DOOSAN BOBCAT INC. AND SUBSIDIARIES

Consolidated Financial Statements

December 31, 2022 and 2021

DOOSAN BOBCAT INC. AND SUBSIDIARIES
Index
December 31, 2022 and 2021

Independent Auditor's Report
(English Translation of a Report Originally Issued in Korean)

To the Shareholders and Board of Directors of
Doosan Bobcat Inc.

Opinion

We have audited the accompanying consolidated financial statements of Doosan Bobcat Inc. 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 consolidated financial statements for the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

(1) Revenue recognition: Estimation of liabilities related to revenue deductions

Why it is determined to be a key audit matter

As at December 31, 2022, the Group has recorded USD 68 million of liabilities related to revenue deductions, including incentives, promotions and rebates. The Group offers customers a variety of incentive and promotion programs. Costs incurred in connection with these programs are recognized as deductions from revenue. Incentive and rebate arrangements are complex, and significant judgement of management is required in estimating amounts that the Group is expected to pay. Given the extent of complexity and judgement involved, we consider estimation of revenue deductions related to incentives, promotions and rebates recognized as at December 31, 2022 (Note 3) to be a key audit matter.

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How our audit addressed the key audit matter

We have, utilizing the work of component auditors, performed related audit procedures including the followings. We:

- Obtained an understanding and evaluated design and operating effectiveness of related internal controls
- Performed lookback analysis by comparing the estimations of prior years to actual results
- Evaluated appropriateness of methods used by management and whether they have been consistently applied
- Tested completeness of sales quantity information subject to revenue deductions programs
- For selected samples, tested accuracy of the inputs and variables used for the management estimates, including sales quantity information, costs incurred, and associated contractual rates

(2) Impairment assessment of goodwill

Why it is determined to be a key audit matter

As at December 31, 2022, the carrying amount of goodwill is USD 2,617 million, which accounts for 35.9% of the total assets of the Group. The Group performed an impairment assessment on goodwill by using estimated recoverable amount of goodwill allocated to the cash-generating units group (CGU group) and did not recognize goodwill impairment as the recoverable amount of CGU group exceeds its carrying amount. Given the magnitude of goodwill balance in the consolidated financial statement, and the extent of judgement of management in estimating the recoverable amount, we consider impairment assessment of goodwill to be a key audit matter (Note 10).

How our audit addressed the key audit matter

Key audit procedures we have performed in relation to the goodwill impairment assessment are as follows. We have utilized the auditor's experts in performing audit procedures related to the goodwill impairment assessment. We:

- Obtained an understanding and evaluated how management assessed goodwill impairment
- Evaluated reasonableness of identifying CGU by management for its assessment of goodwill impairment
- Obtained an understanding and evaluated design and operating effectiveness of related internal controls
- Evaluated appropriateness of valuation model used for estimation of values in use.
- Assessed the qualification and independence of management's experts
- Evaluated reasonableness of key assumptions such as discount rates, growth rates and etc. used in the valuation model by comparing those with market outlook and historical financial information of the Group

(3) Impairment assessment of capitalized development costs

Why it is determined to be a key audit matter

As at December 31, 2022, the carrying amount of development costs capitalized as intangible asset amounts to USD 137 million. The Group operates several R&D centers in the U.S., Europe, and other regions, and invests significant amounts in development of new products and technologies. Given the magnitude of the balance of development costs capitalized in the consolidated financial statement, and the extent of judgement of management required, we consider impairment assessment of capitalized development costs to be a key audit matter (Note 10).

How our audit addressed the key audit matter

We evaluated the accounting policies applied by the Group for the recognition and impairment of capitalized development costs. In addition, we have, utilizing the work of component auditors, performed the related audit procedures including the followings. We:

- Obtained the details of capitalized development costs and reconciled the total amount to the amount recorded in the general ledger
- Tested on a sample basis, capitalized development costs by examining the occurrence of the related costs and assessing whether the criteria set out in the relevant accounting standards have been met.
- Evaluated management's impairment assessment for the development costs selected as sample by interviewing with appropriate project managers regarding the progress and outlook of the project, verifying whether costs have been continually incurred for the project, and assessing the reasonableness of the forecast of sales generated from the project.
- Verified existence of any discontinued development projects and the projects that are not expected to be completed.

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 Dong-Kyu Cho, Certified Public Accountant.

Seoul, Korea

March 15, 2023

Samil PricewaterhouseCoopers

This report is effective as at March 15, 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.

DOOSAN BOBCAT INC. AND SUBSIDIARIES
Consolidated Statements of Financial Position
December 31, 2022 and 2021

(in USD)	Notes	December 31, 2022	December 31, 2021
Assets			
Current assets			
Cash and cash equivalents	4,5	$ 551,570,225	$ 802,834,133
Short-term financial instruments	4,5	5,381,589	16,633,125
Trade and other receivables, net	4,5,6,26,35	490,765,783	363,747,684
Inventories, net	7	1,302,795,556	972,840,902
Other current assets		79,702,338	64,208,997
Assets held-for-sale	38	2,144,342	11,655,613
Total current assets		$ 2,432,359,833	$ 2,231,920,454
Non-current assets			
Long-term financial instruments	4,5	$ 2,786,887	$ 3,107,495
Long-term financial assets	4,5	3,517,757	853,675
Long-term trade and other receivables, net	4,5,6,26,35	17,419,150	16,074,397
Investment in associates	12	4,336,956	42,643,724
Property, plant and equipment, net	9	768,290,753	805,031,428
Intangible assets, net	10	3,794,489,708	3,894,786,910
Investment properties	11	92,578,344	100,617,475
Deferred tax assets	31	44,296,907	40,593,082
Right-of-use assets	13,35	108,617,227	82,662,520
Net defined benefit assets	17	8,842,068	-
Other non-current assets	4,5	20,173,065	19,920,114
Total non-current assets		$ 4,865,348,822	$ 5,006,290,820
Total assets		$ 7,297,708,655	$ 7,238,211,274
Liabilities			
Current liabilities			
Trade and other payables	4,5,14,26,35	$ 1,204,139,835	$ 910,013,318
Short-term borrowings	4,5,15	42,563,526	17,887,666
Current portion of long-term borrowings	4,5,15	40,063,164	23,849,410
Income tax payable	31	31,387,250	23,801,711
Lease liabilities	4,5,13,35	28,178,536	19,566,464
Provisions	18	89,543,968	85,704,090
Sales and leaseback liabilities	4,5,16	21,699,226	26,095,556
Other current liabilities	4,5,26	162,800,972	153,823,572
Liabilities held for sale	38	-	3,059,578
Total current liabilities		$ 1,620,376,477	$ 1,263,801,365
Non-current liabilities			
Other non-current payables	4,5,14,35	$ 10,094,801	$ 13,687,331
Bonds	4,5,15	-	296,197,196
Long-term borrowings	4,5,15	932,894,625	1,152,488,391
Net defined benefit liabilities	17	182,444,384	292,136,493
Deferred tax liabilities	31	304,633,288	281,871,512
Long-term derivative liabilities	5,8	1,050,038	586,091
Non-current lease liabilities	4,5,13,35	87,372,524	69,075,113
Non-current provisions	18	92,123,523	85,989,916
Non-current sales and leaseback liabilities	4,5,16	39,334,329	66,502,005
Other non-current liabilities	26	62,745,143	70,776,065
Total non-current liabilities		$ 1,712,692,655	$ 2,329,310,113
Total liabilities		$ 3,333,069,132	$ 3,593,111,478
Equity			
Equity attributable to owners of the Parent Company			
Capital stock	1,19	$ 43,095,528	$ 43,095,528
Capital surplus	19	2,254,870,601	2,254,875,266
Other equity item	20,21	(179,177,950)	(178,407,620)
Accumulated other comprehensive loss	22	(318,615,934)	(200,924,057)
Retained earnings	23	2,164,467,278	1,726,460,679
Total equity		$ 3,964,639,523	$ 3,645,099,796
Total liabilities and equity		$ 7,297,708,655	$ 7,238,211,274

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

DOOSAN BOBCAT INC. AND SUBSIDIARIES
Consolidated Statements of Profit or Loss
Years Ended December 31, 2022 and 2021

(in USD)	Notes	2022	2021
Sales	24,25,26,35	$ 6,673,564,667	$ 5,082,225,030
Cost of sales	27	(5,165,366,819)	(4,004,259,957)
Gross profit		1,508,197,848	1,077,965,073
Selling and administrative expenses	27,28	(678,748,741)	(557,755,477)
Operating profit		829,449,107	520,209,596
Non-operating income (expenses)			
Finance income	5,29	92,882,671	49,934,438
Finance expenses	5,29	(219,896,207)	(132,011,678)
Other non-operating income	30,35	4,594,151	23,069,237
Other non-operating expenses	30,35	(22,384,634)	(15,666,095)
Gains on equity method	12	1,354,747	9,736,770
		(143,449,272)	(64,937,328)
Profit before income tax expense		685,999,835	455,272,268
Income tax expense	31	(187,485,158)	(118,080,828)
Profit for the year		$ 498,514,677	$ 337,191,440
Profit is attributable to:			
Owners of the Parent Company		$ 498,514,677	$ 337,191,440
Earnings per share attributable to the owners of the Parent Company	32		
Basic earnings per share		$ 4.97	$ 3.36
Diluted earnings per share		$ 4.97	$ 3.36

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

DOOSAN BOBCAT INC. AND SUBSIDIARIES
Consolidated Statements of Comprehensive Income
Years Ended December 31, 2022 and 2021

(in USD)	2022	2021
Profit for the year	$ 498,514,677	$ 337,191,440
Other comprehensive income		
Items that will not be reclassified to profit or loss		
Remeasurements of net defined benefit liabilities	84,196,003	46,483,477
Gain on revaluation of property, plant and equipment	7,951	4,796,885
Gain on valuation of equity instruments at fair value through other comprehensive income	542,453	-
Share of retained earnings of associates	-	(16,476)
Share of other comprehensive income of associates	-	642,941
Replacement of other comprehensive income of associates to retained earnings	(851,146)	-
Items that may be subsequently reclassified to profit or loss		
Loss on translation of foreign operations	(117,881,445)	(144,132,540)
Gain (loss) on valuation of derivatives	490,310	(169,015)
Total comprehensive income for the year	$ 465,018,803	$ 244,796,712
Total comprehensive income for the year is attributable to:		
Owners of the Parent Company	$ 465,018,803	$ 244,796,712

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

DOOSAN BOBCAT INC. AND SUBSIDIARIES

Consolidated Statements of Changes in Equity

Years Ended December 31, 2022 and 2021

(in USD)	Attributable to owners of the Parent Company					
	Capital Stock	**Capital Surplus**	**Other Equity Items**	**Accumulated Other Comprehensive Income (Loss)**	**Retained Earnings**	**Total Equity**
Balance at January 1, 2021	$ 43,095,528	$ 2,598,877,780	$ (178,407,620)	$ (62,062,328)	$ 1,342,802,238	$ 3,744,305,598
Total comprehensive income:						
Profit for the year	-	-	-	-	337,191,440	337,191,440
Remeasurements of net defined benefit liability	-	-	-	-	46,483,477	46,483,477
Loss on translation of foreign operations	-	-	-	(144,132,540)	-	(144,132,540)
Loss on valuation of derivatives	-	-	-	(169,015)	-	(169,015)
Revaluation surplus of property, plant and equipment	-	-	-	4,796,885	-	4,796,885
Share of retained earnings of associates	-	-	-	-	(16,476)	(16,476)
Share of other comprehensive income of associates	-	-	-	642,941	-	642,941
	-	-	-	- (138,861,729)	- 383,658,441	- 244,796,712
Capital Transactions with owners						
Business combination	-	(349,115,689)	-	-	-	(349,115,689)
Changes in other additional capital	-	5,113,175	-	-	-	5,113,175
	-	(344,002,514)	-	-	- -	- (344,002,514)
Balance at December 31, 2021	$ 43,095,528	$ 2,254,875,266	$ (178,407,620)	$ (200,924,057)	$ 1,726,460,679	$ 3,645,099,796
Balance at January 1, 2022, as previously reported	$ 43,095,528	$ 2,254,875,266	$ (178,407,620)	$ (200,924,057)	$ 1,726,460,679	$ 3,645,099,796
Total comprehensive income:						
Profit for the year	-	-	-	-	498,514,677	498,514,677
Remeasurements of net defined benefit liability	-	-	-	-	84,196,003	84,196,003
Loss on translation of foreign operations	-	-	-	(117,881,445)	-	(117,881,445)
Gain on valuation of derivatives	-	-	-	490,310	-	490,310
Revaluation surplus of property, plant and equipment	-	-	-	7,951	-	7,951
Gain on valuation of equity instruments at fair value through other comprehensive income	-	-	-	542,453	-	542,453
Replacement of other comprehensive income of associates to retained earnings	-	-	-	(851,146)	851,146	-
	-	-	-	(117,691,877)	583,561,826	465,869,949
Capital Transactions with owners						
Acquisition of treasury shares	-	-	(1,083,711)	-	-	(1,083,711)
Share compensation expenses	-	-	313,381	-	-	313,381
Annual dividend	-	-	-	-	(99,354,971)	(99,354,971)
Interim dividend	-	-	-	-	(46,200,256)	(46,200,256)
Changes in other additional capital	-	(4,665)	-	-	-	(4,665)
	-	(4,665)	(770,330)	-	(145,555,227)	(146,330,222)
Balance at December 31, 2022	$ 43,095,528	$ 2,254,870,601	$ (179,177,950)	$ (318,615,934)	$ 2,164,467,278	$ 3,964,639,523

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

DOOSAN BOBCAT INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

Years Ended December 31, 2022 and 2021

(in USD)	Note	2022	2021
Cash flows from operating activities			
Cash generated from operations:	36	$ 811,018,565	$ 534,916,035
Profit for the year		498,514,677	337,191,440
Adjustments		531,097,517	369,873,418
Changes in operating assets and liabilities		(218,593,629)	(172,148,823)
Interest received		2,301,632	3,316,303
Interest paid		(62,776,115)	(45,866,308)
Income tax paid		(195,030,653)	(104,310,400)
Net cash inflow from operating activities		555,513,429	388,055,630
Cash flows from investing activities			
Cash inflows from investing activities:			
Decrease in loan		2,461,396	24,000,000
Disposal of property, plant and equipment		3,149,557	12,971,626
Disposal of intangible asset		51,001	-
Disposal of investment in associates		32,778,495	-
Disposal of business		40,570,747	47,578,553
Disposal of short-term financial assets		73,532,257	95,244,753
Other investing activities		7,006,021	6,877,667
		159,549,474	186,672,599
Cash outflows for investing activities:			
Acquisition of property, plant and equipment		136,079,991	180,278,443
Acquisition of intangible asset		51,439,491	46,271,296
Acquisition of investment properties		-	67,720
Increase in loan		-	389,884
Acquisition of short-term financial asset		66,566,044	90,875,727
Acquisition of long-term financial asset		2,207,740	-
Business combination		-	595,961,469
		(256,293,266)	(913,844,539)
Net cash outflow from investing activities		(96,743,792)	(727,171,940)
Cash flows from financing activities			
Cash inflows from financing activities:			
Increase in borrowing		1,140,380,582	548,371,206
Collection of preferred share issuance costs		-	5,113,175
Increase of sales and leaseback liabilities		20,432,501	-
		1,160,813,083	553,484,381
Cash outflows for financing activities:			
Repayment of borrowing		1,327,044,492	81,182,896
Dividend paid		145,555,227	-
Payment of lease liabilities		26,025,847	23,171,778
Repayment of sales and leaseback liabilities		42,724,726	6,970,873
Acquisition of treasury shares		1,083,711	-
Repayment of bonds		308,814,000	-
Other outflows of cash		4,665	-
		(1,851,252,668)	(111,325,547)
Net cash inflow (outflow) financing activities		(690,439,585)	442,158,834
Effects of exchange rate changes on cash and cash equivalents		(19,593,960)	(15,335,819)
Classification of assets held for sale		-	(3,809,395)
Net increase in cash and cash equivalents		(251,263,908)	83,897,310
Cash and cash equivalents at the beginning of the year		802,834,133	718,936,823
Cash and cash equivalents at the end of the year		$ 551,570,225	$ 802,834,133

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

1. General Information

Doosan Bobcat Inc. ("DBI" or the "Company") was incorporated on April 25, 2014 by being split off from Doosan Infracore Co., Ltd. Main business purposes of the Company is to control and manage its subsidiaries (with the Company, collectively, referred to as the "Group") that manufacture and distribute compact construction equipment and others mainly in the Americas, Europe and Asia.

On November 18, 2016, the Company listed its shares on the securities market established by the Korea Stock Exchange. After several capital increases and capital reductions, the capital stock as at December 31, 2022 amounts to $43,096 thousand.

Doosan Infracore Co., Ltd., the largest shareholder of the Company was merged with Doosan Enerbility Co., Ltd. by dividing its investment business from the entity on July 1, 2021. As a result, the Company's largest shareholder has been changed to Doosan Enerbility Co., Ltd. The number of shares and the percentage of ownership held by the largest shareholder remain unchanged.

The Company's shareholders as at December 31, 2022 are as follows:

Shareholder	Number of shares owned	Percentage of ownership (%)
Doosan Enerbility Co., Ltd.	51,176,250	51.05
Treasury shares	33,117	0.03
Others	49,039,799	48.92
	100,249,166	100.00

1.1 Consolidated Subsidiaries

Details of the consolidated subsidiaries as at December 31, 2022 and 2021, are as follows:

Name of subsidiary	Principal business activity	Location	Ownership interest held by the Group (%) December 31, 2022	December 31, 2021	Fiscal year end
Clark Equipment Co.	Manufacturing and sales	USA	100	100	December
Clark Equipment Co.'s subsidiaries:					
Bobcat Equipment Ltd.	Sales	Canada	100	100	December
Doosan Bobcat EMEA s.r.o.	Manufacturing and sales	Czech	100	100	December
Doosan Bobcat EMEA s.r.o.'s subsidiaries:					
Bobcat Bensheim GmbH.	Sales	Germany	100	100	December
Doosan Holdings France S.A.S.	Holdings	France	100	100	December
CJSC Doosan International Russia	Sales	Russia	100	100	December
Doosan International UK Ltd.	Sales	England	100	100	December
Doosan International South Africa Pty Ltd.	Sales	South Africa	100	100	December
Bobcat France S.A.	Manufacturing	France	100	100	December
Geith International Ltd.	Sales	Ireland	100	100	December
Rushlift Ltd.[1]	Rental and sales	England	100	100	December
Doosan Bobcat Singapore Pte. Ltd.	Holdings	Singapore	100	100	December
Doosan Bobcat Singapore Pte. Ltd's subsidiaries:					

Name of subsidiary	Principal business activity	Location	Ownership interest held by the Group (%) December 31, 2022	December 31, 2021	Fiscal year end
Doosan Bobcat Chile Compact SpA. [2]	Sales	Chile	-	100	December
Doosan Bobcat China Co., Ltd.	Manufacturing and sales	China	100	100	December
Doosan Bobcat India Private Ltd.	Manufacturing and sales	India	100	100	March
Bobcat Corp.	Sales	Japan	100	100	December
Doosan Bobcat Mexico S.A. de C.V.	Other service	Mexico	100	100	December
Doosan Industrial Vehicle Co., Ltd.	Manufacturing and sales	Korea	100	100	December
Doosan Industrial Vehicle Co., Ltd.'s subsidiaries:					
Doosan Industrial Vehicle Europe N.V.	Sales	Belgium	100	100	December
Doosan Industrial Vehicle U.K. Ltd.	Sales	England	100	100	December
Doosan Logistics Europe GmbH	Manufacturing and sales	Germany	100	100	December
Doosan Industrial Vehicle America Corp.	Sales	USA	100	100	December
Doosan Equipment South East, LLC	Rental and sales	USA	100	100	December
Doosan Industrial Vehicle China Co., Ltd.	Manufacturing and sales	China	100	100	December
Genesis Forklift Trucks Limited	Manufacturing	England	100	100	December
Rushlift Holdings Ltd.	Holdings	England	100	100	December
Doosan Materials Handling UK Ltd.	Holdings	England	100	100	December
Doosan Bobcat Global Collaboration Center, Inc	Other service	USA	100	100	December
Doosan Bobcat Korea Co., Ltd.[3]	Sales	Korea	100	100	December

[1] In 2022, shares in Rushlift Ltd. were transferred from Doosan Industrial Vehicle Co., Ltd. to Doosan Bobcat EMEA s.r.o.
[2] In 2022, the Group sold Doosan Bobcat Chile Compact SpA.
[3] In 2022, through a capital reduction in Doosan Bobcat Singapore Pte. Ltd., Doosan Bobcat Inc. acquired a direct ownership stake in Doosan Bobcat Korea Co., Ltd.

1.2 Summarized Financial Information

Summarized financial information of the consolidated subsidiaries as at and for the year ended December 31, 2022 is as follows:

(in thousands of USD)	2022				
	Assets	Liabilities	Sales	Profit (loss) for the year	Total comprehensive income (loss)
Doosan Bobcat Korea Co., Ltd.	$ 194,280	$ 109,943	$ 272,166	$ 21,971	$ 21,658
Clark Equipment Co. and its subsidiaries	4,868,480	2,500,631	4,540,838	473,269	555,249
Bobcat Equipment Ltd.	133,651	53,665	327,582	9,463	9,463
Doosan Bobcat EMEA s.r.o. and its subsidiaries	2,159,139	535,143	1,208,973	33,697	33,609
Bobcat Bensheim GmbH	51,934	11,329	84,284	2,080	2,080
Bobcat France S.A.	101,798	66,899	158,723	3,707	4,366
Geith International Ltd.	44,979	27,632	66,796	5,675	5,675

Rushlift Ltd.	96,266	87,421	65,756	(1,034)	(1,034)
Doosan Bobcat Singapore Pte. Ltd. and its subsidiaries	201,246	93,975	367,275	(5,808)	(5,808)
Doosan Bobcat China Co., Ltd	97,413	56,574	57,700	(7,017)	(7,017)
Doosan Bobcat India Private Ltd.	79,921	38,218	92,620	(1,788)	(1,788)
Doosan Industrial Vehicle Co., Ltd. and its subsidiaries	786,776	476,576	1,107,246	26,194	29,219
Doosan Industrial Vehicle Europe N.V.	50,690	32,480	98,866	1,859	1,859
Doosan Industrial Vehicle America Corp.	216,431	168,738	512,828	9,492	9,492
Doosan Industrial Vehicle China Co., Ltd.	47,397	30,617	83,865	4,147	4,147

1.3 Changes in Scope for Consolidation

Change in the scope for consolidation for the year ended December 31, 2022 is as follows:

Name of Subsidiary	Details	Reason
Doosan Bobcat Chile Compact S.p.A.	Excluded from the consolidation	Disposal

Change in the scope for consolidation for the year ended December 31, 2021 is as follows:

Name of Subsidiary	Details	Reason
Doosan International Australia Pty Ltd.	Excluded from the consolidation	Liquidation
Doosan Industrial Vehicle Co., Ltd.	Newly included	Acquisition
Doosan Industrial Vehicle Europe N.V.	Newly included	Acquisition
Doosan Industrial Vehicle U.K. Ltd.	Newly included	Acquisition
Doosan Logistics Europe GmbH	Newly included	Acquisition
Doosan Industrial Vehicle America Corp.	Newly included	Acquisition
Doosan Equipment South East, LLC	Newly included	Acquisition
Doosan Industrial Vehicle China Co., Ltd.	Newly included	Acquisition
Genesis Forklift Trucks Limited	Newly included	Acquisition
Rushlift Holdings Ltd.	Newly included	Acquisition
Doosan Materials Handling UK Ltd.	Newly included	Acquisition
Rushlift Ltd.	Newly included	Acquisition

2. Significant Accounting Policies

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

2.1 Basis of Preparation

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 financial statements have been prepared on a historical cost basis, except for the following:

- Certain financial assets and liabilities (including derivative instruments), certain classes of property, plant and equipment and investment property – measured at fair value
- assets held-for-sale – measured at fair value less costs to sell, and
- defined benefit pension plans – plan assets measured at fair value

The preparation of financial statements requires the use of critical accounting estimates. Management also needs to exercise judgement in applying the Group's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in Note 3.

2.2 Changes in Accounting Policies and Disclosures

(a) New standards and interpretations 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.

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

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

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

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendments do not have a significant impact on the financial statements.

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

The amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts when assessing whether the contract is onerous. The amendments do not have a significant impact on the financial statements.

- *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 amendments do 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
- Korean IFRS 1041 *Agriculture* – Measuring fair value

(b) New and amended 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.

- *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 the process of reviewing the impact of these amendments on the financial statements.

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

The amendments to Korean IFRS 1001 define and require entities to disclose their material accounting policies. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in the process of reviewing the impact of these amendments on the financial statements.

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

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

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

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

- *New Standard: Korean IFRS 1117 Insurance Contract*

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.

- *Korean IFRS 1001 Presentation of Financial Statements - Disclosure of gains and losses on financial liabilities subject to Exercise price adjustments*

The amendments to Korean IFRS 1001 require entities to disclose the book value of the financial liability and related gains and losses when all or part of a financial instrument subject to the condition that the exercise price is adjusted according to the fluctuations in the stock price of the issuer is classified as a financial liability. 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.

2.3 Consolidation

The Group has prepared the consolidated financial statements in accordance with Korean IFRS 1110 *Consolidated Financial Statements*.

(a) Subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

A business combination is accounted for by applying the acquisition method, unless it is a combination involving entities or business under common control. The assets and liabilities acquired under business combinations under common control are recognized at the carrying amounts recognized previously in the consolidated financial statements of the ultimate parent. The difference between consideration transferred and carrying amounts of net assets acquired is recognized in capital surplus.

In the case of accounting by the acquisition method, the consideration transferred is measured at the fair values of the assets transferred, and identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The Group recognizes any non-controlling interest in the acquired entity on an acquisition-by-acquisition basis either at fair value or at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets. All other non-controlling interests are measured at fair values, unless otherwise required by other standards. Acquisition-related costs are expensed as incurred.

The excess of consideration transferred, amount of any non-controlling interest in the acquired entity and acquisition-date fair value of any previous equity interest in the acquired entity over the fair value of the net identifiable assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the business acquired, the difference is recognized directly in the profit or loss as a bargain purchase.

Intercompany transactions, balances and unrealized gains on transactions between Group companies are eliminated. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A change in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interest to reflect their relative interest in the subsidiary. Any difference between the amount of the adjustment to non-controlling interest and any consideration paid or received is recognized in a separate reserve within equity attributable to owners of the Parent Company.

When the Group ceases to consolidate a subsidiary because of a loss of control, any retained interest in the subsidiary is remeasured to its fair value with the changed in carrying amount recognized in profit or loss.

(b) Associates

Associates are entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting, after initially being recognized at cost. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. If the Group's share of losses of an associate equals or exceeds its interest in the associate (including long-term interests that, in substance, form part of the Group's net investment in the associate), the Group discontinues recognizing its share of further losses. After the Group's interest is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate. If there is an objective evidence of impairment for the investment in the associate, the Group recognizes the difference between the recoverable amount of the associate and its book amount as impairment loss. If an associate uses accounting policies other than those of the Group for like transactions and events in similar circumstances, if necessary, adjustments shall be made to make the associate's accounting policies conform to those of the Group when the associate's financial statements are used by the Group in applying the equity method.

(c) Joint Arrangements

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

2.4 Foreign Currency Translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which each entity operates (the "functional currency"). The parent company's functional currency is Korean Won, whereas the consolidated financial statements are presented in US dollar.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognized in profit or loss.

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary assets and liabilities such as equities held at fair value through profit or loss are recognized in profit or loss as part of the fair value gain or loss and translation differences on non-monetary assets such as equities held at fair value through other comprehensive income are recognized in other comprehensive income.

(c) Translation to the presentation currency

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

- assets and liabilities for each statement of financial position presented are translated at the closing rate at the end of the reporting period,
- income and expenses for each statement of profit or loss are translated at average exchange rates, unless this average is not reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rates on the dates of the transactions,
- all resulting exchange differences are recognized in other comprehensive income.

Exchange differences arising from the translation of any net investment in foreign entities, and of borrowings and other financial instruments designated as hedges of such investments, are recognized in equity. When a foreign operation is sold or any borrowings forming part of the net investment are repaid, the associated exchange differences are reclassified to profit or loss, as part of the gain or loss on sale. Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

2.5 Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, bank deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash with insignificant risk of change in value.

2.6 Financial Assets

(a) Classification

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

- those to be measured at fair value through profit or loss

- those to be measured at fair value through other comprehensive income, and

- those to be measured at amortized cost.

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

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

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

(b) Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

A. Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the asset. The Group classifies its debt instruments into one of the following three measurement categories:

- Amortized cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost. A gain or loss on a debt investment that is subsequently measured at amortized cost and is not part of a hedging relationship is recognized in profit or loss when the asset is derecognized or impaired. Interest income from these financial assets is included in 'finance income' using the effective interest rate method.

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

- Fair value through profit or loss: Assets that do not meet the criteria for amortized cost or fair value through other comprehensive income are measured at fair value through profit or loss. A gain or loss on a debt investment that is subsequently measured at fair value through profit or loss and is not part of a hedging relationship is recognized in profit or loss and presented net in the statement of profit or loss within 'finance income or expenses' in the year in which it arises.

B. Equity instruments

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

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

(c) Impairment

The Group assesses on a forward looking basis the expected credit losses associated with its debt instruments carried at amortized cost and fair value through other comprehensive income. The impairment methodology applied depends on whether there has been a significant increase in credit risk. For trade receivables and lease receivables, the Group applies the simplified approach, which requires expected lifetime credit losses to be recognized from initial recognition of the receivables.

(d) Recognition and Derecognition

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

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

(e) Offsetting of financial instruments

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

2.7 Derivative Instruments

Derivatives are initially recognized at fair value on the date when a derivative contract is entered into and are subsequently remeasured at their fair value at the end of each reporting period. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognized immediately in profit or loss.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in the cash flow hedge reserve within other comprehensive income or loss and the ineffective portion is recognized in profit or loss.

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group has hedge relationships and designates certain derivatives as either:

- hedges of the fair value of recognized assets or liabilities or a firm commitment (fair value hedges)

- hedges of a particular risk associated with the cash flows of recognized assets and liabilities and highly probable forecast transactions (cash flow hedges), or

- hedges of a net investment in a foreign operation (net investment hedges)

At inception of the hedge relationship, the Group documents the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items. The Group documents its risk management objective and strategy for undertaking its hedge transactions. The fair values of derivative financial instruments designated in hedge relationships are disclosed in Note 8. Movements in the cash flow hedge reserve are shown in Note 22.

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 more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. A non-derivative financial asset and a non-derivative financial liability is classified as a current or non-current based on its expected maturity and its settlement, respectively.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in the cash flow hedge reserve within equity, limited to the cumulative change in fair value (present value) of the hedged item (the present value of the cumulative change in the future expected cash flows of the hedged item) from the inception of the hedge. The ineffective portion is recognized in profit or loss.

When option contracts are used to hedge forecast transactions, the Group designates only the intrinsic value of the option contract as the hedging instrument. Gains or losses relating to the effective portion of the change in intrinsic value of the option contracts are recognized in the cash flow hedge reserve within equity. The changes in the time value of the option contracts that relate to the hedged item (‘aligned time value’) are recognized within the costs of hedging in other comprehensive income within equity.

When forward contracts are used to hedge forecast transactions, the Group generally designates only the change in fair value of the forward contract related to the spot element as the hedging instrument. Gains or losses relating to the effective portion of the change in the spot element of the forward contracts are recognized in the cash flow hedge reserve within equity. The change in the forward element of the contract that relates to the hedged item is recognized within other comprehensive income within equity. In some cases, the Group may designate the full change in fair value of the forward contract (including forward points) as the hedging instrument. In such cases, the gains or losses relating to the effective portion of the change in fair value of the entire forward contract are recognized in the cash flow hedge reserve within equity.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss, as follows:

- Where the hedged item subsequently results in the recognition of a non-financial asset (such as inventory), both the deferred hedging gains and losses and the deferred time value of the option contracts or deferred forward points, if any, are included within the initial cost of the asset. The deferred amounts are ultimately recognized in profit or loss as the hedged item affects profit or loss (for example through cost of sales).

- The gain or loss relating to the effective portion of the interest rate swaps hedging variable rate borrowings is recognized in profit or loss within ‘finance cost’ at the same time as the interest expense on the hedged borrowings.

When a hedging instrument expires, or is sold, terminated, exercised, or when a hedge no longer meets the criteria for hedge accounting, any accumulated cash flow hedge reserve at that time remains in equity until the forecast transaction occurs, resulting in the recognition of a non-financial asset such as inventory. When the forecast transaction is no longer expected to occur, the cash flow hedge reserve and deferred costs of hedging that were reported in equity are immediately reclassified to profit or loss.

2.8 Inventory

Inventories are stated at the lower of cost and net realizable value. Cost of inventories includes fixed and variable manufacturing overhead costs that are systematically allocated to inventories using appropriate methods based on each category of inventory. The cost of inventories is determined using the weighted average method, except for materials in transit which are determined using specific identification method. During the year, perpetual inventory systems are used to value inventories, which are adjusted to physical inventory counts performed at the end of the year.

The Group periodically reviews changes in net realizable value of its inventories (current replacement cost for raw materials) due to damage, obsolescence, decline in selling prices and others and, if appropriate, recognizes loss on inventory valuation. Loss on inventory valuation is charged to cost of sales when it is ordinary and to other expense when it is extraordinary. When the circumstances that previously caused inventories to be written down below cost no longer exist and the new market value of inventories subsequently recovers, the related valuation loss is reversed to the extent of the original valuation loss when the reversal is deducted from cost of sales.

2.9 Non-current Assets (or Disposal Group) Held-for-sale

Non-current assets (or disposal Group) are classified as held-for-sale when their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. The assets are measured at the lower amount between their carrying amount and the fair value less costs to sell.

2.10 Property, Plant and Equipment

Property, plant and equipment are initially stated at cost and subsequently recorded at cost, less accumulated depreciation and accumulated impairment losses, except for land, which is recorded using the valuation model. When the useful life of each part of an item of property, plant and equipment is different compared to that of the item, each part is recognized separately. The cost of an item of property, plant and equipment is directly attributable to its purchase or construction, including the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent costs incurred to replace part of previously recognized item of property, plant and equipment are added to the carrying amount of an asset, or recognized as a separate asset, if it is probable that future economic benefits associated with the assets will flow to the Group and the cost of the asset can be measured reliably. The carrying amount of what was replaced is derecognized. Routine maintenance and repairs are expenses as incurred.

Depreciation expense for property, plant and equipment other than land is computed using the straight-line method, which reflects most closely the pattern in which the asset's economic benefits are expected to be consumed by the Group over the estimated useful lives of the assets as follows:

	Useful lives
Buildings	7 – 40 years
Machinery	6 – 15 years
Vehicles	3 – 6 years
Office equipment	3 – 6 years

If a part of a property, plant and equipment has a cost that is significant in relation to the total cost of property, plant and equipment, it is depreciated separately.

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

When the carrying amount of property, plant and equipment is higher than the recoverable amount, the carrying amount is adjusted to the recoverable amount and the difference is recognized as an impairment loss. Meanwhile, when the recoverable amount subsequently exceeds the carrying amount of the impaired asset, the excess is recorded as a reversal of impairment loss to the extent that the reversed asset does not exceed the carrying amount before previous impairment as adjusted by depreciation. Upon derecognition of property, plant and equipment, the difference between the net disposal proceed and the carrying amount of the item is recognized in other non-operating income (expense).

2.11 Government Grants

For the purpose of acquisition of certain assets, government grants related to assets are accounted for as a deduction from related assets on the date that the related assets are received.

If a government grant that will be received is not subject to specific conditions attached to it, government grants related to primary operating activity are recognized in operating income; otherwise, those are recognized in other non-operating income. Meanwhile, expense related to the government grants is to be offset first and then recognized in profit and loss.

2.12 Intangible Assets

Intangible assets are initially measured at cost and are carried at cost, less accumulated amortization and accumulated impairment losses. Subsequent expenditure on an intangible asset is capitalized only when it is probable that the expected future economic benefits that are attributable to the asset will increase.

Intangible assets other than goodwill and intangible assets with indefinite useful lives are amortized using the straight-line method with no residual value, with amortization beginning when the asset is available for use. However, useful lives of membership and other intangible assets with similar nature are determined to be indefinite as there is no foreseeable limit to the period over which the assets are expected to generate net cash inflow from the Group and they are not amortized, but tested for impairment once a year.

	Useful lives
Industrial rights	5 – 10 years
Development costs	5 years
Other intangible assets	3 – 20 years

Goodwill acquired from business combination is measured as the consideration transferred in excess of acquisition-date fair value of any previous equity interest in the acquired entity over the fair value of the net identifiable assets acquired and is classified as intangible assets. Goodwill is not subject to amortization and tested annually for impairment. Goodwill is carried at cost less accumulated impairment losses, if any. Impairment loss recognized for goodwill is not reversed. For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units or groups of cash-generating units that are expected to benefit from the synergies of the combination.

Expenditures relating to development activities are capitalized when the result of the development is for the development of new products or substantial improvement of functions of existing products, there is technical and commercial feasibility of completing the development and the Group has the ability to measure reliably the expenditure attributable to the development. Capitalized development costs include expenditure on materials, salaries, wages and other employment-related costs of personnel directly engaged in generating assets and related overhead cost that is systematically allocated. Capitalized development costs are presented at the acquisition cost, less accumulated amortization and accumulated impairment losses. Capitalized development costs are amortized using the straight-line method over the estimated useful life and amortization expenses are included in cost of goods manufactured and amortization in selling and administrative expenses. The expenditure on research and development that does not meet the conditions noted above is recognized as an expense when it is incurred.

The estimated useful life and amortization method for intangible assets with finite useful lives are reviewed at the end of each reporting period and for the assets that have been assessed as having indefinite useful life, that assessment is revisited each period, with the effect of any changes in estimate being accounted for as a change in accounting estimate.

2.13 Investment Property

Investment property is property held to earn rentals or for capital appreciation or both. An investment property is measured initially at its cost. After recognition as an asset, investment property is carried at cost less accumulated depreciation and impairment losses. The Group depreciates investment properties, except for land and investment property replaced by leased assets, using the straight-line method over their useful lives of 19 years.

2.14 Impairment of Non-financial Assets

Goodwill and intangible assets that have an indefinite useful life are not subject to amortization and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset’s carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset’s fair value less costs of disposal and value in use. Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

2.15 Financial Liabilities

(a) Classification and measurement

The Group’s financial liabilities at fair value through profit or loss are financial instruments held for trading. A financial liability is held for trading if it is incurred principally for the purpose of repurchasing in the near term. A derivative that is not a designated as hedging instruments and an embedded derivative that is separated are also classified as held for trading.

The Group classifies non-derivative financial liabilities, except for financial liabilities at fair value through profit or loss, financial guarantee contracts and financial liabilities that arise when a transfer of financial assets does not qualify for derecognition, as financial liabilities carried at amortized cost and present as ‘trades payables’, ‘borrowings’, and ‘other liabilities’ in the statement of financial position.

(b) Derecognition

Financial liabilities are removed from the statement of financial position when they are extinguished. This occurs, for example, when the obligation specified in the contract is fulfilled or cancelled, when it expires, or when the terms of an existing financial liability are substantially modified. The difference between the carrying amount of a financial liability extinguished or transferred to another party and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

(c) Financial Guarantee Contracts

Financial guarantee contracts are recognized as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value, subsequently at the higher of following and recognized in the statement of financial position within ‘other liabilities’.

- the amount determined in accordance with the expected credit loss model 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*

2.16 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 the Group will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. A provision is measured using the present value of the cash flows estimated to settle the present obligation when the effect of the time value of money is material. At the end of each reporting period, the remaining provision balance is reviewed and assessed to determine if the current best estimate is being recognized. The increase in provision due to passage of time is recognized as interest expense. If the existence of an obligation to transfer economic benefit is no longer probable, the related provision is reversed during the period. When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received. In the consolidated statements of profit or loss, a net amount is presented, being the anticipated cost of the obligation, less the reimbursement.

2.17 Current and Deferred Tax

The tax expense for the year consists of current and deferred tax. Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

The current income tax expense is measured at the amount expected to be paid to the taxation authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation, and considers whether it is probable that a taxation authority will accept an uncertain tax treatment. The Group measures its tax balances either based on the most likely amount or the expected value, depending on which method provides a better prediction of the resolution of the uncertainty.

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

Deferred tax assets are recognized only if it is probable that future taxable amounts will be available to utilize those temporary differences and losses.

The Group recognizes a deferred tax liability for all taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint arrangements, except to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. In addition, The Group recognizes a deferred tax asset for all deductible temporary differences arising from such investments to the extent that it is probable the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends to settle on a net basis.

2.18 Employee Benefits

(a) Post-employment benefits

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

For defined contribution plans, the Group pays contribution to publicly or privately administered pension insurance plans on mandatory, contractual or voluntary basis. The Group has no further payment obligation once the contribution has been paid. The contribution is recognized as employee benefit expense when 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 depends on the employee's age, periods of service and salary levels. The liability recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms approximating to the terms of the related obligation. Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in the period in which they occur, directly in other comprehensive income.

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.

(b) Share-based Compensation

The Group's share-based payment transactions for services received from its employees are share-settled or cash-settled. Share-settled transactions granted to employees are measured at the fair value of equity instruments at the grant date and are recognized as profit or loss and other capital items at a fixed rate over the vesting period. Furthermore, cash-settled transactions granted to employees are remeasured at the fair value of the equity instrument at the end of each reporting period and at the settlement date until the liability is settled, and changes in fair value are recognized in profit or loss. It is recognized as current expenses and liabilities over the vesting period until settlement.

2.19 Revenue Recognition

The Group has applied Korean IFRS 1115 *Revenue from Contracts with Customers* for annual reporting period beginning on January 1, 2018. In accordance with K-IFRS 1115, the Group recognizes revenue from all types of the contracts by using the five-step revenue recognition model. The five-step revenue recognition model is as follows:

- Identify contracts with customers
- Identify the separate performance obligation
- Determine the transaction price of the contract

- Allocate the transaction price to each of the separate performance obligations, and
- Recognize the revenue as each performance obligation is satisfied.

(a) Identify the separate performance obligation

The Group engages in manufacturing and distributing compact construction equipment. The Group provides an extended warranty service in connection with the sale of product based on the contract.

(b) Performance obligations recognizing through the periods: Extended warranty services

The Group provides an extended warranty for products for coverage beyond the standard warranty period, and a customer has an option to purchase the extended warranty separately. Therefore, the extended warranty is classified as separate performance obligation according to the K-IFRS 1115, and a portion of the transaction price is allocated to that performance obligation in order to recognize revenue based on the progress towards complete satisfaction of the performance obligation.

(c) Allocate the transaction price to each of the separate performance obligations

The Group allocates the transaction price in an arrangement to each separate performance obligation based on the relative stand-alone selling prices of the goods or services being provided to a customer. The stand-alone selling prices of goods or services are observable in most cases. However, if the stand-alone selling prices are not directly observable, the Group estimates the selling prices by using expected cost plus a margin approach.

(d) Sales with a right of return

The Group estimates an amount of variable consideration by using the expected value which the Group expects to better predict the amount of consideration. The Group recognize revenue with transaction price including variable consideration 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 refund period has lapsed. The refund liability is measured at the amount of consideration received for which the Group does not expect to be entitled.

2.20 Lease

Contracts may contain both lease and non-lease components. The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices.

Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

The Group determines the lease term as the non-cancellable period of a lease, together with both (a) periods covered by an option to extend the lease if the lessee is reasonably certain to exercise that option; and (b) periods covered by an option to terminate the lease if the lessee is reasonably certain not to exercise that option. When the lessee and the lessor each has the right to terminate the lease without permission from the other party, the Group should consider a termination penalty in determining the period for which the contract is enforceable.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- Fixed payments (including in-substance fixed payments), less any lease incentives receivable

- Variable lease payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date

- Amounts expected to be payable by the Group (the lessee) under residual value guarantees

- The exercise price of a purchase option if the Group (the lessee) is reasonably certain to exercise that option, and

- Payments of penalties for terminating the lease, if the lease term reflects the Group (the lessee) exercising that option

Lease liability measurement also include payments to be made in option periods if the lessee is reasonably certain to exercise an option to extend the lease.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

The Group determines the incremental borrowing rate by excluding hedge effects from the borrowing rate of Clark Equipment Co. which had the financing from third-party.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability

- any lease payments made at or before the commencement date less any lease incentives received

- any initial direct costs, and

- restoration costs

Lease payments of short-term lease (a lease term of 12 months or less at the commencement date) and low value assets (at acquisition cost less than or equal to USD 5,000) will be recognized immediately in profit or loss under straight-line method.

2.21 Earnings Per Share

Basic earnings per common share are computed by dividing net income attributable to owners of the Group by the weighted-average number of common shares outstanding during the period. Diluted earnings per common share are computed by dividing diluted net income attributable to the owners of the Group, which is adjusted by adding back the after-tax amount of expenses related to dilutive potential ordinary shares, by the weighted-average number of common shares and dilutive potential ordinary shares outstanding during the period. Antidilutive potential ordinary shares are disregarded in the calculation of diluted earnings per share.

2.22 Dividend

Dividend payable is recognized as liability when declaration of the dividend is approved at the shareholders' meeting.

2.23 Segment Reporting

Information of each operating segment is reported in a manner consistent with the internal business segment reporting provided to management. The management of the Group is responsible for allocating resources and assessing performance of the operating segments.

2.24 Approval of Issuance of the Financial Statements

The consolidated financial statements 2022 were approved for issue by the Board of Directors on February 9, 2023 and are subject to change with the approval of shareholders at their Annual General Meeting.

3. Critical Accounting Estimates and Assumptions

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

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

(a) Revenue recognition – Revenue deductions

The Group offers customers a variety of promotion and incentive programs and its costs incurred are recognized as deductions from revenue. Any unsettled amounts are recognized on an accrual basis. These liabilities related to revenue deductions are estimated based on historical experience and judgement of management when the related revenue recognized. The Group's revenue is affected by these estimated revenue deductions.

(b) Impairment of goodwill

The Group annually performs impairment assessment on goodwill. Recoverable amount of cash-generating units is based on the higher of value in use or net fair value (fair value less cost of disposals). The calculation for impairment assessment requires accounting estimates (Note 10).

(c) Impairment of capitalized development cost

The Group performs an assessment for impairment of capitalized development costs at the end of each reporting period by reviewing project's business forecast, technical feasibility and future economic benefit. The assessment on indication of impairment or calculation of recoverable amount of capitalized development costs involves management's estimates and judgments (Note 10).

(d) Income taxes

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

Current and deferred income tax is measured using the tax rates that have been enacted or substantively enacted by the end of the reporting period when the asset is realized or the liability is settled. However, the ultimate corporate income tax may not correspond to the related assets and liabilities recognized at the end of the current reporting period. Such difference may affect current and deferred tax assets and liabilities at the time when final tax effect is determined.

A deferred tax asset is recognized for the carryforward of unused tax losses to the extent that it is probable that future taxable profit will be available against which the unused tax losses can be utilized.

The future taxable profit measured by management's estimate involves management's significant judgement, and this could affect the Group's deferred tax assets.

If certain portion of the taxable income is not used for investments, increase in wages or others in accordance with the tax system for recirculation of corporate Income, the Group is liable to pay additional income tax calculated based on the tax laws. Accordingly, the measurement of current and deferred income tax is affected by these tax effects. As the Group's income tax is dependent on the investments, increase in wages and others, there is an uncertainty measuring the final tax effects. (Note 29).

(e) Net defined benefit liability

The present value of net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate (Note 17).

(f) Warranty provision

The Group provides warranty for products when the related revenue is recognized. At the end of each reporting period, provisions are recorded for the best estimated costs to fulfill current and future warranty obligations. These estimates may change in future due to additional provisions required under local legislation and practice (Note 18).

(g) Impairment of financial assets

The provision for impairment for financial assets are based on assumptions about risk of default and expected loss rates in accordance with K-IFRS 1109. 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 (Note 4).

4. Financial Risk Management

4.1 Financial Risk Factors

The Group's financial risk management focuses on improving financial structure and efficiency of liquidity management for stable and consistent financial performance of the Group by minimizing market risk, credit risk and liquidity risk.

The Group's treasury function primarily manages the financial risks with the assistance of other Group's functions. Financial risks are identified, assessed, and managed according to financial risk management policies, and the potential impacts of financial risks are regularly monitored.

4.1.1 Market Risk

(a) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from foreign currency transactions. Foreign exchange risk arises from recognized assets and liabilities and net investments in foreign entities.

Foreign currency risk is managed based on the Group's policy on foreign currencies and the Group's key strategy for managing this risk is to reduce a volatility of financial performances due to fluctuations in foreign exchange rates.

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

(in thousands of USD)	December 31, 2022				
	USD	EUR	GBP	Others[1]	Total
Financial assets	$ 554,509	$ 35,560	$ 45,481	$ 8,904	$ 644,454
Financial liabilities	(1,023,719)	(59,688)	(16,845)	(23,262)	(1,123,514)
Net	$ (469,210)	$ (24,128)	$ 28,636	$ (14,358)	$ (479,060)

(in thousands of USD)	December 31, 2021				
	USD	EUR	GBP	Others[1]	Total
Financial assets	$ 398,976	$ 29,141	$ 66,490	$ 57,333	$ 551,940
Financial liabilities	(1,060,903)	(59,455)	(89,054)	(197,223)	(1,406,635)
Net	$ (661,927)	$ (30,314)	$ (22,564)	$ (139,890)	$ (854,695)

[1] Others are assets and liabilities denominated in foreign currencies other than USD, EUR and GBP.

The table below summarizes the impact of weakened/strengthened functional currency on the Group's profit before income tax expense for the year. The analysis is based on the assumption that the functional currency has weakened/strengthened by 10% against the respective foreign currencies above with all other variables held constant.

(in thousands of USD)	Year ended December 31, 2022		Year ended December 31, 2021	
	10% increase in foreign exchange currency rate	10% decrease in foreign exchange currency rate	10% increase in foreign exchange currency rate	10% decrease in foreign exchange currency rate
Profit (loss) before income tax expense	$ (47,906)	$ 47,906	$ (85,470)	$ 85,470

(b) Interest rate risk

Interest rate risk is defined as the risk that the interest income and interest expenses arising from deposits and borrowings will fluctuate because of changes in future market interest rate. The interest rate risk mainly arises on floating rate deposits and borrowings.

The Group manages interest rate risk through various activities. These include minimizing external borrowings by utilizing internal fund availability, reducing borrowings with higher interest rates, improving maturity structure of borrowings, maintaining appropriate balance between floating rate and fixed rate, and a regular monitoring of market trend and developing action plans.

Financial liabilities with floating interest rates, excluding the borrowings subject to the interest rate swap contract (Note 8), exposed to interest rate risk are as follows:

(in thousands of USD)	December 31, 2022	December 31, 2021
Financial liabilities	$ 958,506	$ 1,135,486

The table below summarizes the impact of increases/decreases of interest rate on the Group's annual income before income tax expense. The analysis is based on the assumption that the interest rate has increased/decreased by 1% (100 basis points) with all other variables held constant.

(in thousands of USD)	Impact on the profit before income tax estimated for the year ended			
	December 31, 2022		December 31, 2021	
	100 bp increase	100 bp decrease	100 bp increase	100 bp decrease
Profit (loss) before income tax expense	$ (9,585)	$ 9,585	$ (11,355)	$ 11,355

4.1.2 Credit Risk

Credit risk arises during the normal course of transactions and investing activities where customers or other parties are unable to comply with contractual obligations. The Group sets out and monitors credit limits for its customers and counterparts on a periodic basis considering financial conditions, historical experiences and other factors.

Credit risk arises from cash and cash equivalents, derivatives and deposits in banks and financial institutions, as well as the Group's receivables.

Main objectives of credit risk management are to efficiently manage credit risk based on the Group's credit policies, to promptly support decision-making processes and to minimize financial losses through safeguarding receivables. An allowance for doubtful accounts is specifically recognized for the receivables with impairment indicators individually identified. The Group uses the simplified approach to recognize the loss allowance for lifetime expected credit loss for a group of receivables with similar credit-risk nature that are not individually significant.

Maximum exposures of financial assets of the Group exposed to credit risk as at December 31, 2022 and 2021, are as follows.

(in thousands of USD)	December 31, 2022	December 31, 2021
Cash and cash equivalents	$ 551,570	$ 802,834
Short-term financial instrument[1]	5,382	16,633
Trade and other receivables	490,766	363,748
Long-term financial instruments[2]	2,787	3,107
Long-term financial investments	3,518	854
Long-term trade and other receivables	17,419	16,074
Other non-current assets	7,724	9,080
	$ 1,079,166	$ 1,212,330

[1] Short-term financial instruments include deposits restricted in use in relation to Win-win growth fund.
[2] Long-term financial instruments include deposits restricted in use in relation to government bids, and deposits pledged as collaterals in relation to sublease deposits.

Aging analysis of the Group's receivables as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)

	December 31, 2022						
	Individually impaired receivables	Receivables assessed for impairment on a collective basis					Total
		Within due	0–3 months	3–6 months	6–12 months	Over 12 months	
Trade receivables	$ 2,123	$ 407,063	$ 51,887	$ 9,679	$ 4,357	$ 2,563	$ 477,672
Other receivables	748	13,016	6,552	-	-	3	20,319
Accrued income	344	180	-	-	-	-	524
Short-term loans	254	47	-	-	-	-	301
Long-term other receivables	-	17,419	-	-	-	-	17,419
	$ 3,469	$ 437,725	$ 58,439	$ 9,679	$ 4,357	$ 2,566	$ 516,235

(in thousands of USD)

	December 31, 2021						
	Individually impaired receivables	Receivables assessed for impairment on a collective basis					Total
		Within due	0–3 months	3–6 months	6–12 months	Over 12 months	
Trade receivables	$ 9,025	$ 272,521	$ 44,172	$ 3,353	$ 1,970	$ 4,259	$ 338,300
Other receivables	1,091	30,193	3,562	-	230	104	35,180
Accrued income	71	198	-	-	-	-	269
Short-term loans	3,038	61	-	-	-	-	3,099
Long-term other receivables	-	16,074	-	-	-	-	16,074
	$ 13,225	$ 322,047	$ 47,734	$ 3,353	$ 2,200	$ 4,363	$ 392,922

Receivables with specific impairment indicators such as insolvency and bankruptcy are individually assessed using appropriate allowance rates. A group of financial assets with similar credit risk characteristics that are not individually material is assessed for expected credit losses based on aging analysis and the credit risk characteristics.

As at the end of the reporting period, the aging analysis of allowance for bad debts on trade receivables and other receivables are as follows.

(in thousands of USD)

	December 31, 2022						
	Allowance for bad debts for individually impaired receivables	Provision on receivables assessed for impairment on a collective basis					Total
		Within due	0–3 months	3–6 months	6–12 months	Over 12 months	
Trade receivables	$ 2,040	$ 2,218	$ 697	$ 342	$ 676	$ 2,032	$ 8,005
Other receivables	-	-	42	-	-	3	45
	$ 2,040	$ 2,218	$ 739	$ 342	$ 676	$ 2,035	$ 8,050

(in thousands of USD)	December 31, 2021						
	Allowance for bad debts for individually impaired receivables	Provision on receivables assessed for impairment on a collective basis					
		Within due	0–3 months	3–6 months	6–12 months	Over 12 months	Total
Trade receivables	$ 8,747	$ 667	$ 487	$ 249	$ 350	$ 2,520	$ 13,020
Other receivables	1	-	31	-	46	2	80
	$ 8,748	$ 667	$ 518	$ 249	$ 396	$ 2,522	$ 13,100

4.1.3 Liquidity Risk

Liquidity risk refers to the risk that the Group may encounter difficulties in meeting its obligations to repay financial liabilities or obtain additional funding for its normal business operation due to liquidity shortage.
The Group secures and maintains the appropriate level of liquidity and accordingly manages the liquidity risk in advance by forecasting the projected cash flows from operating, investing and financing activities for a three-month period as well as annual fiscal year.

Details of annual repayment schedule of financial liabilities (except derivatives) as at December 31, 2022 and 2021, are as follows:

(in thousands of USD)	December 31, 2022					
		Contractual nominal cash flows				
	Book amount	Total	Less than 1 year	1-2 years	3-5 years	More than 5 years
Trade payables	$ 880,744	$ 880,744	$ 880,744	$ -	$ -	$ -
Other payables (current and non-current)	333,491	333,491	324,716	3,223	1,603	3,949
Other current liabilities	3,570	3,570	3,570	-	-	-
Borrowings	1,015,521	1,431,463	153,144	89,402	312,163	876,754
Lease liabilities	115,551	126,800	31,185	25,148	48,296	22,171
Sale and leaseback liabilities	61,034	66,812	24,027	12,701	24,642	5,442
	$ 2,409,911	$ 2,842,880	$ 1,417,386	$ 130,474	$ 386,704	$ 908,316

(in thousands of USD)	December 31, 2021					
		Contractual nominal cash flows				
	Book amount	Total	Less than 1 year	1-2 years	2-5 years	More than 5 years
Trade payables	$ 668,252	$ 668,252	$ 668,252	$ -	$ -	$ -
Other payables (current and non-current)	255,448	255,448	243,474	5,505	2,291	4,178
Other current liabilities	4,545	4,545	4,545	-	-	-
Borrowings	1,194,225	1,266,273	68,167	77,650	1,120,456	-
Lease liabilities	88,642	98,062	22,503	17,863	35,607	22,089
Bonds	296,197	361,100	17,870	17,870	325,360	-
Sale and leaseback liabilities	92,598	99,726	29,106	30,069	34,140	6,411
	$ 2,599,907	$ 2,753,406	$ 1,053,917	$ 148,957	$ 1,517,854	$ 32,678

The amounts of financial liabilities by remaining maturity included in above represent undiscounted contractual nominal cash flows (including interest expenses), assuming the earliest period in which the Group may be required to pay, and therefore differ from the financial liabilities recognized in the consolidated statements of financial position. In addition, apart from the financial liabilities above, the maximum exposure related with financial guarantees provided by the Group as at December 31, 2022 is disclosed in Note 33.

4.2 Capital Risk Management

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

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt. Consistent with others in the industry, the Group monitors capital on the basis of the debt-to-equity ratio which is calculated by dividing total liabilities by total equity in the financial statements.

Debt-to-equity ratio as at December 31, 2022 and 2021, are as follows:

(in thousands of USD)	December 31, 2022	December 31, 2021
Debt	$ 3,333,069	$ 3,593,111
Equity	3,964,640	3,645,100
Debt-to-equity ratio	84.07%	98.57%

5. Financial Instruments by Category

5.1 Carrying Amounts of Financial Instruments by Category

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

(in thousands of USD)	December 31, 2022			
Assets	**Financial assets at amortized cost**	**Financial assets at fair value through profit or loss**	**Financial assets at fair value through OCI**	**Total**
Cash and cash equivalents	$ 551,570	$ -	$ -	$ 551,570
Short-term financial instruments	5,382	-	-	5,382
Trade and other receivables	440,843	-	49,923	490,766
Long-term trade and other receivables	17,419	-	-	17,419
Long-term financial instruments	2,787	-	-	2,787
Long-term financial investments	-	2,312	1,206	3,518
Other non-current assets	7,724	-	-	7,724
	$ 1,025,725	$ 2,312	$ 51,129	$ 1,079,166

(in thousands of USD)	December 31, 2022		
Liabilities	**Financial liabilities at amortized cost**	**Other financial liabilities[1]**	**Total**
Trade and other payables	$ 1,204,140	$ -	$ 1,204,140
Borrowings	1,015,521	-	1,015,521
Derivative liabilities (current and non-current)	-	1,050	1,050
Sale and leaseback liabilities (current and non-current)	61,034	-	61,034
Other current liabilities	3,570	-	3,570
Other non-current liabilities	10,095	-	10,095
Lease liabilities (current and non-current)	-	115,551	115,551
	$ 2,294,360	$ 116,601	$ 2,410,961

[1] Other financial liabilities include hedging derivative liabilities, financial guarantee liabilities, and lease liabilities that are not applied to financial liabilities by category.

(in thousands of USD)	December 31, 2021			
Assets	**Financial assets at amortized cost**	**Financial assets at fair value through profit or loss**	**Financial assets at fair value through OCI**	**Total**
Cash and cash equivalents	$ 802,834	$ -	$ -	$ 802,834
Short-term financial instruments	16,633	-	-	16,633
Trade and other receivables	346,459	-	17,289	363,748
Long-term trade and other receivables	16,074	-	-	16,074
Long-term financial instruments	3,107	-	-	3,107
Long-term financial investments	-	111	743	854
Other non-current assets	9,080	-	-	9,080
	$ 1,194,187	$ 111	$ 18,032	$ 1,212,330

(in thousands of USD)	December 31, 2021		
Liabilities	**Financial liabilities at amortized cost**	**Other financial liabilities[1]**	**Total**
Trade and other payables	$ 910,013	$ -	$ 910,013
Bonds	296,197	-	296,197
Borrowings	1,194,225	-	1,194,225
Derivative liabilities (current and non-current)	-	586	586
Sale and leaseback liabilities (current and non-current)	92,598	-	92,598
Other current liabilities	4,545	-	4,545
Other non-current liabilities	13,687	-	13,687
Financial guarantee liabilities	-	1	1
Lease liabilities (current and non-current)	-	88,642	88,642
	$ 2,511,265	$ 89,229	$ 2,600,494

[1] Other financial liabilities include derivative liabilities, financial guarantee liabilities, and lease liabilities that are not applied to financial liabilities by category.

During the year ended December 31, 2022, there have been no significant changes in the business and economic environment affecting the fair value of the Group’s financial assets and liabilities. Assets and liabilities whose carrying value is a reasonable approximation of fair value are excluded from the fair value disclosure above.

5.2 Fair Value Hierarchy

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

(in thousands of USD)	December 31, 2022			
	Level 1 [1]	Level 2 [1]	Level 3 [1]	Total
Financial assets:				
Financial assets at fair value through profit or loss	$ -	$ -	$ 2,312	$ 2,312
Financial assets at fair value through OCI	-	49,923	1,206	51,129
	$ -	$ 49,923	$ 3,518	$ 53,441
Financial liabilities:				
Other financial liabilities (Hedging derivatives)	$ -	$ (1,050)	$ -	$ (1,050)
	$ -	$ (1,050)	$ -	$ (1,050)

(in thousands of USD)	December 31, 2021			
	Level 1 [1]	Level 2 [1]	Level 3 [1]	Total
Financial assets:				
Financial assets at fair value through profit or loss	$ -	$ -	$ 111	$ 111
Financial assets at fair value through OCI	-	17,289	743	18,032
	$ -	$ 17,289	$ 854	$ 18,143
Financial liabilities:				
Other financial liabilities (Hedging derivatives)	$ -	$ (586)	$ -	$ (586)
	$ -	$ (586)	$ -	$ (586)

[1] Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities.
Level 2 – All inputs other than quoted prices included in level 1 that are observable (either directly that is, prices, or indirectly that is, derived from prices) for the asset or liability.
Level 3 – Unobservable inputs for the asset or liability.

5.3 Changes in Fair Value of Level 3 Financial Instruments

Changes in level 3 financial instruments among the financial instruments that are measured at fair value for the year ended December 31, 2022 are as follows:

(in thousands of USD)	Beginning	Valuation of fair value	Acquisition	Others[1]	Ending
Financial assets at fair value through profit or loss	$ 111	$ 1	$ 2,208	$ (8)	$ 2,312
Financial assets at fair value through OCI	743	555	-	(92)	1,206
	$ 854	$ 556	$ 2,208	$ (100)	$ 3,518

[1] Others include mainly currency translation effects.

5.4 Net Gains or Losses by Category of Financial Instruments

Net gains or losses on each category of financial instruments for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)

	Year ended December 31, 2022				
	Profit for the year				
	Interest income (expense)	Bad debt expense (reversal)	Loss on disposal	Others	Other comprehensive income
Financial assets:					
Financial assets at amortized cost	$ 2,556	$ 2,554	$ -	$ -	$ -
Financial assets at fair value through profit or loss	-	-	-	1	-
Financial assets at fair value through OCI	-	-	(3,832)	-	-
Other financial assets (Hedge derivatives)	-	-	-	-	676
	$ 2,556	$ 2,554	$ (3,832)	$ 1	$ 676
Financial liabilities:					
Financial liabilities at amortized cost	$ (61,833)	$ -	$ (20,153)	$ (1,460)	$ -
Other financial liabilities	(3,078)	-	-	-	-
	$ (64,911)	$ -	$ (20,153)	$ (1,460)	$ -

(in thousands of USD)

	Year ended December 31, 2021					
	Profit for the year					
	Interest income (expense)	Bad debt expense	Loss on disposal	Gain(loss) on derivatives	Others	Other comprehensive income (loss)
Financial assets:						
Financial assets at amortized cost	$ 2,183	$ (925)	$ -	$ -	$ -	$ -
Financial assets at fair value through profit or loss	-	-	-	2	-	-
Financial assets at fair value through OCI	-	-	(4,319)	-	-	-
Other financial assets (Hedging derivatives)	-	-	-	-	-	(223)
	$ 2,183	$ (925)	$ (4,319)	$ 2	$ -	$ (223)
Financial liabilities:						
Financial liabilities at amortized cost	$ (46,046)	$ -	$ -	$ -	$ (299)	$ -
Other financial liabilities	(2,513)	-	-	(8)	4	-
	$ (48,559)	$ -	$ -	$ (8)	$ (295)	$ -

In addition, realized and unrealized foreign exchange differences (other than derivative contracts) resulted mainly from financial assets at amortized cost, financial assets at fair value through other comprehensive income, and financial liabilities measured at amortized cost.

5.5 Offsetting Financial Assets and Financial Liabilities

The following table presents the recognized financial instruments subject to enforceable master netting arrangements or other similar agreements as at December 31, 2022.

(in thousands of USD)	December 31, 2022		
	Recognized gross financial instruments	**Gross financial instruments set off**	**Net amounts of financial instruments presented in the statement of financial position**
Financial assets:			
Trade receivables	$ 13,122	$ (6,581)	$ 6,541
Other receivables	21	(20)	1
	$ 13,143	$ (6,601)	$ 6,542
Financial liabilities:			
Trade payables	$ (29,152)	$ 6,601	$ (22,551)

6. Trade and Other Receivables

Trade and other receivables as at December 31, 2022 and 2021, are as follows:

(in thousands of USD)	December 31, 2022		
	Gross	**Allowance for doubtful accounts**	**Net**
Current:			
Trade receivables	$ 477,672	$ (8,005)	$ 469,667
Other receivables	20,319	(45)	20,274
Accrued income	524	-	524
Short-term loans	301	-	301
	$ 498,816	$ (8,050)	$ 490,766
Non-current:			
Long-term other receivables	$ 17,419	$ -	$ 17,419
	$ 17,419	$ -	$ 17,419

(in thousands of USD)	December 31, 2021		
	Gross	Allowance for doubtful accounts	Net
Current:			
Trade receivables	$ 338,300	$ (13,020)	$ 325,280
Other receivables	35,180	(80)	35,100
Accrued income	269	-	269
Short-term loans	3,099	-	3,099
	$ 376,848	$ (13,100)	$ 363,748
Non-current:			
Long-term other receivables	$ 16,074	$ -	$ 16,074
	$ 16,074	$ -	$ 16,074

Changes in allowance for doubtful accounts for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Year ended December 31, 2022		
	Trade receivables	Other receivables	Total
Beginning balance	$ 13,020	$ 80	$ 13,100
Business combination	-	-	-
Increase (decrease)	(2,527)	(27)	(2,554)
Write-off	(682)	-	(682)
Others	(1,806)	(8)	(1,814)
Ending balance	$ 8,005	$ 45	$ 8,050

(in thousands of USD)	Year ended December 31, 2021		
	Trade receivables	Other receivables	Total
Beginning balance	$ 11,178	$ 1	$ 11,179
Business combination	3,322	207	3,529
Increase (decrease)	926	-	926
Held-for-sale [1]	(268)	-	(268)
Write-off	(918)	-	(918)
Others	(1,220)	(128)	(1,348)
Ending balance	$ 13,020	$ 80	$ 13,100

[1] As the Group decided to sell its shares of Doosan Bobcat Chile Compact SpA, the amount has been reclassified into held-for-sale during year ended December 31, 2021.

Past due receivables are considered impaired. An allowance for doubtful accounts is specifically recognized for the receivables with impairment indicators individually identified. The Group applies the aging analysis to recognize the lifetime expected credit losses as loss allowances for a group of financial assets with similar credit risk characteristics that are not individually material. The allowance for doubtful accounts is included in selling and administrative expenses and other non-operating expenses in the consolidated statements of profit or loss.

7. Inventories

Inventories as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	December 31, 2022		
	Acquisition cost	**Valuation allowance**	**Net book value**
Merchandise and finished goods	$ 509,029	$ (33,667)	$ 475,362
Work in progress	72,708	-	72,708
Raw materials	604,684	(14,843)	589,841
Materials in transit	164,885	-	164,885
	$ 1,351,306	$ (48,510)	$ 1,302,796

(in thousands of USD)	December 31, 2021		
	Acquisition cost	**Valuation allowance**	**Net book value**
Merchandise and finished goods	$ 417,166	$ (31,991)	$ 385,175
Work in progress	52,840	-	52,840
Raw materials	391,022	(14,823)	376,199
Materials in transit	158,627	-	158,627
	$ 1,019,655	$ (46,814)	$ 972,841

The cost of inventories recognized as expense and included in 'cost of sales' for the year ended December 31, 2022, amounts to $ 4,837,026 thousand (December 31, 2021: $ 3,733,128 thousand). Loss on inventory valuation included in 'cost of sales' amounts to $ 1,697 thousand in the same period (December 31, 2021: loss of $ 7,681 thousand).

8. Derivatives

The Group's derivative contracts are classified as follows:

Purpose	**Type of derivative instruments**	**Description**
Cash flow hedge	Foreign currency forward	A contract to avoid cash flow risk arising from forecasted sales in foreign currencies
	Foreign currency swap	A contract where a fixed interest rate paid in KRW is exchanged for a fixed interest rate denominated in a foreign currency on the future interest and principal payment dates for the purpose of avoiding cash flow risks arising from foreign currency rate fluctuations.

Details of valuation of derivatives as at December 31, 2022 and 2021 are as follows:

(in thousands of respective currencies)

	December 31, 2022					
	Buy		Sell		Derivative assets (liabilities)	Accumulated other comprehensive income (loss) (*)
	Currency	Amount	Currency	Amount		
Cross swap	JPY	1,906,578	KRW	20,000,000	$ (1,040)	$ 401
Foreign forward	JPY	15,464	KRW	165,589	(10)	(10)
					$ (1,050)	$ 391

(*) Tax effects were not reflected.

(in thousands of respective currencies)

	December 31, 2021					
	Buy		Sell		Derivative assets (liabilities)	Accumulated other comprehensive loss (*)
	Currency	Amount	Currency	Amount		
Cross swap	JPY	1,906,578	KRW	20,000,000	$ (582)	$ (280)
Foreign forward	JPY	23,197	KRW	248,789	(4)	(4)
					$ (586)	$ (284)

(*) Tax effects were not reflected.

Derivatives are classified as non-current assets (liabilities) if their remaining maturities exceed 12 months from the end of the reporting period; otherwise, they are classified as current assets (liabilities).

9. Property, Plant and Equipment

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

(in thousands of USD)

	Year ended December 31, 2022						
	Land	Buildings	Machinery	Vehicles	Equipment	Construction in progress	Total
Beginning	$ 139,228	$ 187,183	$ 359,048	$ 2,286	$ 31,609	$ 85,677	$ 805,031
Acquisition & capital expenditure	-	46,908	45,589	566	15,532	42,936	151,531
Disposal	-	(301)	(5,996)	(674)	(1,069)	(24)	(8,064)
Depreciation	-	(10,377)	(79,265)	(723)	(10,135)	-	(100,500)
Impairment	-	(92)	(46)	(1)	(34)	-	(173)
Transfer to assets held-for-sale	-	-	(20,398)	(3)	-	-	(20,401)
Others & transfer[1]	(7,678)	(3,168)	5,798	288	(2,057)	(52,316)	(59,133)
Ending	$ 131,550	$ 220,153	$ 304,730	$ 1,739	$ 33,846	$ 76,273	$ 768,291
Acquisition cost	$ 131,550	$ 328,846	$ 711,636	$ 5,777	$ 84,914	$ 76,273	$ 1,338,996
Accumulated depreciation	-	(106,067)	(405,498)	(4,037)	(51,002)	-	(566,604)
Government grants	-	(1,215)	(821)	-	(32)	-	(2,068)
Accumulated impairment losses	-	(1,411)	(587)	(1)	(34)	-	(2,033)

[1] It includes machinery that is transferred through sale and leaseback transactions but are recognized as assets of the Group as they do not meet the removal requirements.

(in thousands of USD)

	Year ended December 31, 2021						
	Land	Buildings	Machinery	Vehicles	Equipment	Construction in progress	Total
Beginning	$ 33,714	$ 161,810	$ 240,594	$ 1,177	$ 11,526	$ 60,180	$ 509,001
Acquisition & capital expenditure	52,407	19,007	30,097	376	9,593	78,599	190,079
Disposal	-	(4,455)	(6,661)	(291)	(1,671)	-	(13,078)
Depreciation	-	(10,238)	(71,326)	(556)	(6,311)	-	(88,431)
Revaluation	6,703	-	-	-	-	-	6,703
Impairment	-	(51)	(1,202)	-	-	-	(1,253)
Impairment reversed	-	37	-	-	-	-	37
Transfer to assets held-for-sale[1]	-	-	(1,041)	-	-	-	(1,041)
Business combination	51,734	11,997	134,641	1,615	21,034	5,712	226,733
Others & transfer	(5,330)	9,076	33,946	(35)	(2,562)	(58,814)	(23,719)
Ending	$ 139,228	$ 187,183	$ 359,048	$ 2,286	$ 31,609	$ 85,677	$ 805,031
Acquisition cost	$ 139,228	$ 288,057	$ 763,268	$ 6,834	$ 76,471	$ 85,677	$ 1,359,535
Accumulated depreciation	-	(98,025)	(401,190)	(4,545)	(44,760)	-	(548,520)
Government grants	-	(1,377)	(1,120)	-	(50)	-	(2,547)
Accumulated impairment losses	-	(1,472)	(1,910)	(3)	(52)	-	(3,437)

[1] On December 22, 2021 the Group decided to sell the shares of its subsidiary Doosan Bobcat Chile Compact SpA. Assets and liabilities of this entity were reclassified as held-for-sale during the year ended December 31, 2021. The transaction was completed on January 4, 2022.

After initial recognition land is measured using a revaluation model. As at December 31, 2022, the carrying amount of land would be $ 116,401 thousand if measured based on a cost model.

As at December 31, 2022, certain property, plant and equipment included above are pledged as collateral in relation to the borrowings (Notes 15 and 34).

Classification of depreciation expenses for the years ended December 31, 2022 and 2021 is as follows:

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Cost of sales	$ 91,157	$ 78,994
Selling and administrative expenses		
Depreciation expenses	5,759	5,603
Research and development expenses	3,584	3,834
	$ 100,500	$ 88,431

10. Intangible Assets

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

(in thousands of USD)	Year ended December 31, 2022				
	Goodwill	Industrial rights	Development costs	Others	Total
Beginning	$ 2,696,843	$ 998,083	$ 140,793	$ 59,068	$ 3,894,787
Internal development	-	-	31,809	-	31,809
Acquisition	-	136	-	19,803	19,939
Disposal	(1,111)	-	-	(821)	(1,932)
Amortization	-	(105)	(32,301)	(13,913)	(46,319)
Impairment	-	-	-	(319)	(319)
Others	(78,923)	(20,427)	(3,767)	(358)	(103,475)
Ending	$ 2,616,809	$ 977,687	$ 136,534	$ 63,460	$ 3,794,490
Acquisition cost	$ 2,616,809	$ 1,116,112	$ 408,186	$ 180,832	$ 4,321,939
Accumulated amortization and impairment losses	-	(138,425)	(271,652)	(117,372)	(527,449)

(in thousands of USD)	Year ended December 31, 2021				
	Goodwill	Industrial rights	Development costs	Others	Total
Beginning	$ 2,718,718	$ 1,027,913	$ 129,511	$ 49,493	$ 3,925,635
Internal development	-	-	31,028	-	31,028
Acquisition	-	171	1,485	13,573	15,229
Amortization	-	(63)	(33,406)	(12,363)	(45,832)
Impairment	-	(8)	(224)	(1,506)	(1,738)
Business combination	72,097	238	15,345	7,729	95,409
Others	(93,972)	(30,168)	(2,946)	2,142	(124,944)
Ending	$ 2,696,843	$ 998,083	$ 140,793	$ 59,068	$ 3,894,787
Acquisition cost	$ 2,696,843	$ 1,139,425	$ 383,465	$ 168,820	$ 4,388,553
Accumulated amortization and impairment losses	-	(141,342)	(242,672)	(109,752)	(493,766)

As at December 31, 2022, the carrying amount of goodwill and other intangible with indefinite useful lives included in others above is $ 3,595,439 thousand (December 31, 2021: $ 3,695,935 thousand).

Certain intangible assets included above are pledged as collateral as at December 31, 2022 in connection with the borrowings (Notes 15 and 34).

Impairment losses on intangible assets for the year ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)			Accumulated impairment losses	
	Individual asset	**Book value**	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Development costs	Medium Frame GenV and others	$ -	$ 4,139	$ 4,355
Industrial property rights	Other than forklift control method	-	-	8
Other intangible assets	DS platform (Software) and others	-	-	1,453

Classification of impairment losses on intangible assets for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Other non-operating expenses	$ 319	$ 1,738

Details of development costs as at December 31, 2022 are as follows:

(in thousands of USD)		**Balance**	**Remaining amortization period**
Compact product development (relating to new models and emission regulations)	Development in progress	$ 36,292	
	Being amortized	74,832	38 months
Portable Power product development (relating to new models and emission regulations)	Development in progress	3,324	
	Being amortized	8,884	37 months
Forklift product development (relating to new models and emission regulations)	Development in progress	4,796	
	Being amortized	8,406	43 months
		$ 136,534	

Classification of amortization expenses for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Cost of sales	$ 38,076	$ 36,535
Selling and administrative expenses		
Amortization expenses	8,243	9,293
Research and development expenses	-	4
	$ 46,319	$ 45,832

Expenditures on research and development recognized as expenses amounted to $ 121,634 thousand for the year ended December 31, 2022 (December 31, 2021: $94,164 thousand).

Impairment Tests for Goodwill

The Group allocates goodwill to cash-generating unit group, and allocated goodwill for impairment testing purposes is as follows.

(in thousands of USD)

Cash-generating unit group	**Description**	**December 31, 2022**	**December 31, 2021**
Doosan Bobcat	Manufacturing and sales of construction equipment	$ 2,552,903	$ 2,626,857
Industrial Vehicle[1]	Manufacturing and sales of forklift	63,906	69,986
		$ 2,616,809	$ 2,696,843

[1] Goodwill has been recognized as a result of the business combination during the year ended December 31, 2021. (Note 37).

The Group uses cash flow projections based on the five-year period financial budgets approved by the management. The financial budgets are determined based on historical result and expectation of market growth. Key assumptions used for value-in-use calculation are as follows:

	Rate Used	
	DOOSAN BOBCAT INC.	**Industrial Vehicle**
Growth rate of sales	1.69%~11.79%	6.08%~22.10%
Permanent growth rate	1.50%	1.00%
Discount rate[1]	10.00%	9.30%

[1] The discount rate is applied to the expected cash flow.

The growth rate is calculated by continuing the estimated cash flows at the end of the five-year period, and this growth rate does not exceed long-term average growth rate of market. The discount rates used reflect relevant risks specific to the cash-generating units. The Group performed an impairment test in consideration of the value-in-use and concluded that the carrying value of cash generating units does not exceed the recoverable amount. Therefore, no impairment loss is recognized based on the impairment test for the year ended December 31, 2022.

11. Investment Properties

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

(in thousands of USD)

	Year ended December 31, 2022		
	Land	**Building**	**Total**
Beginning balance	$ 77,752	$ 22,865	$ 100,617
Depreciation	-	(1,516)	(1,516)
Others	(5,018)	(1,505)	(6,523)
Ending balance	$ 72,734	$ 19,844	$ 92,578
Acquisition cost	$ 72,734	$ 24,274	$ 97,008

Accumulated amortization		-		(4,430)		(4,430)

(in thousands of USD)	**Year ended December 31, 2021**					
	Land		**Building**		**Total**	
Beginning balance	$	84,719	$	21,218	$	105,937
Acquisitions/ capitalized expenditure[1]		-		5,182		5,182
Depreciation		-		(1,667)		(1,667)
Others		(6,967)		(1,868)		(8,835)
Ending balance	$	77,752	$	22,865	$	100,617
Acquisition cost	$	77,752	$	25,949	$	103,701
Accumulated amortization and impairment loss		-		(3,084)		(3,084)

Changes in right-of-use assets classified as investment properties for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**Year ended December 31, 2022**		**Year ended December 31, 2021**	
Beginning balance	$	4,485	$	-
Acquisitions[1]		-		5,114
Depreciation		(453)		(469)
Others		(299)		(160)
Ending balance	$	3,733	$	4,485

[1] The Group presents right-of-use assets for sub-lease income as investment properties during year ended December 31, 2021.

Rental income from investment properties during year ended December 31, 2022 amounted to $7,136 thousand (2021: $6,259 thousand).

Fair value of investment properties as at December 31, 2021 is as follows:

(in thousands of USD)	**December 31, 2021**	
Land	$	84,972
Building		19,288
	$	104,260

The assessment of investment properties at the fair value was performed by an independent appraiser. The Group considers the change in fair value subsequent to its initial recognition is immaterial. On the other hand, the fair value of investment properties is classified as level 3 based on inputs used in valuation techniques. The valuation techniques used to measure fair value are the individual valuation method, the transaction comparison method, and the return on revenue method.

However, for right-of-use assets classified as investment property, the value-in-use of IFRS 1116 *Lease* was reflected as the carrying amount at the time of initial acquisition. Since there has been no significant change in assumptions such as cash flows and interest rates after acquisition, the value-in-use of IFRS 1116 *Lease* was regarded as a substitute for fair value, and fair value evaluation was not performed.

12. Investment in Associates

Investments in associates that are accounted for using the equity method as at December 31, 2022 and 2021 are as follows:

Associates	Principal business activity	Location	Fiscal year end	Percentages of ownership (%) December 31, 2022	Percentages of ownership (%) December 31, 2021
Doosan Property Co., Ltd.[1]	Rent of real estate	Korea	December	-	22.89
Doosan Cuvex Co., Ltd.[1]	Operation of golf club and others	Korea	December	-	4.93
Ainstein AI, Inc.[2]	Manufacturing of electronic sensing devices and others	U.S.A	December	9.09	9.09
Presto Lite Asia Co., Ltd.[3]	Manufacturing of motors and generators	Korea	December	32.31	32.31

1 The Group sold all of its shares to related parties during the year ended December 31, 2022 (Note 35).
2 The Group considers it has significant influence over the entity with the right of decision-making of the Board of Directors.
3 The Group acquired a stake in the entity as part of business combination during the year ended December 31, 2021.

Details of investments in associates that are accounted for using the equity method as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Percentages of ownership (%)	December 31, 2022 Acquisition cost	December 31, 2022 Book value	December 31, 2022 Net asset value
Ainstein AI, Inc	9.09	$ 2,000	$ 1,859	$ 39
Presto Lite Asia Co., Ltd.	32.31	2,467	2,478	2,478
		$ 4,467	$ 4,337	$ 2,517

(in thousands of USD)	Percentages of ownership (%)	December 31, 2021 Acquisition cost	December 31, 2021 Book value	December 31, 2021 Net asset value
Doosan Property Co., Ltd.	22.89	$ 20,238	$ 29,062	$ 28,779
Doosan Cuvex Co., Ltd.	4.93	8,075	9,218	8,904
Ainstein AI, Inc	9.09	2,000	1,933	84
Presto Lite Asia Co., Ltd.	32.31	2,467	2,431	2,431
		$ 32,780	$ 42,644	$ 40,198

Changes in investment in associates for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)

Investee	Year ended December 31, 2022 Beginning	Share of gain (loss)	Disposal	Others	Ending
Doosan Property Co., Ltd.[1]	$ 29,062	$ 1,305	$ (25,187)	$ (5,180)	$ -
Doosan Cuvex Co., Ltd.[2]	9,218	(27)	(7,591)	(1,600)	-
Ainstein AI, Inc	1,933	(74)	-	-	1,859
Presto Lite Asia Co., Ltd.	2,431	200	-	(153)	2,478
	$ 42,644	$ 1,404	$ (32,778)	$ (6,933)	$ 4,337

[1] The Group disposed of Doosan Property Co., Ltd. during the year ended December 31, 2022.
[2] The Group disposed of Doosan Cuvex Co., Ltd. during the year ended December 31, 2022.

(in thousands of USD)

Investee	Year ended December 31, 2021 Beginning balance	Business combination	Share of gain (loss)	Capital reduction	Share of other comprehensive income of associate	Others	Ending balance
Doosan Property Co., Ltd.	$ 21,833	$ -	$ 9,349	$ -	$ -	$ (2,120)	$ 29,062
Doosan Cuvex Co., Ltd.	8,769	-	372	(22)	861	(762)	9,218
Ainstein AI, Inc	2,000	-	(67)	-	-	-	1,933
Presto Lite Asia Co., Ltd.	-	2,467	83	-	-	(119)	2,431
	$ 32,602	$ 2,467	$ 9,737	$ (22)	$ 861	$ (3,001)	$ 42,644

Summarized financial information of associates for the year and as at December 31, 2022 is as follows:

(in thousands of USD)

	December 31, 2022 Assets	Liabilities	Sales	Profit (loss) for the year	Total comprehensive income (loss)
Ainstein AI, Inc.	2,626	2,194	4,160	(911)	(816)
Presto Lite Asia Co., Ltd.	10,889	3,220	13,074	618	618

On January 8, 2021, Doosan Property Co., Ltd. signed a contract to sell Bundang Doosan Tower located at 155 Jeongja-ro, Bundang-gu, Seongnam-si, Gyeonggi-do to Doosan Tower Consignment Real Estate Investment Company, and Doosan Bobcat Korea Co., Ltd., Doosan Enerbility Co., Ltd. and Hyundai Doosan Infracore Co., Ltd. jointly signed a lease agreement for five years. As Hyundai Doosan Infracore Co., Ltd. withdrew from the lease on December 31, 2022, Doosan Enability Co., Ltd. succeeded in the related status and obligations. Doosan Bobcat Korea Co., Ltd., a subsidiary of the Group, has agreed to jointly lease and sublease the real estate and owns a 9.7% stake. Doosan Bobcat Korea Co., Ltd. has the right to rental income to the extent that it corresponds to the portion of its share excluding the self-used portion, and bears the share of the jointly incurred expenses.

13. Lease

Changes in right-of-use assets for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Year ended December 31, 2022						
	Land	Buildings	Machinery	Vehicles	Tools	Equipment	Total
Beginning balance	$ 4,880	$ 67,497	$ 1,325	$ 6,912	$ 13	$ 2,036	$ 82,663
Acquisition	(3)	46,740	6,992	3,129	-	2,002	58,860
Depreciation	(167)	(20,551)	(1,928)	(3,387)	(5)	(1,349)	(27,387)
Others	(422)	(3,365)	(613)	(503)	(2)	(614)	(5,519)
Ending balance	$ 4,288	$ 90,321	$ 5,776	$ 6,151	$ 6	$ 2,075	$ 108,617
Acquisition cost	$ 4,424	$ 137,396	$ 8,125	$ 12,632	$ 17	$ 7,407	$ 170,001
Accumulated depreciation	(136)	(47,075)	(2,349)	(6,481)	(11)	(5,332)	(61,384)

(in thousands of USD)	Year ended December 31, 2021						
	Land	Buildings	Machinery	Vehicles	Tools	Equipment	Total
Beginning balance	$ 2,961	$ 42,260	$ 539	$ 4,655	$ 15	$ 2,478	$ 52,908
Acquisition	208	36,768	1,414	2,861	-	1,611	42,862
Business combination	130	8,291	-	284	-	-	8,705
Depreciation	(114)	(18,048)	(604)	(3,404)	(6)	(1,868)	(24,044)
Others	1,695	(1,774)	(24)	2,516	4	(185)	2,232
Ending balance	$ 4,880	$ 67,497	$ 1,325	$ 6,912	$ 13	$ 2,036	$ 82,663
Acquisition cost	$ 4,931	$ 109,992	$ 2,755	$ 12,643	$ 19	$ 6,869	$ 137,209
Accumulated depreciation	(51)	(42,495)	(1,430)	(5,731)	(6)	(4,833)	(54,546)

Changes in lease liabilities for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Beginning balance	$ 88,642	$ 55,448
Business combination	-	8,919
Lease payments	(29,104)	(25,741)
Acquisition of lease assets	58,860	48,700
Interest expenses	3,078	2,569
Termination of lease agreement	(2,340)	(2,443)
Others	(24)	4,271
Foreign exchange differences	(3,561)	(3,081)
Ending balance	$ 115,551	$ 88,642

Classification of depreciation expenses of right-of-use assets for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Cost of sales	$ 12,916	$ 10,790
Selling and administrative expenses	13,993	12,736
Research and development expenses	478	518
	$ 27,387	$ 24,044

Maturity profile of lease liability as at December 31, 2022 is as follows:

(in thousands of USD)	Contractual nominal cash flow				
	Total	**Less than 1 year**	**Less than 2 years**	**Less than 5 years**	**More than 5 years**
Lease liabilities	$ 126,800	$ 31,185	$ 25,148	$ 48,296	$ 22,171

Expenditures on short-term leases and leases of low-value assets which are not included in right-of-use assets for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Cost of sales	$ 2,170	$ 303
Selling and administrative expenses	2,360	2,625
Research and development expenses, etc.	2	5
	$ 4,532	$ 2,933

The total cash outflow for leases for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Lease liabilities	$ 29,104	$ 25,741
Short-term leases and leases of low-value assets	4,532	2,933
	$ 33,636	$ 28,674

14. Trade and Other Payables

Trade and other payables as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	December 31, 2022	December 31, 2021
Current:		
Trade payables	$ 880,744	$ 668,252
Other payables	105,330	105,265
Accrued expenses	218,066	136,496
	$ 1,204,140	$ 910,013
Non-current:		
Other payables	$ 20	$ -
Accrued expenses	4,543	7,218
Leasehold deposits received	5,532	6,469
	$ 10,095	$ 13,687

15. Borrowings and Bonds

Bonds as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Annual interest rate	December 31, 2022	December 31, 2021
Public bonds[1]	4.07%	$ -	$ 300,000
Subtotal		-	300,000
Discount on bonds payable		-	(3,803)
		$ -	$ 296,197

[1] Bonds were paid off during the year ended December 31, 2022.

Borrowings as at December 31, 2022 and 2021 are as follows:

1) Short-term Borrowings

(in thousands of USD)

Lender	Annual interest rate	December 31, 2022	December 31, 2021
Belfius Bank	1.36%	$ 1,333	$ 1,132
Export-Import Bank of Korea	6.77%	10,000	10,018
Wells Fargo[1]	1 Month SOFR+1.475%	12,836	3,395
Sparkasse	2.15%	28	29
CSOB	EURIBOR+1.5%	3,367	-
Export-Import Bank of Korea	6.67%	15,000	-
WOORI Bank[2]	4.78%	-	2,357
WOORI Bank[2]	4.98%	-	628
KEB Hana[2]	1 Month EUR LIBOR+2.1%	-	329
Total		$ 42,564	$ 17,888

[1] In connection with the short-term borrowings above, property, plant and equipment and others are pledged as collateral (Notes 9, 10 and 34).
[2] Short-term borrowings were repaid during year ended December 31, 2022.

2) Long-term Borrowings

(in thousands of USD)

Lender	Annual interest rate	December 31, 2022	December 31, 2021
Syndicated lenders[1]	3 Month SOFR +2.5%	$ 843,625	$ -
Bank of America	3 Month SOFR +1.75%	50,000	-
Sparkasse	2.15%	56	89
Belfius Bank	1.36%	1,599	2,831
Mizuho Bank	3.25%	31,563	33,741
Shinhan Bank Japan[2]	3.28%	14,340	16,569
NongHyup Bank[2]	3 Month MOR + 1.88%	31,563	-
CSOB	EURIBOR + 1.5%	17,115	
Syndicated lenders[3]	3 Month LIBOR + 1.84%	-	630,113
Syndicated lenders[3]	3 Month LIBOR + 2.25%	-	496,250
KDB Bank[3]	3 Month GBP LIBOR + 2.50%	-	5,399
Bank of America[3]	2.2% ~ 4.3%	-	282
Subtotal		989,861	1,185,274
Less: present value of discount		(16,903)	(8,937)
		972,958	1,176,337
Less: current portion		(40,063)	(23,849)
Total		$ 932,895	$ 1,152,488

[1] In connection with the long-term borrowings above, financial guarantees have been provided by DBI. In addition, the entire equity shares, plant and equipment, intangible assets and other assets of Clark Equipment Co. are pledged as collateral as at December 31, 2022 (Notes 9, 10 and 34).
[2] In connection with the long-term borrowings above, property, plant and equipment and others are pledged as collateral (Notes 9, 10 and 34).
[3] Long-term borrowings were repaid during the year ended December 31, 2022.

16. Sale and Leaseback Liabilities

Sale and leaseback liabilities as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)

Lender	Annual interest rate	December 31, 2022	December 31, 2021
BNP Paribas[1]	2.60% ~ 3.15%	$ -	$ 6,791
HSBC	3.59%	28,555	35,205
Investec	3.59%	8,463	11,959
CMF	3.59%	2,926	4,307
Lombard	3.59%	21,089	23,952
Delagelanden	5.9% ~ 6.0%	-	8,240
Han Kook Capital Co., Ltd.	5.70%	-	2,144
Sub total		$ 61,033	$ 92,598
Less: current portion		(21,699)	(26,096)

Total	$ 39,334	$ 66,502

[1] DBI provides a guarantee for these sale-leaseback liabilities.

17. Net Defined Benefit Liabilities

Details of net defined benefit liabilities recognized in the statements of financial position as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	December 31, 2022	December 31, 2021
Present value of defined benefit obligations	$ 478,103	$ 677,279
Fair value of plan assets	(304,501)	(385,143)
Liabilities in Consolidated Statements of Financial Position	$ 182,444	$ 292,136
Assets in Consolidated Statements of Financial Position	8,842	-

Profit and loss recognized for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Current service cost	$ 24,187	$ 23,643
Past service cost and (gains) or losses on settlements	(116)	(11,069)
Net interest cost	8,323	9,062
	$ 32,394	$ 21,636

Classification of expenses related to defined benefit plan for the years ended December 31, 2022 and 2021 is as follows:

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Cost of sales	$ 17,658	$ 19,491
Selling and administrative expenses	14,429	1,832
Research and development expenses and others	307	313
	$ 32,394	$ 21,636

The Group recognized expenses of $ 21,190 thousand in relation to its defined contribution plan for the year ended December 31, 2022 (2021: $ 18,860 thousand).

Movements in the defined benefit obligations for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Beginning balance	$ 677,279	$ 756,944
Current service cost	24,187	23,643
Past service cost and (gains) or losses on settlements	(116)	(11,069)
Interest expense	18,009	16,994
Remeasurements:		
Actuarial gain from change in demographic assumptions	(1,108)	(1,616)
Actuarial loss from change in financial assumptions	(204,964)	(52,533)
Other	(1,299)	2,158
Contributions by employees	1,049	2,498
Benefits paid	(26,164)	(82,704)
Transfers	(320)	621
Business combination	-	26,090
Foreign exchange differences	(8,450)	(3,747)
Ending balance	$ 478,103	$ 677,279

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

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Beginning balance	$ 385,142	$ 389,782
Interest income	9,686	7,932
Remeasurements	(95,915)	7,890
Contributions:		
Employers	38,244	22,457
Employees	1,049	21
Benefits paid	(22,076)	(65,663)
Transfers	(4,472)	383
Business combination	-	25,010
Foreign exchange differences	(7,157)	(2,669)
Ending balance	$ 304,501	$ 385,143

Actual gains (losses) on plan assets recognized are $86,299 thousand and $15,822 thousand for the years ended December 31, 2022 and 2021, respectively. Contributions to defined benefit plans for the year ending December 31, 2023 is expected to be $ 20,507 thousand.

The significant actuarial assumptions as at December 31, 2022 and 2021 are as follows:

(in percentage, %)	**December 31, 2022**	**December 31, 2021**
Discount rate	2.9~5.4	1.3~2.9
Future salary growth rate	0.8~4.5	0.8~4.6

Plan assets as at December 31, 2022 and 2021, consist of:

(in thousands of USD)	**December 31, 2022**	**December 31, 2021**
Equity instruments	$ 72,329	$ 123,241
Debt instruments	171,087	198,725
Others	61,085	63,177
	$ 304,501	$ 385,143

The sensitivity of the defined benefit obligation to changes in the principal assumptions as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**December 31, 2022**		**December 31, 2021**	
	Amount	**Rate**	**Amount**	**Rate**
Discount rate:				
1%p increase	$ (55,060)	(11.52)%	$ (97,761)	(14.43)%
1%p decrease	68,603	14.39%	127,195	18.78%
Salary growth rate:				
1%p increase	$ 7,456	1.56%	$ 12,153	1.79%
1%p decrease	(6,675)	(1.40)%	(10,772)	(1.59)%

The cash flows from expected future benefits as at December 31, 2022 are as follows:

(in thousands of USD)	**Less than 1 year**	**Between 1~2 years**	**Between 2~5 years**	**Between 5~10 years**	**Over 10 years**	**Total**
Benefits paid	$ 26,528	$ 34,671	$ 81,762	$ 148,035	$ 1,211,360	$1,502,356

The weighted average maturity of the defined benefit obligations is 13 years.

18. Provisions

The Group estimates provisions based on expected expenditures required to settle its obligations for product warranty, refund, related after sales service activities, taking into account factors such as warranty period and historical experiences.

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

(in thousands of USD)	Year ended December 31, 2022						
	Beginning	**Increase**	**Decrease**	**Others**	**Ending**	**Current**	**Non-current**
Warranty	$ 148,999	$ 63,733	$ (57,497)	$ (2,531)	$ 152,704	$ 81,551	$ 71,153
Product liability	20,527	8,392	(3,474)	-	25,445	4,699	20,746
Litigation	610	771	(128)	(139)	1,114	1,114	-
Restructuring	1,320	452	(814)	(125)	833	833	-
Others	238	1,347	-	(14)	1,571	1,347	224
	$ 171,694	$ 74,695	$ (61,913)	$ (2,809)	$ 181,667	$ 89,544	$ 92,123

(in thousands of USD)	Year ended December 31, 2021							
	Beginning	**Increase**	**Decrease**	**Business combination**	**Others**	**Ending**	**Current**	**Non-current**
Warranty	$ 137,299	$ 63,573	$ (54,110)	$ 3,850	$ (1,613)	$ 148,999	$ 80,576	$ 68,423
Product liability	18,684	7,919	(6,076)	-	-	20,527	3,198	17,329
Litigation	729	167	(94)	-	(192)	610	610	-
Restructuring	3,484	-	(1,973)	-	(191)	1,320	1,320	-
Others	-	238	-	-	-	238	-	238
	$ 160,196	$ 71,897	$ (62,253)	$ 3,850	$ (1,996)	$ 171,694	$ 85,704	$ 85,990

19. Capital Stock and Capital Surplus

DBI is authorized to issue up to 400,000,000 ordinary shares with a par value of ₩ 500 per share. As at December 31, 2022, 100,249,166 ordinary shares are issued out of which 33,117 shares are ordinary shares with restricted voting rights under the Korean Commercial Law.

Changes in capital surplus for the years ended December 31, 2022 and 2021 are as follows.

(in thousands of USD)	**Share premium**	**Other capital surplus**
At January 1, 2022	$ 2,432,753	$ (177,878)
Changes in other capital surplus	(4)	-
At December 31, 2022	$ 2,432,749	$ (177,878)

(in thousands of USD)	**Share premium**	**Other capital surplus**
As at December 31, 2021	$ 2,427,640	$ 171,238
Business combination	-	(349,116)
Collection of preferred share issuance costs	5,113	-
As at December 31, 2021	$ 2,432,753	$ (177,878)

20. Share-based Compensation

The Group has granted share-based compensation to executives of the Group in accordance with the resolution of the board of directors as follows.

	Description
Grant type	Common stock
Granted to	Directors as of board resolution and grant date
Grant date	March 8, 2022
Grant method	Issuance of treasury shares, cash equivalent to share value
Exercise price	-
Vesting condition	2 more years of employment after grant
Vesting method	Prorated by the day from January 1 of grant year to December 31 of 2nd anniversary year from grant
Payment method	Paid at the beginning of 3rd anniversary year from grant

Share-settled share-based compensation as at December 31, 2022 and 2021 are as follows:

(in shares)	**December 31, 2022**	**December 31, 2021**
Beginning	-	-
Granted	33,117	-
Ending	33,117	-

Cash-settled share-based compensation as at December 31, 2022 and 2021 are as follows:

(in shares)	**December 31, 2022**	**December 31, 2021**
Beginning	-	-
Granted	29,044	-
Ending	29,044	-

21. Other components of equity

Other components of equity as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	December 31, 2022	December 31, 2021
Capital adjustment from equity transactions among subsidiaries	$ 7,700	$ 7,700
Ordinary shares issued in kind[1]	(186,108)	(186,108)
Treasury shares[2]	(1,083)	-
Stock compensation expenses[2]	313	-
	$ (179,178)	$ (178,408)

[1] The group received the Doosan Engine's subsidiaries' investment as an investment in kind in 2020. The difference from the reduced book value of non-controlling interests was booked as other equity item.

[2] As at December 31, 2022, 33,117 shares are held by the Group for the purpose of share-based compensation.

22. Accumulated Other Comprehensive Loss

Changes in accumulated other comprehensive income (loss) for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Year ended December 31, 2022					
	Loss on translation of foreign operation	Gain (loss) on valuation of derivatives	Gain on revaluation of property, plant and equipment	Gain on valuation of equity instruments at fair value through OCI	Share of other comprehensive income	Total
Beginning balance	$ (212,658)	$ (196)	$ 11,079	$ -	$ 851	$ (200,924)
Increase (decrease)	(117,881)	490	8	542	(851)	(117,692)
Ending balance	$ (330,539)	$ 294	$ 11,087	$ 542	$ -	$ (318,616)

(in thousands of USD)	Year ended December 31, 2021				
	Loss on translation of foreign operation	Loss on valuation of derivatives	Gain on revaluation of property, plant and equipment	Share of other comprehensive income	Total
Beginning balance	$ (68,525)	$ (27)	$ 6,282	$ 208	$ (62,062)
Increase (decrease)	(144,133)	(169)	4,797	643	(138,862)
Ending balance	$ (212,658)	$ (196)	$ 11,079	$ 851	$ (200,924)

23. Retained Earnings

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

(in thousands of USD)	December 31, 2022	December 31, 2021
Legal reserves	$ 22,566	$ 22,566
Unappropriated retained earnings	2,141,901	1,703,895
	$ 2,164,467	$ 1,726,461

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

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Unappropriated retained earnings carried over from prior year	$ 1,726,461	$ 1,342,802
Consolidated profit for the year	498,515	337,191
Remeasurement of net defined benefit liabilities	84,196	46,484
Share of other comprehensive income of associates	-	(16)
Replacement of other comprehensive income of associates to retained earnings	851	-
Dividends	(145,556)	-
Unappropriated retained earnings to be carried forward	$ 2,164,467	$ 1,726,461

24. Segment Information

Details of operating segments and its main products are as follows:

Segment	Main products
Doosan Bobcat	Compact (Skid Steer Loader, Compact Track Loader, Mini Excavator), Portable Power
Industrial Vehicle	Sales and manufacturing of forklift

Details of profit and loss for each segment for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Year ended December 31, 2022				
	Total Sales	Internal Sales	Net Sales	Operating Income	Net Income
Doosan Bobcat	$ 5,568,181	$ (5,234)	$ 5,562,947	$ 751,493	$ 459,568
Industrial Vehicle	1,110,664	(46)	1,110,618	77,787	38,777
Subtotal	6,678,845	(5,280)	6,673,565	829,280	498,345
Consolidation adjustments	(5,280)	5,280	-	169	169
Total	$ 6,673,565	$ -	$ 6,673,565	$ 829,449	$ 498,514

(in thousands of USD)	Year ended December 31, 2021				
	Total Sales	**Internal Sales**	**Net Sales**	**Operating Income**	**Net Income**
Doosan Bobcat	$ 4,614,529	$ (314)	$ 4,614,215	$ 516,227	$ 340,752
Industrial Vehicle	468,010	-	468,010	3,983	(3,560)
Subtotal	5,082,539	(314)	5,082,225	520,210	337,191
Consolidation Adjustment	(314)	314	-	-	-
Total	$ 5,082,225	$ -	$ 5,082,225	$ 520,210	$ 337,191

As at the end of the reporting period, the Group's assets and liabilities by each segment are as follows:

(in thousands of USD)	December 31, 2022	
	Asset	**Liabilities**
Doosan Bobcat	$ 6,505,381	$ 2,887,148
Industrial Vehicle	897,453	551,046
Subtotal	7,402,834	3,438,194
Consolidation adjustments	(105,125)	(105,125)
Total	$ 7,297,709	$ 3,333,069

(in thousands of USD)	December 31, 2021	
	Asset	**Liabilities**
Doosan Bobcat	$ 6,568,000	$ 3,220,142
Industrial Vehicle	751,915	454,673
Subtotal	7,319,915	3,674,815
Consolidation adjustments	(81,704)	(81,704)
Total	$ 7,238,211	$ 3,593,111

As at the end of the reporting period, the Group's non-current assets by region are as follows:

	Non-current assets[1]	
(in thousands of USD)	**December 31, 2022**	**December 31, 2021**
North America	$ 1,229,251	$ 1,274,376
Europe, Middle East and Africa	590,035	633,208
Asia, Latin America and Oceania	328,992	278,671
	$ 2,148,278	$ 2,186,255

[1] Non-current assets by region are based on the country where the asset is located. These assets consist of tangible assets, investment real estate, leased assets and intangible assets (excluding goodwill).

The Group allocated goodwill into cash generating unit of Doosan Bobcat and Industrial Vehicles, and as at December 31, 2022, it recognizes $ 2,552,903 thousand and $ 63,906 thousand, respectively.

25. Revenue

Details of revenue for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Revenue from contracts with customers		
By type of goods or services		
- Manufactured products/merchandise	$ 6,562,715	$ 4,981,533
- Others	27,194	32,635
	6,589,909	5,014,168
By timing of recognition		
- Products transferred at a point in time	6,562,715	4,981,533
- Services rendered over time	27,194	32,635
	6,589,909	5,014,168
Revenue from other sources		
Rental income, etc.	83,656	68,057
	$ 6,673,565	$ 5,082,225

Revenue by main products for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Revenue	
	Year ended December 31, 2022	Year ended December 31, 2021
Compact	$ 5,249,836	$ 4,361,523
Portable Power	313,111	252,692
Industrial Vehicle	1,110,618	468,010
	$ 6,673,565	$ 5,082,225

Revenue by region for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Revenue	
	Year ended December 31, 2022	Year ended December 31, 2021
North America	$ 4,822,792	$ 3,553,782
Europe, Middle East and Africa	1,131,351	1,002,588
Asia, Latin America and Oceania	719,422	525,855
	$ 6,673,565	$ 5,082,225

26. Contract Assets and Liabilities

Details of receivables, contract assets and contract liabilities from contracts with customers as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	December 31, 2022	December 31, 2021
Trade and other receivables	$ 477,672	$ 338,300
Contract liabilities[1]	254,348	182,693

[1] Contract liabilities are included in the trade payables and other payables, other current liabilities and other non-current liabilities.

Among the contract liabilities, $ 21,113 thousand was recognized as revenue during the year ended December 31, 2022 (December 31, 2021: $ 17,014 thousand).

27. Expenses by Nature

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

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Purchases of inventories (Raw materials & merchandises)	$ 4,099,432	$ 3,113,403
Changes in inventories	(329,955)	(366,417)
Employee benefits	680,388	581,660
Depreciation and amortization	175,722	159,974
Other expenses	1,218,529	1,073,395
	$ 5,844,116	$ 4,562,015

28. Selling and Administrative Expenses

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

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Salaries	$ 202,414	$ 186,211
Post-employment benefits[1]	16,435	2,226
Employee benefits	33,338	28,666
Rent	11,904	9,523
Depreciation	6,821	5,603
Amortization	8,243	9,293
Research and development	121,634	94,164
Advertising	51,201	36,867
Commission expenses	90,675	83,471
Bad debt expenses(reversal)	(2,527)	883
Insurance expenses	23,550	15,731
Others	115,061	85,117
	$ 678,749	$ 557,755

[1] Include retirement bonus and others.

29. Finance Income and Expenses

Finance income and expenses for the years ended December 31, 2022 and 2021 are summarized as follows:

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Finance income:		
Interest income	$ 2,556	$ 2,183
Gain on foreign currency transactions	59,911	31,417
Gain on foreign currency translation	30,416	16,328
Gain on derivative transactions	-	2
Income on financial guarantee	-	4
	$ 92,883	$ 49,934
Finance expenses:		
Interest expenses	$ (64,911)	$ (48,559)
Loss on foreign currency transactions	(52,357)	(19,250)
Loss on foreign currency translation	(81,014)	(63,894)
Loss on derivatives transactions	-	(8)
Loss on bond retirement	(12,157)	-
Loss on redemption	(7,996)	-
Loss on financial guarantee	(66)	(18)
Others	(1,395)	(283)
	(219,896)	(132,012)
Net finance expenses	$ (127,013)	$ (82,078)

30. Other Non-operating Income and Expenses

Other non-operating income and expenses for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Other non-operating income:		
Gain on disposal of property, plant and equipment	$ 486	$ 68
Impairment loss reversed on property, plant and equipment	-	37
Gain on disposal of assets held-for-sale	2,258	18,591
Others	1,850	4,373
	4,594	23,069
Other non-operating expenses:		
Loss on disposal of trade receivables	(3,832)	(4,319)
Other bad debt expenses (reversal)	27	(42)
Loss on disposal of property, plant and equipment	(285)	(175)
Impairment loss on property, plant and equipment	(173)	(1,254)
Impairment loss on intangible assets	(319)	(1,738)
Donations	(7,919)	(1,866)
Loss on disposal of investment in subsidiaries	-	(975)
Loss on disposal of assets held-for-sale	(4,030)	-
Impairment loss on non-current assets held-for-sale	(263)	-
Loss on disposal of intangible assets	(770)	-
Others	(4,821)	(5,297)
	(22,385)	(15,666)
Net other non-operating expense	$ (17,791)	$ 7,403

31. Income Tax Expense

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

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Current tax	$ 202,579	$ 105,385
Changes in deferred tax assets and liabilities	19,058	22,140
Deferred tax due to changes in scope of consolidation	-	9,877
Deferred tax charged directly to equity	(34,152)	(19,321)
Income tax expense	$ 187,485	$ 118,081

The Group offsets deferred tax assets and deferred tax liabilities if the Group has a legally enforceable right to set off current tax assets against current tax liabilities and deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority. Changes in deferred tax assets (liabilities) for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Year ended December, 2022		
	Beginning balance	Increase (decrease)	Ending balance
Net defined benefit liabilities	$ 67,808	$ (23,979)	$ 43,829
Property, plant and equipment	(37,271)	(2,852)	(40,123)
Development costs	(21,101)	28,457	7,356
Intangible assets	(346,562)	(35,032)	(381,594)
Provisions	39,997	2,564	42,561
Inventories	14,337	(2,256)	12,081
Others	59,947	10,597	70,544
Consolidation adjustments	(18,433)	3,443	(14,990)
	$ (241,278)	$ (19,058)	$ (260,336)

(in thousands of USD)	Year ended December, 2021			
	Beginning balance	Increase (decrease)	Business combination	Ending balance
Net defined benefit liabilities	$ 88,420	$ (20,875)	$ 263	$ 67,808
Property, plant and equipment	(36,240)	978	(2,009)	(37,271)
Development costs	(21,568)	467	-	(21,101)
Intangible assets	(313,401)	(32,009)	(1,152)	(346,562)
Provisions	35,530	4,467	-	39,997
Inventories	10,065	2,964	1,308	14,337
Others	35,462	13,972	10,513	59,947
Consolidation adjustments	(17,406)	(1,981)	954	(18,433)
	$ (219,138)	$ (32,017)	$ 9,877	$ (241,278)

Carryforwards of tax losses, temporary differences and tax credits for which deferred tax assets (liabilities) are not recognized as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	December 31, 2022	December 31, 2021
Tax loss carryforwards	$ 8,345	$ 313
Temporary differences	144,824	57,482
Tax credits	16,836	12,613

Realization of the future tax benefits related to deferred tax assets (liabilities) is dependent on many factors, including the Group’s ability to generate taxable income within the period during which temporary differences reverse, the outlook of the economy, and the overall future state of the industry. The Group evaluates these factors each period.

Temporary differences from investments in subsidiaries for which deferred tax assets as at December 31, 2022 and 2021 are not recognized are as follows:

(in thousands of USD)	**December 31, 2022**	**December 31, 2021**
Investments in subsidiaries and others	$ (1,373,360)	$ (832,280)

Reconciliation between profit before income tax and income tax expense for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Income before income tax expense	$ 686,000	$ 455,272
Income tax based on statutory tax rate in the respective countries	196,386	111,054
Tax effects of:		
Permanent difference	1,336	(1,135)
Changes in unrecognized deferred tax assets	3,653	(105)
Tax credits	(26,165)	(8,026)
Additional tax	(245)	(357)
Changes in tax rate	557	(870)
Others	11,963	17,520
Income tax expense	$ 187,485	$ 118,081
Average effective tax rate (Income tax expense / Profit before income tax)	27.3%	25.9%

Statutory tax rates in the respective countries vary from 12.5% to 30.0%.

32. Earnings Per Share

32.1 Basic Earnings Per Share

Basic earnings per share is computed by dividing profit for the year attributable to owners of the Group by the weighted average number of ordinary shares outstanding during the period excluding treasury shares.

Earnings per share attributable to owners of the Group for the years ended December 31, 2022 and 2021 are computed as follows:

(in USD and in shares)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Profit attributable to owners of Group	$ 498,514,677	$ 337,191,440
Weighted average number of ordinary shares outstanding	100,223,462	100,249,166
Basic earnings per share	$ 4.97	$ 3.36

Weighted average number of shares are computed as follows:

(in USD and in shares)	Year ended December 31, 2022	Year ended December 31, 2021
Number of ordinary shares outstanding	$ 100,249,166	$ 100,249,166
Treasury shares	(25,704)	-
Weighted average number of ordinary shares outstanding	$ 100,223,462	$ 100,249,166

32.2 Diluted Earnings Per Share

Diluted earnings per share is computed by dividing profit for the year attributable to owners of the Group by the adjusted weighted average number of ordinary shares with the assumption that all convertible securities were converted to common shares. The basic and diluted earnings per share are equal as there was no convertible shares during the prior year.

Diluted earnings per share attributable to owners of the Group for the years ended December 31, 2022 is computed as follows:

(in USD and in shares)	December 31, 2022
Profit attributable to owners of the Group	$ 498,514,677
Adjusted weighted average number of ordinary shares outstanding	100,232,069
Diluted earnings per share	$ 4.97

Adjusted weighted average number of shares are computed as follows:

(in shares)	December 31, 2022
Weighted average number of ordinary shares outstanding	100,223,462
Shares subject to transfer restrictions	8,607
Adjusted weighted average number of ordinary shares outstanding	100,232,069

33. Commitments and Contingencies

33.1 Litigations

As at December 31, 2022, the Group was a defendant in several legal actions arising from the ordinary course of business, including lawsuits related to product liability claim. Provisions are recognized for those cases with high probability of outflow of resources expected (Note 18). For other cases, the assessments have been performed and it has been concluded that the outcomes are uncertain and would not have a material impact on the consolidated financial statements.

33.2 Financial Guarantees and Assets Provided as Collaterals

As at December 31, 2022, guarantees provided by the Group for third parties are as follows:

(in thousands of USD)

Provided by	Provided for	Amount guaranteed	
Clark Equipment Co, and others	End customers, etc.	$	90,271
Doosan Bobcat EMEA s.r.o. and others	End customers, etc.		128
Doosan Bobcat Korea Co., Ltd. and others	End customers, etc.		40,615
Doosan Industrial Vehicle China Co., Ltd. and others	End customers, etc.		753
		$	131,767

The Group provides a payment guarantee of $ 130,000 thousand for Supply chain financing contracts between Clark Equipment Co. and Doosan Bobcat EMEA,s.r.o, the subsidiaries of the Group.

The Group is provided with a payment guarantee of $ 3,206 thousand for its contracts and defects from the Machinery Financial Cooperative. In this regard, equity investment of $ 107 thousand in Machinery Financial Cooperative is also pledged as collateral. Also, the Group is provided with a performance guarantee of $ 649 thousand from the Seoul Guarantee Insurance Company. Further, guarantees amounting to $ 1,533 thousand and $ 678 thousand are provided by the Woori Bank in relation to foreign currency performance guarantee and import usage, and guarantee amounting to $ 14,340 thousand is provided by Shinhan Bank.

33.3 Key Commitments

33.3.1 Loan agreement

As at December 31, 2022, the Group has general loans and overdrafts of $ 763,248 thousand with financial institutions and others.

33.3.2 Supply Chain Financing commitments

The Group has entered into a supply chain financing contract and $ 50,054 thousand is recognized as accounts payable.

33.3.3 Other commitments

The Group terminated the lease contract for Bundang Doosan Tower with Doosan Property Co., Ltd. in January 2021, and entered into a new co-lease contract with Doosan Bobcat Korea Co., Doosan Corp., Doosan Enerbility Co., Ltd. and Hyundai Doosan Infracore Co., Ltd. (formerly, Doosan Infracore Co., Ltd.) for 5 years. As Hyundai Doosan Infracore Co., Ltd. withdrew from the lease on December 31, 2022, Doosan Enability Co., Ltd. succeeded in the related status and obligations. Unless certain conditions are met, the lease contract will be extended for another 5 years under the same conditions.

In connection with the business combination during 2021, the Group has succeeded the joint debts for financial and operating liabilities of Doosan Corporation and Doosan Industrial Vehicle Co. Ltd., and the Group assesses that the possibility of outflow of resources is low.

34. Assets Provided as Collaterals

Clark Equipment Co.(CEC) entered into an agreement for its new borrowing of $ 850,000 thousand and a credit limit agreement up to $ 595,000 thousand on April 20, 2022. DBI has provided all equity shares of CEC as collateral. In addition, CEC's certain property, plant and equipment and intangible assets are also pledged as collateral as at December 31, 2022. The book value of related borrowings and bonds as at December 31, 2022, is $ 893,625 thousand.

In addition, Doosan Industrial Vehicle Co., Ltd. and its subsidiaries provided property, plant and equipment as collateral for its borrowings and credit limit agreements. As at the end of the reporting period, the balance of related borrowings is $ 63,739 thousand.

35. Related Party Transactions

The Group's related party disclosures for the years ended December 31, 2022 and 2021 are as follows:

35.1 Nature of Relationship

Relationship	Name
Ultimate parent	Doosan Corp.
Immediate parent	Doosan Enerbility Co., Ltd. [1]
Associates	Ainstein AI, Inc
	Presto Lite Asia Co., Ltd.
Others	Doosan Cuvex Co., Ltd. [2]
	Doosan Engineering & Construction Co., Ltd.
	Oricom Inc.
	Doosan Bears Inc. and others

[1] During the year ended December 31, 2022, the entity name was changed from Doosan Heavy Industries & Construction Co., Ltd. to Doosan Enerbility Co., Ltd.
[2] During the year ended on December 31, 2022, DBI has reclassified its holding of Doosan Cubex Co., Ltd. from associates to others, as it liquidated its stake.

Significant transactions with related parties for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)

		Year ended December 31, 2022			
Relationship	**Related party**	**Sales**	**Other income**	**Other expense**	**Purchases of investment properties & fixed asset**
Ultimate parent	Doosan Corp.	$ 4,242	$ -	$ 18,602	$ 46
Immediate parent	Doosan Enerbility Co., Ltd.[1]	525	9	-	-
Others	Doosan Digital Innovation America, LLC,	-	42	45,869	-
	Oricom Inc	-	-	4,464	-
	DLI Inc	-	-	2,173	-
	Doosan Cuvex Co., Ltd.[2]	-	-	1,379	-
	BUNDANG DOOSAN TOWER REIT Co., Ltd.	-	-	342	-

Others	1,072	-	7,710	-
Subtotal	1,072	42	61,937	-
Total	$ 5,839	$ 51	$ 80,539	$ 46

[1] During the year ended December 31, 2022, the entity name was changed from Doosan Heavy Industries & Construction Co., Ltd. to Doosan Enerbility Co., Ltd.
[2] During the year ended December 31, 2022, DBI has liquidated its stake in Doosan Cubex Co., Ltd. and it has been reclassified from associated companies to others.

(in thousands of USD)

		Year ended December 31, 2021					
Relationship	**Related party**	**Sales**	**Other income**	**Purchases**	**Other expenses**	**Purchase of investment properties and fixed assets**	**Acquisition of right-of-use assets**
Ultimate parent	Doosan Corp.	$ 4,365	$ -	$ -	$ 13,568	$ 51	$ -
Immediate parent	Doosan Enerbility Co., Ltd.[1]	726	31	-	-	51,039	-
Associate	Doosan Cuvex Co., Ltd.	-	-	-	1,628	-	-
Others	Doosan Digital Innovation America, LLC	-	16	-	40,436	-	1,242
	Oricom Inc.	-	25	-	2,868	-	-
	DLI Inc.	-	-	-	1,866	-	-
	Doosan Heavy Industries America Holdings Inc.	-	400	-	-	-	-
	BUNDANG DOOSAN TOWER REIT Co., Ltd.	-	-	-	387	5,114	16,990
	Others[2]	22,191	463	160,228	4,838	356	-
	Subtotal	22,191	904	160,228	50,395	5,470	18,232
	Total	$ 27,282	$ 935	$ 160,228	$ 65,591	$ 56,560	$ 18,232

[1] During the year ended December 31, 2022, the entity name was changed from Doosan Heavy Industries & Construction Co., Ltd. to Doosan Enerbility Co., Ltd.
[2] It includes transactions with Hyundai Doosan Infracore Co., Ltd. and its subsidiaries, Doosan Infracore North America LLC, Doosan Infracore Europe.r.o. and others, which were excluded from related parties during year ended December 31, 2021.

Related significant balances as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)		December 31, 2022			
Relationship	**Related party**	**Trade receivables**	**Other receivables**	**Other payables**	**Lease liabilities**
Ultimate parent	Doosan Corp.	$ 404	$ 703	$ 4,843	$ -
Immediate parent	Doosan Enerbility Co., Ltd.[1]	48	-	279	-
Others	Doosan Digital Innovation America LLC	-	80	191	1,069
	Oricom Inc	-	-	550	-
	DLI Inc	-	-	87	-
	Doosan Heavy Industries America Holdings Inc.	-	-	-	-
	Doosan Cuvex Co., Ltd. [2]	-	-	135	-
	BUNDANG DOOSAN TOWER REIT Co., Ltd.	-	-	-	16,584
	Others	96	-	1,128	-
	Subtotal	96	80	2,091	17,653
	Total	$ 548	$ 783	$ 7,213	$ 17,653

[1] During the year ended December 31, 2022, the entity name was changed from Doosan Heavy Industries & Construction Co., Ltd. to Doosan Enerbility Co., Ltd.
[2] During the year ended December 31, 2022, DBI has liquidated its stake in Doosan Cubex Co., Ltd. and it has been reclassified from associated companies to others.

(in thousands of USD)		December 31, 2021				
Relationship	**Related party**	**Trade receivables**	**Other receivables**	**Trade payables**	**Other payables**	**Lease Liabilities**
Ultimate parent	Doosan Corp.	$ 399	$ 687	$ -	$ 5,291	$ -
Immediate parent	Doosan Enerbility Co., Ltd.1	1,225	39	-	644	-
Associate	Doosan Cuvex Co., Ltd.	-	702	-	110	-
Others	Doosan Digital Innovation America, LLC,	-	212	-	22	1,501
	Oricom Inc.	-	-	-	1,385	-
	DLI Inc.	-	-	-	423	-
	BUNDANG DOOSAN TOWER REIT Co., Ltd.	-	-	-	-	21,464
	Others	104	-	-	1,199	-
	Subtotal	104	212	-	3,029	22,965
	Total	$ 1,728	$ 1,640	$ -	$ 9,074	$ 22,965

[1] During the year ended December 31, 2022, the entity name was changed from Doosan Heavy Industries & Construction Co., Ltd. to Doosan Enerbility Co., Ltd.

Fund transactions (including equity transactions) with related parties for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)		Year ended December 31, 2022		
		Capital transactions		
Relationship	**Related party**	**Dividend paid**	**Disposal of investments in associates**	**Repayment of lease liabilities**
Immediate parent	Doosan Enerbility Co., Ltd [1]	$ 73,797	$ 32,778	$ -
Others	Doosan Digital Innovation America, LLC	-	-	562
	BUNDANG DOOSAN TOWER REIT Co., Ltd.	-	-	2,051
		$ 73,797	$ 32,778	$ 2,613

[1] During the year ended December 31, 2022, the entity name was changed from Doosan Heavy Industries & Construction Co., Ltd. to Doosan Enerbility Co., Ltd.

(in thousands of USD)		Year ended December 31, 2021					
		Loan transactions		Capital transactions			
Relationship	**Related party**	**Loans**	**Repayments**	**Dividend paid**	**Capital contribution**	**Repayment of lease liabilities**	**Business combination**
Ultimate parent	Doosan Co., Ltd	$ -	$ -	$ -	$ -	$ -	$ 664,100
Others	Doosan Digital Innovation America, LLC	-	-	-	-	801	-
	BUNDANG DOOSAN TOWER REIT Co., Ltd.	-	-	-	-	2,198	-
	Doosan Heavy Industries America Holdings Inc	-	24,000	-	-	-	-
		$ -	$ 24,000	$ -	$ -	$ 2,999	$ 664,100

The Parent company defines key management personnel as a person that has an authority and responsibility for planning, directing and controlling the activities of company, regardless of whether they are registered or non-registered officers. Compensation to key management personnel for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Employee benefits	$ 5,050	$ 4,057
Share-based payment expenses	312	-
Post-employment benefits	210	221
	$ 5,572	$ 4,278

36. Consolidated Financial Statements of Cash Flows

Details of adjustments and changes in operating assets and liabilities in the consolidated statement of cash flows for the years ended December 31, 2022 and 2021 are as follows:

(in thousands of USD)	Year ended December 31, 2022	Year ended December 31, 2021
Adjustments:		
Income tax expense	$ 187,485	$ 118,081
Finance income	(32,972)	(18,511)
Finance expenses	166,079	112,451
Post-employment benefits (defined benefit plan)	32,394	21,636
Depreciation	100,500	88,432
Depreciation on right-of-use asset	27,387	24,044
Depreciation on investment properties	1,516	1,667
Amortization	46,319	45,832
Gain on disposal of property, plant and equipment	(486)	(68)
Loss on disposal of property, plant and equipment	285	175
Impairment loss on property, plant and equipment	173	1,254
Impairment loss on property, plant and equipment(reversal)	-	(37)
Impairment loss on intangible assets	319	1,738
Gain on equity method investments	(1,355)	(9,737)
Loss on disposal of investment in subsidiaries	-	975
Gain(loss) from termination of lease agreement	336	(819)
Gain on disposal of non-current assets held for sale	(2,258)	(18,591)
Loss on disposal of non-current assets held for sale	4,030	1,612
Impairment loss on non-current assets held for sale	263	-
Share-based compensation	313	-
Loss on disposal of intangible assets	770	-
Revaluation gain of property, plant and equipment	-	(261)
	$ 531,098	$ 369,873

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Changes in operating assets and liabilities:		
Trade receivables and other receivables	$ (141,742)	$ (22,129)
Inventories	(331,198)	(209,350)
Other current assets	(511)	(20,687)
Other non-current assets	(5,491)	(4,009)
Trade payables and other payables	304,081	100,115
Derivatives	1,140	302
Provisions	6,934	5,675
Other current liabilities	(5,042)	(143)
Payment of post-employment benefits (defined benefit plan)	(25,435)	(79,586)
Plan assets	(12,745)	42,803
Other non-current liabilities	(8,585)	14,860
	$ (218,594)	$ (172,149)

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

(in thousands of USD)	**Year ended December 31, 2022**	**Year ended December 31, 2021**
Reclassification to assets and liabilities held for sale	$ (2,144)	$ 7,006
Reclassified from construction-in-progress	51,301	57,731
Increase/Decrease in other payables related to the acquisition of property, plant, and equipment	(4,755)	9,801
Increase/Decrease in other payables related to the acquisition of intangible assets	309	(14)
Acquisition of right-of-use assets	58,860	42,862
	$ 103,571	$ 117,386

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

(in thousands of USD)	Year ended December 31, 2022				
	Bonds	Borrowings	Sale and leaseback liabilities	Lease liabilities	Total
Beginning balance	$ 296,197	$ 1,194,225	$ 92,598	$ 88,642	$ 1,671,662
Acquisition of right-of-use assets	-	-	-	58,860	58,860
Cash flows	(308,814)	(186,664)	(22,292)	(29,104)	(546,874)
Foreign exchange differences	-	(4,434)	(9,272)	(3,584)	(17,290)
Transfer to other accounts	-	2,083	-	-	2,083
Other non-financial changes	12,617	10,311	-	737	23,665
Ending balance	$ -	$ 1,015,521	$ 61,034	$ 115,551	$ 1,192,106

(in thousands of USD)	Year ended December 31, 2021				
	Bonds	Borrowings	Sale and leaseback liabilities	Lease liabilities	Total
Beginning balance	$ 295,090	$ 662,936	$ -	$ 55,448	$ 1,013,474
Acquisition of right-of-use asset	-	-	-	48,700	48,700
Cash flows	-	467,188	(6,971)	(25,741)	434,476
Foreign exchange differences	-	(3,339)	(2,973)	(3,081)	(9,393)
Transfer to other accounts	-	(11,653)	11,653	-	-
Business combination		77,994	90,889	8,919	177,802
Transfer to liabilities held-for-sale	-	(1,013)	-	-	(1,013)
Other non-financial changes	1,107	2,112	-	4,397	7,616
Ending balance	$ 296,197	$ 1,194,225	$ 92,598	$ 88,642	$ 1,671,662

37. Business Combination

In accordance with the resolution of the board of directors on March 11, 2021, the Group acquired 100% of shares in Doosan Industrial Vehicle Co., Ltd. and its subsidiaries from Doosan Corporation, the ultimate parent company, on July 6, 2021. The main business activity of Doosan Industrial Vehicle Co., Ltd. and its subsidiaries is forklift manufacturing/sales business, and the Group expects synergies through product and regional portfolio diversification.

The consideration transferred to the counterparty in connection with the business combination and details of assets acquired and liabilities assumed in the consolidated financial statements at the acquisition date are as follows:

(in thousands of USD)	Amount
Consideration	
Cash	$ 664,100
Recognized amounts of identifiable assets acquired, and liabilities assumed	

Cash and cash equivalents		68,139
Trade and other receivables		108,288
Inventories		165,191
Property, plant and equipment		226,733
Intangible assets		95,409
Right-of-use assets		8,705
Other assets		31,261
Trade and other payables		175,322
Borrowings		77,994
Sale and leaseback liabilities		90,889
Lease liabilities		8,919
Other liabilities		35,618
Net assets	$	314,984

The difference between the consideration paid and the book amount of acquired net assets was recognized as capital surplus. Acquisition-related costs of $ 3,284 thousand are recognized in specify line from P&L and were recognized as incurred.

38. Assets and Liabilities Held-for-sale

During the fiscal year that ended on December 31, 2022, the Group made the decision to enter into a contract to sell its operational rental assets, which were then classified as assets held-for-sale.

In addition, on December 22, 2021, the Group decided to sell the shares of its subsidiary Doosan Bobcat Chile Compact SpA. Accordingly, assets and liabilities of this entity were reclassified as held-for-sale. The transaction was completed on January 4, 2022.

Details of assets and liabilities classified as held-for-sale as at December 31, 2022 and 2021 are as follows:

(in thousands of USD)	December 31, 2022		
	Balance before impairment	**Accumulated impairment losses**	**Net Fair value**
Assets held-for-sale:			
Property, plant and equipment[1]	$ 2,413	$ (268)	$ 2,144

[1]Non-operating expenses recognized as impairment losses due to reclassification of sales are $ 263 thousand.

(in thousands of USD)	**December 31, 2021**
Assets held-for-sale[1]	
Cash and cash equivalents	$ 3,809
Trade and other receivables	2,117
Other current assets	700
Inventories	3,829
Property, plant and equipment	1,041
Long-term trade and other receivables	80

Deferred tax assets		80
	$	11,656
Liabilities held-for-sale		
Trade and other payables	$	2,006
Income tax payable		41
Long-term borrowings		1,013
	$	3,060

[1]There are no non-operating expenses (income) recognized due to reclassification as held-for-sale.