORTBAY MV, LLC	94.19	92.26	USA	12.31	Real estate
GS Redlands, LLC	100.00	100.00	USA	12.31	Real estate
700 EC PROPERTY, LLC	90.00	90.00	USA	12.31	Real estate
MOUNTAIN VIEW MEZZ, LLC	94.19	92.26	USA	12.31	Real estate
MOUNTAIN VIEW OWNER, LLC	94.19	92.26	USA	12.31	Real estate
GSFC FUND 1 LLC	100.00	100.00	USA	12.31	Collective investment
400 LOGUE OWNER, LLC	94.00	100.00	USA	12.31	Real estate
PALA-POWER GENERAL CONSRUCTION SERVICE	100.00	100.00	Botswana	12.31	Construction

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**December 31, 2022 and 2021**

Name of subsidiary	Percentage of ownership (%)		Location	Year end	Principal business activity
	2022	2021			
(PROPRIETARY) LIMITED					
GS Engineering & Construction Australia Pty Ltd.	100.00	100.00	Australia	12.31	Construction
The Trustee for GS NEL Trust	100.00	100.00	Australia	12.31	Construction
GS SPV PTY LTD.	100.00	100.00	Australia	12.31	Construction
ZEIT DEVELOPMENT POLAND LLC	100.00	100.00	Poland	12.31	Real estate
400 Logue Master GP, LLC <sup>4</sup>	85.00	-	USA	12.31	Real estate
400 Logue LP, LLC <sup>4</sup>	100.00	-	USA	12.31	Real estate
400 Logue GP, LLC <sup>4</sup>	100.00	-	USA	12.31	Real estate
400 Logue JVC, LLC <sup>4</sup>	94.00	-	USA	12.31	Real estate
Zeit Homes, Inc. <sup>4</sup>	100.00	-	USA	12.31	Real estate

<sup>1</sup> Includes securities held by subsidiaries.

<sup>2</sup> Although the Parent Company owns less than 50% of the voting rights, the Parent Company is considered to have control of the subsidiary because other shareholders are widely dispersed and the voting right ratio of the Company is significantly high compared to the attendance ratio at the previous shareholders' meetings and others.

<sup>3</sup> It was owned more than 50% of shares by GFS Co., Ltd., a subsidiary of the Group, and the Group determined that GFS Co., Ltd., has control over the entity.

<sup>4</sup> Newly included in consolidation for the year ended December 31, 2022.

<sup>5</sup> Subsidiaries of XI C&A CO., LTD. (formerly, S&I Engineering & Construction Co., Ltd.).

<sup>6</sup> Excluded from the consolidated subsidiaries for the year ended December 31, 2022.

<sup>7</sup> Summarized information of its subsidiaries are as follows:

Name of subsidiary	Location	Principal business activity	Year end	Percentage of ownership (%)
GS Inima Environment S.A.U.	Spain	Construction	12.31	100.00
Aguas de Ensenada, 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
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 Gestion S.L.U.	Spain	Construction	12.31	100.00
GS Inima Inversiones S.L.U.	Spain	Construction	12.31	100.00
VALORINIMA S.L.	Spain	Construction	12.31	80.00
Ambient Servicos Ambientais de Ribeirao Preto, S.A.	Brazil	Construction	12.31	100.00
Aquaria LLC	USA	Construction	12.31	87.50
Araucaria Saneamento, S.A.	Brazil	Construction	12.31	51.00

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**December 31, 2022 and 2021**

Name of subsidiary	Location	Principal business activity	Year end	Percentage of ownership (%)
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
GS Inima Chile S.A.	Chile	Construction	12.31	100.00
INIMA-CVV S.A.	Chile	Construction	12.31	65.00
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
Sanel-Saneamento de Luis Antonio, S.A	Brazil	Construction	12.31	70.00
Promoaqua Desalacion de los Cabos, S.A. de C.V.	Mexico	Construction	12.31	100.00
Sanama Saneamento Alta Maceio S.A.	Brazil	Construction	12.31	60.00
SAMAR SOLUCOES AMBIENTAIS DE ARACATUBA S.A.	Brazil	Construction	12.31	100.00
GS Inima Brasil Ltda.	Brazil	Construction	12.31	100.00
GS Inima Industrial S.A.	Brazil	Construction	12.31	100.00
GS Inima Servicos de Saneamento, Ltda (formerly, GS Inima Servicos de Saneamento Eireli)	Brazil	Construction	12.31	100.00
Aquapolo Ambiental S.A.	Brazil	Construction	12.31	51.00
GS Inima Industrial Jeceaba, S.A. (formerly, Jeceaba Ambiental S.A.)	Brazil	Construction	12.31	84.50
GS Inima Industrial Triunfo, S.A. (formerly, Distribuidora de Aguas Triunfo S.A.)	Brazil	Construction	12.31	100.00
Ouro Preto Servicos de Saneamento S.A. - Saneouro	Brazil	Construction	12.31	60.00
GS Inima Servicios Corporativos, 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
Shariket Miyeh Ras Djinet, Spa <sup>1</sup>	Algeria	Construction	12.31	25.49
Tecnicas y Gestion Medioambiental, S.A.	Spain	Construction	12.31	100.00
GS Inima Middle East LLC	Oman	Construction	12.31	100.00
GS Inima Barka 5 Desalination Company, S.A.O.C.	Oman	Construction	12.31	100.00
Capital Desalination Company, S.A.O.C.	Oman	Construction	12.31	52.00
GS Inima (Barka), LLC (formerly, GS Inima Fisica (Barka), LLC)	Oman	Construction	12.31	100.00

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

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

#### 1.3 Summarized Financial Information

(in millions of Korean won)

	2022				
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
Xi S&D Inc. <sup>1</sup>	₩ 1,952,688	₩ 1,230,634	₩ 722,054	₩ 2,479,011	₩ 151,899
Xi - Estec Co., Ltd.	1,126	473	653	5,989	41
GCS	23,733	8,411	15,322	68,453	2,219
BSM Co., Ltd.	3,620	1,929	1,691	16,021	510
Zeit O&M Co., Ltd.	20,660	15,075	5,585	65,897	1,650
GVESCO Corporation	4,520	3	4,517	-	(103)
GVESCO Investment Management Corp.	5,683	499	5,184	2,601	419
GVESCO Private Real Estate Fund No.1	30,753	14	30,739	293	213
GPC Corp.	143,616	64,586	79,030	121,424	11,582
GS ELEVATOR Co., Ltd.	6,508	3,367	3,141	7,286	(4,369)
ECO AQUAFARM (formerly, K Eco Salmon Co., Ltd.)	8,054	302	7,752	-	(186)
XiGEIST	10,882	1,085	9,797	-	(4,827)
XiGEIST Architects	14	-	14	4	-
Enerma Corp.	69,685	8,150	61,535	2,900	(48)
GLOBAL WATER SOLUTION CO., LTD.	414,601	-	414,601	-	(196)
DC Bridge Corp.	3,896	9	3,887	-	(42)
Bucheon Media Complex Management Inc.	2,152	433	1,719	3,600	1,442
Sun-field Solar Power Co., Ltd.	1	-	1	-	-
HEIMLAB Corp.	3,161	45	3,116	30	(1,384)
HAETDEULWON Rooftop PV 01	202	-	202	-	(3)
XPLOR INVESTMENT Co., Ltd	12,745	405	12,340	158	(684)
GS E&C Nanjing Co., Ltd.	106,894	86,076	20,818	80,721	9,717
Vietnam GS Industry One- Member LLC	511,367	542,932	(31,565)	36,700	(36,860)
Vietnam GS Enterprise One Member LLC	499,222	585,903	(86,681)	-	(22,819)
GS E&C Delhi Pvt. Ltd.	7,292	9,078	(1,786)	2,560	(456)
GS Engineering & Construction Mumbai Pvt. Ltd.	9,010	11,537	(2,527)	13,929	412
PT. GSENC Development Indonesia	23,134	1,570	21,564	-	(237)
ZEITGEIST EDUCATION CO., LTD.	358	1	357	-	(1)
GS E&C Development (Thailand) Co., Ltd.	20,781	381	20,400	-	(1,009)
GS Construction Arabia Co., Ltd.	43,231	939,644	(896,413)	6,557	(35,318)
GS CONSTRUCTION MIDDLE EAST - SOLE PROPRIETORSHIP L.L.C. (formerly, GS Construction	13,472	49,063	(35,591)	13,411	(9,793)

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**December 31, 2022 and 2021**

(in millions of Korean won)

	2022				
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
Middle East L.L.C.)					
GS Real Estate Development Company	9,286	438	8,848	-	(616)
GS E&C Poland SP.ZO.O <sup>1</sup>	539,051	271,602	267,449	420,165	3,513
GS Inima Environment S.A.U. <sup>1</sup>	1,425,488	755,784	669,704	405,253	41,245
GS Engineering & Construction Spain, S.L.	133,740	8,773	124,967	2,918	(821)
Chervona Gora EKO	24,724	18,302	6,422	3,786	(2,137)
Elements (Europe) Limited	32,961	9,757	23,204	36,195	(3,988)
GS Real Estate Development Company London LTD.	363	696	(333)	-	(1,097)
GS E&C Panama S.A.	1,271	-	1,271	-	-
GS Village Lake LLC	77,574	1,332	76,242	-	(97)
GS Property Mountain View LLC	18,251	595	17,656	723	(1,258)
GS MIRAMAR 700 EC, LLC <sup>1</sup>	49,814	33,610	16,204	4,534	771
777 WMF, LLC	25,578	-	25,578	-	(11)
GS MIRAMAR VILLAGE LAKES MANAGER, LLC	31,691	-	31,691	-	(4)
CDCF III FORTBAY MV, LLC <sup>1</sup>	294,311	287,336	6,975	2,033	(2,761)
GS Redlands, LLC	11,112	5	11,107	-	14
GSFC FUND 1 LLC	25,328	366	24,962	-	(1,669)
PALA-POWER GENERAL CONSTRUCTION SERVICE (PROPRIETARY) LIMITED	26	81	(55)	-	(9)
GS Engineering & Construction Australia Pty Ltd.	346,967	320,264	26,703	149,007	14,791
The Trustee for GS NEL Trust	1,207	374	833	1,607	815
GS SPV PTY LTD.	-	-	-	-	-
ZEIT DEVELOPMENT POLAND LLC	51,706	184	51,522	46	2,260
400 Logue Master GP, LLC	10,734	-	10,734	-	-
400 Logue LP, LLC	16,157	-	16,157	-	(1)
400 Logue GP, LLC	9,187	-	9,187	-	(1)
400 Logue JVC, LLC <sup>1</sup>	90,187	65,049	25,138	-	(1,730)
Zeit Homes, Inc.	3	1	2	-	(4)

<sup>1</sup> Includes financial information of subsidiaries.

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**December 31, 2022 and 2021**

(in millions of Korean won)

	2021					
	Assets		Liabilities		Equity	
					Sales	
					Profit (loss) for the year	
Xi S&D Inc.	₩	541,086	₩	237,051	₩	304,035
Xi - Estec Co., Ltd.		1,088		476		612
GCS		19,695		6,592		13,103
BSM Co., Ltd.		4,877		2,421		2,456
Zeit O&M Co., Ltd.		20,154		16,218		3,936
GVESCO Corporation <sup>1</sup>		5,934		506		5,428
GPC Corp.		120,634		53,343		67,291
GS ELEVATOR Co., Ltd. (formerly, Xi Mechanics Corp.)		7,341		776		6,565
Gvesco Private Real Estate Fund No.1 (formerly, Pavilion Professional Investment Private Placement Real Estate Investment Trust No. 40)		30,540		14		30,526
K Eco Salmon Co., Ltd. (formerly, K Safe Salmon Co., Ltd.)		5,973		24		5,949
XiGEIST		11,336		1,163		10,173
Enerma Corp.		68,343		6,758		61,585
GLOBAL WATER SOLUTION CO., LTD.		414,886		88		414,798
DC Bridge Corp.		3,943		15		3,928
Bucheon Media Complex Management Inc.		547		192		355
XiGEIST Architects		15		-		15
GFS Co., Ltd.		8,804		-		8,804
Pohang Yeongliman Ocean Cable car Co., Ltd.		-		-		-
Sun-field Solar Power Co., Ltd.		1		-		1
GS E&C Nanjing Co., Ltd.		126,520		110,765		15,755
Vietnam GS Industry One- Member LLC		430,610		426,381		4,229
Vietnam GS Enterprise One Member LLC		442,469		504,988		(62,519)
GS E&C Delhi Pvt. Ltd.		7,124		8,540		(1,416)
GS Engineering & Construction Mumbai Pvt. Ltd.		7,634		10,663		(3,029)
PT. GSENC Development Indonesia		23,838		1,469		22,369
ZEITGEIST EDUCATION CO., LTD.		348		-		348
GS E&C Development (Thailand) Co., Ltd.		18,650		141		18,509
GS Construction Arabia Co., Ltd.		31,607		838,934		(807,327)
GS Construction Middle East L.L.C.		6,946		31,249		(24,303)
GS Real Estate Development Company		9,122		9,407		(285)
GS E&C Poland SP.ZO.O <sup>1</sup>		524,532		277,770		246,762
						384,432
						14,330

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**December 31, 2022 and 2021**

(in millions of Korean won)	2021				
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
GS Inima Environment S.A.U. <sup>1</sup>	1,175,978	603,308	572,670	316,519	29,252
GS Engineering & Construction Spain, S.L.	148,710	20,232	128,478	6,132	5,633
Chervona Gora EKO	28,761	17,976	10,785	5,283	4,843
Elements (Europe) Limited	33,116	4,340	28,776	24,582	(2,036)
GS Real Estate Development Company London LTD.	420	307	113	-	(612)
GS E&C Construction Canada Ltd.	-	-	-	-	1,314
GS E&C Panama S.A.	1,189	-	1,189	-	-
GS Village Lake LLC	48,421	2,499	45,922	-	(103)
GS Property Mountain View LLC	24,418	6,748	17,670	275	(466)
GS MIRAMAR 700 EC, LLC <sup>1</sup>	47,354	31,527	15,827	4,351	940
777 WMF, LLC	23,938	-	23,938	-	(8)
GS MIRAMAR VILLAGE LAKES MANAGER, LLC	29,638	-	29,638	-	-
CDCF III FORTBAY MV, LLC <sup>1</sup>	225,593	242,023	(16,430)	2,721	(36,305)
GS Redlands, LLC	6,346	-	6,346	-	(17)
GSFC FUND 1 LLC	8,299	13	8,286	-	(13)
400 LOGUE OWNER, LLC	-	-	-	-	-
PALA-POWER GENERAL CONSTRUCTION SERVICE (PROPRIETARY) LIMITED	26	74	(48)	-	(10)
GS Engineering & Construction Australia Pty Ltd.	230,437	235,084	(4,647)	17,057	(465)
The Trustee for GS NEL Trust	296	105	191	269	191
GS SPV PTY LTD.	28	28	-	-	-
ZEIT DEVELOPMENT POLAND LLC	1	-	1	-	-

<sup>1</sup> 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.

# **GS Engineering & Construction Corporation and Subsidiaries**

## **Notes to the Consolidated Financial Statements**

### **December 31, 2022 and 2021**

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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 consolidated financial statements have been prepared on a historical cost basis, except for 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, 2022. 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 resulting 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-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

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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.

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

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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.

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
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period

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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 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

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- 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.

##### **(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:

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- 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.

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,

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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

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.

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#### 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.

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.



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#### 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 two 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.

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#### (2) Financial liabilities

##### 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.

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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 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.

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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 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.

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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:

	Useful lives
Buildings	10 - 50 years
Structures	5 - 50
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.

	<b>Useful lives</b>
Technical rights	10 years
Concession assets	10 - 30
Software	3 - 10
Others	1 - 48

#### **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 such transactions can be identified, an appropriate valuation model is used. These calculations are

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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 consolidated 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 the consolidated statement of 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.



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#### **(2) Other long-term employee benefits**

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 consolidated statement of comprehensive income net of any reimbursement.

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

#### **(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 consolidated statement of profit or loss. 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 2022 were approved for issue by the Board of Directors on February 7, 2023 and are subject to change with the approval of shareholders at their Annual General Meeting.

### **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, 2022.

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

The application of the practical expedient, a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification, is extended to lease payments originally due on or before June 30, 2022. A lessee shall apply the practical expedient consistently to eligible contracts with similar characteristics and in similar circumstances. The amendment does not have a significant impact on the financial statements.

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

The amendments update a reference of definition of assets and liabilities to be recognized in a business combination in revised Conceptual Framework for Financial Reporting. However, the amendments add an exception for the recognition of liabilities and contingent liabilities within the scope of Korea IFRS 1037 *Provisions, Contingent Liabilities and Contingent Assets*, and Korean IFRS 2121 *Levies*. The amendments also clarify that contingent assets should not be recognized at the acquisition date. The amendment does not have a significant impact on the financial statements.

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

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

#### *2.4.5 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 amendment does not 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

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- Korean IFRS 1041 *Agriculture* – Measuring fair value

#### **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, 2022 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 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, 2024, and earlier application is permitted. The Group is in review for the impact of these amendments on the financial statements.

##### *2.5.2 Korean IFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies*

The amendments to Korean IFRS 1001 define and require entities to disclose their material accounting policies. The 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.

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

The amendments define accounting estimates and clarify how to distinguish them from changes in accounting policies. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

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

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

##### *2.5.5 New Standard: Korean IFRS 1117 Insurance Contract*

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

Further amendments made in December 2021 added a transition option that permits an entity to apply an optional classification overlay in the comparative period(s) presented on initial application of Korean IFRS 1117. The classification overlay applies to all financial assets, including those held in respect of activities not connected to contracts within the scope of Korean IFRS 1117. It allows those assets to be classified in the comparative period(s) in a way that aligns with how the entity expects those assets to be classified on initial application of Korean IFRS 1109. The classification can be applied on an instrument-by-instrument basis.

#### ***2.5.6 Korean IFRS 1001 Presentation of Financial Statements - Disclosure of gain or loss on valuation of financial liabilities subject to adjustment of exercise price***

If the entire or a part of financial instrument, whose exercise price is subject to change due to the issuer's share price, is classified as a financial liability, the carrying amount of the financial liability and related gains and losses shall be disclosed. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

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### **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 consolidated 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.

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.

Further details about pension obligations are disclosed in Note 19.



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#### **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 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 in 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.

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#### 3.7 Fair value measurement of identifiable assets and liabilities assumed in a business combination

The fair value measurement of identifiable assets and liabilities assumed in a business combination is based on management's best assumptions regarding valuation method and major variables.

#### 3.8 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.

#### 3.9 Lease

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

## 4. 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	Overseas development and others
Plant construction	Petroleum refining facility and others
Infra works	Road, railroad and others
ECO business <sup>1</sup>	Waste water treatment plant, power plant, power control facility, district heating and others
Others	Resort and others

<sup>1</sup> The ECO business division was newly established from the year ended December 31, 2022. The comparative information was restated by reflecting these changes.

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(2) Sales and operating profit (loss) for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)		2022																									
		Architectural & housing construction		New business		Plant construction		Infra works		ECO business		Others		Total		Consolidation adjustments		Consolidated total									
Sales	₩	9,442,110		₩	1,077,808		₩	628,502		₩	1,069,199		₩	191,258		₩	158,641		₩	12,567,518		₩	(268,322)		₩	12,299,196	
Inter-company sales		(107,541)			(52,255)			(29,950)			(7,763)			(18,121)			(52,692)			(268,322)			268,322			-	
Net sales		9,334,569			1,025,553			598,552			1,061,436			173,137			105,949			12,299,196			-			12,299,196	
Operating profit (loss) <sup>1</sup>		768,002			17,851			(159,202)			11,604			(93,773)			10,353			554,835			-			554,835	
Profit (loss) before income tax <sup>1</sup>		997,478			(34,731)			(133,632)			(36,401)			(132,254)			4,438			664,898			-			664,898	

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

(in millions of Korean won)		2021																
		Architectural & housing construction		New business	Plant construction		Infra works	ECO business		Others	Total	Consolidation adjustments	Consolidated total					
Sales	₩	6,223,645	₩	789,502	₩	1,172,302	₩	782,091	₩	173,597	₩	136,779	₩	9,277,916	₩	(241,341)	₩	9,036,575
Inter-company sales		(132,468)		(12,181)		(44,455)		(1,827)		(1,766)		(48,644)		(241,341)		241,341		-
Net sales		6,091,177		777,321		1,127,847		780,264		171,831		88,135		9,036,575		-		9,036,575
Operating profit (loss) <sup>1</sup>		1,033,144		16,991		(157,437)		(103,237)		(147,989)		5,014		646,486		-		646,486
Profit (loss) before income tax <sup>1</sup>		1,184,185		8,175		(165,281)		(197,959)		(172,386)		1,196		657,930		-		657,930

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

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(3) Revenue of segments for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)	2022						
	Architectural & housing construction	New business	Plant construction	Infra works	ECO business	Others	Total
Major product & service							
Construction contract as a constructor	₩ 8,373,389	₩ 21,025	₩ 563,182	₩ 1,013,028	₩ 68,328	₩ -	₩ 10,038,952
Construction contract as a developer & constructor	839,779	-	-	-	-	-	839,779
Engineering service and others	65,101	405,351	32,951	48,326	100,409	-	652,138
Lease and others	56,300	599,177	2,419	82	4,400	38,177	700,555
Resort	-	-	-	-	-	67,772	67,772
	<u>₩ 9,334,569</u>	<u>₩ 1,025,553</u>	<u>₩ 598,552</u>	<u>₩ 1,061,436</u>	<u>₩ 173,137</u>	<u>₩ 105,949</u>	<u>₩ 12,299,196</u>
Timing of revenue recognition							
Recognition over time	₩ 9,036,654	₩ 394,158	₩ 598,552	₩ 1,061,436	₩ 173,137	₩ 38,177	₩ 11,302,114
Recognition at a point in time	297,915	631,395	-	-	-	67,772	997,082
	<u>₩ 9,334,569</u>	<u>₩ 1,025,553</u>	<u>₩ 598,552</u>	<u>₩ 1,061,436</u>	<u>₩ 173,137</u>	<u>₩ 105,949</u>	<u>₩ 12,299,196</u>
(in millions of Korean won)	2021						
	Architectural & housing construction	New business	Plant construction	Infra works	ECO business	Others	Total
Major product & service							
Construction contract as a constructor	₩ 5,170,457	₩ 5,329	₩ 1,090,874	₩ 737,395	₩ 90,915	₩ -	₩ 7,094,970
Construction contract as a developer & constructor	789,278	-	-	-	-	-	789,278
Engineering service and others	92,300	318,037	36,659	42,507	74,486	-	563,989
Lease and others	39,142	453,955	314	362	6,430	32,192	532,395
Resort	-	-	-	-	-	55,943	55,943
	<u>₩ 6,091,177</u>	<u>₩ 777,321</u>	<u>₩ 1,127,847</u>	<u>₩ 780,264</u>	<u>₩ 171,831</u>	<u>₩ 88,135</u>	<u>₩ 9,036,575</u>
Timing of revenue recognition							
Recognition over time	₩ 5,972,383	₩ 322,928	₩ 1,127,847	₩ 780,264	₩ 171,831	₩ 32,192	₩ 8,407,445
Recognition at a point in time	118,794	454,393	-	-	-	55,943	629,130
	<u>₩ 6,091,177</u>	<u>₩ 777,321</u>	<u>₩ 1,127,847</u>	<u>₩ 780,264</u>	<u>₩ 171,831</u>	<u>₩ 88,135</u>	<u>₩ 9,036,575</u>

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
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(4) There are no customers, who contribute more than 10% of sales for the years ended December 31, 2022 and 2021.

(5) Sales information by location for the years ended December 31, 2022 and 2021, are as follows:

*(in millions of  
Korean won)*

	<b>2022</b>				
	<b>Korea</b>	<b>Middle East</b>	<b>China and South-East Asia</b>	<b>Others</b>	<b>Total</b>
Sales	₩ 9,653,375	₩ 320,140	₩ 1,420,209	₩ 1,173,794	₩ 12,567,518
Inter-company sales	(244,462)	(9,638)	(7,758)	(6,464)	(268,322)
Net sales	<u>₩ 9,408,913</u>	<u>₩ 310,502</u>	<u>₩ 1,412,451</u>	<u>₩ 1,167,330</u>	<u>₩ 12,299,196</u>

*(in millions of  
Korean won)*

	<b>2021</b>				
	<b>Korea</b>	<b>Middle East</b>	<b>China and South-East Asia</b>	<b>Others</b>	<b>Total</b>
Sales	₩ 7,461,985	₩ 258,297	₩ 524,472	₩ 1,033,162	₩ 9,277,916
Inter-company sales	(206,759)	(13,272)	(17,455)	(3,855)	(241,341)
Net sales	<u>₩ 7,255,226</u>	<u>₩ 245,025</u>	<u>₩ 507,017</u>	<u>₩ 1,029,307</u>	<u>₩ 9,036,575</u>

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
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**5. Cash and Cash Equivalents and Others**

(1) Cash and cash equivalents and others as of December 31, 2022 and 2021, consist of:

<i>(in millions of Korean won)</i>		<b>2022</b>		<b>2021</b>	
Cash and cash equivalents	Cash	₩	2,359	₩	29,808
	Deposits		2,021,340		2,688,582
	Securities		2		-
			<u>2,023,701</u>		<u>2,718,390</u>
Short-term financial assets	Short-term financial instruments		493,780		290,403
	Current financial lease receivables and others		88,287		104,639
			<u>582,067</u>		<u>395,042</u>
Long-term financial assets	Long-term financial instruments		2,500		852
	Leasehold deposits provided and others		711,178		599,612
			<u>713,678</u>		<u>600,464</u>
		₩	<u>3,319,446</u>	₩	<u>3,713,896</u>

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

<i>(in millions of Korean won)</i>	<b>Bank</b>	<b>2022</b>		<b>2021</b>		<b>Remarks</b>
Cash and cash equivalents	Wells Fargo and others	₩	330	₩	271	Restricted cash and others
	Subtotal		<u>330</u>		<u>271</u>	
Short-term financial assets	Shinhan and others		1,045		1,432	Loan repayment accumulation
	Shinhan		4,889		5,104	Leasehold deposits
	Shinhan		6,850		6,850	Loans for employees' housing
	Shinhan		2,020		-	Pledged as collateral
	Shinhan and others		30,000		30,000	Supports interest for cooperative firm
	NH and others		1,478		1,218	Special provisions for construction warranty account
	SC		39,343		36,836	L/C issued for overseas sites
	Woori		-		2,000	Equipment deposits
	INDUSTRIAL BANK OF KOREA		6,200		-	Win-win growth cooperative fund
	Shinhan and others		12,247		-	Bank draft issuance limit
	Banobras and others		779		670	Cash Restricted
	Subtotal		<u>104,851</u>		<u>84,110</u>	
Long-term financial assets	Shinhan and others		138		138	Leasehold deposits
	Shinhan and others		22		20	Deposit for overdraft
	Woori		2,177		-	Deposit for issuance of letter of credit guarantee
	Industrial and Commercial Bank of		349		-	Deposit for establishment of a branch

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
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China			
Subtotal	2,686	158	
	₩ 107,867	₩ 84,539	

**6. Trade and Other Receivables**

(1) Trade and other receivables as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won)

		<b>2022</b>		
		<b>Receivables</b>	<b>Allowance for bad debts</b>	<b>Receivables, net</b>
<b>Current assets</b>				
Trade and other receivables	Receivables from construction contracts	₩ 2,496,596	₩ (116,779)	₩ 2,379,817
	Receivables from apartment sales	8,029	(1,613)	6,416
	Notes receivable	82,530	(909)	81,621
	Other trade receivables	61,502	(61)	61,441
	Other receivables	546,787	(291,950)	254,837
	Accrued revenue	119,896	(45,603)	74,293
	Short-term loans	479,770	(87,684)	392,086
	Deposits provided for business	1,169	-	1,169
		₩ 3,796,279	₩ (544,599)	₩ 3,251,680
<b>Non-current assets</b>				
Long-term trade and other receivables	Long-term other receivables	₩ 37,000	₩ -	₩ 37,000
	Long-term loans	1,149,541	(178,923)	970,618
	Deposits provided for business	197,526	(693)	196,833
		₩ 1,384,067	₩ (179,616)	₩ 1,204,451

**GS Engineering & Construction Corporation and Subsidiaries**  
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(in millions of Korean won)

(in millions of Korean won)

		2021					
		Receivables		Allowance for bad debts		Receivables, net	
<b>Current assets</b>							
Trade and other receivables	Receivables from construction contracts	₩	1,914,761	₩	(154,599)	₩	1,760,162
	Receivables from apartment sales		11,077		(1,176)		9,901
	Notes receivable		43,075		(225)		42,850
	Other trade receivables		60,486		(833)		59,653
	Other receivables		489,663		(286,165)		203,498
	Accrued revenue		81,515		(31,229)		50,286
	Short-term loans		190,964		(117,280)		73,684
	Deposits provided for business		98		-		98
		₩	2,791,639	₩	(591,507)	₩	2,200,132
<b>Non-current assets</b>							
Long-term trade and other receivables	Long-term other receivables	₩	159,871	₩	-	₩	159,871
	Long-term loans		1,043,199		(178,175)		865,024
	Deposits provided for business		171,441		(363)		171,078
		₩	1,374,511	₩	(178,538)	₩	1,195,973

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

(in millions of Korean won)

		2022		2021	
		Trade receivables <sup>1</sup>	Other receivables	Trade receivables <sup>1</sup>	Other receivables
Receivables not impaired					
Up to 1 year		₩ 1,828,655	₩ 281,478	₩ 1,317,527	₩ 121,110
1 to 2 years		173,256	30,120	178,121	3,638
Over 2 years		563,026	106,059	366,355	79,683
		2,564,937	417,657	1,862,003	204,431
Individually impaired		120,720	729,965	167,396	557,810
		₩ 2,685,657	₩ 1,147,622	₩ 2,029,399	₩ 762,241
Allowance for bad debts		₩ (119,362)	₩ (425,237)	₩ (156,833)	₩ (434,674)

<sup>1</sup> Includes receivables with deferred collection due to contract conditions (2022: ₩ 300,294 million, 2021: ₩ 297,709 million). In addition, long-term other receivables are included.



**GS Engineering & Construction Corporation and Subsidiaries**  
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(3) Changes in allowance for bad debts as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won)

		<b>2022</b>			
		<b>Beginning</b>	<b>Bad debt expenses</b>	<b>Reversal / write-off and others</b>	<b>Ending</b>
Trade and other receivables	Receivables from construction contracts	₩ 154,599	₩ 23,061	₩ (60,881)	₩ 116,779
	Receivables from apartment sales	1,176	468	(31)	1,613
	Notes receivable	225	579	105	909
	Other receivables	286,165	16,892	(11,107)	291,950
	Accrued revenue	31,229	6,056	8,318	45,603
	Short-term loans	117,280	3,375	(32,971)	87,684
	Other trade receivables	833	14,469	(15,241)	61
		<u>₩ 591,507</u>	<u>₩ 64,900</u>	<u>₩ (111,808)</u>	<u>₩ 544,599</u>
Long-term trade and other receivables	Long-term loans	₩ 178,175	₩ 13,985	₩ (13,237)	₩ 178,923
	Deposits provided for business	363	521	(191)	693
		<u>₩ 178,538</u>	<u>₩ 14,506</u>	<u>₩ (13,428)</u>	<u>₩ 179,616</u>

(in millions of Korean won)

		<b>2021</b>			
		<b>Beginning</b>	<b>Bad debt expenses</b>	<b>Reversal / write-off and others</b>	<b>Ending</b>
Trade and other receivables	Receivables from construction contracts	₩ 216,024	₩ 11,276	₩ (72,701)	₩ 154,599
	Receivables from apartment sales	1,129	76	(29)	1,176
	Notes receivable	802	-	(577)	225
	Other receivables	278,796	21,707	(14,338)	286,165
	Accrued revenue	30,175	5,083	(4,029)	31,229
	Short-term loans	85,477	26,977	4,826	117,280
	Other trade receivables	734	1,177	(1,078)	833
		<u>₩ 613,137</u>	<u>₩ 66,296</u>	<u>₩ (87,926)</u>	<u>₩ 591,507</u>
Long-term trade and other receivables	Long-term loans	₩ 203,183	₩ 7,763	₩ (32,771)	₩ 178,175
	Deposits provided for business	199	341	(177)	363
		<u>₩ 203,382</u>	<u>₩ 8,104</u>	<u>₩ (32,948)</u>	<u>₩ 178,538</u>

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
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**7. Construction Contracts**

(1) Changes in the outstanding balances of construction contracts for the years ended December 31, 2022 and 2021, are as follows:

*(in millions of Korean won)*

	<b>2022</b>			
	<b>Beginning</b>	<b>Increase</b>	<b>Sales recognized</b>	<b>Ending</b>
Architectural & housing construction <sup>1</sup>	₩ 14,403,386	₩ 10,530,205	₩ 8,306,060	₩ 16,627,531
New business	29,129	13,336	12,024	30,441
Plant construction	480,325	429,259	569,545	340,039
ECO business	320,219	202,582	68,336	454,465
Infra works	4,847,136	422,411	1,003,630	4,265,917
	<u>20,080,195</u>	<u>11,597,793</u>	<u>9,959,595</u>	<u>21,718,393</u>
Housing construction and sales operations <sup>2</sup>	1,920,798	9,712	611,395	1,319,115
	<u>₩ 22,000,993</u>	<u>₩ 11,607,505</u>	<u>₩ 10,570,990</u>	<u>₩ 23,037,508</u>

<sup>1</sup> Effects of change in scope of consolidation and others are included.

<sup>2</sup> Apartment sales contracts of which the revenue is recognized at a point in time are excluded.

*(in millions of Korean won)*

	<b>2021</b>			
	<b>Beginning</b>	<b>Increase</b>	<b>Sales recognized</b>	<b>Ending</b>
Architectural & housing construction	₩ 9,710,016	₩ 9,776,413	₩ 5,083,043	₩ 14,403,386
New business	28,925	5,533	5,329	29,129
Plant construction	1,054,438	526,064	1,100,177	480,325
ECO business	200,470	211,564	91,815	320,219
Infra works	2,673,279	2,902,367	728,510	4,847,136
	<u>13,667,128</u>	<u>13,421,941</u>	<u>7,008,874</u>	<u>20,080,195</u>
Housing construction and sales operations <sup>1</sup>	534,972	2,149,257	763,431	1,920,798
	<u>₩ 14,202,100</u>	<u>₩ 15,571,198</u>	<u>₩ 7,772,305</u>	<u>₩ 22,000,993</u>

<sup>1</sup> 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.

**GS Engineering & Construction Corporation and Subsidiaries**  
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(2) Details of construction contracts in progress as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won)

	<b>2022</b>			
	<b>Accumulated sales</b>	<b>Accumulated cost</b>	<b>Accumulated profit (loss)</b>	<b>Retention for receivables<sup>1</sup></b>
Architectural & housing construction	₩ 40,962,487	₩ 35,040,552	₩ 5,921,935	₩ 6,076
New business	871,655	818,951	52,704	-
Plant construction	30,969,823	31,547,708	(577,885)	163,588
ECO business	5,681,168	6,052,437	(371,269)	47,193
Infra works	11,287,979	10,892,389	395,590	83,437
	<u>89,773,112</u>	<u>84,352,037</u>	<u>5,421,075</u>	<u>300,294</u>
Housing construction and sales operations	3,074,550	2,406,566	667,984	-
	<u>₩ 92,847,662</u>	<u>₩ 86,758,603</u>	<u>₩ 6,089,059</u>	<u>₩ 300,294</u>

<sup>1</sup> Included in trade receivables.

(in millions of Korean won)

	<b>2021</b>			
	<b>Accumulated sales</b>	<b>Accumulated cost</b>	<b>Accumulated profit (loss)</b>	<b>Retention for receivables<sup>1</sup></b>
Architectural & housing construction	₩ 37,135,459	₩ 31,388,044	₩ 5,747,415	₩ 9,229
New business	858,444	809,221	49,223	-
Plant construction	30,969,693	31,417,978	(448,285)	160,287
ECO business	5,241,325	5,627,801	(386,476)	50,258
Infra works	10,534,493	10,216,555	317,938	77,935
	<u>84,739,414</u>	<u>79,459,599</u>	<u>5,279,815</u>	<u>297,709</u>
Housing construction and sales operations	2,488,332	1,959,420	528,912	-
	<u>₩ 87,227,746</u>	<u>₩ 81,419,019</u>	<u>₩ 5,808,727</u>	<u>₩ 297,709</u>

<sup>1</sup> Included in trade receivables.

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(3) Details of contract assets and liabilities (unbilled and overbilled amount) related to construction as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won)

	2022		2021	
	Contract assets <sup>1</sup>	Contract liabilities <sup>2</sup>	Contract assets <sup>1</sup>	Contract liabilities <sup>2</sup>
Architectural & housing construction	₩ 956,006	₩ 1,357,982	₩ 316,301	₩ 1,587,150
New business	19,009	4,224	14,850	6,621
Plant construction	71,437	125,334	182,194	146,714
ECO business	50,075	100,379	53,797	39,490
Infra works	424,737	287,487	381,718	229,309
	<u>₩ 1,521,264</u>	<u>₩ 1,875,406</u>	<u>₩ 948,860</u>	<u>₩ 2,009,284</u>

<sup>1</sup> As of December 31, 2022, allowance for bad debts which the Group recognized for contract assets in accordance with Korean IFRS 1109 amounts to ₩ 273,736 million (2021: ₩ 269,860 million).

<sup>2</sup> Sales recognized for the year ended December 31, 2022, from the balance of contract liabilities as of December 31, 2021, amount to ₩ 1,480,621 million (2021: ₩ 1,418,431 million).

As of December 31, 2022, the unbilled amount from housing construction and sales operations is ₩ 25,707 million (2021: ₩ 12,752 million) and overbilled amount from housing construction and sales operations is ₩ 238,123 million (2021: ₩ 284,632 million).

(4) As of December 31, 2022, the cost of fulfilling a contract which the Group has recognized as an asset is ₩ 116,701 million (2021: ₩ 90,794 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, 2022, 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	₩ 7,597,256	₩ 2,848,971	37.5%	Hyundai E&C
New Hanul Nuclear Power Plant #1,2 main facility construction	1,935,740	483,935	25.0%	Hyundai E&C
Central park Xi Prugio	934,310	467,155	50.0%	GS E&C
Imun section 3 Housing redevelopment and maintenance project	901,998	432,959	48.0%	HDC
Indeogwon Xi SK VIEW	652,783	391,670	60.0%	GS E&C
Unam 3 Housing reconstruction maintenance project	823,301	391,068	47.5%	GS E&C
Suwon Central I-Park Xi	725,728	362,864	50.0%	HDC
Pyeongchon Xi I-Park	572,615	343,569	60.0%	GS E&C

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Kais CCPP Project	649,672	324,836	50.0%	GS E&C
Sejong Xi The CITY	672,864	336,432	50.0%	GS E&C

(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, 2022 and 2021, are as follows:

(in millions of  
Korean won)

		2022						
		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	₩	97,414	₩ 1,294,549	₩ 625,512	₩ 192,045	₩ 476,992	₩ 669,037	₩ 192,045
New business		3,425	(4)	30	(29)	(5)	(34)	(29)
Plant construction		505	333,509	441,676	(140,103)	31,936	(108,167)	(140,103)
ECO business		16,126	87,722	78,598	(7,266)	16,390	9,124	(7,266)
Infra works		1,123	318,321	39,008	20,505	258,808	279,313	20,505
	₩	118,593	₩ 2,034,097	₩ 1,184,824	₩ 65,152	₩ 784,121	₩ 849,273	₩ 65,152

(in millions of  
Korean won)

		2021						
		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	₩	394	₩ 634,737	₩ (876,129)	₩ 780,837	₩ 730,029	₩ 1,510,866	₩ 780,837
Plant construction		7,970	431,586	452,386	(57,072)	36,272	(20,800)	(57,072)
ECO business		17,440	(34,039)	56,001	(94,922)	4,882	(90,040)	(94,922)
Infra works		8	139,917	165,151	(78,860)	53,626	(25,234)	(78,860)
	₩	25,812	₩ 1,172,201	₩ (202,591)	₩ 549,983	₩ 824,809	₩ 1,374,792	₩ 549,983

# GS Engineering & Construction Corporation and Subsidiaries

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(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 years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)		2022						
		Contract date	Contract due <sup>1</sup>	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	2022-12-31	100.00	₩ -	₩ -	₩ 9,654	₩ 58
	Sinbanpo Section 4 reconstruction and maintenance Project	2021-10-28	2025-04-28	17.80	67,207	-	-	-
	Gaepo Presidents Xi	2019-11-04	2023-02-28	84.33	22,193	-	16	3
	Cheolsan Jugong 8,9 Complex Housing reconstruction and maintenance Project	2021-12-30	2025-05-30	11.26	76,706	-	-	-
	Gwacheon Xi	2018-12-13	2021-11-12	100.00	-	-	910	138
	Jangwi Xi Radiant	2022-04-01	2025-03-31	10.62	13,209	-	28,318	367
	North Suwon Xi Rexvia	2021-03-19	2024-03-31	30.83	-	-	12	-
	Tapseok Central Xi	2018-11-01	2021-12-31	100.00	-	-	2	-
	Brighten	2019-07-23	2023-08-18	63.19	47,575	-	271,824	3,271
	Heukseok Riverpark Xi	2019-12-06	2023-02-28	80.48	44,685	-	59,624	702
	Daemyeong Xi Grand City	2022-11-01	2026-04-30	3.22	14,678	-	-	-
	Songdo Xi Crystal Ocean	2021-02-22	2024-06-30	37.31	-	-	2,504	165
	GP3	2017-07-07	2023-04-30	95.32	-	-	1,701	-
Plant construction	Karbala Refinery Project	2014-04-22	2023-07-31	94.33	-	-	194,613	-
	MFC Project	2018-08-07	2022-08-31	100.00	-	-	-	-
ECO business	New Hanul Nuclear Power Plant #1,2 main facility construction	2010-04-30	2023-09-30	98.81	7,021	-	-	-
Infra works	Thomson-East Coast line Contract T301	2016-03-18	2024-10-04	80.82	100,607	-	64,154	-
	ITTC Project	2020-05-11	2025-04-25	55.70	53,080	-	32,711	-
	NSC N101	2018-12-26	2027-07-26	35.37	34,986	-	9,550	-
	North East Link Project	2021-10-28	2028-12-29	5.47	-	-	26,562	-

<sup>1</sup> The project's contractual or expected construction period.

# GS Engineering & Construction Corporation and Subsidiaries

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(in millions of  
Korean won)

		2021										
		Contract date	Contract due <sup>1</sup>	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	99.69	₩	-	₩	-	₩	-	₩	-
	Sinbanpo Section 4 reconstruction and maintenance Project	2021-10-28	2024-12-27	6.00		56,163		-		-		-
	Gaepo Presidents Xi	2019-11-04	2023-02-28	48.91		-		-		24		-
	Cheolsan Jugong 8,9 Complex Housing reconstruction and maintenance Project	2021-12-30	2025-02-28	2.27		19,912		-		-		-
	Second Grand City Xi	2017-05-01	2020-10-31	100.00		-		-		-		-
	Gwacheon Xi	2018-12-13	2021-11-12	93.29		-		-		92,892		531
	North Suwon Xi Rexvia	2021-03-19	2024-03-31	5.36		-		-		4		-
	Tapseok Central Xi	2018-11-01	2021-12-31	96.40		-		-		122,423		611
	Brighten	2019-07-23	2023-04-22	33.34		9,013		-		120,062		638
	Imun section 3 Housing redevelopment and maintenance project	2021-10-26	2025-07-25	2.67		12,576		-		-		-
	Heukseok Riverpark Xi	2019-12-06	2023-02-28	41.60		15,838		-		10		-
	Songdo Xi Crystal Ocean	2021-02-22	2024-06-14	15.79		-		-		1,252		19
	Gaepo 8 complex	2018-03-14	2021-07-31	100.00		-		-		-		-
	GP3	2017-07-07	2022-05-31	94.65		-		-		4,750		-
Plant construction	Karbala Refinery Project	2014-04-22	2023-03-31	94.57		-		-		165,030		-
	Clean Fuels Project(MAA)	2014-04-13	2021-12-31	100.00		8,631		-		4,841		-
	MFC Project	2018-08-07	2022-05-31	96.46		-		-		148,688		742
	Yeosu No.2 Complex Project	2018-12-04	2021-08-31	100.00		-		-		-		-
	Bahrain LNGIT Project <sup>1</sup>	2015-12-02	2021-12-31	100.00		-		-		-		-
ECO business	Anyang Cogeneration Power Plant No.2 Construction	2015-09-22	2021-12-31	100.00		429		-		18,291		91
	New Hanul Nuclear Power Plant #1,2 main facility construction	2010-04-30	2023-03-31	98.86		9,101		-		-		-
Infra works	Thomson-East Coast line Contract T301	2016-03-18	2024-07-29	68.86		101,227		-		48,240		-
	ITTC Project	2020-05-11	2025-02-17	18.68		-		-		10,315		-
	NSC N101	2018-12-26	2027-05-20	22.80		34,351		-		6,951		-
	North East Link Project	2021-10-28	2028-10-27	0.32		8,706		-		-		-

<sup>1</sup> The project's contractual or 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.

**GS Engineering & Construction Corporation and Subsidiaries**  
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**8. Inventories and Other Assets**

(1) Inventories as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>		<b>2022</b>		<b>2021</b>
Land for construction <sup>1</sup>	₩	348,886	₩	399,159
Goods and products		24,351		17,273
Raw materials		98,423		82,579
Finished shopping complex		-		1,025
Finished housing		8,242		-
Unfinished housing construction		924,888		888,664
Supplies		2,071		79,318
Incompletion construction		6,939		6,633
Semi-finished goods		692		686
Work-in-process		84,546		1,563
Goods in transit		884		200
	₩	<u>1,499,922</u>	₩	<u>1,477,100</u>

<sup>1</sup> Land for construction amounting to ₩ 237,550 million (2021: ₩ 253,596 million) has been pledged as collateral for borrowings.

(2) Other current assets as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>		<b>2022</b>		<b>2021</b>
Prepaid construction costs	₩	116,701	₩	90,794
Advance payments		235,199		211,827
Prepaid expenses		49,981		55,890
Purchase value added tax		71,317		59,671
Prepaid income taxes		25,163		25,930
	₩	<u>498,361</u>	₩	<u>444,112</u>

(3) Other non-current assets as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>		<b>2022</b>		<b>2021</b>
Long-term advance payments	₩	23,937	₩	31,113
Long-term prepaid expenses		102,383		124,431
Other non-current assets		1,590		1,590
	₩	<u>127,910</u>	₩	<u>157,134</u>



**GS Engineering & Construction Corporation and Subsidiaries**  
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**9. Categories of Financial Assets and Liabilities**

(1) Categories of financial assets as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won)

	<b>2022</b>			
	<b>Financial assets at fair value through profit or loss</b>	<b>Derivative financial instruments</b>	<b>Financial assets at amortized cost</b>	<b>Total</b>
Cash and cash equivalents	₩ -	₩ -	₩ 2,023,701	₩ 2,023,701
Trade and other receivables	-	-	3,251,679	3,251,679
Short-term financial assets	52,662	8,008	500,867	561,537
Long-term trade and other receivables	-	-	1,204,451	1,204,451
Long-term financial assets	-	1,517	697,947	699,464
Financial assets at fair value through profit or loss	273,951	-	-	273,951
	<u>₩ 326,613</u>	<u>₩ 9,525</u>	<u>₩ 7,678,645</u>	<u>₩ 8,014,783</u>

(in millions of Korean won)

	<b>2021</b>			
	<b>Financial assets at fair value through profit or loss</b>	<b>Derivative financial instruments</b>	<b>Financial assets at amortized cost</b>	<b>Total</b>
Cash and cash equivalents	₩ -	₩ -	₩ 2,718,390	₩ 2,718,390
Trade and other receivables	-	-	2,200,132	2,200,132
Short-term financial assets	93,213	2,699	276,001	371,913
Long-term trade and other receivables	-	-	1,195,973	1,195,973
Long-term financial assets	8,883	2,527	553,824	565,234
Financial assets at fair value through profit or loss	250,735	-	-	250,735
	<u>₩ 352,831</u>	<u>₩ 5,226</u>	<u>₩ 6,944,320</u>	<u>₩ 7,302,377</u>

**GS Engineering & Construction Corporation and Subsidiaries**  
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(2) Categories of financial liabilities as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won)

		<b>2022</b>			
		<b>Financial liabilities at fair value through profit or loss</b>	<b>Derivative financial instruments</b>	<b>Other financial liabilities at amortized cost</b>	<b>Total</b>
Trade and other payables	₩	-	₩ -	₩ 1,874,115	₩ 1,874,115
Short-term financial liabilities		-	1,729	2,226,587	2,228,316
Other current liabilities <sup>1</sup>		-	-	556,307	556,307
Long-term financial liabilities		-	831	2,362,833	2,363,664
Other non-current liabilities		-	-	85,454	85,454
	₩	-	₩ 2,560	₩ 7,105,296	₩ 7,107,856

<sup>1</sup> 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)

		<b>2021</b>			
		<b>Financial liabilities at fair value through profit or loss</b>	<b>Derivative financial instruments</b>	<b>Other financial liabilities at amortized cost</b>	<b>Total</b>
Trade and other payables	₩	-	₩ -	₩ 1,656,079	₩ 1,656,079
Short-term financial liabilities		-	5,362	1,116,081	1,121,443
Other current liabilities <sup>1</sup>		-	-	546,689	546,689
Long-term financial liabilities		-	3,310	2,527,769	2,531,079
Other non-current liabilities		-	-	68,414	68,414
	₩	-	₩ 8,672	₩ 5,915,032	₩ 5,923,704

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

**GS Engineering & Construction Corporation and Subsidiaries**  
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(3) Net gains and losses on financial instruments by category for the years ended December 31, 2022 and 2021, are as follows:

(in millions of  
Korean won)

	<b>2022</b>			
	<b>Financial instruments at fair value through profit or loss</b>	<b>Derivative financial instruments</b>	<b>Financial instruments at amortized cost</b>	<b>Total</b>
Interest income <sup>1</sup>	₩ 265	₩ -	₩ 123,115	₩ 123,380
Interest expense <sup>1</sup>	-	-	(129,117)	(129,117)
Gain on foreign currency translation	-	-	100,658	100,658
Gain on foreign currency transaction	-	-	16,462	16,462
Gain on derivatives valuation	13,779	(1,076)	-	12,703
Loss on derivatives transaction	3,462	8,006	-	11,468
Dividend income	10,803	-	-	10,803
Other finance income	(4,219)	-	(44,799)	(49,018)
	<u>₩ 24,090</u>	<u>₩ 6,930</u>	<u>₩ 66,319</u>	<u>₩ 97,339</u>

<sup>1</sup> Interest expenses for lease liabilities and interest income from subleases are excluded.

(in millions of  
Korean won)

	<b>2021</b>			
	<b>Financial instruments at fair value through profit or loss</b>	<b>Derivative financial instruments</b>	<b>Financial instruments at amortized cost</b>	<b>Total</b>
Interest income <sup>1</sup>	₩ 179	₩ -	₩ 50,812	₩ 50,991
Interest expense <sup>1</sup>	-	-	(70,470)	(70,470)
Loss on foreign currency translation	-	-	73,717	73,717
Loss on foreign currency transaction	-	-	42,262	42,262
Loss on derivatives valuation <sup>1</sup>	26,216	787	-	27,003
Loss on derivatives transaction	(31,765)	(1,376)	-	(33,141)
Dividend income	667	-	-	667
Other finance loss	1,179	-	21,173	22,352
	<u>₩ (3,524)</u>	<u>₩ (589)</u>	<u>₩ 117,494</u>	<u>₩ 113,381</u>

<sup>1</sup> Interest expenses for lease liabilities and interest income from subleases are excluded.

**GS Engineering & Construction Corporation and Subsidiaries**  
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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, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>		<b>2021</b>	
Marketable equity securities	₩	661	₩	128
Non-marketable equity securities		273,290		250,607
	₩	273,951	₩	250,735

(2) Changes in financial assets at fair value through profit of loss for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>		<b>2021</b>	
Beginning	₩	250,735	₩	249,466
Acquisition		18,700		6,907
Disposal		(10)		(3,283)
Valuation		(2,252)		2,349
Transfer		1,167		(4,789)
Changes in exchange rate		322		85
Changes in consolidation		5,289		-
Ending	₩	273,951	₩	250,735

(3) Details of marketable equity securities as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>Number of shares</b>	<b>Equity interest (%)</b>	<b>Acquisition cost</b>		<b>Book value<sup>1</sup></b>	
			<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>
DONGBU Corporation	87,105	0.38	₩ 1,239	₩ 72	₩ 632	₩ 73
SAMBU CONSTRUCTION CO., LTD.	23,444	0.01	20	20	29	55
			₩ 1,259	₩ 92	₩ 661	₩ 128

<sup>1</sup> The book value is the amount after fair value evaluation.

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(4) Details of non-marketable equity securities as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won)	Number of shares	Equity interest (%)	Acquisition cost		Book value <sup>1</sup>	
			2022	2021	2022	2021
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	42,248
Oksan Ochang Highway Corporation	5,988,000	60.00	29,940	29,940	2,132	3,132
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	339	383
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
Gaya Railway Co., Ltd.	305,490	2.30	1,527	1,527	115	126
S-Y highway Co., Ltd.	4,737,712	7.00	23,689	23,689	-	-
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	2,509	3,247
Daejeon Sewage Pipe Co., Ltd.	108,456	4.00	830	830	830	830
Gyungggi 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.	805,425	24.46	4,027	4,027	456	445
Gumi Green Water Co., Ltd.	335,412	18.90	1,677	1,677	1,577	1,432
Ulsan green Co., Ltd.	701,368	19.74	3,507	3,507	2,653	3,064
Seoul Tunnel Co., Ltd.	1,147,200	6.00	5,736	5,736	7,054	7,222
Paju-Yangju Powerful Army Co., Ltd.	89,289	8.00	447	447	-	-
Evergreen Goyang Co., Ltd.	24,267	1.76	121	121	121	121
Hwaseong Gwangju Highway.	2,894,436	13.32	14,472	14,472	14,947	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	-	-
Alpharos Mixed-use Development Co., Ltd.	-	-	-	48	-	-
Tropical Bintan Pte., Ltd.	625,000	12.50	2,444	2,444	-	-
The Korea Economic Daily	646	0.00	14	14	14	14
Asiad Country Club Co., Ltd.	80,000	2.67	400	400	-	-
International Convention Center Jeju	100,000	0.25	500	500	500	500
Public Development Co., Ltd.	276,259	17.09	2,669	2,669	4,688	3,327

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(in millions of Korean won)	Number of shares	Equity interest (%)	Acquisition cost		Book value <sup>1</sup>	
			2022	2021	2022	2021
Construction Guarantee Cooperative <sup>2</sup>	16,363	0.38	17,095	17,095	25,098	25,030
Engineering Construction Financial Cooperative <sup>2</sup>	13,700	0.98	6,612	6,612	10,647	9,969
Electric Construction Financial Cooperative	600	0.01	98	98	98	98
Information & Communication Financial Cooperative	440	0.03	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
West Seoul Urban Expressway Inc.	600,087	3.53	3,000	3,000	51,076	52,036
Daejeongreen.	1,058,077	27.20	5,290	5,290	-	-
Dong Yang Engineering and Construction Corp.	545	0.02	3	3	3	3
Jinsung Construction Co., Ltd.	10,095	1.39	101	101	-	-
Gyeongnam Enterprise Ltd.	292	0.00	1	1	1	1
Pyeongtaek EOS	328,200	6.00	1,641	1,641	1,872	1,732
Busan East-West highway Corp.	2,201,310	13.50	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	1,644	1,538
North Han-River Barraks	13,308	0.48	67	67	67	67
Ssangyong E&C Co., Ltd.	1,743	0.00	9	9	9	9
Pureun seobu environment	13,488	1.30	68	68	67	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	575	393
GUMIMAKEUNMUL Co., Ltd.	116,721	12.15	584	584	584	584
Donghae International Resources Terminal Co., Ltd.	138,000	10.00	690	690	76	690
Angelswing Co., Ltd.	5,291	4.23	1,500	1,500	1,433	1,402
Chemico Advanced Materials Co., Ltd.	2,428,417	16.52	2,800	1,500	2,659	1,625
Gangnam Metro Co., Ltd.	3,900	39.00	20	20	20	20
Korea Painting Artists Cooperative	-	-	-	10	-	10
Urban Gateway Fund I Limited	1,600,000	41.03	2,083	-	1,903	-
INDIDLAB CO., LTD.	2,223	9.09	350	-	350	-
GS Assemble Fund	4,000,000,000	15.23	4,000	-	3,767	-
Others <sup>3</sup>	-	-	75,601	64,762	69,997	53,097
			<u>₩ 400,246</u>	<u>₩ 381,732</u>	<u>₩ 273,290</u>	<u>₩ 250,607</u>

<sup>1</sup> The book value is the amount of net asset value or after fair value evaluation.

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

<sup>3</sup> Non-marketable equity security held by a subsidiary. Of these, amounting to ₩ 10,651 million (2021:

# GS Engineering & Construction Corporation and Subsidiaries

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₩ 1,538 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.

## 11. Derivative Instruments

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

(in millions of  
Korean won)

		2022								
		Valuation			Gain or loss			Accumulated other comprehensive loss <sup>1</sup>		
		Assets	Liabilities		Gain	Loss	Net	Gain	Loss	Net
For sale	₩	22,662	₩ -	₩	13,779	₩ -	₩ 13,779	₩ -	₩ -	₩ -
Hedging		9,525	2,560		29,393	30,469	(1,076)	47,683	29,820	17,863
	₩	32,187	₩ 2,560	₩	43,172	₩ 30,469	₩ 12,703	₩ 47,683	₩ 29,820	₩ 17,863

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

(in millions of  
Korean won)

		2021								
		Valuation			Gain or loss			Accumulated other comprehensive loss <sup>1</sup>		
		Assets	Liabilities		Gain	Loss	Net	Gain	Loss	Net
For sale	₩	10,340	₩ -	₩	26,216	₩ -	₩ 26,216	₩ -	₩ -	₩ -
Hedging		5,226	8,672		23,332	22,545	787	49,671	42,250	7,420
	₩	15,566	₩ 8,672	₩	49,548	₩ 22,545	₩ 27,003	₩ 49,671	₩ 42,250	₩ 7,420

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

**GS Engineering & Construction Corporation and Subsidiaries**  
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**12. Investments in Associates and Joint Ventures**

(1) Changes in investments in associates for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)	2022						
	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	-	-	-	-	-	-
Beopwon Industry Urban Development Corp.	20.00	-	-	-	-	-	-
HyangSan 2 Urban Development Corp. <sup>1</sup>	-	-	-	-	-	-	-
SoBaek Co., Ltd.	29.99	-	-	-	-	-	-
Yeouido MBC Site MXD PFV. Inc. <sup>2</sup>	10.00	-	-	-	-	-	-
Gwacheon Sangsang PFV. Inc. <sup>2</sup>	19.00	9,109	-	14,799	-	(7,758)	16,150
FGS East Asia Technical Resource Management, Inc.	25.00	31	-	6	-	-	37
Cadiz San Fernando, A.I.E.	21.95	1,760	-	353	-	(415)	1,698
Participes de Biorreciclaje S.A.	33.33	9,337	-	658	-	59	10,054
Gestion de Participes de Biorreciclaje	33.33	-	-	-	-	-	-
Cheongju Hi Tech Valley	20.00	42	-	(42)	-	-	-
BKT Co., Ltd.	29.00	13,462	-	(3,079)	62	(3)	10,442
PT. CORE RESOURCE	49.00	-	-	414	-	(78)	336
Zero Tech Co., Ltd. <sup>2</sup>	19.00	-	-	-	-	-	-
Cheonan Techno Park Inc.	20.00	-	-	-	-	-	-
Camp Stanton Co., Ltd. <sup>2</sup>	0.58	3	-	-	-	-	3
ORIGIN LATPHRAO CO., LTD. <sup>3</sup>	49.00	7,208	2,393	(234)	-	171	9,538
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED	49.00	26,837	-	8,168	2,114	(1,314)	35,805
Jincheon smart bokhap Industrial danji development Inc	20.00	99	-	-	-	-	99
PARK PILLAR R4 CO., LTD.	49.00	8,669	-	(123)	-	301	8,847
GYEONGGIPYEON GTAEK GLOBAL	25.00	4,435	-	212	(6)	-	4,641



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(in millions of Korean won)	2022						
	Equity ownership (%)	Beginning	Increase (decrease)	Share of profit or loss	Share of other comprehensive income	Others	Ending
CO., LTD.							
GS Collective Fund I LLC <sup>2,3</sup>	6.45	3,216	3,301	(326)	-	96	6,287
CHEMICO ADVANCED MATERIALS CO., LTD. <sup>3,4</sup>	16.52	-	-	-	-	-	-
EPOCH PFV Co., LTD. <sup>3</sup>	23.02	10,227	1,815	(69)	-	-	11,973
Jerotaekmuan Co., LTD.	30.00	-	-	-	-	-	-
Bucheon Visual Culture Industrial Complex Development Co., Ltd.	26.53	-	-	-	-	-	-
GS Inima (Barka), LLC(formerly, GS Inima Fisia (Barka) LLC) <sup>5,6</sup>	100.00	-	-	(2,257)	-	-	-
Fisia GS Inima (Al Ghubrah) LLC	50.00	82	-	(94)	-	12	-
PHU MY VINH CONSTRUCTION & INVESTMENT CORPORATION	30.00	16,399	-	514	-	1,511	18,424
Gvesco Opportunity- seeking general private real estate investment trust No.1 <sup>7</sup>	20.00	-	854	(5)	-	-	849
Incheon New Port Smart Complex Co., Ltd <sup>7,8</sup>	100.00	-	5	(1)	-	-	4
		<u>₩ 110,916</u>	<u>₩ 8,368</u>	<u>₩ 18,894</u>	<u>₩ 2,170</u>	<u>₩ (7,418)</u>	<u>₩ 135,187</u>

<sup>1</sup> Disposed of shares for the year ended December 31, 2022.

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

<sup>3</sup> Increase resulting in participation of additional share issuance.

<sup>4</sup> 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 with the seniority right of directors.

<sup>5</sup> Newly included in the consolidation for the year ended December 31, 2022.

<sup>6</sup> Share of loss at the time of acquisition was reflected retrospectively.

<sup>7</sup> Newly acquired for the year ended December 31, 2022.

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

<sup>8</sup> The corporation has categorized as associates since the Group concluded that the control is limited by the agreement.

(in millions of  
Korean won)

	2021						
	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	-	-	-	-	-	-
Beopwon Industry Urban Development Corp.	20.00	-	-	-	-	-	-
HyangSan 2 Urban Development Corp.	50.00	-	-	-	-	-	-
SoBaek Co., Ltd.	29.99	-	-	-	-	-	-
Yeouido MBC Site MXD PFV. Inc. <sup>1</sup>	10.00	-	-	-	-	-	-
Gwacheon Sangsang PFV. Inc. <sup>1</sup>	19.00	1,326	-	7,783	-	-	9,109
FGS East Asia Technical Resource Management, Inc.	25.00	31	-	(1)	-	1	31
Cadiz San Fernando, A.I.E.	21.95	1,659	-	442	-	(341)	1,760
Participes de Biorreciclaje S.A.	33.33	8,166	-	1,155	-	16	9,337
Gestion de Participes de Biorreciclaje	33.33	-	-	-	-	-	-
Cheongju Hi Tech Valley	20.00	208	-	(166)	-	-	42
BKT Co., Ltd.	29.00	14,173	-	(713)	2	-	13,462
PT. CORE RESOURCE	49.00	-	-	-	-	-	-
Zero Tech Co., Ltd. <sup>1</sup>	19.00	-	-	-	-	-	-
Cheonan Techno Park Inc.	20.00	164	-	(164)	-	-	-
Camp Stanton Co., Ltd. <sup>1</sup>	0.58	2	-	-	-	1	3
ORIGIN LATPHRAO CO., LTD.	49.00	6,525	1,209	(387)	-	(139)	7,208
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED	49.00	10,286	14,692	1,189	(106)	776	26,837
Jincheon smart bokhap Industrial danji development Inc	20.00	-	-	99	-	-	99
PARK PILLAR R4 CO., LTD.	49.00	9,073	-	(213)	-	(191)	8,669
GYEONGGIPYEON GTAEK GLOBAL CO., LTD.	25.00	1,291	2,695	466	-	(17)	4,435

**GS Engineering & Construction Corporation and Subsidiaries**  
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(in millions of  
Korean won)

	Equity ownership (%)	2021					
		Beginning	Increase (decrease)	Share of profit or loss	Share of other comprehensive income	Others	Ending
GS Collective Fund I LLC <sup>1</sup>	6.45	977	2,315	(212)	-	136	3,216
CHEMICO ADVANCED MATERIALS CO., LTD. <sup>1,2</sup>	14.54	-	-	-	-	-	-
EPOCH PFV Co., LTD.	22.98	7,611	3,144	(528)	-	-	10,227
Jerotaekmuan Co., LTD.	30.00	-	-	-	-	-	-
Bucheon Visual Culture Industrial Complex Development Co., Ltd. <sup>3</sup>	26.53	-	1,500	(1,492)	-	(8)	-
PHU MY VINH CONSTRUCTION & INVESTMENT CORPORATION <sup>3</sup>	30.00	-	15,262	238	-	899	16,399
GS Inima Fisia (Barka) LLC <sup>3</sup>	50.00	-	-	(216)	-	216	-
Fisia GS Inima (Al Ghubrah) LLC <sup>3</sup>	50.00	-	-	83	-	(1)	82
		<u>₩ 61,492</u>	<u>₩ 40,817</u>	<u>₩ 7,363</u>	<u>₩ (104)</u>	<u>₩ 1,348</u>	<u>₩ 110,916</u>

<sup>1</sup> The corporation has categorized as associates due to the Group has significant influence with the seniority right of directors.

<sup>2</sup> 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.

<sup>3</sup> Newly acquired for the year ended December 31, 2021.

**GS Engineering & Construction Corporation and Subsidiaries**  
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(2) Changes in investments in joint ventures for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)	2022					
	Equity ownership (%)	Beginning	Increase	Share of profit or loss	Others	Ending
G&M Estate Co., Ltd.	50.00	₩ 503	₩ -	₩ 1	₩ -	₩ 504
GS Korea for Project Management Company	49.00	20	-	(1)	-	19
Hialeah Water, LLP	50.00	449	-	-	88	537
PT. Daria Mulia Properti <sup>1</sup>	-	22,575	(22,575)	-	-	-
Lignana LLC	50.00	-	-	-	-	-
Lignana LLP <sup>2</sup>	95.00	35,099	10,945	(477)	(408)	45,159
VESPOLINA SP. Z O.O. <sup>3</sup>	50.00	-	2	(2)	-	-
Oasis Residences Real Estate, LLC <sup>2,3</sup>	50.00	-	8,988	(70)	1	8,919
GS MINH HUNG SIKICO CO., LTD.	51.00	3,429	-	(15)	105	3,519
PDC INDUSTRIAL CENTER 198 SP. Z O.O. <sup>3</sup>	50.00	-	5	172	(1)	176
Regionerate Rail Pty Ltd <sup>3</sup>	20.00	-	-	-	-	-
MAGNA PFV Corp. <sup>3</sup>	51.39	-	37,000	(248)	-	36,752
		₩ 62,075	₩ 34,365	₩ (640)	₩ (215)	₩ 95,585

<sup>1</sup> Disposed of for the year ended December 31, 2022.

<sup>2</sup> Increase resulting in participation of additional share issuance.

<sup>3</sup> Newly acquired for the year ended December 31, 2022.

(in millions of Korean won)	2021					
	Equity ownership (%)	Beginning	Increase	Share of profit or loss	Others	Ending
G&M Estate Co., Ltd.	50.00	₩ 502	₩ -	₩ 1	₩ -	₩ 503
GS Korea for Project Management Company	49.00	18	-	-	2	20
Hialeah Water, LLP	50.00	423	-	-	26	449

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PT. Daria Mulia						
Properti	50.00	20,933	-	98	1,544	22,575
Lignana LLC	50.00	-	-	-	-	-
Lignana LLP <sup>1</sup>	95.00	17,522	19,798	(2,233)	12	35,099
GS MINH HUNG SIKICO CO., LTD. <sup>1</sup>	50.79	797	2,426	(105)	311	3,429
		<u>₩ 40,195</u>	<u>₩ 22,224</u>	<u>₩ (2,239)</u>	<u>₩ 1,895</u>	<u>₩ 62,075</u>

<sup>1</sup> Newly acquired for the year ended December 31, 2021.

(3) As of December 31, 2022 and 2021, 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.

	<b>2022</b>
	<b>Percentage of ownership (%)</b>
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
WONJU GREEN CORP.	24.46
Daejeongreen	27.20
Gangnam Metro Co., Ltd.	39.00
Shariket Tahlya Miyah Mostaganem, Spa	25.50
Urban Gateway Fund I Limited	41.03
	<b>2021</b>
	<b>Percentage of ownership (%)</b>
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
WONJU GREEN CORP.	24.46
Daejeongreen	27.20
Busan East-West highway Corp.	21.31
Gangnam Metro Co., Ltd.	39.00
Shariket Tahlya Miyah Mostaganem, Spa	25.50

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(4) Equity method of accounting has been suspended due to accumulated losses, and unrecognized losses in equity for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)

	<b>2022</b>		
	<b>Beginning</b>	<b>Increase</b>	<b>Ending</b>
Major Development Co., Ltd.	₩ 8,329	₩ 62	₩ 8,391
GS KOCREF New Stay REIT Co., Ltd.	42,453	8,546	50,999
Beopwon Industry Urban Development Corp.	2,260	(417)	1,843
SoBaek Co., Ltd.	13,000	5,901	18,901
Yeouido MBC Site MXD PFV. Inc.	4,713	7,936	12,649
Gestion de Participes de Biorreciclaje	11	-	11
Zero Tech Co., Ltd.	81	8	89
PT. CORE RESOURCE	467	(467)	-
Lignana LLC	20	14	34
Jerotaekmuan Co., LTD.	23	20	43
Cheonan Techno Park Inc.	44	8,606	8,650
Bucheon Visual Culture Industrial Complex Development Co. Ltd.	1,855	3,548	5,403
VESPOLINA SP. Z O.O.	-	263	263
CHEONGJU HI TECH VALLEY CO.,LTD.	-	1,763	1,763
HyangSan 2 Urban Development Corp. <sup>1</sup>	2	(2)	-
	₩ 73,258	₩ 35,781	₩ 109,039

<sup>1</sup> Disposed of for the year ended December 31, 2022.

**GS Engineering & Construction Corporation and Subsidiaries**  
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*(in millions of Korean won)*

	2021		
	Beginning	Increase	Ending
Major Development Co., Ltd.	₩ 8,541	₩ (212)	₩ 8,329
GS KOCREF New Stay REIT Co., Ltd.	33,262	9,191	42,453
Beopwon Industry Urban Development Corp.	1,268	992	2,260
HyangSan 2 Urban Development Corp.	1	1	2
SoBaek Co., Ltd.	9,109	3,891	13,000
Yeouido MBC Site MXD PFV. Inc.	2,982	1,731	4,713
Gestion de Participes de Biorreciclaje	11	-	11
Zero Tech Co., Ltd.	67	14	81
PT. CORE RESOURCE	140	327	467
Lignana LLC	9	11	20
Jincheon smart bokhap Industrial danji development Inc.	34	(34)	-
Jerotaekmuan Co., LTD.	3	20	23
Cheonan Techno Park Inc.	-	44	44
Bucheon Visual Culture Industrial Complex Development Co. Ltd.	-	1,855	1,855
	₩ 55,427	₩ 17,831	₩ 73,258

**GS Engineering & Construction Corporation and Subsidiaries**  
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(5) A summary of financial information on associates and joint ventures is as follows:

(in millions of Korean won)	2022									
	Asset		Liabilities		Net assets		Sales		Profit (loss) for the year	
Associates										
Major Development Co., Ltd.	₩	27	₩	22,690	₩	(22,663)	₩	-	₩	(137)
GS KOCREF New Stay REIT Co., Ltd.		345,165		322,835		22,330		3,017		(8,027)
Beopwon Industry Urban Development Corp.		80,717		86,588		(5,871)		10,815		735
SoBaek Co., Ltd.		274,736		337,746		(63,010)		-		(19,671)
Yeouido MBC Site MXD PFV. Inc.		837,329		891,236		(53,907)		170,538		(36,563)
Gwacheon Sangsang PFV. Inc		149,661		66,730		82,931		218,174		75,931
FGS East Asia Technical Resource Management, Inc.		886		739		147		426		34
Cadiz San Fernando, A.I.E.		10		4		6		6		2
Participes de Biorreciclaje S.A.		98		73		25		28		2
Gestion de Participes de Biorreciclaje		7		3		4		-		-
Cheongju Hi Tech Valley		127,857		137,212		(9,355)		-		(8,993)
BKT Co., Ltd.		33,532		23,467		10,065		20,869		(6,112)
PT. CORE RESOURCE		20,542		19,503		1,039		17,980		2,727
Zero Tech Co., Ltd.		41		507		(466)		-		(38)
Cheonan Techno Park Inc.		212,952		256,642		(43,690)		95,922		(44,557)
Camp Stanton Co., Ltd.		422		4		418		-		(29)
ORIGIN LATPHRAO CO., LTD.		37,146		23,478		13,668		42		(478)
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED		254,437		200,347		54,090		46,645		16,671
Jincheon smart bokhap Industrial danji development Inc.		2,795		1,819		976		-		(2)
PARK PILLAR R4 CO., LTD.		32,769		24,769		8,000		130		(265)
GYEONGGIPYEONGT		41,449		19,777		21,672		37,520		4,300



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(in millions of Korean won)	2022				
	Asset	Liabilities	Net assets	Sales	Profit (loss) for the year
AEK GLOBAL CO., LTD.					
GS Collective Fund I LLC.	98,435	1,011	97,424	-	(5,053)
CHEMICO ADVANCED MATERIALS CO., LTD.	7,146	31	7,115	18	(812)
EPOCH PFV Co., LTD.	144,203	93,826	50,377	-	(1,032)
Jerotaekmuan Co., LTD	1,462	1,606	(144)	-	(69)
Bucheon Visual Culture Industrial Complex Development Co., Ltd.	33,753	50,585	(16,832)	-	(12,726)
Fisia GS Inima (Al Ghubrah) LLC	6	6	-	1	-
PHU MY VINH CONSTRUCTION & INVESTMENT CORPORATION	64	43	21	9	2
Gvesco Opportunity- seeking general private real estate investment trust No.1	4,246	2	4,244	1	(26)
Incheon New Port Smart Complex Co., Ltd	4	-	4	-	(1)
<b>Joint ventures</b>					
G&M Estate Co., Ltd.	1,153	145	1,008	1,213	2
GS Korea for Project Management Company	148	108	40	60	(1)
Hialeah Water, LLP	1	-	1	-	-
Lignana LLC	34	105	(71)	-	(29)
Lignana LLP	153,110	105,574	47,536	7,576	(2,401)
VESPOLINA SP. Z O.O.	24,149	24,679	(530)	-	(534)
Oasis Residences Real Estate, LLC	18,320	482	17,838	-	(141)
GS MINH HUNG SIKICO CO., LTD.	6,931	5	6,926	-	(30)
PDC INDUSTRIAL CENTER 198 SP. Z O.O	29,523	29,355	168	-	172
Regionerate Rail Pty	7,157	7,157	-	30,180	-

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(in millions of  
Korean won)

**2022**

	<b>Asset</b>	<b>Liabilities</b>	<b>Net assets</b>	<b>Sales</b>	<b>Profit (loss) for the year</b>
Ltd					
MAGNA PFV Corp.	71,963	444	71,519	-	(482)

(in millions of  
Korean won)

**2021**

	<b>Asset</b>	<b>Liabilities</b>	<b>Net assets</b>	<b>Sales</b>	<b>Profit (loss) for the year</b>
<b>Associates</b>					
Major Development Co., Ltd.	₩ 578	₩ 23,104	₩ (22,526)	₩ -	₩ (164)
GS KOCREF New Stay REIT Co., Ltd.	354,177	323,783	30,394	2,214	(8,786)
Beopwon Industry Urban Development Corp.	87,365	93,970	(6,605)	24,481	(177)
HyangSan 2 Urban Development Corp.	408	412	(4)	-	(1)
SoBaek Co., Ltd.	242,116	285,455	(43,339)	-	(12,974)
Yeouido MBC Site MXD PFV. Inc.	669,227	684,258	(15,031)	145,140	(17,329)
Gwacheon Sangsang PFV. Inc	138,327	90,495	47,832	120,988	44,536
FGS East Asia Technical Resource Management, Inc.	857	731	126	380	(2)
Cadiz San Fernando, A.I.E.	12,062	6,047	6,015	5,764	2,014
Participes de Biorreciclaje S.A.	7,410	3,472	3,938	-	-
Gestion de Participes de Biorreciclaje	94	375	(281)	-	-
Cheongju Hi Tech Valley	3,443	3,773	(330)	-	(828)
BKT Co., Ltd.	33,626	18,705	14,921	17,037	(1,160)
PT. CORE RESOURCE	10,374	10,977	(603)	5,262	(1,684)
Zero Tech Co., Ltd.	44	472	(428)	-	(77)
Cheonan Techno Park Inc.	20,025	20,686	(661)	-	(1,039)
Camp Stanton Co., Ltd.	447	-	447	-	-
ORIGIN LATPHRAO CO., LTD.	25,628	16,496	9,132	4	(728)
RENEW SOLAR	239,800	204,176	35,624	11,203	2,427

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(in millions of Korean won)	2021				
	Asset	Liabilities	Net assets	Sales	Profit (loss) for the year
ENERGY (JHARKHAND THREE) PRIVATE LIMITED					
Jincheon smart bokhap Industrial danji development Inc.	1,874	1,386	488	-	(11)
PARK PILLAR R4 CO., LTD.	28,161	20,157	8,004	-	(434)
GYEONGGIPYEONGT AEK GLOBAL CO., LTD.	28,298	10,557	17,741	20,900	1,873
GS Collective Fund I LLC.	50,769	935	49,834	-	(3,289)
CHEMICO ADVANCED MATERIALS CO., LTD.	2,796	331	2,465	15	(428)
EPOCH PFV Co., LTD.	73,664	30,041	43,623	-	(2,260)
Jerotaekmuan Co., LTD	1,464	1,540	(76)	-	(67)
Bucheon Visual Culture Industrial Complex Development Co., Ltd.	32,250	37,863	(5,613)	-	(10,588)
PHU MY VINH CONSTRUCTION & INVESTMENT CORPORATION	53,976	33,477	20,499	7,180	1,605
GS Inima Fisia (Barka) LLC	3,469	3,975	(506)	4,806	(432)
Fisia GS Inima (Al Ghubrah) LLC	4,137	4,205	(68)	4,679	165
<b>Joint ventures</b>					
G&M Estate Co., Ltd.	1,175	169	1,006	838	3
GS Korea for Project Management Company	138	99	39	123	-
Hialeah Water, LLP	1,161	157	1,004	-	-
PT. Daria Mulia Properti	31,722	3	31,719	-	191
Lignana LLC	14	56	(42)	-	(22)
Lignana LLP	63,706	26,760	36,946	995	(2,309)
GS MINH HUNG SIKICO CO., LTD.	6,768	21	6,747	-	(207)

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**13. Property, Plant and Equipment**

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

(in millions of Korean won)	2022				2021									
	Acquisition cost		Accumulated depreciation		Accumulated impairment		Net book value		Acquisition cost		Accumulated depreciation		Net book value	
Land	₩	880,074	₩	-	₩	-	₩	880,074	₩	791,418	₩	-	₩	791,418
Buildings		714,318		(188,862)		(744)		524,712		649,267		(167,093)		482,174
Structures		162,123		(61,537)		-		100,586		160,395		(56,556)		103,839
Machinery		110,772		(57,630)		(1,581)		51,561		95,810		(50,044)		45,766
Construction equipment		41,891		(31,067)		-		10,824		39,596		(27,338)		12,258
Vehicles		29,566		(21,140)		(96)		8,330		29,174		(21,552)		7,622
Tools		98,828		(50,368)		-		48,460		42,047		(21,937)		20,110
Equipment		124,213		(107,750)		(44)		16,419		123,011		(107,892)		15,119
Construction-in-progress		178,840		-		-		178,840		65,071		-		65,071
	₩	2,340,625	₩	(518,354)	₩	(2,465)	₩	1,819,806	₩	1,995,789	₩	(452,412)	₩	1,543,377

(2) Changes in property, plant and equipment for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)	2022							
	Beginning	Acquisition	Disposal	Depreciation	Transfer and others <sup>1</sup>	Change in consolidation	Exchange differences	Ending
Land	₩ 791,418	₩ 76,024	₩ (120)	₩ -	₩ (1,658)	₩ -	₩ 14,410	₩ 880,074
Buildings	482,174	13,713	-	(18,120)	25,302	-	21,643	524,712
Structures	103,839	1,780	(15)	(5,483)	4,608	-	(4,143)	100,586
Machinery	45,766	13,766	(8)	(7,602)	(1,389)	23	1,005	51,561
Construction equipment	12,258	3,868	(1,685)	(4,457)	-	-	840	10,824
Vehicles	7,622	3,140	(244)	(2,291)	87	-	16	8,330
Tools	20,110	32,892	(96)	(29,283)	23,924	114	799	48,460
Equipment	15,119	5,612	(356)	(5,478)	758	702	62	16,419
Construction-in-progress	65,071	150,794	-	-	(37,152)	-	127	178,840
	<u>₩ 1,543,377</u>	<u>₩ 301,589</u>	<u>₩ (2,524)</u>	<u>₩ (72,714)</u>	<u>₩ 14,480</u>	<u>₩ 839</u>	<u>₩ 34,759</u>	<u>₩ 1,819,806</u>

<sup>1</sup> Elements (Europe) Limited among new foreign business of the Group has been tested for impairment due to the accumulation of operating losses and expected decline in sales in the future, accordingly, impairment loss of ₩ 2,570 million was recognized. This impairment loss was allocated to property, plant and equipment in excess of the goodwill allocated to the cash-generating units of ₩ 345 million. The recoverable amount of the cash-generating unit is calculated on a basis of the

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value in use and impairment losses are recognized as profit and loss for the year. The discount rate for calculation of value in use is 16.6%.

(in millions of Korean won)	2021									
	Beginning	Acquisition	Disposal	Depreciation	Transfer	Change in consolidation	Exchange differences	Ending		
Land	₩ 764,292	₩ 4,453	₩ (116)	₩ -	₩ 4,029	₩ (155)	₩ 18,915	₩ 791,418		
Buildings	442,951	14,287	(1,353)	(17,568)	32,349	-	11,508	482,174		
Structures	95,908	10,538	(40)	(5,474)	442	-	2,465	103,839		
Machinery	25,412	13,850	(41)	(6,419)	14,369	-	(1,405)	45,766		
Construction equipment	13,931	1,502	(1,044)	(3,189)	-	-	1,058	12,258		
Vehicles	5,923	3,244	(31)	(1,924)	315	-	95	7,622		
Tools	13,194	9,038	(411)	(5,597)	3,587	-	299	20,110		
Equipment	17,148	4,342	(1,373)	(5,189)	27	-	164	15,119		
Construction-in-progress	48,015	74,160	-	-	(53,695)	(6,444)	3,035	65,071		
	₩ 1,426,774	₩ 135,414	₩ (4,409)	₩ (45,360)	₩ 1,423	₩ (6,599)	₩ 36,134	₩ 1,543,377		

(3) Details of allocation of depreciation for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)	2022	2021
Cost of sales	₩ 64,758	₩ 37,294
Selling and administrative expenses (including technology development costs)	7,956	8,066
	₩ 72,714	₩ 45,360

(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, 2022 and 2021, is as follows:

(in millions of Korean won)	2022				
	Carrying amount	Secured amount	Related account	Related amount	Secured party
Lang	₩ 224,025				Bank Pekao S.A. and others
Buildings	191,670	₩ 399,708	Borrowings	₩ 139,240	
Others	10,000				

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(in millions of Korean won)	2021					Secured party
	Carrying amount	Secured amount	Related account	Related amount		
Lang	₩ 150,974					Bank Pekao S.A. and others
Buildings	187,429	₩ 322,789	Borrowings	₩ 180,418		
Others	10,867					

**14. Intangible Assets**

(1) Intangible assets as of December 31, 2022 and 2021, consist of:

(in millions of Korean won)	2022				2021			
	Acquisition cost	Accumulated amortization	Accumulated impairment	Net book value	Acquisition cost	Accumulated amortization	Accumulated impairment	Net book value
Goodwill	₩ 522,484	₩ -	₩ (19,607)	₩ 502,877	₩ 338,232	₩ -	₩ (11,567)	₩ 326,665
Memberships	41,663	-	(2,931)	38,732	48,570	-	(2,931)	45,639
Computer software	63,115	(39,077)	-	24,038	24,855	(13,736)	-	11,119
Concession assets	294,429	(66,402)	-	228,027	255,215	(52,596)	-	202,619
Technical rights	39,215	(39,215)	-	-	38,958	(37,659)	-	1,299
Trademark	77,920	-	-	77,920	78,840	-	-	78,840
Others	55,513	(36,307)	(2,466)	16,740	19,218	(5,008)	-	14,210
	₩ 1,094,339	₩ (181,001)	₩ (25,004)	₩ 888,334	₩ 803,888	₩ (108,999)	₩ (14,498)	₩ 680,391

(2) Changes in intangible assets for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)	2022				
	Beginning	Acquisition	Disposal	Amortization	Impairment <sup>1</sup>
Goodwill	₩ 326,665	₩ -	₩ -	₩ -	₩ (8,040)
Memberships	45,639	646	(8,500)	-	-
Computer software	11,119	6,028	(589)	(7,068)	-
Concession assets	202,619	16,105	-	(13,596)	-
Technical rights	1,299	-	-	(1,314)	-
Trademark	78,840	-	-	-	-
Others	14,210	8,411	-	(33,735)	(2,466)
	₩ 680,391	₩ 31,190	₩ (9,089)	₩ (55,713)	₩ (10,506)

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(in millions of Korean won)	2022			
	Transfer	Change in consolidation	Exchange differences	Ending
Goodwill	₩ (483)	₩ 181,247	₩ 3,488	₩ 502,877
Memberships	-	924	23	38,732
Computer software	2,605	11,840	103	24,038
Concession assets	-	-	22,899	228,027
Technical rights	-	-	15	-
Trademark	-	-	(920)	77,920
Others	(1,620)	31,973	(33)	16,740
	₩ 502	₩ 225,984	₩ 25,575	₩ 888,334

<sup>1</sup> The entire amount was recognized in profit or loss of new business for the year ended December 31, 2022.

(in millions of Korean won)	2021				
	Beginning	Acquisition	Disposal	Amortization	Impairment
Goodwill	₩ 346,789	₩ -	₩ -	₩ -	₩ (11,567)
Memberships	45,982	456	(872)	-	-
Computer software	8,100	5,696	(1)	(3,264)	-
Concession assets	236,893	10,969	-	(12,396)	-
Technical rights	5,179	-	-	(3,926)	-
Trademark	78,816	-	-	-	-
Others	22,546	4,364	(775)	(12,779)	-
	₩ 744,305	₩ 21,485	₩ (1,648)	₩ (32,365)	₩ (11,567)

(in millions of Korean won)	2021			
	Transfer	Change in consolidation	Exchange differences	Ending
Goodwill	₩ (11,159)	₩ (71)	₩ 2,673	₩ 326,665
Memberships	-	-	73	45,639
Computer software	554	-	34	11,119
Concession assets	(36,650)	-	3,803	202,619
Technical rights	-	-	46	1,299
Trademark	-	-	24	78,840
Others	522	-	332	14,210
	₩ (46,733)	₩ (71)	₩ 6,985	₩ 680,391

# GS Engineering & Construction Corporation and Subsidiaries

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(3) Details of allocation of amortization for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>		<b>2021</b>	
Cost of sales	₩	16,147	₩	13,824
Selling and administrative expenses (including technology development costs)		39,566		18,541
	₩	55,713	₩	32,365

(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:

<i>(in millions of Korean won)</i>	<b>2022</b>				
	<b>Beginning</b>	<b>Increase</b>	<b>Impairment</b>	<b>Other adjustments</b>	<b>Ending</b>
Architectural construction	₩ 853	₩ 181,247	₩ -	₩ -	₩ 182,100
New business	325,751	-	(8,040)	3,005	320,716
Plant construction	5	-	-	-	5
Infra works	-	-	-	-	-
Others	56	-	-	-	56
	₩ 326,665	₩ 181,247	₩ (8,040)	₩ 3,005	₩ 502,877

<i>(in millions of Korean won)</i>	<b>2021</b>				
	<b>Beginning</b>	<b>Increase</b>	<b>Impairment</b>	<b>Other adjustments</b>	<b>Ending</b>
Architectural construction	₩ 1,132	₩ -	₩ (279)	₩ -	₩ 853
New business	345,525	(11,159)	(11,288)	2,673	325,751
Plant construction	5	-	-	-	5
Infra works	71	(71)	-	-	-
Others	56	-	-	-	56
	₩ 346,789	₩ (11,230)	₩ (11,567)	₩ 2,673	₩ 326,665

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 years business budgets and plans approved by the management. Cash flows after 5 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.



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<i>(in millions of Korean won)</i>	<b>2022</b>				
	<b>Sales growth rate</b>	<b>Operating profit rate</b>	<b>Discount rate</b>	<b>Perpetual growth rate</b>	<b>Recoverable amount<sup>1</sup></b>
GS Inima Environment					
S.A.U.	10.3%	18.7%~29.9%	11.4%	1.00%	N/A
Danwood S.A.	9.0%	5.9%~7.3%	13.0%	1.00%	262,415
Elements (Europe) Limited	29.0%	(-)4.1%~(-)2.3%	16.6%	1.00%	-
CDCF III Fortbay MV, LLC	-	36.2%~93.2%	13.8%	0.00%	N/A
Xi S&D Inc (PM business)	3.6%	0.1%~4.9%	13.1%	0.00%	N/A
XI C&A CO., LTD.	(-)5.5%	4.6%~5.7%	9.7%	1.00%	N/A

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

<i>(in millions of Korean won)</i>	<b>2021</b>				
	<b>Sales growth rate</b>	<b>Operating profit rate</b>	<b>Discount rate</b>	<b>Perpetual growth rate</b>	<b>Recoverable amount<sup>1</sup></b>
GS Inima Environment					
S.A.U.	13.3%	14.7%~21.5%	10.5%	1.00%	N/A
Danwood S.A.	11.9%	3.8%~8.0%	13.0%	1.00%	N/A
Elements (Europe) Limited	52.3%	(-)0.8%~3.0%	15.6%	1.00%	8,751
CDCF III Fortbay MV, LLC	-	18.6%~68.2%	16.4%	0.00%	N/A
Xi S&D Inc (PM business)	(-)3.3%	0.8%~5.6%	11.9%	0.00%	4,426

<sup>1</sup> 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 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.

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 additional impairment against goodwill of ₩ 21,024 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 had to recognize an additional impairment against goodwill of ₩ 16,199 million.

(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 (2021: USD 3,700,000).

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(6) As at December 31, 2022, 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.

**15. Investment Properties**

(1) Details of investment properties as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won)	2022				2021			
	Acquisition cost	Accumulated depreciation	Accumulated impairment	Net book value	Acquisition cost	Accumulated depreciation	Accumulated impairment	Net book value
Land	₩ 659,542	₩ -	₩ (10,354)	₩ 649,188	₩ 744,412	₩ -	₩ (13,643)	₩ 730,769
Buildings	215,890	(34,086)	(21,359)	160,445	304,194	(41,825)	(24,084)	238,285
Right-of-use assets	210,087	(84,263)	(9,082)	116,742	200,013	(60,345)	(11,782)	127,886
	<u>₩ 1,085,519</u>	<u>₩ (118,349)</u>	<u>₩ (40,795)</u>	<u>₩ 926,375</u>	<u>₩ 1,248,619</u>	<u>₩ (102,170)</u>	<u>₩ (49,509)</u>	<u>₩ 1,096,940</u>

Fair values of investment properties approximate their book values as of December 31, 2022 and 2021.

(2) Changes in investment properties for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)	2022					
	Beginning	Acquisition	Depreciation	Impairment <sup>1</sup>	Transfer	Ending
Land	₩ 730,769	₩ 5,715	₩ -	₩ -	₩ (87,296)	₩ 649,188
Buildings	238,285	1,894	(5,448)	-	(74,286)	160,445
Right-of-use assets	127,886	-	(15,799)	2,700	1,955	116,742
	<u>₩ 1,096,940</u>	<u>₩ 7,609</u>	<u>₩ (21,247)</u>	<u>₩ 2,700</u>	<u>₩ (159,627)</u>	<u>₩ 926,375</u>

<sup>1</sup> The entire amount was recognized in profit or loss of architectural & housing construction for the year ended December 31, 2022.

(in millions of Korean won)	2021						
	Beginning	Acquisition	Disposal	Depreciation	Impairment <sup>1</sup>	Transfer	Ending
Land	₩ 728,876	₩ 2,121	₩ (32)	₩ -	₩ -	₩ (196)	₩ 730,769
Buildings	241,605	4,986	-	(8,153)	-	(153)	238,285
Right-of-use assets	51,391	-	-	(7,945)	(5,775)	90,215	127,886
	<u>₩ 1,021,872</u>	<u>₩ 7,107</u>	<u>₩ (32)</u>	<u>₩ (16,098)</u>	<u>₩ (5,775)</u>	<u>₩ 89,866</u>	<u>₩ 1,096,940</u>

<sup>1</sup> The entire amount was recognized in profit or loss of architectural & housing construction for the

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year ended December 31, 2021.

(3) Gain and loss on investment properties recognized in profit or loss for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>		<b>2021</b>	
Lease income	₩	38,815	₩	28,425
Operating expenses		29,468		27,932
	₩	<u>9,347</u>	₩	<u>493</u>

(4) Collateral pledged to financial institutions for borrowings as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>		<b>2022</b>			
	<b>Carrying amount</b>	<b>Secured amount<sup>1</sup></b>	<b>Related account</b>	<b>Related amount</b>	<b>Secured party</b>
Land	₩ 435,001	₩ 302,220	Leasehold deposits	₩ 2,337	NongHyup Bank and others
Buildings	3,050				

<sup>1</sup> As at December 31, 2022, the land of ₩ 300,000 million was provided as collateral in relation to the Group's loan agreement (limit: ₩ 250,000 million), and there are no related borrowings.

<i>(in millions of Korean won)</i>		<b>2021</b>			
	<b>Carrying amount</b>	<b>Secured amount</b>	<b>Related account</b>	<b>Related amount</b>	<b>Secured party</b>
Land	₩ 2,307	₩ 3,139	Leasehold deposits	₩ 3,191	AIA Life Insurance Co. Ltd. and others
Buildings	3,188				

(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, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>		<b>2021</b>	
Within one year	₩	26,516	₩	35,653
Between 1 and 2 years		14,145		32,798
Between 2 and 3 years		8,251		19,326
Between 3 and 4 years		4,769		13,521
Between 4 and 5 years		1,875		9,837
	₩	<u>55,556</u>	₩	<u>111,135</u>

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The minimum lease payments incurred from sublease are included.

#### 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>	<b>2022</b>	<b>2021</b>
Right-of-use assets		
Land <sup>1</sup>	₩ 2,824	₩ 3,363
Buildings <sup>1,2</sup>	285,816	330,519
Machinery	2,397	296
Construction equipment <sup>1</sup>	31,108	14,682
Vehicles	5,061	4,094
Equipment	423	715
Sublease	(35,906)	(57,944)
	<u>₩ 291,723</u>	<u>₩ 295,725</u>
Lease liabilities		
Current	₩ 111,123	₩ 96,613
Non-current	371,677	420,875
	<u>₩ 482,800</u>	<u>₩ 517,488</u>

<sup>1</sup> Additions to the right-of-use assets during the 2022 financial year were ₩ 67,847 million.

<sup>2</sup> ₩ 1,956 million was reclassified to investment properties for the year ended December 31, 2022.

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

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Depreciation of right-of-use assets		
Land	₩ 1,806	₩ 1,186
Buildings	37,095	40,340
Machinery	371	551
Construction equipment	23,515	15,166
Vehicles	1,376	2,380
Equipment	447	404
	<u>₩ 64,610</u>	<u>₩ 60,027</u>
Interest expense relating to lease liabilities	₩ 19,348	₩ 21,237
Expense relating to short-term leases	84,689	79,728
Expense relating to leases of low-value assets that are not short-term leases	5,445	10,103
Expense relating to variable lease payments not included in lease liabilities	15,726	11,515
Interest income from sublease	1,930	2,553

The total cash outflow for leases in 2022 was ₩ 231,297 million (2021: ₩ 208,231 million).

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(3) Details of finance lease receivables as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Finance lease receivables		
Current	₩ 20,529	₩ 23,129
Non-current	14,214	35,230
	<u>₩ 34,743</u>	<u>₩ 58,359</u>
 <i>(in millions of Korean won)</i>	 <b>2022</b>	 <b>2021</b>
Lease payments		
Within one year	₩ 20,923	₩ 23,508
Between 1 and 2 years	8,142	23,075
Between 2 and 3 years	1,837	8,090
Between 3 and 4 years	1,806	1,837
Between 4 and 5 years	1,803	1,806
Over 5 years	1,837	3,640
	<u>36,348</u>	<u>61,956</u>
Non-guaranteed residual values	-	-
Gross investment in the lease	<u>36,348</u>	<u>61,956</u>
Less: unrealized interest income	(1,605)	(3,597)
Less: loss allowance for lease receivables	-	-
Net investment in the lease	<u>₩ 34,743</u>	<u>₩ 58,359</u>

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**17. Trade and Other Payables, Other Liabilities**

(1) Trade and other payables as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Trade payables	₩ 1,682,406	₩ 1,226,805
Other payables	191,709	429,274
	<u>₩ 1,874,115</u>	<u>₩ 1,656,079</u>

(2) Details of other current liabilities as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Advance from customers	₩ 75,569	₩ 50,389
Withholdings	282,789	230,725
Deposits received	150	126
Accrued expenses	494,766	486,470
Dividends payable	15	11
Unearned revenue	1,074	1,407
Value added tax withheld	47,138	43,872
Membership guarantee deposits	180,296	176,165
	<u>₩ 1,081,797</u>	<u>₩ 989,165</u>

(3) Details of other non-current liabilities as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Long-term deposits received	₩ 54,337	₩ 34,063
Membership guarantee deposits	31,117	34,351
Long-term accrued revenue	4	4
	<u>₩ 85,458</u>	<u>₩ 68,418</u>

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**18. Financial Liabilities**

(1) Details of short-term financial liabilities as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Short-term borrowings	₩ 879,143	₩ 269,308
Current portion of long-term debts	1,273,154	701,247
Discount on debentures	(684)	(144)
Current lease liabilities	111,123	96,613
Derivative liabilities	1,729	5,362
Financial guarantee liabilities	6,662	4,970
Current portion of leasehold deposits received	68,312	140,700
	<u>₩ 2,339,439</u>	<u>₩ 1,218,056</u>

(2) Details of long-term financial liabilities as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Long-term borrowings	₩ 1,847,894	₩ 1,722,107
Debentures	386,708	674,372
Discount on debentures	(622)	(1,842)
Non-current lease liabilities	371,677	420,875
Derivative liabilities	831	3,310
Financial guarantee liabilities	80,453	85,752
Leasehold deposits received	48,399	47,380
	<u>₩ 2,735,340</u>	<u>₩ 2,951,954</u>



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

<i>(in millions of Korean won)</i>	<b>Creditor</b>	<b>Maturity</b>	<b>Annual interest rate (%)</b>	<b>2022</b>	<b>2021</b>
Usance	Kookmin	-	-	₩ -	₩ 1,025
	Woori	-	-	-	199
	KEB Hana	-	-	-	11,902
	Bank of China	-	-	-	8
General borrowings in Korean won	Bank of Communications	2023-02-10	3M CD + 0.70	30,000	-
	United Overseas Bank	2023-04-11	3M CD + 1.60	35,000	-
	Daegu Bank	2023-10-28	Financial bonds 1M + 2.12	30,000	-
	Korea Construction Financial Corp.	2023-11-01	1.10	20,000	-
General borrowings in foreign currency	Woori	-	-	-	2,073
	Industrial & Commercial Bank of China	2023-01-10	3M Libor + 1.70	25,346	-
	Industrial & Commercial Bank of China	2023-02-10	2.20	38,019	-
	NongHyup Bank	2023-01-02	3M SOFR + 1.94	5,069	-
	NongHyup Bank	2023-01-03	3M SOFR + 1.94	3,295	-
	NongHyup Bank	2023-01-05	3M SOFR + 1.94	2,408	-
	NongHyup Bank	2023-02-10	3M SOFR + 1.94	27,247	-
	HSBC	2023-11-18	1M Libor + 1.70	126,730	110,844
	KEB Hana	-	-	-	6,728
	KEB Hana	2023-06-30	3M SOFR + 1.60	32,950	-
	KEB Hana	2023-06-30	3M SOFR + 1.60	16,475	-
	Bank of China	2023-02-17	2.20	76,038	-
	United Overseas Bank	2023-02-24	3M Sibor + 2.00	7,544	5,263
	United Overseas Bank	2023-03-23	6M Libor + 1.30	37,575	-
	Korea Exim	-	-	-	35,565
	Korea Exim	2023-06-16	3M SOFR + 1.74	63,365	-
Subsidiaries	KDB <sup>2</sup>	2023-03-03	5.03	200	-
	KDB <sup>2</sup>	2023-03-03	3.32	950	-
	KDB <sup>2</sup>	2023-03-03	5.39	950	-
	KDB <sup>2</sup>	2023-03-03	4.29	900	-
	KDB <sup>3</sup>	2023-11-22	5.40	5,000	5,000
	KEB Hana	2023-03-02	6.09	50,000	-
	KEB Hana	2023-12-08	7.51	25,000	-
	KEB Hana	2023-12-30	7.54	5,000	-
	Shinhan	2023-01-30	5.91	6,100	-
	Shinhan	2023-03-04	5.48	5,000	-
	Kookmin	2023-12-22	6.84	5,000	-
	Woori	2023-01-18	5.40	380	-
	Woori	2023-01-30	5.44	5,800	-
	Woori	2023-01-30	5.48	24,090	-
	BNP Paribas and others	2023-12-31	12M EURibor + 2.00	167,712	73,231

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1,2				and others			
JSC Credit Agricole Bank	-		-	-	17,470		
				₩	879,143	₩	269,308

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

<sup>2</sup> Interests held by the subsidiaries are pledged as collateral.

<sup>3</sup> Assets provided as collateral by subsidiaries are pledged.

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

<i>(in millions of Korean won)</i>	<b>Creditor</b>	<b>Maturity</b>	<b>Annual interest rate (%)</b>	<b>2022</b>	<b>2021</b>
Long-term borrowings in Korean won	Fairy Ilsan Co., Ltd. <sup>1</sup>	-	-	₩ -	₩ 11,537
	Korea Exim	2024-09-19	2.15	37,500	37,500
	HSBC	2023-05-10	1.85	100,000	100,000
	HSBC	2024-03-21	3.40	100,000	-
	China Everbright Bank	2024-03-21	3M CD + 1.45	10,000	-
	Kookmin	2024-08-19	3M MOR + 2.12	100,000	-
	KDB	2025-09-15	3M CD + 1.27	100,000	-
	GS HANA 1ST INC.	2024-10-31	3M CD + 2.50	100,000	-
Long-term borrowings in foreign currency	Korea Exim	2023-07-05	6M Libor + 1.75	219,243	205,092
	Korea Exim	2025-05-08	6M Libor + 2.24	43,088	40,307
	Korea Exim	2026-09-19	6M EURibor + 1.53	32,429	32,216
	Korea Exim	2027-03-10	6M EURibor + 1.66	151,334	150,342
	Korea Exim	2026-09-23	6M EURibor + 1.68	124,310	123,495
	Korea Exim	2027-08-24	6M EURibor + 1.76	67,560	67,117
	Korea Exim	2025-01-16	1.81	27,498	28,804
	Korea Exim	2024-08-26	6M EURibor + 1.40	27,024	26,847
	KDB	2025-05-12	3M EURibor + 1.05	39,185	-
	KDB	2025-05-12	3M EURibor + 1.05	6,756	-
	Industrial & Commercial Bank of China	-	-	-	59,275
	Industrial & Commercial Bank of China	2023-05-11	3M Libor + 1.82	38,019	35,565
	China Everbright Bank	2023-07-21	3M Libor + 1.81	25,346	23,710
	Bank of China	-	-	-	71,130
	Arab Bank, S'pore	2024-01-12	SOFR + 1.60	63,365	59,275
	HSBC	2025-03-10	3M EURibor + 1.60	40,536	40,270

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<i>(in millions of Korean won)</i>	<b>Creditor</b>	<b>Maturity</b>	<b>Annual interest rate (%)</b>	<b>2022</b>	<b>2021</b>
	KEB Hana	2023-08-24	3M EURibor + 2.17	28,781	28,592
Subsidiaries	Caixa and others <sup>2,3,4,5</sup>	2041-08-15	TR + 8.50 and others	1,149,714	913,518
				2,631,688	2,054,592
Less: current portion				(783,794)	(332,485)
				<u>₩ 1,847,894</u>	<u>₩ 1,722,107</u>

<sup>1</sup> 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 ₩ 270.9 billion as at December 31, 2021.

<sup>2</sup> Future cash flows from the business are pledged as collateral and beneficiary right is provided with regard to it. (Note 34)

<sup>3</sup> Part of the lots held by the subsidiaries are pledged as collateral (Note 8).

<sup>4</sup> Investments held by the subsidiaries are pledged as collaterals.

<sup>5</sup> Part of the property, plant and equipment held by the subsidiaries is pledged as collaterals (Note 13).

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

<i>(in millions of Korean won)</i>	<b>Creditor</b>	<b>Maturity</b>	<b>Annual interest rate (%)</b>	<b>2022</b>	<b>2021</b>
Bonds in Korean won with fixed interest rate	The 136th unsecured bond (public)	-	-	₩ -	₩ 300,000
	The 137th unsecured bond (public)	2023-06-11	2.70	100,000	100,000
	The 139th unsecured bond (public) <sup>4</sup>	2024-04-16	1.80	200,000	200,000
Bonds in foreign currency	The 133th - secured bond (variable rate)	-	-	-	59,275
	The 134th - unsecured bond (variable rate)	2023-05-04	3M Libor + 1.85	63,365	59,275
	The 138th - unsecured bond (variable rate)	2023-10-21	6M Libor + 1.80	215,441	201,535
	The 140th - secured bond (variable rate) <sup>3</sup>	2025-04-26	SOFR + 0.95	63,365	-
Bonds of subsidiaries in foreign currency	Bond <sup>1</sup>	2030-03-01	TR + 9.00	18,778	18,218
	Bond <sup>1</sup>	2033-08-15	CDI + 2.57	37,190	32,208
	Bond <sup>1</sup>	2029-08-01	TR + 8.75	51,215	50,249
	Bond <sup>1</sup>	2041-05-15	IPCA + 6.69	26,714	22,373
Bonds of subsidiaries in Korean won	The 1st unsecured bond (public) <sup>2</sup>	2023-05-04	2.98	100,000	-
				876,068	1,043,133
Less: current portion				(488,676)	(368,617)

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<i>(in millions of Korean won)</i>	<b>Creditor</b>	<b>Maturity</b>	<b>Annual interest rate (%)</b>	<b>2022</b>	<b>2021</b>
				387,392	674,516
Less: discount on debentures				(1,306)	(1,986)
				<u>₩ 386,086</u>	<u>₩ 672,530</u>

<sup>1</sup> Future cash flows from the Service Concession Arrangements are pledged as collaterals (Note 34).

<sup>2</sup> Public bond issued in 2018 of XI C&A CO., LTD. (formerly, S&I Engineering & Construction Co., Ltd.), which was classified as a subsidiary, during the year ended December 31, 2022.

<sup>3</sup> Secured bonds (variable rate) in foreign currency (private)

The Group issued secured bonds on April 26, 2022. Details of the bonds are as follows:

#### **The 140th secured bond (variable rate) in foreign currency (private)**

Aggregate principal amount of the bonds	USD 50,000,000
Nominal interest rate	SOFR + 0.95%
Fiscal Agent	Kookmin Hong Kong Branch
Guarantor	Kookmin
Guarantee method	SBLC
Repayment date	April 26, 2025
Repayment method	The principal amount of the bonds shall be paid on April 26, 2025 in a lump sum. However, if the repayment date is a holiday for banks, it shall be repaid on the prior business day.

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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, 2022 is ₩ 3,775 million (2021: ₩ 3,706 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>	<b>2022</b>	<b>2021</b>
Present value of defined benefit obligations <sup>1</sup>	₩ 446,025	₩ 440,734
Fair value of plan assets	(538,628)	(477,176)
Net defined benefit liabilities	<u>₩ (92,603)</u>	<u>₩ (36,442)</u>

<sup>1</sup> The present value of the defined benefit obligation is calculated by deducting contributions to the National Pension Fund of ₩ 436 million as of December 31, 2022 (2021: ₩ 503 million).

2) Changes in the carrying amount of defined benefit liabilities for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Beginning balance	₩ 440,734	₩ 500,432
Current service cost	61,751	63,237
Interest expenses	10,744	7,697
Remeasurements:	(40,792)	(28,174)
Actuarial gain and loss from changes in demographic assumptions	3,767	(2)
Actuarial gain and loss from changes in financial assumptions	(57,180)	(15,968)
Actuarial gain and loss from experience adjustments	12,621	(12,204)
Exchange differences	(39)	172
Payments from plans:	(73,041)	(102,593)
Benefit payments	(73,041)	(102,593)
Past service cost	5,747	-
Liabilities transferred to a related party	87	(37)
Changes in scope of consolidation	40,834	-
Ending balance	<u>₩ 446,025</u>	<u>₩ 440,734</u>

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3) Changes in the fair value of plan assets for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Beginning balance	₩ 477,176	₩ 482,660
Interest income	12,224	7,935
Remeasurements:	(3,195)	(911)
Return on plan assets (excluding amounts included in interest income)	(3,195)	(911)
Contributions:	79,239	77,991
Employers	79,239	77,991
Payments from plans:	(63,818)	(90,524)
Benefit payments	(63,140)	(89,821)
Management fee	(678)	(703)
Assets transferred to a related party	60	25
Changes in scope of consolidation	36,942	-
Ending balance	₩ 538,628	₩ 477,176

4) Fair value of plan assets as of December 31, 2022 and 2021, consists of:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Financial instruments/Insurance	₩ 438,399	₩ 461,133
Time deposits	99,666	13,121
Cash and cash equivalents	563	218
Others	-	2,704
	₩ 538,628	₩ 477,176

5) The amounts recognized in the statements of profit or loss for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Current service cost	₩ 67,499	₩ 63,237
Net interest	(802)	465
Ending balance <sup>1</sup>	₩ 66,697	₩ 63,702
<sup>1</sup> Represents total expenses for pension benefits:		
Cost of sales	₩ 47,797	₩ 45,844
Selling and general administrative expenses	18,900	17,858
	₩ 66,697	₩ 63,702

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6) The principal actuarial assumptions as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Discount rate	5.15 ~ 5.85%	2.48 ~ 3.42%
Future salary increase (including inflation)	2.50 ~ 4.23%	2.50 ~ 3.96%

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, 2022, is as shown below:

<b>Assumptions</b>	<b>Sensitivity level (%)</b>	<b>Impact on defined benefit obligation</b>	
		<b>1% increase</b>	<b>1% decrease</b>
Discount rate	1.00	₩ (16,766)	₩ 18,350
Future salary increases	1.00	18,629	(17,320)

8) The effects of defined benefit pension plans on future cash flows are as follows:

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, 2023, are ₩ 12,407 million.

The expected maturity analysis of undiscounted pension benefits as of December 31, 2022 and 2021, is as follows:

<i>(in millions of Korean won)</i>	<b>Less than 1 year</b>	<b>Between 1-2 years</b>	<b>Between 2-5 years</b>	<b>Between 5-10 years</b>	<b>Total</b>
<b>Pension benefits</b>					
December 31, 2022	₩ 72,062	₩ 68,282	₩ 248,819	₩ 203,115	₩ 592,278
December 31, 2021	58,126	73,015	192,181	188,259	511,581

The weighted average duration of the defined benefit obligation is 4.18~9.13 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>	<b>2022</b>		<b>2021</b>	
Employee benefits	₩	33,012	₩	37,143

**20. Provisions**

Details and changes in provisions for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>								
	Beginning	Additions	Reversal	Utilization	Changes in consolidation	Ending	Current	Non-current	
Provisions for construction loss	₩ 83,189	₩ 128,934	₩ (16,480)	₩ 2,106	₩ 4,505	₩ 202,254	₩ 201,714	₩	540
Provisions for construction warranty	415,455	84,178	(4,237)	(72,653)	2,512	425,255	67,283		357,972
Provisions for others	56,099	21,225	(3,301)	(14,098)	286	60,211	21,335		38,876
	<u>₩ 554,743</u>	<u>₩ 234,337</u>	<u>₩ (24,018)</u>	<u>₩ (84,645)</u>	<u>₩ 7,303</u>	<u>₩ 687,720</u>	<u>₩ 290,332</u>	<u>₩</u>	<u>397,388</u>

<i>(in millions of Korean won)</i>	<b>2021</b>								
	Beginning	Additions	Reversal	Utilization	Ending	Current	Non-current		
Provisions for construction loss	₩ 53,453	₩ 33,229	₩ (3,494)	₩ 1	₩ 83,189	₩ 83,189	₩		-
Provisions for construction warranty	389,125	84,626	(4,226)	(54,070)	415,455	72,807			342,648
Provisions for others	106,859	47,982	(21,770)	(76,972)	56,099	23,488			32,611
	<u>₩ 549,437</u>	<u>₩ 165,837</u>	<u>₩ (29,490)</u>	<u>₩ (131,041)</u>	<u>₩ 554,743</u>	<u>₩ 179,484</u>	<u>₩</u>	<u>₩</u>	<u>375,259</u>



# GS Engineering & Construction Corporation and Subsidiaries

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#### 21. Commitments and Contingencies

(1) As of December 31, 2022, the Group has been provided with guarantees of ₩ 21,290,036 million (2021: ₩ 16,275,635 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, 2022, the Group has been provided with guarantees of within the limit of ₩ 3,744,411 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 ₩ 31,299 million (2021: total limit of ₩ 4,564,753 million, USANCE borrowing limit (effective limit) of ₩ 32,830 million). Also, the Group has been provided with guarantees of ₩ 1,694,788 million (2021: ₩ 2,267,450 million) from the Korea Trade Insurance Corporation and others in relation to the performance of its overseas construction projects.

(2) As of December 31, 2022, the Group has provided payment guarantees and equity securities of ₩ 220,023 million (2021: ₩ 89,018 million) in relation to its overseas construction projects and the Group has provided guarantees of ₩ 13,251,571 million (₩ 13,250,863 million after considering the Group's ownership) (2021: ₩ 11,047,145 million (₩ 11,033,803 million after considering the Group's ownership)) for apartment sales and others.

(3) As of December 31, 2022, in relation to housing loans and temporary relocation costs of future tenants during the construction period, the Group has provided payment guarantees of ₩ 1,542,225 million (2021: ₩ 1,509,781 million) within the limit of ₩ 3,305,086 million (2021: ₩ 3,466,406 million) and construction completion commitment of ₩ 57,333 million within the limit of ₩ 180,000 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 ₩ 1,155,690 million (2021: ₩ 852,536 million) within the limit of ₩ 2,110,160 million (2021: ₩ 1,573,578 million) through agreements with refurbishment project cooperatives as of December 31, 2022. Additionally, in relation to refurbishment projects such as redevelopment of an area, the Group has provided commitments for compensation for damages in case of non-performance of constructions of ₩ 4,028,792 million (2021: ₩ 3,651,944 million) with the limit of ₩ 6,689,442 million (2021: ₩ 6,425,232 million) through agreements with guarantee institutions as of December 31, 2022.

(4) As of December 31, 2022, for the Group's investees incorporated under the Act on Private Investment in Social Overhead Capital, the Group has provided payment guarantees of ₩ 662,011 million (2021: ₩ 681,485 million) within the limit of ₩ 2,932,275 million (2021: ₩ 2,932,275 million) provided together with its partners, and pledged investments with a carrying value of ₩ 322,594 million (2021: ₩ 304,988 million) as collateral as of December 31, 2022. Also, the Group and its partners have provided put options and other commitments of ₩ 265,592 million (₩ 62,072 million after considering the Group's ownership) (2021: ₩ 265,592 million (₩ 62,072 million after considering the Group's ownership)) to the financial investor and others. The Group has an agreement wherein the Group has a right to sell of shares held by SOC companies such as Busan East-West highway Corp. to financial investors.

(5) As of December 31, 2022, the Group has provided construction completion commitments of ₩ 5,517,973 million (2021: ₩ 5,038,434 million) for construction owners up to ₩ 8,938,200 million (2021: ₩ 7,425,610 million).

# **GS Engineering & Construction Corporation and Subsidiaries**

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(6) As of December 31, 2022, the Group has provided 23 blank checks and 31 notes amounting to ₩ 238,935 million (2021: 23 blank checks and 34 notes amounting to ₩ 226,111 million) in face value as collateral to guarantee its construction contracts.

(7) As of December 31, 2022, the Group has entered into an interest-free loan agreement amounting to ₩ 8,126,379 million (₩ 5,807,033 million after considering the Group's ownership) (2021: ₩ 7,644,654 million (₩ 5,832,032 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 loan agreement amounting to ₩ 12,463,361 million (₩ 7,494,422 million after considering the Group's ownership) (2021: ₩ 10,817,213 million (₩ 7,834,144 million after considering the Group's ownership)) in relation to the refurbishment projects. There are 10 other interest-bearing loan agreements without limit. Meanwhile, the Group has entered into a loan agreement amounting to ₩ 57,679 million (2021: ₩ 44,968 million) in relation to outsourcing business.

(8) The Group has contingent liabilities in respect of legal claims arising in the ordinary course of business. The Group is involved in 86 lawsuits with aggregated claims sued by the Group amounting to ₩ 1,338,807 million after considering the Group's ownership with total amount of ₩ 2,762,452 million (2021: 100 litigations amounting to ₩ 1,455,564 million after considering the Group's ownership with total amount of ₩ 2,928,238 million), and 203 lawsuits with aggregated claims against the Group amounting to ₩ 533,637 million after considering the Group's ownership with total amount of ₩ 1,317,976 million (2021: 196 litigations amounting to ₩ 590,510 million after the Group's ownership with total amount of ₩ 1,448,345 million) as the defendant. As of December 31, 2022, the outcome of these cases cannot be reasonably determined.

(9) As of December 31, 2022, the Group provided payment guarantees of ₩ 1,474,900 million (2021: ₩ 1,603,241 million) within the guarantee limit of ₩ 1,648,690 million (2021: ₩ 1,746,000 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 ₩ 1,136,800 million (2021: ₩ 1,280,900 million) within the guarantee limit of ₩ 1,211,160 million (2021: ₩ 1,326,620 million) and other PF loans amounting to ₩ 338,100 million (2021: ₩ 322,341 million) within the guarantee limit of ₩ 437,530 million (2021: ₩ 419,380 million), respectively (excluding borrowings for intermediate payments, relocation expenses, completion guarantee, SOC and others).

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Major guarantees for the developers' debts that the Group provided as of December 31, 2022, are as follows:

(in millions of Korean won)

Location	Creditor	Loan balance	Guaranteed amount	Details	Loan period	Type
Busan	Bank	₩ 188,500	₩ 145,000	Debt guarantee	2022-04~2023-04	Other loans
Busan	Security	163,240	148,400	Debt guarantee	2022-08~2023-08	ABCP(ABSTB)
Gyeonggi province	Bank	162,630	125,100	Debt guarantee	2022-03~2023-03	Other loans
Daegu	Security	156,000	120,000	Debt guarantee	2022-09~2023-03	ABCP(ABSTB)
Daejeon	Security	116,500	116,500	Debt guarantee	2022-04~2023-04	ABCP(ABSTB)
Gangwon province	Security	104,000	104,000	Debt guarantee	2022-12~2023-03	ABCP(ABSTB)
Gyeonggi province	Security	88,200	88,200	Debt guarantee	2022-09~2023-09	ABCP(ABSTB)
Gyeonggi province	Security	77,000	77,000	Debt guarantee	2022-09~2023-03	ABCP(ABSTB)
Chungcheong province	Security	69,000	69,000	Debt guarantee	2022-05~2023-05	ABCP(ABSTB)
Gyeonggi province	Security	62,400	48,000	Debt guarantee	2022-03~2023-03	Other loans

(10) 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.

(11) 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 250%, non-guaranteed debenture rating of A-, and others. As of December 31, 2022, the credit rating of unsecured bonds is unlikely to be downgraded.

(12) 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.

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**22. Share Capital and Share Premium**

(1) Details of share capital as of December 31, 2022 and 2021, are as follows

	<b>2022</b>	<b>2021</b>
Authorized shares	200,000,000 shares	200,000,000 shares
Par value per share	₩ 5,000	₩ 5,000
Outstanding shares <sup>1</sup>	85,581,490 shares	85,581,490 shares
Share capital	₩ 427,907 million	₩ 427,907 million

(2) Details of share premium as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Gain on disposal of treasury stock	₩ 2,384	₩ 2,384
Additional paid-in capital	921,432	921,432
Gain on business combination	15,002	15,002
Other share premium	3,881	12,439
	<u>₩ 942,699</u>	<u>₩ 951,257</u>

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

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Treasury stock <sup>1</sup>	₩ (36,443)	₩ (36,443)
Others	(365)	(358)
	<u>₩ (36,808)</u>	<u>₩ (36,801)</u>

<sup>1</sup> 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, 2022.

(4) Details of other comprehensive loss as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Gain on valuation of derivative instruments	₩ 15,918	₩ 4,389
Loss on exchange differences on translations of foreign operations	(179,152)	(126,224)
Share of other comprehensive income of associates	1,250	(925)
	<u>₩ (161,984)</u>	<u>₩ (122,760)</u>

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**23. Retained Earnings**

(1) Retained earnings as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Legal reserves	₩ 160,775	₩ 128,946
Appropriated retained earnings for business stabilization	1,104,653	1,064,653
Other voluntary reserves	2,208,627	2,053,627
Remeasurements of the net defined benefit liability	(6,802)	(31,806)
Other consolidated retained earnings	97,120	76,072
Unappropriated retained earnings	95,445	114,221
	<u>₩ 3,659,818</u>	<u>₩ 3,405,713</u>

(2) Changes in retained earnings for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Beginning balance	₩ 3,405,713	₩ 3,076,110
Annual dividends	(110,356)	(96,019)
Profit attributable to equity holders of the Parent Company	339,274	408,477
Remeasurements of the net defined benefit liability	25,005	20,459
Others	182	(3,314)
Ending balance	<u>₩ 3,659,818</u>	<u>₩ 3,405,713</u>

(3) Dividends paid during the years ended December 31, 2022 and 2021, are as follows:

	<b>2022</b>	<b>2021</b>
Type of shares	Ordinary shares	Ordinary shares
Total number of shares issued	85,581,490 shares	80,708,203 shares
Number of shares	84,888,895 shares	80,015,608 shares
Dividends per share <i>(in Korean won)</i>	₩ 1,300	₩ 1,200
Total dividends <i>(in millions of Korean won)</i>	₩ 110,356	₩ 96,019

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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, 2022 and 2021, are as follows:

<i>(in Korean won and in shares)</i>	<b>2022</b>	<b>2021</b>
Profit attributable to equity holders of the parent Company	₩ 339,273,696,758	₩ 408,476,608,483
Diluted effect:		
Profit related to convertible bonds <sup>1</sup>	-	27,008,250
Profit related to foreign currency convertible bonds <sup>1</sup>	-	245,921,651
<b>Diluted profit for the year attributable to equity holders</b>	<b>₩ 339,273,696,758</b>	<b>₩ 408,749,538,384</b>
Weighted average number of ordinary shares in issue <sup>2</sup>	84,888,895	84,508,007
Diluted effect:		
Convertible bonds	-	131,832
Foreign currency convertible bonds	-	249,058
	<b>84,888,895</b>	<b>84,888,897</b>
<b>Basic earnings per share</b>	<b>₩ 3,997</b>	<b>₩ 4,834</b>
<b>Diluted earnings per share</b>	<b>3,997</b>	<b>4,815</b>

<sup>1</sup> The amount is after deducting the income tax effect.

<sup>2</sup> Details of calculation of the weighted average number of ordinary shares outstanding for the years ended December 31, 2022 and 2021, are as follows:

<i>(in shares)</i>	<b>2022</b>		<b>2021</b>	
	<b>Number of shares</b>	<b>Number of shares * number of days</b>	<b>Number of shares</b>	<b>Number of shares * number of days</b>
Beginning	85,581,490	31,237,243,850	80,708,203	29,458,494,095
Conversion of convertible bonds	-	-	4,873,287	1,639,725,748
Treasury stock	(692,595)	(252,797,175)	(692,595)	(252,797,175)
		<u>30,984,446,675</u>		<u>30,845,422,668</u>
Weighted average number of ordinary shares outstanding		<u>84,888,895</u>		<u>84,508,007</u>

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**25. Selling and General Administrative Expenses**

Selling and general administrative expenses for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>		<b>2021</b>	
Salaries	₩	283,782	₩	262,665
Pension benefits		26,431		124,048
Employee welfare benefits		35,292		34,548
Taxes and dues		26,271		24,759
Commissions		148,731		144,682
Rents		9,786		7,612
Depreciation		7,883		7,967
Amortization		39,534		18,506
Depreciation of right-of-use assets		23,217		26,917
Advertising		31,870		26,343
Bad debt expense (reversal of)		23,858		(35,701)
Development		23,446		24,306
Warranty		13,506		6,274
Insurance premium		11,673		10,680
Travel		7,333		3,585
Others		19,159		17,080
	₩	<u>731,772</u>	₩	<u>704,271</u>

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**26. Other Operating Income and Expenses**

(1) Other operating income for the years ended December 31, 2022 and 2021 are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Gain on disposal of property, plant and equipment	₩ 732	₩ 1,458
Gain on disposal of intangible assets	153	117
Gain on disposal of investment property	-	2
Reversal of impairment loss for investment property	2,700	-
Gain on changes in leases	4	50
Gain on foreign currency transactions	95,600	47,248
Gain on foreign currency translation	228,759	149,314
Reversal of allowance for bad debts	39,450	35,057
Gain on valuation of derivatives	42,738	49,548
Gain on derivatives transactions	6,106	2,150
Gain on exchange differences on translations of foreign operations	3,119	1,790
Dividend income	10,803	667
Gain on valuation of financial assets at fair value through profit or loss	3,263	5,251
Miscellaneous gain and others	20,884	27,153
	<u>₩ 454,311</u>	<u>₩ 319,805</u>



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(2) Other operating expenses for the years ended December 31, 2022 and 2021 are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Loss on disposal of property, plant and equipment	₩ 542	₩ 1,226
Impairment loss on property, plant and equipment	2,570	-
Loss on disposal of intangible assets	283	432
Impairment loss on intangible assets	10,506	11,567
Impairment loss on investment properties	-	5,775
Impairment loss on right-of-use assets	3,364	-
Loss on changes in leases	4,139	2,560
Loss on disposal of other assets	55	10
Loss on foreign currency transactions	50,735	9,347
Loss on foreign currency translation	70,010	23,506
Bad debt expense	61,939	75,619
Loss on valuation of derivatives	30,469	22,545
Loss on derivatives transactions	4,131	35,291
Loss on disposal of trade receivables	578	-
Loss on disposal of assets and liabilities held for sale	-	4,678
Loss on exchange differences on translations of foreign operations	2,520	2,917
Loss on valuation of financial assets at fair value through profit or loss	5,781	8,674
Miscellaneous loss and others	16,151	54,603
	<u>₩ 263,773</u>	<u>₩ 258,750</u>

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**27. Finance Income and Costs**

(1) Finance income for the years ended December 31, 2022 and 2021 are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>		<b>2021</b>	
Interest income	₩	125,311	₩	53,544
Gain on foreign currency transactions		27,554		20,966
Gain on foreign currency translation		29,096		19,546
Gain on valuation of financial assets at fair value through profit or loss		269		6,112
Gain on disposal of financial assets at fair value through profit or loss		-		968
Gain on disposal of financial assets		982		-
Gain on valuation of derivatives		434		-
Gain on derivatives transactions		9,494		-
Gain on disposal of investments in associates		1,175		523
Reversal of financial guarantee liabilities		2,133		26,065
	₩	<u>196,448</u>	₩	<u>127,724</u>

(2) Finance costs for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>		<b>2021</b>	
Interest expenses	₩	148,465	₩	91,707
Loss on foreign currency transaction		55,957		16,605
Loss on foreign currency translation		87,187		71,637
Loss on valuation of financial assets at fair value through profit or loss		3		1,015
Loss on disposal of financial assets at fair value through profit or loss		-		1,464
Loss on disposal of financial assets		3,241		31
Loss on disposal of investments in associates		325		-
	₩	<u>295,178</u>	₩	<u>182,459</u>

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**28. Income Tax**

(1) Income tax expense for the years ended December 31, 2022 and 2021, consists of the following:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Current tax:		
Current tax on profits for the year	₩ 210,510	₩ 271,432
Adjustments in respect of the prior year	(4,651)	(36,457)
Total current tax	205,859	234,975
Deferred tax:		
Origination and reversal of temporary differences	13,736	(5,817)
Total income tax expense	₩ 219,595	₩ 229,158
Income tax charged directly to equity <sup>1</sup>	₩ (4,091)	₩ 31
Income tax expense	223,686	229,127

<sup>1</sup> Income tax credited (charged) directly to equity as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>			<b>2021</b>		
	<b>Tax (charge) credit</b>			<b>Tax (charge) credit</b>		
	<b>Before tax</b>		<b>After tax</b>	<b>Before tax</b>		<b>After tax</b>
Share of other comprehensive income	₩ 2,175	₩ -	₩ 2,175	₩ (104)	₩ -	₩ (104)
Gain or loss on valuation of derivatives	14,341	3,049	11,292	17,051	4,407	12,644
Gain or loss on exchange differences on translations of foreign operations	(58,046)	(16,571)	(41,475)	(25,721)	(11,595)	(14,126)
Remeasurements of net defined benefit pension plans	37,852	9,431	28,421	27,241	6,954	20,287
Consideration for conversion rights	-	-	-	1,039	265	774
	₩ (3,678)	₩ (4,091)	₩ 413	₩ 19,506	₩ 31	₩ 19,475

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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, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>		<b>2022</b>		<b>2021</b>
Profit before tax	₩	664,898	₩	657,930
<b>Tax calculated at domestic tax rates applicable to profits in the respective countries</b>		182,847		167,772
<b>Tax effects of:</b>				
Income not subject to tax		2,571		(4)
Expenses not deductible for tax purposes		554		2,387
Foreign income tax expense		12,686		4,405
Others		25,028		54,567
Adjustment in respect of prior years		40,839		61,355
Income tax expense	₩	223,686	₩	229,127

(3) The gross balances of deferred tax assets and liabilities as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>		<b>2022</b>		<b>2021</b>
<b>Deferred tax assets</b>				
Deferred tax asset to be recovered after more than 12 months	₩	874,218	₩	741,454
Deferred tax asset to be recovered within 12 months		370,790		475,070
		1,245,008		1,216,524
<b>Deferred tax liabilities</b>				
Deferred tax liability to be recovered after more than 12 months		357,173		280,957
Deferred tax liability to be recovered within 12 months		89,173		123,169
		446,346		404,126
Deferred tax assets, net	₩	798,662	₩	812,398

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(4) The movements in deferred tax assets and liabilities for the years ended December 31, 2022 and 2021, without taking into consideration the offsetting of balances within the same tax jurisdiction, are as follows:

(in millions of Korean won)

	2022				
	Beginning balance	Profit or loss	Equity	Change in consolidation	Ending balance
Deferred tax liabilities					
Reserve for revaluation	₩ 44,436	₩ (715)	₩ -	₩ -	₩ 43,721
Deposits for severance benefits	113,539	2,858	7,594	9,158	133,149
Gain or loss on valuation of derivatives	15,290	3,051	(923)	-	17,418
Accrued interest on loans	12,286	3,599	-	-	15,885
Inventory construction interest	8,220	(1,944)	-	-	6,276
Others	210,355	3,549	4,645	11,348	229,897
	<u>404,126</u>	<u>10,398</u>	<u>11,316</u>	<u>20,506</u>	<u>446,346</u>
Deferred tax assets					
Reversal of allowance for bad debts	262,777	(10,516)	-	-	252,261
Gain or loss on valuation of derivatives	11,278	-	(3,972)	-	7,306
Provisions	235,699	15,900	-	1,020	252,619
Allowance for pension benefits	109,270	(9,513)	(1,837)	9,875	107,795
Share of profit or loss of associates and joint ventures	30,875	706	-	-	31,581
Impairment loss on assets	105,587	2,361	-	-	107,948
Others	461,038	(427)	21,216	3,671	485,498
	<u>1,216,524</u>	<u>(1,489)</u>	<u>15,407</u>	<u>14,566</u>	<u>1,245,008</u>
Deferred tax assets (liabilities), net	₩ 812,398	₩ (11,887)	₩ 4,091	₩ (5,940)	₩ 798,662

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(in millions of Korean won)

	2021				
	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	114,467	(676)	(252)	-	113,539
Gain or loss on valuation of derivatives	15,689	2,637	(3,036)	-	15,290
Accrued interest on loans	9,839	2,447	-	-	12,286
Inventory construction interest	9,222	(1,002)	-	-	8,220
Others	205,898	9,295	(4,838)	-	210,355
	<u>399,551</u>	<u>12,701</u>	<u>(8,126)</u>	<u>-</u>	<u>404,126</u>
Deferred tax assets					
Reversal of allowance for bad debts	268,807	(6,030)	-	-	262,777
Gain or loss on valuation of derivatives	22,060	(3,339)	(7,443)	-	11,278
Provisions	212,436	23,263	-	-	235,699
Allowance for pension benefits	121,245	(4,769)	(7,206)	-	109,270
Share of profit or loss of associates and joint ventures	29,800	1,075	-	-	30,875
Impairment loss on assets	93,212	12,375	-	-	105,587
Others	458,571	(4,025)	6,492	-	461,038
	<u>1,206,131</u>	<u>18,550</u>	<u>(8,157)</u>	<u>-</u>	<u>1,216,524</u>
Deferred tax assets (liabilities), net	₩ <u>806,580</u>	₩ <u>5,849</u>	₩ <u>(31)</u>	₩ <u>-</u>	₩ <u>812,398</u>

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

(in millions of Korean won)

	2022	
	Deductible temporary differences and others	Reason
Foreign income tax expense	₩ 8,249	Uncertainty of future taxable income and others

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
**December 31, 2022 and 2021**

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**29. Expenses Classified by Nature**

Expenses classified by nature for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Labor cost	₩ 1,230,905	₩ 1,159,004
Materials	2,525,381	1,824,590
Outsourcing	5,531,360	3,346,459
Employee welfare benefits	142,245	121,662
Advertising	52,857	36,119
Bad debt expense (reversal of)	23,858	(35,701)
Rents	67,087	50,767
Depreciation and amortization	128,427	77,725
Taxes and dues	168,835	155,681
Service fees	872,170	689,696
Others	1,024,179	1,423,271
Changes in inventories and others	(22,943)	(459,183)
	<u>₩ 11,744,361</u>	<u>₩ 8,390,090</u>

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

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

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#### 30. Related Party Transactions

(1) Related parties are as follows:

Relationship	Related parties
Associates <sup>1</sup>	GS KOCREF New Stay REIT Co., Ltd., Major Development Co., Ltd., FGS East Asia Technical Resource Management, Inc., SoBaek Co., Ltd., Beopwon Industry Urban Development Corp., Yeouido MBC Site MXD PFV. Inc., PT. CORE RESOURCE, BKT Co., Ltd., Cheongju Hi Tech Valley, Gwacheon Sangsang PFV. Inc, Zero Tech Co., Ltd., Camp Stanton Co., Ltd., Cheonan Techno Park Inc., ORIGIN LATPHRAO CO., LTD., RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED, PARK PILLAR R4 CO., LTD., GYEONGGIPYEONGTAEK GLOBAL CO., LTD., Jincheon smart bokhap industrial danji development Co., LTD., GS Collective Fund I LLC, EPOCH PFV Co., LTD., CHEMICO ADVANCED MATERIALS CO., LTD., Jerotaekmuan Co., Ltd., Bucheon Visual Culture Industrial Complex Development Co. Ltd., PHU MY VINH CONSTRUCTION & INVESTMENT CORPORATION, Incheon New Port Smart Complex Co., Ltd <sup>3</sup> , PT. CORE RESOURCE INDONESIA, Cadiz San Fernando, A.I.E., Gestion de Participes de Biorreciclaje, Participes de Biorreciclaje S.A., Fisia GS Inima (Al Ghubrah) LLC, Gvesco Opportunity-seeking general private real estate investment trust No.1 <sup>3</sup>
Joint ventures <sup>1</sup>	G&M Estate Co., Ltd., GS Korea for Project Management Company, GS MINH HUNG SIKICO CO., LTD., MAGNA PFV Corp. <sup>3</sup> , Hialeah Water, LLP, Oasis Residences Real Estate, LLC <sup>3</sup> , PDC INDUSTRIAL CENTER 198 SP. Z O.O. <sup>3</sup> , Lignana LLC, Lignana LLP <sup>3</sup> , VESPOLINA SP. Z O.O. <sup>3</sup> , Regionerate Rail Pty Ltd <sup>3</sup>
Others <sup>2</sup>	GS Holdings, GS Retail Co., Ltd., GS Global Corp., Samyangtongsang Ltd., GS Energy Corporation, GS Power Co., Ltd., Boryeong LNG Terminal 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 Windpower Co., Ltd., GS Donghae Electric Power Co., Ltd., GS Pocheon Green Energy Corp., Yeongyang Wind Power Corporation-2, Gumi green Energy 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., GUMIMAKEUNMUL, GS Neotek, Samyang INT'L Co., Ltd., Boheun Development Co., Ltd., Chemtech International Co., Ltd., Oksan Distribution, Seungsan Company Corporation, Gaseung Development Company, IN ARTS PRODUCTION INC.(formerly, 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., K Global No.2 Private Real Estate Investment Limited Liability Company, PANCOTEC LTD., GS Dangjin Solarfarm Co.Ltd., Hanul Love Co., Ltd., Gangnam Metro Co., Ltd., FRESHMEAT, Seoul Munsan Expressway Co., Ltd., G-Energy Corp., Yeongdeok Windpower Corporation 2 Co., Ltd., GS



# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

#### Relationship

#### Related parties

CONNECT INC.(formerly, GCONNECT), Pohang Windpower Corporation Co., Ltd., FIRSF Agricultural co.,Ltd.<sup>4</sup>, GS VENTURES CO.,LTD.<sup>4</sup>, Hugel Inc.<sup>4</sup>, ACROSS CO.,LTD.<sup>4</sup>, Art Ventures Co.,Ltd.<sup>4</sup>, J WORLD CO.,LTD.<sup>4</sup>, Logispro project Y Private Real Estate Investment Company.<sup>4</sup>

<sup>1</sup> Equity ownership information is disclosed in Note 12.

<sup>2</sup> 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 Act. Electronic bills are provided to several entities to guarantee construction performance and others, and this is also included in Commitments and Contingencies (Note 21). Meanwhile, Busan East-West highway Corp was excluded from other related parties, since it was notified with a suspension as a related party (June 14, 2022) until the completion of the construction is confirmed, in accordance with the Monopoly Regulation and Fair Trade Act.

<sup>3</sup> Newly acquired for the year ended December 31, 2022.

<sup>4</sup> Newly included as other related parties of the Company for the year ended December 31, 2022.

(2) Sales and purchases with related parties for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)

(in millions of Korean won)

		2022									
		Sales and others			Purchase and others						
		Sales	Other income	Total	Purchase	Other expenses	Total				
<b>Associates</b>											
Major Development Co., Ltd.	₩	9	₩	121	₩	130	₩	-	₩	-	-
FGS East Asia Technical Resource Management, Inc.		-		51		51		417		-	417
SoBaek Co., Ltd.		-		411		411		-		-	-
Yeouido MBC Site MXD PFV. Inc		219,049		-		219,049		-		-	-
PT. CORE RESOURCE		-		289		289		-		-	-
BKT Co., Ltd.		30		-		30		1,121		-	1,121
Gwacheon Sangsang PFV. Inc		88,530		7,758		96,288		-		-	-
Zero Tech Co., Ltd.		-		21		21		-		-	-
Cheonan Techno Park Inc.		1,032		-		1,032		-		-	-
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED		-		1,253		1,253		-		-	-
GYEONGGIPYEONGTAEK GLOBAL CO., LTD.		31,421		-		31,421		-		-	-
EPOCH PFV Co., LTD.		32,731		-		32,731		1,800		-	1,800

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(in millions of Korean won)

	2022					
	Sales and others			Purchase and others		
	Sales	Other income	Total	Purchase	Other expenses	Total
Jerotaekmuan Co., LTD	-	122	122	-	-	-
PHU MY VINH CONSTRUCTION & INVESTMENT CORPORATION	142	-	142	-	-	-
Cadiz San Fernando, A.I.E	-	426	426	-	-	-
Fisia GS Inima (Al Ghubrah) LLC	-	-	-	1,405	-	1,405
<b>Joint ventures</b>						
G&M Estate Co., Ltd.	206	-	206	413	-	413
MAGNA PFV Corp.	1,355	-	1,355	-	-	-
<b>Others</b>						
GS Holdings <sup>1</sup>	100	-	100	14	17,141	17,155
GS Retail Co., Ltd.	1,133	-	1,133	2,361	85	2,446
GS Global Corp.	129	-	129	-	2	2
GS Energy Corporation	355	-	355	-	-	-
GS Power Co., Ltd.	6,860	-	6,860	135	-	135
Boryeong LNG Terminal Co., Ltd.	19,671	-	19,671	-	-	-
GS Park 24Co., Ltd. <sup>2</sup>	342	-	342	10	1	11
Incheon Total Energy Co.	-	-	-	558	-	558
GS-Caltex Corporation	68,597	-	68,597	8,218	-	8,218
GS Mbiz Co., Ltd.	1	-	1	1,772	-	1,772
Parnas Hotel Co., Ltd.	6,223	-	6,223	35	20	55
GS EPS Co., Ltd.	4,442	-	4,442	159	-	159
GS ENTEC Corp.	2	-	2	200	-	200
GS E&R Corp.	3,546	-	3,546	-	-	-
GS Windpower Co.,Ltd.	4	-	4	-	-	-
GS Donghae Electric Power Co., Ltd.	7,478	-	7,478	45	-	45
GS Pocheon Green Energy Corp.	3,568	-	3,568	27	-	27
GS Sports Ltd.	870	-	870	-	5,442	5,442
Oksan Ochang Highway Corporation	2,386	209	2,595	-	-	-
Eun Pyeong New Road Corp.	(1)	11	10	-	-	-
Busan East-West highway Corp <sup>2</sup>	18,433	-	18,433	60	-	60
GUMIMAKEUNMUL Co., Ltd.	8,372	-	8,372	-	-	-
GS Neotek	416	-	416	26,413	310	26,723
Samyang INT'L Co., Ltd.	-	-	-	17,167	-	17,167

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(in millions of Korean won)

	2022					
	Sales and others			Purchase and others		
	Sales	Other income	Total	Purchase	Other expenses	Total
Seungsan Group Corporation	-	-	-	-	17	17
Kyung Won Construction Co., Ltd.	1	-	1	-	-	-
Donghae International Resources Terminal Co., Ltd.	6	-	6	-	-	-
Seoul Munsan Expressway Co., Ltd.	10,390	-	19,765	1,443	-	1,443
GS VENTURES CO.,LTD.	2	-	92	-	-	-
	₩ 537,831	₩ 10,672	₩ 548,503	₩ 63,773	₩ 23,018	₩ 86,791

<sup>1</sup> The amount includes the trademark agreement.

<sup>2</sup> Excluded from the consolidation for the year ended December 31, 2022.

(in millions of Korean won)

	2021					
	Sales and others			Purchase and others		
	Sales	Other income	Total	Purchase	Other expenses	Total
<b>Associates</b>						
Major Development Co., Ltd.	₩ 11	₩ 204	₩ 215	₩ -	₩ -	₩ -
FGS East Asia Technical Resource Management, Inc.	-	49	49	267	-	267
SoBaek Co., Ltd.	-	411	411	-	-	-
Beopwon Industry Urban Development Corp.	13,341	-	13,341	-	-	-
Yeouido MBC Site MXD PFV. Inc	111,520	-	111,520	-	-	-
PT. CORE RESOURCE	-	275	275	-	-	-
BKT Co., Ltd.	-	-	-	1,121	-	1,121
Gwacheon Sangsang PFV. Inc	28,085	-	28,085	-	-	-
Zero Tech Co., Ltd.	-	97	97	-	-	-
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED	-	709	709	-	-	-
GYEONGGIPYEONGTAEK GLOBAL CO., LTD.	9,773	-	9,773	-	-	-
EPOCH PFV Co., LTD.	4,999	-	4,999	-	-	-
Jerotaekmuan Co., LTD	-	67	67	-	-	-
Cardiz San Fernando, A.I.E.	-	346	346	-	-	-
GS Inima Fisia (Barka) LLC	-	-	-	4,586	-	4,586
Fisia GS Inima (Al Ghubrah)	-	-	-	829	-	829

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(in millions of Korean won)

	2021					
	Sales and others			Purchase and others		
	Sales	Other income	Total	Purchase	Other expenses	Total
LLC						
<b>Joint ventures</b>						
G&M Estate Co., Ltd.	185	-	185	538	-	538
GS MINH HUNG SIKICO CO., LTD.	102	-	102	-	-	-
<b>Others</b>						
GS Holdings <sup>1</sup>	81	-	81	-	15,303	15,303
GS Retail Co., Ltd.	771	-	771	2,341	88	2,429
GS Global Corp.	131	-	131	-	-	-
GS Home Shopping Inc.	330	-	330	-	-	-
GS Energy Corporation	395	-	395	490	-	490
GS Power Co., Ltd.	39,304	-	39,304	150	-	150
Boryeong LNG Terminal Co., Ltd.	78,995	-	78,995	-	-	-
GS Park 24Co., Ltd.	1,380	-	1,380	-	-	-
Incheon Total Energy Co.	-	-	-	826	-	826
GS-Caltex Corporation	387,200	-	387,200	7,126	-	7,126
GS Mbiz Co., Ltd.	-	-	-	1,963	-	1,963
Parnas Hotel Co., Ltd.	6,799	-	6,799	38	-	38
GS EPS Co., Ltd.	15,789	-	15,789	19	-	19
GS ENTEC Corp.	1	-	1	1,110	-	1,110
GS E&R Corp.	3,157	-	3,157	-	-	-
GS Donghae Electric Power Co., Ltd.	10,772	-	10,772	57	-	57
GS Pocheon Green Energy Corp.	(23,752)	-	(23,752)	3,000	-	3,000
GS Sports Ltd.	803	-	803	5	6,273	6,278
Oksan Ochang Highway Corporation	2,106	-	2,106	-	-	-
Eun Pyeong New Road Corp.	-	11	11	-	-	-
Busan East-West highway Corp	34,612	-	34,612	36	-	36
GUMIMAKEUNMUL Co., Ltd.	15,845	-	15,845	-	-	-
GS Neotek	133	-	133	4,550	209	4,759
Samyang INT'L Co., Ltd.	-	-	-	10,613	-	10,613
Seungsan Group Corporation	-	-	-	-	15	15
Donghae International Resources Terminal Co., Ltd.	(6)	-	(6)	-	-	-
Hanul Love Co., Ltd.	7	-	7	-	-	-
Seoul Munsan Expressway Co., Ltd.	19,765	-	19,765	1,273	-	1,273

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(in millions of Korean won)

	2021					
	Sales and others			Purchase and others		
	Sales	Other income	Total	Purchase	Other expenses	Total
Pohang Yeongliman Ocean Cable car Co., Ltd.	-	92	92	-	-	-
	₩ 762,634	₩ 2,261	₩ 764,895	₩ 40,938	₩ 21,888	₩ 62,826

<sup>1</sup> The amount includes the trademark agreement.

(3) Receivables and payables arising from related party transactions as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won)

	2022						
	Receivables				Payables		
	Trade receivables and contract assets	Other receivables	Loans	Total	Trade payables	Other payables and contract liabilities	Total
<b>Associates</b>							
GS KOCREF NEW STAY REIT CO.,LTD.	₩ -	₩ -	₩ -	₩ -	₩ -	₩ 215	₩ 215
Major Development Co., Ltd.	-	-	22,690	22,690	-	-	-
FGS East Asia Technical Resource Management, Inc.	-	37	721	758	-	-	-
SoBaek Co., Ltd.	-	1,856	6,857	8,713	-	-	-
Beopwon Industry Urban Development Corp.	19,566	-	-	19,566	1	-	1
Yeouido MBC Site MXD PFV. Inc	326,189	-	-	326,189	-	-	-
PT. CORE RESOURCE	-	1,103	3,218	4,321	-	-	-
Gwacheon Sangsang PFV. Inc	-	7,758	-	7,758	-	20,886	20,886
Zero Tech Co., Ltd.	-	70	450	520	-	-	-
Cheonan Techno Park Inc.	1,032	-	-	1,032	-	-	-
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED	-	298	-	298	-	-	-
GYEONGGIPYEONGTAEK GLOBAL CO., LTD.	9,300	8,374	-	17,674	-	-	-
EPOCH PFV Co., LTD.	4,094	-	-	4,094	-	-	-
Jerotaekmuan Co., LTD.	-	198	1,463	1,661	-	-	-
Bucheon Visual Culture Industrial Complex Development Co., Ltd.	-	-	-	-	-	855	855
Cadiz San Fernando, A.I.E.	142	-	-	142	896	-	896

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(in millions of Korean won)

	2022							
	Receivables				Payables			
	Trade receivables and contract assets	Other receivables	Loans	Total	Trade payables	Other payables and contract liabilities	Total	
Participes de Biorreciclaje S.A.	780	-	-	780	2,750	-	2,750	
<b>Joint ventures</b>								
G&M Estate Co., Ltd.	-	34	-	34	-	63	63	
PDC INDUSTRIAL CENTER 198 SP. Z O.O	-	-	-	-	-	10	10	
MAGNA PFV Corp.	1,355	-	-	1,355	-	-	-	
<b>Others</b>								
GS Holdings	5	-	-	5	-	2,825	2,825	
GS Retail Co., Ltd.	75	192	-	267	419	5,709	6,128	
GS Global Corp.	12	-	-	12	-	674	674	
GS Energy Corporation	7	-	-	7	-	3,957	3,957	
GS Power Co., Ltd.	8,666	-	-	8,666	-	349	349	
Boryeong LNG Terminal Co., Ltd.	-	-	-	-	-	16,990	16,990	
Incheon Total Energy Co.	-	-	-	-	18	-	18	
GS-Caltex Corporation	1,322	169	-	1,491	-	6,917	6,917	
GS Mbiz Co., Ltd.	-	-	-	-	113	-	113	
Parnas Hotel Co., Ltd.	643	-	-	643	4	1,603	1,607	
GS Teleservices Co., Ltd.	-	-	-	-	-	345	345	
GS EPS Co., Ltd.	-	-	-	-	-	894	894	
GS E&R Corp.	339	-	-	339	-	-	-	
GS Donghae Electric Power Co., Ltd.	376	-	-	376	-	-	-	
GS Pocheon Green Energy Corp.	336	-	-	336	-	-	-	
GS Sports Ltd.	39	-	-	39	-	849	849	
Oksan Ochang Highway Corporation	1,159	298	5,160	6,617	-	-	-	
Eun Pyeong New Road Corp.	1,949	106	163	2,218	-	-	-	
GUMIMAKEUNMUL Co., Ltd.	840	29	-	869	-	-	-	
GS Neotek	12	-	-	12	2,500	1,940	4,440	
Samyang INT'L Co., Ltd.	-	-	-	-	5,183	1,147	6,330	
Seungsan Group Corporation	-	3,150	-	3,150	-	303	303	
Kyung Won Construction Co., Ltd.	-	-	-	-	-	114	114	
Seoul Munsan Expressway Co., Ltd.	1,419	450	-	1,869	400	-	400	
	₩ 379,657	₩ 24,122	₩ 40,722	₩ 444,501	₩ 12,284	₩ 66,645	₩ 78,929	

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(in millions of Korean won)

	2021							
	Receivables				Payables			
	Trade receivables and contract assets	Other receivables	Loans	Total	Trade payables	Other payables and contract liabilities	Total	
<b>Associates</b>								
Major Development Co., Ltd.	₩	-	₩	-	₩	23,100	₩	23,100
FGS East Asia Technical Resource Management, Inc.		-	33	704	737	-	-	-
SoBaek Co., Ltd.		-	1,446	6,856	8,302	-	-	-
HyangSan 2 Urban Development Corp.		-	-	-	-	5	5	
Beopwon Industry Urban Development Corp.	19,567	-	-	19,567	-	-	-	
Yeouido MBC Site MXD PFV. Inc	136,837	-	-	136,837	-	-	-	
PT. CORE RESOURCE	-	821	3,010	3,831	-	-	-	
Gwacheon Sangsang PFV. Inc	-	-	-	-	-	16,353	16,353	
Zero Tech Co., Ltd.	-	48	450	498	-	-	-	
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED	-	714	-	714	-	-	-	
GYEONGGIPYEONGTAEK GLOBAL CO., LTD.	8,209	8,432	-	16,641	-	-	-	
EPOCH PFV Co., LTD.	4,487	-	-	4,487	-	-	-	
Jerotaekmuan Co., LTD.	-	77	1,463	1,540	-	-	-	
Bucheon Visual Culture Industrial Complex Development Co., Ltd.	-	-	-	-	-	855	855	
Cadiz San Fernando, A.I.E.	316	-	-	316	-	-	-	
Gestion de Participes de Biorreciclaje	618	-	-	618	-	-	-	
Participes de Biorreciclaje S.A.	418	-	-	418	-	-	-	
GS Inima Fisia (Barka) LLC	-	-	-	-	1,115	-	1,115	
Fisia GS Inima (Al Ghubrah) LLC	-	-	-	-	302	-	302	
<b>Joint ventures</b>								
G&M Estate Co., Ltd.	-	32	-	32	-	62	62	
GS MINH HUNG SIKICO CO., LTD.	-	43	-	43	-	-	-	
Hialeah Water, LLP	-	-	-	-	1,818	-	1,818	
<b>Others</b>								
GS Holdings	4	10	-	14	-	2,825	2,825	
GS Retail Co., Ltd.	60	163	-	223	419	5,884	6,303	

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(in millions of Korean won)

	2021							
	Receivables				Payables			
	Trade receivables and contract assets	Other receivables	Loans	Total	Trade payables	Other payables and contract liabilities	Total	
GS Global Corp.	-	-	-	-	-	674	674	
GS Energy Corporation	4	212	-	216	-	4,055	4,055	
GS Power Co., Ltd.	20,133	-	-	20,133	-	350	350	
Boryeong LNG Terminal Co., Ltd.	8,621	-	-	8,621	-	11,944	11,944	
GS Park 24Co., Ltd.	-	125	-	125	-	-	-	
GS-Caltex Corporation	148,991	-	-	148,991	-	66,711	66,711	
GS Mbiz Co., Ltd.	-	-	-	-	747	-	747	
Parnas Hotel Co., Ltd.	475	-	-	475	3	1,600	1,603	
GS Teleservices Co., Ltd.	-	-	-	-	-	345	345	
GS EPS Co., Ltd.	15,082	-	-	15,082	-	894	894	
GS ENTEC Corp.	-	-	-	-	3	-	3	
GS E&R Corp.	288	-	-	288	-	-	-	
GS Donghae Electric Power Co., Ltd.	4,397	-	-	4,397	-	-	-	
GS Pocheon Green Energy Corp.	302	-	-	302	-	-	-	
GS Sports Ltd.	41	-	-	41	-	704	704	
Oksan Ochang Highway Corporation	1,158	88	2,040	3,286	-	-	-	
Eun Pyeong New Road Corp.	1,950	95	163	2,208	-	-	-	
Busan East-West highway Corp	40,380	-	-	40,380	-	-	-	
GUMIMAKEUNMUL Co., Ltd.	7,056	25	-	7,081	-	-	-	
GS Neotek	15	110	-	125	3,525	1,660	5,185	
Samyang INT'L Co., Ltd.	-	-	-	-	2,992	146	3,138	
Seungsan Group Corporation	-	3,149	-	3,149	-	303	303	
Kyung Won Construction Co., Ltd.	-	-	-	-	-	114	114	
Donghae International Resources Terminal Co., Ltd.	-	-	-	-	-	6	6	
Seoul Munsan Expressway Co., Ltd.	2,649	470	-	3,119	-	352	352	
Pohang Yeongliman Ocean Cable car Co., Ltd.	-	8	2,000	2,008	-	-	-	
	₩ 422,058	₩ 16,101	₩ 39,786	₩ 477,945	₩ 10,924	₩ 115,898	₩ 126,822	

Allowance for bad debts of receivables from related parties as of December 31, 2022, is ₩ 37,928 million (2021: ₩ 32,481 million), and bad debt expense recognized during the year ended December 31, 2022, is ₩ 7,528 million (2021: ₩ 11,459 million).



# GS Engineering & Construction Corporation and Subsidiaries

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(4) Changes in loans to related parties for the years ended December 31, 2022 and 2021, are as follows:

(in millions of  
Korean won)

(in millions of Korean won)

	2022									
	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.	4.50	2022.06.30	₩ 23,100	₩ -	₩ 410	₩ -	₩ 22,690	₩ -	-	
FGS East Asia Technical Resource Management, Inc.		2023.01.17 ~								
	4.60	2023.01.27	704	299	348	66	721	51	-	
SoBaek Co., Ltd.	6.00	-	6,856	-	-	-	6,856	411	-	
PT. CORE RESOURCE	8.00~12.00	2023.12.31	3,010	-	-	208	3,218	289	-	
Gwacheon Sangsang PFV. Inc	-	-	-	-	-	-	-	7,758	-	
Zero Tech Co., Ltd.	4.60	-	450	-	-	-	450	21	-	
ORIGIN LATPHRAO CO., LTD.	-	-	-	-	-	-	-	-	2,393	
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED	-	-	-	-	-	-	-	1,253	-	
GS Collective Fund I LLC	-	-	-	-	-	-	-	-	3,301	
CHEMICO ADVANCED MATERIALS CO.,LTD.	-	-	-	-	-	-	-	-	1,300	
Jerotaekmuan Co., LTD.	4.60	-	1,463	-	-	-	1,463	122	-	
Gvesco Opportunity-seeking general private real estate investment trust No.1	-	-	-	-	-	-	-	-	128	
GS Inima (Barka), LLC(formerly, GS Inima Fisia (Barka) LLC)	-	-	-	-	-	-	-	22	-	
Incheon New Port Smart Complex Co., Ltd	-	-	-	-	-	-	-	-	5	
Joint ventures										
Oasis Residences Real Estate, LLC	-	-	-	-	-	-	-	-	10,180	
Lignana LLP	-	-	-	-	-	-	-	-	11,002	

# GS Engineering & Construction Corporation and Subsidiaries

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### December 31, 2022 and 2021

(in millions of  
Korean won)

(in millions of Korean won)	2022									
	Annual interest rate (%)	Maturity date	Beginning	Increase	Transfer	Effects of changes in foreign exchange rates	Ending	Interest income	Equity transaction	
VESPOLINA SP. Z O.O.	-	-	-	-	-	-	-	-	2	
PDC INDUSTRIAL CENTER 198 SP.	-	-	-	-	-	-	-	-	366	
MAGNA PFV Corp.	-	-	-	-	-	-	-	-	37,000	
Others										
Oksan Ochang Highway Corporation	4.60	2047.12.31	2,040	3,120	-	-	5,160	209	-	
Eun Pyeong New Road Corp.	6.90	-	163	-	-	-	163	11	-	
			₩ 37,786	₩ 3,419	₩ 758	₩ 274	₩ 40,721	₩ 10,147	₩ 65,677	

(in millions of  
Korean won)

(in millions of Korean won)

	2021									
	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.	-	-	₩	- ₩	23,700 ₩	600 ₩	- ₩	23,100 ₩	204 ₩	-
		2022.01.17								
FGS East Asia		~								
Technical Resource	4.60	2022.10.15	959	-	342	87	704	49	-	
SoBaek Co., Ltd.	-	-	6,856	-	-	-	6,856	411	-	
PT. CORE	8.00~12.00									
RESOURCE		2022.12.31	2,763	-	-	247	3,010	275	-	
Zero Tech Co., Ltd.	4.60	-	1,550	-	1,100	-	450	97	-	
ORIGIN LATPHRAO CO., LTD.	-	-	-	-	-	-	-	-	1,209	
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED	-	-	-	-	-	-	-	709	14,692	
GYEONGGIPYEONG TAEK GLOBAL CO., LTD.	-	-	-	-	-	-	-	-	2,695	
GS Collective Fund I LLC	-	-	-	-	-	-	-	-	2,315	
Epoch PFV Co., Ltd.	-	-	-	-	-	-	-	-	3,144	
Jerotaekmuan Co., LTD.	4.60	-	1,463	-	-	-	1,463	67	-	
Bucheon Visual Culture Industrial	-	-	-	-	-	-	-	-	1,500	

# GS Engineering & Construction Corporation and Subsidiaries

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(in millions of  
Korean won)

(in millions of Korean won)	2021									
	Annual interest rate (%)	Maturity date	Beginning	Increase	Transfer	Effects of changes in foreign exchange rates	Ending	Interest income	Equity transaction	
Complex Development Co., Ltd.										
PHU MY VINH CONSTRUCTION & INVESTMENT CORPORATION	-	-	-	-	-	-	-	-	15,262	
<b>Joint ventures</b>										
GS MINH HUNG SIKICO CO., LTD.	-	-	-	-	-	-	-	-	2,426	
Lignana LLP	-	-	-	-	-	-	-	-	19,772	
<b>Others</b>										
Oksan Ochang Highway Corporation	4.60	2047.12.31	-	2,040	-	-	2,040	-	-	
Eun Pyeong New Road Corp.	6.90	-	163	-	-	-	163	11	-	
Pohang Yeongliman Ocean Cable car Co., Ltd.	4.60	2029.08.09	2,000	-	-	-	2,000	70	(3,000)	
			₩ 15,754	₩ 25,740	₩ 2,042	₩ 334	₩ 39,786	₩ 1,893	₩ 60,015	

#### (5) Guarantees between related parties

Details of payment guarantees that the Group provides to the related parties as of December 31, 2022 and 2021, are as follows:

(in millions of Korean won and in thousands of foreign currencies)

	Type	Beneficiary	Period	2022		2021	
<b>Associates</b>							
SoBaek Co., Ltd.	Payment guarantee	BNK Securities	-	KRW	-	KRW	90,400
		KB Securities	2022.08~2023.08	KRW	48,400	KRW	-
				KRW	100,000	KRW	-
		SC Bank	2021.04~2023.04	KRW	145,000	KRW	145,000
Beopwon Industry Urban Development Corp.	Conditional debt acquisition	MG Community Credit Cooperatives and others	-	KRW	-	KRW	27,925
Yeouido MBC Site MXD PFV. Inc	Conditional debt acquisition	NH Bank and others	2019.07~2024.01	KRW	428,813	KRW	480,942
Bucheon Visual Culture Industrial Complex Development Co. Ltd.	Payment guarantee	ACPG Bucheon Development Limited	2021.06~2024.06	USD	30,000	USD	30,000
EPOCH PFV Co., LTD.	Conditional debt acquisition	INDUSTRIAL BANK OF KOREA and others	2022.03~2024.09	KRW	96,600	KRW	-

# GS Engineering & Construction Corporation and Subsidiaries

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(in millions of Korean won and in thousands of foreign currencies)

	Type	Beneficiary	Period	2022		2021	
		Asia Asset Management Co., Ltd.	2022.03~2024.09	KRW	50	KRW	-
Cheonan Techno Park Inc.	Conditional debt acquisition	INDUSTRIAL BANK OF KOREA and others	2022.04~2026.04	KRW	210,000	KRW	-
Cheongju Hi Tech Valley	Conditional debt acquisition	Korea Investment & Securities Co., Ltd. and others	2022.04~2026.04	KRW	130,000	KRW	-
<b>Others</b>							
Oksan Ochang Highway Corporation	Payment guarantee	Meritz Fire & Marine Insurance CO., Ltd. and others	2015.10~2045.12	KRW	5,040	KRW	10,200
Seoul Munsan Expressway Co., Ltd	Payment guarantee	HANWHA GENERAL INSURANCE CO., LTD.	2018.02~2026.11	KRW	22,750	KRW	22,750
Busan East-West highway Corp <sup>1</sup>	Performance guarantee	Construction Guarantee Cooperative	-	KRW	-	KRW	24,757

<sup>1</sup> Excluded from the consolidation for the year ended December 31, 2022.

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, 2022 and 2021, are as follows:

(in millions of Korean won)	Type	Beneficiary	2022		2021	
<b>Associates</b>						
RENEW SOLAR ENERGY (JHARKHAND THREE) PRIVATE LIMITED	Equity securities	COOPERATIEVE RABOBANK U.A., HONG KONG BRANCH and others	₩	16,053	₩	16,703
GYEONGGIPYEONGTAEK GLOBAL CO., LTD.		KDB and others		4,000		-
<b>Others</b>						
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
Seoul Munsan Expressway Co., Ltd.	Equity securities	HANWHA GENERAL INSURANCE CO., LTD. and others		48,339		48,339
Busan East-West highway Corp <sup>1</sup>	Equity securities	KIAMCO Road Investment Private Fund Special Asset		-		11,007
	Blank checks	Trust 12 and 3 others		-		-

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

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<sup>1</sup> Excluded from the consolidation for the year ended December 31, 2022.

(7) Compensation for key management personnel of the Parent Company as of December 31, 2022 and 2021, consists of the following:

*(in millions of Korean won)*

	<b>2022</b>		<b>2021</b>	
Salaries	₩	35,808	₩	32,646
Severance benefits		4,312		4,816
	₩	<u>40,120</u>	₩	<u>37,462</u>

**GS Engineering & Construction Corporation and Subsidiaries**  
**Notes to the Consolidated Financial Statements**  
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**31. Cash Flows**

(1) Cash flows from operating activities for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>		<b>2021</b>	
	₩		₩	
<b>Profit for the year</b>		<b>441,212</b>		<b>428,803</b>
<b>Adjustments for:</b>				
Income tax expenses		223,686		229,127
Interest expenses		148,465		91,707
Interest income		(125,311)		(53,544)
Dividend income		(10,803)		(667)
Depreciation		72,714		45,360
Amortization		55,713		32,365
Depreciation of investment property		21,247		16,098
Depreciation of right-of-use assets		64,610		60,027
Bad debt expense		96,927		92,580
Reversal of allowance for bad debt		(50,580)		(87,719)
Provision for severance benefits		66,697		63,702
Loss on disposal of trade receivables		578		-
Gain on foreign currency translation		(100,658)		(73,717)
Loss (gain) on disposal of property, plant and equipment		(190)		(232)
Impairment loss on property, plant and equipment		2,570		-
Loss on disposal of intangible assets		130		315
Impairment loss on intangible assets		10,506		11,567
Gain on disposal of investment property		-		(2)
Impairment loss on investment property		-		5,775
Reversal of impairment loss on investment property		(2,700)		-
Impairment loss on right-of-use assets		3,364		-
Gain on valuation of derivatives		(12,703)		(27,003)
Loss (gain) on derivatives transactions		(11,469)		33,141
Reversal of financial guarantee liabilities		(2,133)		(26,065)
Construction warranty expenses		84,178		84,626
Reversal of provision for construction warranties		(4,237)		(4,226)
Loss on disposal of other assets		55		10
Loss on disposal of non-current assets and liabilities held for sale		-		4,678
Loss (gain) on valuation of financial assets at fair value through profit or loss		2,252		(1,674)
Loss on disposal of financial assets at fair value through profit or loss		-		496
Loss on disposal of long-term financial assets		2,259		31

**GS Engineering & Construction Corporation and Subsidiaries**  
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<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Loss on overseas operations translation	2,520	2,917
Gain on overseas operations translation	(3,119)	(1,790)
Gain on disposal of investments in associates	(850)	(523)
Share of profits of associates and joint ventures	(18,254)	(5,124)
Loss on changes in leases	4,135	2,510
Others	871	886
	<u>520,470</u>	<u>495,632</u>
<b>Changes in operating assets and liabilities</b>		
Trade receivables	(94,167)	(437,095)
Other receivables	58,093	218,111
Contract assets	(501,925)	107,740
Inventories	203,234	17,336
Settlement of derivatives transactions	(9,391)	(5,633)
Other current assets	(61,972)	31,266
Other non-current assets	(4,694)	(10,599)
Trade payables	101,060	39,606
Other payables	(293,067)	(85,380)
Contract liabilities	(121,028)	592,373
Other current liabilities	53,016	189,202
Other current provision	113,934	(17,954)
Non-current provision	(65,469)	(9,081)
Other non-current liabilities	19,377	(28,918)
Payment of severance benefits	(79,063)	(91,702)
Others	26,453	11,710
	<u>(655,609)</u>	<u>520,982</u>
	<u>₩ 306,073</u>	<u>₩ 1,445,417</u>

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

(2) Significant non-cash transactions for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>		2022		2021
Reclassification to current portion of borrowings	₩	569,478	₩	56,954
Reclassification to current portion of debentures		474,631		363,621
Reclassification of deposits for business to loans		269,721		171,190
Reclassification of long-term and short-term loans		255,576		57,265
Reclassification of investment property to inventories		161,583		-
Write-off of other receivables and others		78,570		-
Reclassification to current portion of leasehold deposits received		71,360		104,444
Changes in lease liabilities		63,795		36,496
Reclassification of plan assets to net defined benefit assets		40,801		45,704
Reclassification of other assets to property, plant and equipment		22,406		-
Reclassification to current portion of derivative assets		10,228		10,537
Reclassification of right-of-use assets to investment properties		1,956		90,215
Conversion of convertible bond		-		149,540

(3) Details of changes in liabilities arising from financing activities for the years ended December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	2022									
	Cash flows from		Impact on non-cash transactions							
	Beginning	financing activities	Additional expenses	Current portion	Transfer	Change in consolidation	Exchange differences	Ending		
Short-term borrowings	₩ 269,308	₩ 486,451	₩ 136	₩ 4,274	₩ 120,827	₩ -	₩ (1,853)	₩ 879,143		
Current portion of debentures	368,617	(365,524)	543	474,554	125	-	10,361	488,676		
Current portion of long-term borrowing	332,485	(10,065)	-	565,204	(131,742)	-	27,912	783,794		
Current financial guarantee liabilities	4,970	-	-	2,188	(496)	-	-	6,662		
Current lease liabilities	96,613	(14,717)	193	19,907	6,060	2,090	977	111,123		
Current portion of leasehold deposits received	140,700	(1,027)	-	(71,360)	-	-	(1)	68,312		
Other current	176,165	(1,965)	-	6,096	-	-	-	180,296		



# GS Engineering & Construction Corporation and Subsidiaries

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(in millions of  
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	2022							
	Beginning	Cash flows from financing activities	Impact on non-cash transactions					Ending
			Additional expenses	Current portion	Transfer	Change in consolidation	Exchange differences	
liabilities								
Debentures	672,531	72,060	897	(474,554)	(125)	99,899	15,378	386,086
Long-term borrowings	1,722,107	636,718	-	(569,478)	(2,910)	-	61,457	1,847,894
Financial guarantee liabilities	85,752	-	(2,133)	(2,188)	(977)	-	-	80,454
Leasehold deposits received	47,380	(70,351)	-	71,360	-	-	11	48,400
Non-current lease liabilities	420,874	(91,373)	(16)	(19,907)	64,061	85	(2,048)	371,676
Other non-current liabilities	34,351	2,862	-	(6,096)	-	-	-	31,117
	₩ 4,371,853	₩ 643,069	₩ (380)	₩ -	₩ 54,823	₩ 102,074	₩ 112,194	₩ 5,283,633

(in millions of  
Korean won)

(in millions of Korean won)	2021													
			Cash flows from financing activities	Impact on non-cash transactions										
	Beginning			Additional expenses	Current portion	Transfer	Exchange differences	Ending						
Short-term borrowings	₩	391,697	₩	(124,395)	₩	-	₩	11,336	₩	(10,880)	₩	1,550	₩	269,308
Current portion of debentures		159,286		(32,514)		548		363,621		(127,269)		4,945		368,617
Current portion of long-term borrowing		442,952		(173,805)		-		45,618		10,880		6,840		332,485
Current financial guarantee liabilities		28,925		-		-		(23,955)		-		-		4,970
Current lease liabilities		88,621		(2,822)		165		8,007		2,561		81		96,613
Current portion of leasehold deposits received		36,529		(273)		-		104,444		-		-		140,700
Other current liabilities		177,702		(2,510)		-		973		-		-		176,165
Debentures		785,407		228,255		1,044		(363,621)		-		21,446		672,531
Long-term borrowings		1,459,461		226,667		-		(56,954)		-		92,933		1,722,107
Financial guarantee liabilities		59,787		-		(34,116)		23,955		36,126		-		85,752
Leasehold deposits received		171,143		(18,907)		-		(104,444)		-		(412)		47,380
Non-current lease liabilities		479,911		(82,826)		3,156		(8,007)		28,154		486		420,874
Other non-current liabilities		20,882		14,442		-		(973)		-		-		34,351
	₩	4,302,303	₩	31,312	₩	(29,203)	₩	-	₩	(60,428)	₩	127,869	₩	4,371,853

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

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#### 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, 2022 and 2021, are as follows:

(in millions of Korean won and in thousands of foreign currencies)	2022			
	Financial assets		Financial liabilities	
	Foreign currency	Korean won equivalent	Foreign currency	Korean won equivalent
USD	652,354 ₩	826,727	1,297,666 ₩	1,449,743
EUR	12,514	16,879	465,296	628,676
KWD	409	1,695	2	10
JPY	-	-	58,021	553
SGD	-	-	1	2

  

(in millions of Korean won and in thousands of foreign currencies)	2021			
	Financial assets		Financial liabilities	
	Foreign currency	Korean won equivalent	Foreign currency	Korean won equivalent
USD	895,850 ₩	1,062,030	1,392,655 ₩	1,650,992
EUR	10,122	13,588	418,958	562,384
KWD	1,166	4,568	95	373
JPY	50	1	895,102	9,222
SGD	-	-	1	1

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### December 31, 2022 and 2021

As of December 31, 2022 and 2021, 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:

		2022		2021	
		Weakened (5%)	Strengthened (5%)	Weakened (5%)	Strengthened (5%)
USD	₩	(31,151)	₩ 31,151	₩ (29,448)	₩ 29,448
EUR		(30,590)	30,590	(27,440)	27,440
KWD		84	(84)	210	(210)
JPY		(28)	28	(461)	461

#### 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, 2022, the financial liabilities that are exposed to interest rate risk are the variable-rate borrowings issued at variable rates amounting to ₩ 3,256,055 million (2021: ₩ 2,384,523 million).

As of December 31, 2022, and 2021, if interest rates had been fluctuated by 100bp with all other variables held constant, interest expenses would have been affected as follows:

		2022		2021	
		100bp increase	100bp decrease	100bp increase	100bp decrease
Interest expenses	₩	23,819	₩ (23,819)	₩ 23,596	₩ (23,596)

#### (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.

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, 2022, for receivables with any signs of impairment or those for which recovery date has passed.

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The allowance provision for the trade receivable of the Group as of December 31, 2022, is as follows

<i>(in millions of Korean won)</i>	<b>Expected credit losses ratio (%)</b>	<b>Book value</b>	<b>Expected credit losses</b>
Receivable not past due	1.17%	₩ 238,597	₩ 2,801
Less than 3 months	1.36%	202,661	2,760
Between 4 ~ 12 months	2.50%	152,858	3,828
Between 13 ~ 24 months	6.30%	171,096	10,775
Between 25 ~ 36 months	8.50%	33,295	2,830
Over 36 months	61.78%	10,314	6,372
		<u>₩ 808,821</u>	<u>₩ 29,366</u>

In addition, the Group has recognized for doubtful account on trade receivables of ₩ 89,996 million by individual basis assessment as of December 31, 2022.

Details of maximum exposure to credit risk as of December 31, 2022 and 2021, are as follows:

<i>(in millions of Korean won)</i>	<b>2022</b>	<b>2021</b>
Cash equivalents (excluding cash on hands)	₩ 2,021,342	₩ 2,688,582
Trade and other receivables	3,251,679	2,200,132
Contract assets	1,555,865	960,336
Short-term financial assets	582,067	395,042
Long-term financial assets	713,678	600,464
Long-term trade and other receivables	1,204,451	1,195,973
Financial guarantee contracts	8,855,020	8,463,029

In addition to the above-mentioned financial guarantee contracts, the Group also has provided an intermediate payment loan guarantee agreement, a housing guarantee agreement, and a loan agreement. The maximum exposure to credit risk is the amount provided in the agreements (Note 21).

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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, 2022 and 2021, are as follows:

(in millions of Korean won)	Financial institutions	2022		2021	
		Limited amount	Used amount	Limited amount	Used amount
Short-term and long-term financial liabilities <sup>1</sup>	Korea Exim bank and others	₩ 8,972,045	₩ 6,339,120	₩ 8,429,252	₩ 5,863,050

<sup>1</sup> 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)	2022					
	Book value	Cash flow on contract	Residual maturity			
			Less than 1 year	Between 1 year and 2 years	Between 2 years and 3 years	Over 3 years
Trade and other payables	₩ 1,874,115	₩ 1,874,115	₩ 1,874,115	₩ -	₩ -	₩ -
Short-term and long-term financial liabilities <sup>1</sup>	4,987,663	5,376,548	2,444,632	924,715	530,724	1,476,477
Financial guarantee liabilities <sup>2</sup>	87,115	8,855,020	8,855,020	-	-	-
	₩ 6,948,893	₩ 16,105,683	₩ 13,173,767	₩ 924,715	₩ 530,724	₩ 1,476,477

<sup>1</sup> Includes interest expense.

<sup>2</sup> The cash flows on contract are the principal amount and commitment limits from the PF, redevelopment projects, SOC, overseas operations and others that are recognized as financial guarantee liabilities. In addition to the above-mentioned financial guarantee contracts, the Group also has provided an intermediate payment loan guarantee agreement and a housing guarantee agreement. The maximum exposure to liquidity risk is the amount provided in the agreements (Note 21).

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	2021						
	Book value	Cash flow on contract	Less than 1 year	Residual maturity			Over 3 years
				Between 1 year and 2 years	Between 2 years and 3 years		
Trade and other payables	₩ 1,656,079	₩ 1,658,477	₩ 1,658,477	₩ -	₩ -	₩ -	-
Short-term and long-term financial liabilities <sup>1</sup>	4,079,288	4,490,568	1,012,916	1,183,366	515,996		1,778,290
Financial guarantee liabilities <sup>2</sup>	90,722	8,463,029	8,463,029	-	-		-
	<u>₩ 5,826,089</u>	<u>₩ 14,612,074</u>	<u>₩ 11,134,422</u>	<u>₩ 1,183,366</u>	<u>₩ 515,996</u>		<u>₩ 1,778,290</u>

<sup>1</sup> Includes interest expense.

<sup>2</sup> The cash flows on contract are the principal amount and commitment limits from the PF, redevelopment projects, SOC, overseas operations and others that are recognized as financial guarantee liabilities.

(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, 2022 and 2021, are as follows:

(in millions of Korean won)	2022	2021
Total liabilities (A)	₩ 11,590,414	₩ 10,311,003
Total equity (B)	5,356,203	4,872,724
Deposits (C)	2,021,340	2,688,582
Borrowings (D)	4,385,592	3,365,048
Debt-to-equity ratio (A/B)	216%	212%
Net borrowings ratio ((D-C)/B)	44%	14%

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#### 33. Fair Value

For the year ended December 31, 2022, 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, 2022 and 2021, are as follows:

(in millions of Korean won)

	2022		2021	
	Book value	Fair value	Book value	Fair value
<b>Financial assets</b>				
Cash and cash equivalents	₩ 2,023,701	₩ 2,023,701	₩ 2,718,390	₩ 2,718,390
Trade and other receivables	3,251,679	3,251,679	2,200,132	2,200,132
Short-term financial assets	582,066	582,066	395,042	395,042
Long-term trade and other receivables	1,204,451	1,204,451	1,195,973	1,195,973
Long-term financial assets	713,678	713,678	600,464	600,464
Financial assets at fair value through profit or loss	273,951	273,951	250,735	250,735
	<u>₩ 8,049,526</u>	<u>₩ 8,049,526</u>	<u>₩ 7,360,736</u>	<u>₩ 7,360,736</u>
<b>Financial liabilities</b>				
Trade and other payables	₩ 1,874,115	₩ 1,874,115	₩ 1,656,079	₩ 1,656,079
Short-term financial liabilities	2,339,439	2,338,452	1,218,056	1,218,083
Other current liabilities	556,307	556,307	546,689	546,689
Long-term financial liabilities	2,735,340	2,726,847	2,951,954	2,950,403
Other non-current liabilities	85,454	85,454	68,414	68,414
	<u>₩ 7,590,655</u>	<u>₩ 7,581,175</u>	<u>₩ 6,441,192</u>	<u>₩ 6,439,668</u>

# GS Engineering & Construction Corporation and Subsidiaries

## Notes to the Consolidated Financial Statements

### December 31, 2022 and 2021

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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, 2022 and 2021.
- 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, 2022 and 2021, are as follows:

(in millions of Korean won)

		2022			
		Level 1	Level 2	Level 3	Total
<b>Financial assets</b>					
Derivative assets	₩	- ₩	32,187 ₩	- ₩	32,187
Financial assets at fair value through profit or loss		661	-	273,290	273,951
<b>Financial liabilities</b>					
Derivative liabilities		-	2,560	-	2,560



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		2021			
		Level 1	Level 2	Level 3	Total
<b>Financial assets</b>					
Short-term financial assets	₩	- ₩	61,756 ₩	- ₩	61,756
Derivative assets		-	15,566	-	15,566
Financial assets at fair value through profit or loss		128	-	250,607	250,735
<b>Financial liabilities</b>					
Derivative liabilities		-	8,672	-	8,672

(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, 2022.

(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, 2022, are as follows:

(in millions of Korean won)

		2022				Range of inputs (weighted average)
	Fair value	Level	Valuation techniques	Inputs		
<b>Financial assets at fair value through profit or loss</b>						
Gyongbuk Green Energy	₩ 1,644	3	Discounted cash flow model	Discount rate		14.78%
Ulsan green Co., Ltd.	2,653	3	Dividend discount model	Discount rate		11.44%
Wonju Green Co., Ltd.	456	3	Discounted cash flow model	Discount rate		10.67%
Public Development Co., Ltd.	4,688	3	Discounted cash flow model	Discount rate		9.69%
Angelswing Co., Ltd.	1,433	3	Binomial model	Discount rate		22.32%
CHEMICO ADVANCED MATERIALS CO., LTD.	2,659	3	Binomial model	Risk-free rate of return		4.07%
				Discount rate		21.08%
Gaya Railway Co., Ltd.	115	3	Shareholders' discounted cash flow model	Risk-free rate of return		4.05%
				Discount rate		6.62%
Gumi Green Water Co., Ltd.	1,577	3	Discounted cash flow model	Discount rate		6.60%
Masan Drain Co., Ltd.	339	3	Dividend discount model	Discount rate		6.10%
Seoul Northern Highway Co., Ltd.	2,509	3	Dividend discount model	Discount rate		10.54%

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Oksan Ochang Highway Corporation	2,132	3	Dividend discount model	Discount rate	10.56%
West Seoul Urban Expressway Inc.	51,076	3	SPA compliance assessment	-	-
Pyeongtaek EOS	1,872	3	Discounted cash flow model	Discount rate	14.78%
Other equity securities	200,137	3	Precedent transactions analysis	-	-
<b>Derivative assets</b>					
Currency forward	32,187	2	Present value method	CD rate	1.39% ~ 4.02%
<b>Derivative liabilities</b>					
Currency forward	2,560	2	Present value method	CD rate	1.39% ~ 4.02%

(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., a subsidiary of GLOBAL WATER SOLUTION CO., LTD., 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>	<b>Principal business activity</b>	<b>Countries</b>	<b>Start date</b>	<b>Expiry date</b>	<b>Amount</b>	<b>Classification</b>
Aguas de Ensenada, S.A. de C.V.	Seawater desalinating plant and others/ DBOOT (design, construction, operation, possession and transfer at the end of project period)	Mexico	2018.06	2036.05	₩ 63,823	Financial assets
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	60,600	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	2042.01	65,025	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	72,469	Financial assets
GS Inima Industrial Triunfo, S.A.(formerly, Distribuidora de Aguas Triunfo S.A.)	Industrial waterworks in chemical complex and others / AOO (Operation through acquisition of shares)	Brazil	2014.03	2054.02	109,610	Intangible assets
GS Inima Barka 5 Desalination Company, S.A.O.C.	Seawater desalinating plant and others/ DBOOT (design, construction, operation, possession and transfer at the end of project period)	Oman	2024.06	2044.06	83,400	Financial assets

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**35. Business Combination**

The Group acquired 60% of shares of XI C&A CO., LTD. (formerly, S&I Engineering & Construction Co., Ltd.) from D&O CORP. (formerly, S&I Corp.). The date of acquisition is March 4, 2022.

(in millions of Korean won)

	<b>Amount</b>	
Consideration <sup>1</sup>		
Cash and cash equivalents	₩	289,989
		<u>289,989</u>
Assets		
Cash and cash equivalents		98,796
Trade receivables and other receivables		430,801
Inventories		1,285
Short-term financial assets		25,965
Other current assets		79,561
Property, plant and equipment		839
Intangible assets		42,270
Right-of-use assets		2,168
Long-term trade receivables and other receivables		164
Long-term financial assets		365
Financial assets measured at fair value through profit or loss		5,289
Other non-current assets		2,706
Liabilities		
Trade payables and other payables		329,323
Current lease liabilities		2,090
Other current liabilities		61,928
Long-term financial liabilities		99,899
Lease liabilities		85
Other non-current liabilities		15,647
Recognized amounts of identifiable assets acquired	₩	181,237
Non-controlling interests		(72,495)
Goodwill		181,247
	₩	<u>289,989</u>

<sup>1</sup> Cash flows in relation to business combination for the year ended December 31, 2022, are as follows:

(in millions of Korean won)

	<b>Amount</b>	
Payments in relation to business combination	₩	289,989
Cash held by acquired subsidiary		98,796
	₩	<u>191,193</u>