KRAFTON, Inc. and its Subsidiaries

Consolidated Financial Statements December 31, 2021 and 2020

KRAFTON, Inc. and its Subsidiaries Index December 31, 2021 and 2020

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Ernst & Young Han Young 2-4F, 6-8F, Taeyoung Building, 111, Yeouigongwon-ro, Yeongdeungpo-gu, Seoul 07241 Korea

Tel: +82 2 3787 6600 Fax: +82 2 783 5890 ey.com/kr

Independent auditor's report

The Shareholders and Board of Directors Krafton, Inc.

Opinion

We have audited the accompanying consolidated financial statements of Krafton, Inc. (the "Company") and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2021 and 2020, and the consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for each of the years in the period ended December 31, 2021, and the 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 of December 31, 2021 and 2020, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("KIFRS").

Basis for opinion

We conducted our audit in accordance with Korean Auditing Standards ("KGAAS"). 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 that are relevant to our audit of the consolidated financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matter

A key audit matter is a matter that, in our professional judgment, was of most significance in our audit of the consolidated financial statements of the current period. This matter was addressed in the context of our audit of the consolidated financial statements taken as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on this matter.

Occurrence and cut-off of game sales revenue (Note 22)

(1) Reasons for the decision as a key audit matter

Game sales, the Group's operating profit, have many factors involved in the event of occurrence, and revenue recognition is recorded through complex internal processes including the use of computer systems. There is a potential risk that the amount of revenue recognition will not be appropriate due to this complex processing and large amounts of data processing. Therefore, we judged that there is a significant risk regarding the Occurrence and Cut-off of game sales revenue.

(2) How the key audit matter was addressed in the audit

The main audit procedures we have performed to confirm the occurrence of the Group 's game sales revenue and the cut-off of accounting attributable to the period are as follows.



- Understanding and evaluating the accounting policy for the Group's recognition of revenue from game sales
- Evaluation of the effectiveness of internal control related to the Group's revenue recognition
- Understanding and reviewing the process of cut-off the Group's game sales revenue to the period
- Understanding and evaluating deferred sales calculation logic for testing the cut-off of the Group's revenue to the period
- Review of the occurrence of game sales revenue and the cut-off of the period through confirmation of the evidence on a sampling basis

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 KIFRS, 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, or has no realistic alternative but to do so.

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 KGAAS 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 KGAAS 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.
- 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 financial statements, including the disclosures, and whether the 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 partner in charge of the audit resulting in this independent auditor's report is Jong Seok Lee.

Ernst Joung Han Joung

March 14, 2022

This audit report is effective as of March 14, 2022, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the auditor's report to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

KRAFTON, Inc. and its Subsidiaries Consolidated Statements of Financial Position December 31, 2021 and December 31, 2020

(in thousands of Korean Won)	Notes	De	ecember 31, 2021	December 31, 2020
Assets				
Current assets				
Cash and cash equivalents	4,5,6	₩	3,019,311,210	₩ 719,846,888
Current portion of financial assets at fair value through				
profit or loss	4,5,6,10		-	12,070,055
Trade receivables	4,5,6,7		530,729,987	462,478,128
Other current financial assets	5,6,7,8,13,19		57,523,863	54,358,168
Other current assets	7		45,730,971	43,055,535
Current tax assets			436,551	722,170
			3,653,732,582	1,292,530,944
Non-current assets				
Investments in associates Financial assets at fair value	12		394,620,013	16,700,536
through profit or loss	4,5,6,10		84,851,005	28,068,007
Financial assets at fair value through other comprehensive income				
lincome	4,5,6,11		109,880,530	71,389,744
Property and equipment	13		243,749,482	140,361,410
Intangible assets	14		828,650,753	11,643,325
Investment properties	15		183,259,225	68,679,131
Other non-current financial				
assets	4,5,6,7,8,13		35,782,143	16,668,888
Other non-current assets	7		4,658,866	4,862,427
Deferred tax assets	26		95,071,948	68,201,319
Derivative assets	5,6		844,177	-
			1,981,368,142	426,574,787
Total assets		₩	5,635,100,724	₩ 1,719,105,731

(continued)

Liabilities Current liabilities					
Current long-term borrowings	4,5,6,16	₩	-	₩	1,000,000
Other current financial liabilities	4,5,6,9		382,490,328		218,039,967
Other current liabilities	9,22		104,238,483		94,569,311
Provisions	18		37,529,676		44,762,724
Current tax liabilities			113,929,752		47,529,846
Current derivative liabilities	4,5,6		-		774,000
			638,188,239		406,675,848
Non-current liabilities					
Financial liabilities at fair value					
through profit or loss	5,6		197,309,714		-
Net defined benefit liability	17		17,755,435		14,809,815
Provisions	18		12,607,875		5,289,452
Other non-current financial					
liabilities	4,5,6,9		159,157,016		77,462,717
Deferred tax liabilities	26		1,838,136		772,205
			388,668,176		98,334,189
Total liabilities			1,026,856,415		505,010,037
Equity					
Share capital	20		4,896,705		4,278,519
Consolidated capital surplus	20		3,839,098,492		1,003,771,195
Other components of equity	20,21		206,327,037		168,113,934
Consolidated retained earnings	,		557,809,705		37,932,046
Equity attributable to owners			4,608,131,939		1,214,095,694
of the Parent Company			.,,,,		-,,,
Non-controlling Interest			112,370		-
Total equity			4,608,244,309		1,214,095,694
Total liabilities and equity		₩	5,635,100,724	₩	1,719,105,731

The accompanying notes are on integral part of the consolidated financial statements.

KRAFTON, Inc. and its Subsidiaries Consolidated Statements of Comprehensive Income Years Ended December 31, 2021 and 2020

(in thousands of Korean Won)		December 31, 2021	December 31, 2020
Revenue	22	₩ 1,886,316,491	₩ 1,670,427,919
Operating costs	23	1,246,677,242	896,557,166
Operating profit		639,639,249	773,870,753
Other income	24	156,843,054	47,871,367
Other expenses	24	49,014,144	152,453,652
Finance income	25	10,875,743	3,460,123
Finance costs	25	6,983,182	5,707,159
Share of net loss of associates and joint ventures			
accounted for using the equity method	12	(974,916)	(272,979)
Profit before income tax		750,385,804	666,768,453
Income tax expense	26	230,508,181	110,501,264
Profit for the year		₩ 519,877,623	₩ 556,267,189
Other comprehensive income (loss) Items that will not be reclassified to profit or loss Gain (loss) on valuation of financial assets at fair value			
through other comprehensive income		22,657,183	37,643,291
Remeasurements of net defined benefit liability Items that may be subsequently reclassified to profit or loss	17	(3,658,675)	(2,283,121)
Equity adjustments of investments in associates		436,869	(627,340)
Exchange differences on translation of foreign operations		(1,658,622)	1,446,636
Other comprehensive income for the year, net of tax		₩ 17,776,755	₩ 36,179,466
Total comprehensive income for the year		₩ 537,654,378	₩ 592,446,655
Profit for the year is attributable to:			
Owners of the Parent Company		₩ 519,877,658	₩ 556,267,189
Non-controlling interests		(36)	-
-		₩ 519,877,622	₩ 556,267,189
Total comprehensive income for the year is attributable to:			
Owners of the Parent Company		₩ 537,654,413	₩ 592,446,655
Non-controlling interests		(36)	-
		₩ 537,654,377	₩ 592,446,655
Earnings per share (in Korean Won)	27	, ,	- , -,
Basic earnings per share		₩ 12,022	₩ 13,771
Diluted earnings per share		11,781	13,524

The accompanying notes are on integral part of the consolidated financial statements.

KRAFTON, Inc. and its Subsidiaries Consolidated Statements of Changes in Equity Years Ended December 31, 2021 and 2020

(in thousands of Korean Won)	ຜ	Share Capital	U ü	Consolidated Capital surplus	Ū	Other Components of Equity	C Reta (Accu	Consolidated Retained earnings (Accumulated deficit)	Non-controlling Interest		Total
Balance at January 1, 2020	¥	4,022,749	≯	984,641,280	≯	114,076,171	≯	(518,335,143)	M	≯	584,405,057
Total comprehensive income Profit for the year								556,267,189			556,267,189
Gain on valuation of financial assets at fair											
comprehensive income						37,643,291		I			37,643,291
Remeasurements of net defined benefit liability						(2,283,121)					(2,283,121)
Equity adjustments of investments in associates						(627,340)			·		(627,340)
Exchange differences on translation of foreign operations						1,446,636					1,446,636
Transactions with shareholders recognized directly to equity Exercise of share options 36,494	ecognize	d directly to ec 36,494	quity	19,349,190		(18,954,800)					430,884
Share-based payment expenses						36,813,098					36,813,098
lssue of ordinary shares related to merger		219,276		(219,276)		,					
Balance at December 31, 2020	¥	4,278,519	≯	1,003,771,194	≯	168, 113, 935	¥	37,932,046		≯	1,214,095,694

Balance at January 1, 2021		4,278,519	≯	1,003,771,195	≯	168, 113, 934	W	37,932,046	¥	-		1,214,095,694
Total comprehensive income Profit for the year						ı		519,877,658		(36)	1,	519,877,622
Loss on valuation of financial assets at fair value through other comprehensive income		ı		,		22.657.183		ı		ı		22.657,183
Remeasurements of net defined benefit liability				ı		(3,658,675)				ı		(3,658,675)
Equity adjustments of investments in associates		ı		ı		436,869						436,869
Exchange differences on translation of foreign operations				1		(1,658,622)		,				(1,658,622)
Transactions with shareholders recogni	ē	- 100		-							c	
raiu-in capital increase Changes in scope of consolidation				z,///,041,032 -					7	- 71,915	Ň	z, 11 z, 203, 492 71, 915
Paid-in capital increase of non-controlling interests				(43)						43		
Exercise of share options Share-based navment		55,786		57,233,632		(56,524,681)		·		·		764,737
expenses		'				15,662,244		'	4	40,448		15,702,692
Gain on disposal of treasury shares				6 452 617						,		6 452 617
Gift of shares		'				61,298,785		'				61,298,785
Balance at December 31, 2021		4,896,705	≯	3,839,098,493	₩	206,327,037	W	557,809,704	W 11	112,370 W		4,608,244,309

The accompanying notes are on integral part of the consolidated financial statements.

KRAFTON, Inc. and its Subsidiaries Consolidated Statements of Cash Flows Years Ended December 31, 2021 and 2020

Cash flows from operating activities 28 W 920,225,495 W 796,902,024 Interest paid (11,764,359) (5,101,404) 1.062,569 (11,764,359) (5,101,404) Dividends received 570,827 431,521 (144,322,615) (142,323,612) (142,323,612) (142,323,612) (142,323,612) (142,323,612) (142,323,612) (142,323,612) (142,610,000) (142,610,000) (142,610,000) (142,610,000) (142,610,000) (142,610,000) (142,610,000) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (142,610,616) (14	(in thousands of Korean Won)	Note	0	December 31, 2021	December 31, 2020
Cash generated from operations 28 W 920,225,495 W 766,902,024 Interest received 9,828,624 1,062,589 Interest paid (11,764,359) (5,101,404) Dividends received 570,827 431,521 Income taxes paid (204,952,411) (144,322,615) Net cash flows provided by operating activities 713,908,176 648,972,115 Cash flows from investing activities 14,610,000 244,140,027 Collection of short-term loans 71,237 197,062 Decrease in long-term financial instruments 764,790 12,954 Disposal of financial assets at fair value through orbit or loss 14,708,686 154,245,724 Disposal of financial assets at fair value through orbit or loss 13,48,076 318,545 Disposal of property and equipment 786,455 181,292 Disposal of property and equipment 652,455 12,345	Cash flows from operating activities				
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through other comprehensive income(6,132,399)(2,380,400)Increase in deposits(20,598,245)(5,022,242)Termination of lease contract(480,656)-Acquisition of property and equipment(61,268,951)(25,887,590)Acquisition of intangible assets(3,596,250)(3,296,893)Acquisition of investment properties(106,803,541)(68,698,757)Acquisition of investments in associates(378,798,523)(7,656,872)Cash outflow due to business(618,663,814)(8,064,584)Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation	0			(44,299,585)	(23,605,958)
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Termination of lease contract(480,656)-Acquisition of property and equipment(61,268,951)(25,887,590)Acquisition of intangible assets(3,596,250)(3,296,893)Acquisition of investment properties(106,803,541)(68,698,757)Acquisition of investments in associates and joint ventures(378,798,523)(7,656,872)Cash outflow due to business combination(618,663,814)(8,064,584)Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)Net cash flows used in(200)-					, , ,
Acquisition of property and equipment(61,268,951)(25,887,590)Acquisition of intangible assets(3,596,250)(3,296,893)Acquisition of investment properties(106,803,541)(68,698,757)Acquisition of investments in associates and joint ventures(378,798,523)(7,656,872)Cash outflow due to business combination(618,663,814)(8,064,584)Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)	-			,	(5,022,242)
Acquisition of intangible assets(3,596,250)(3,296,893)Acquisition of investment properties(106,803,541)(68,698,757)Acquisition of investments in associates and joint ventures(378,798,523)(7,656,872)Cash outflow due to business combination(618,663,814)(8,064,584)Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)					-
Acquisition of investment properties(106,803,541)(68,698,757)Acquisition of investments in associates and joint ventures(378,798,523)(7,656,872)Cash outflow due to business combination(618,663,814)(8,064,584)Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)				· · · /	
Acquisition of investments in associates and joint ventures(378,798,523)(7,656,872)Cash outflow due to business combination(618,663,814)(8,064,584)Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)					
and joint ventures(378,798,523)(7,656,872)Cash outflow due to business combination(618,663,814)(8,064,584)Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)Net cash flows used in(200)				(106,803,541)	(68,698,757)
Cash outflow due to business combination(618,663,814)(8,064,584)Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)Net cash flows used in-(200)	•				<i>(</i>)
combination(618,663,814)(8,064,584)Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)Net cash flows used in(200)(200)	and joint ventures			(378,798,523)	(7,656,872)
Increase in long-term advanced(213,658)(589,314)Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)Net cash flows used in-(200)	Cash outflow due to business				
Decrease in derivative liabilities(520,159)(3,975,375)Cash outflow due to changes in scope of consolidation-(200)Net cash flows used in-(200)					
Cash outflow due to changes in scope of consolidation - (200) Net cash flows used in	-				
of consolidation - (200) Net cash flows used in	Decrease in derivative liabilities			(520,159)	(3,975,375)
of consolidation - (200) Net cash flows used in	Cash outflow due to changes in scope				
Net cash flows used in					(200)
	Net cash flows used in				
			₩	(1,199,699,011)	₩ (828,258)

(continued)

Cash flows from financing activities				
Increase in leasehold deposits received	₩	2,545,207	₩	-
Increase in paid-in capital		2,772,203,492		-
Exercise of share options and others		764,736		430,884
Increase in non-controlling interests		8		-
Repayment of short-term borrowings		(445)		(601,450)
Repayment of current portion of				
long-term debts		(1,526,000)		-
Decrease in leasehold deposits received		(780,016)		-
Repayment of lease liabilities		(37,050,016)		(26,929,528)
Net cash flows provided by (used in)				
financing activities		2,736,156,966		(27,100,094)
Net increase in cash and cash equivalents		2,250,366,131		621,043,763
Cash and cash equivalents at the beginning of the year		719,846,888		146,736,947
Effects of exchange rate changes on cash and cash equivalents		49,098,191		(47,933,822)
Cash and cash equivalents at the end of				<u> </u>
the year	₩	3,019,311,210	₩	719,846,888

The accompanying notes are on integral part of the consolidated financial statements.

1. General Information

These consolidated financial statements are prepared in accordance with Korean International Financial Reporting Standards ("KIFRS") 1110, Consolidated Financial Statements. Krafton, Inc. (the "Company" or the "Parent Company") consolidates its 28 subsidiaries (collectively referred to as the "Group").

1.1 The Company

The Company was incorporated in the Republic of Korea on March 26, 2007 to engage in software development and related subsidiary businesses. The Company's headquarters is located in 231, Teheran-ro, Gangnam-gu, Seoul. The Company changed its name from Bluehole, Inc. into Krafton, Inc. on November 30, 2018.

In order to maximize the synergy effect of the online and mobile game business and to increase management efficiency, the Company merged with PUBG Corporation, PUBG LABS, Inc. and PUBG WORKS, Inc. as of December 1, 2020 according to the resolution of the Board of Directors and extraordinary shareholders' meeting on September 23, 2020 and October 29, 2020, respectively.

In order to enhance competitiveness of core businesses and increase management efficiency, the Company split off its business segments and Bluehole Studio, Inc. was newly established as of December 1, 2020 in accordance with resolution of the Board of Directors and special resolution of the shareholders on September 23, 2020 and November 5, 2020, respectively.

The Company has been listed on the KOSPI Market of the Korea Exchange (KRX) since August 10, 2021.

As of December 31, 2021, the Company's share capital amounts to ordinary shares of $\forall 4,897$ million through exercise of share options, increases in paid-in capital and 5-for-1 share split effective from May 4, 2021. As of December 31, 2021, the Company's shareholders are as follows:

	Number of shares	Percentage of ownership
Byung-gyu Chang	7,027,965	14.35%
Image Frame Investment (HK) Limited	6,641,640	13.56%
National Pension Service	3,272,543	6.68%
Treasury shares	2,167,418	4.43%
Others	29,857,479	60.98%
	48,967,045	100.00%

1.2 Subsidiaries

Details of the consolidated subsidiaries as of December 31, 2021 and December 31, 2020, are as follows:

	Location	-	interest held mpany (%) December 31, 2020	Closing month	Main business
	Looution	01, 2021	01,2020	montin	
Bluehole Studio, Inc.	Korea	100	100	December	Development and distribution of software
En Masse Entertainment, Inc.	U.S.A.	100	100	December	Distribution of game software
Rising Wings, Inc.	Korea	100	100	December	Development and distribution of mobile game and application
PUBG Santa Monica, Inc.	U.S.A.	100	100	December	Development and distribution of game software
PUBG Amsterdam B.V.	Netherland	100	100	December	Development and distribution of game software
Red Sahara Studio Inc. ¹	Korea	-	100	December	Development and distribution of software
PUBG Shanghai	China	100	100	December	Development and distribution of game
PUBG Mad Glory, LLC	U.S.A.	100	100	December	Development and distribution of software
KP PTE. LTD.	Singapore	100	100	December	Consulting advisory and investment
Striking Distance Studios, Inc.	U.S.A.	100	100	December	Development of software
PUBG JAPAN Corporation Striking Distance Studios Spain, S.L. KRAFTON Ventures, Inc.	Japan	100	100	December	Development and services of game
	Spain	100	100	December	Development of game software
	U.S.A	100	100	December	Investment
Krafton Ventures, L.L.C.	U.S.A	100	100	December	Investment
Krafton Ventures Fund, L.P.	U.S.A	100	100	December	Investment
Bonus XP, Inc.	U.S.A	100	100	December	Development of game software
PUBG Entertainment, Inc.	U.S.A	100	100	December	Production of video contents
Indestructible Frying Pan, LLC	U.S.A	100	100	December	Production of video contents
PUBG INDIA PRIVATE LIMITED	India	99.9	99.9	March	Development and distribution of game software
Between US Co. Ltd. ²	Korea	100	-	December	Database search, development and sales
Dream Motion, Inc. ²	Korea	100	-	December	Development and distribution of software
SDS Interactive Canada Inc. ²	Canada	100	-	December	Development of game software
Thingsflow Inc. ²	Korea	81.5	-	December	Development and distribution of

		by the Co	interest held mpany (%)		
	Location	December 31, 2021	December 31, 2020	Closing month	Main business
					software
Tiptoe Games, Inc. ²	Korea	100	-	December	Development and sales of software
Thingsflow Inc. ²	Japan	81.5	-	December	Development and sales of mobile application
Krafton Global GP, LLC ²	U.S.A	100	-	December	Investment
Krafton Global, LP ²	U.S.A	100	-	December	Investment
Unknown Worlds Entertainment, Inc. ²	U.S.A	100	-	December	Development of game software
Unknown Worlds Entertainment, Ltd (UK) ²	U.K	100	-	December	Development of game software

¹ During the year ended December 31, 2021, the entity was excluded from the consolidation scope due to a loss of control as a bankruptcy trustee was appointed in accordance with the bankruptcy declaration by the court

² During the year ended December 31, 2021, the entity was included in the consolidation scope due to new investments entered into by the Company

1.3 Summarized Financial Information of Subsidiaries

Summarized financial information of subsidiaries as of December 31, 2021 and 2020 and for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		D	ecember 31, 2021	1	
Subsidiary	Assets	Liabilities	Sales	Net profit or loss	Total comprehensive income (loss)
Bluehole Studio, Inc.	₩ 13,334,336	₩ 33,195,517	₩ 19,724,992	₩ (25,486,435)	₩ (26,739,839)
En Masse Entertainment, Inc.	10,851,729	50,252,251	(2,473)	(4,281,723)	(7,183,937)
Rising Wings, Inc.	9,804,394	52,440,199	18,585,468	(24,812,697)	(24,813,087)
PUBG Santa Monica, Inc.	28,730,348	18,123,791	32,920,220	2,900,707	3,338,897
PUBG Amsterdam B.V.	23,735,877	13,064,126	24,296,089	6,900,749	6,856,330
Red Sahara Studio Inc. ²	163,747	17,129,159	24,815	762,233	762,233
PUBG Shanghai	17,671,569	6,504,702	15,742,019	3,563,027	4,376,926
PUBG Mad Glory, LLC	13,095,178	7,759,305	19,796,651	(1,187,609)	(943,038)
KP PTE. LTD.	624,515	665,411	-	12,136	8,174
Striking Distance Studios, Inc.	46,066,733	26,002,916	76,528,307	636,358	1,786,576
PUBG JAPAN Corporation	6,470,711	4,757,101	8,111,904	(1,121,152)	(1,140,165)
Striking Distance Studios Spain, S.L.	3,922,879	2,225,690	2,740,525	(132,407)	(126,724)

(in thousands of Korean won)	December 31, 2021 ¹				
Subsidiary	Assets	Liabilities	Sales	Net profit or loss	Total comprehensive income (loss)
KRAFTON Ventures, Inc.	2,458,123	-	-	(9,261)	289,822
Krafton Ventures, L.L.C.	76,767	-	-	(2,821)	4,572
Krafton Ventures Fund, L.P.	2,211,597	-	-	(18,965)	163,860
Bonus XP, Inc.	7,308,387	17,339,220	964,681	(8,568,322)	(8,970,877)
PUBG Entertainment, Inc.	948	860,783	-	(532,403)	(576,872)
Indestructible Frying Pan, LLC	-	22,082	-	(3,004)	(4,672)
PUBG INDIA PRIVATE LIMITED	2,998,012	807,584	2,923,982	(808,565)	(813,463)
Between Us Co. Ltd. ³	3,969,941	1,173,970	1,525,837	(7,796,281)	(7,796,281)
Dream Motion, Inc. ³	8,373,073	1,992,597	4,776,066	859,845	899,420
SDS Interactive Canada Inc. ³	534,376	485,797	534,376	48,580	48,580
Thingsflow Inc. ³	6,463,407	12,199,833	2,631,610	(1,035,050)	(1,111,959)
Tiptoe Games, Inc. ³	102,557	10,512	-	(7,954)	(7,954)
Thingsflow Inc. ³	309,062	-	-	(10)	(8,779)
Krafton Global GP, LLC ³	-	-	-	-	-
Krafton Global, LP ³	1,576,787	1,675,186	-	(94,989)	(98,399)
Unknown Worlds Entertainment, Inc. ³ Unknown Worlds	111,399,426	51,998,959	6,361,014	2,967,719	2,698,898
Entertainment, Ltd (UK) ³	-	-	-	-	-

Entertainment, Ltd (UK)³

¹ Intercompany transactions have not been eliminated in the summarized financial information above.

² The financial information shown herein is the financial information included in the consolidated financial statements prior to exclusion from the consolidation scope.

³ During the year ended December 31, 2021, the entity was included in the consolidation scope due to new investments entered into by the Company.

(in thousands of Korean won)	December 31, 2020 ¹				
Subsidiary	Assets	Liabilities	Sales	Net profit or loss	Total comprehensive income
PUBG Corporation ²	₩ -	₩ -	₩ 1,538,289,415	₩ 622,693,378	₩ 621,471,007
En Masse Entertainment, Inc.	15,286,572	47,574,408	8,920,145	(16,819,196)	(14,424,955)
Squall, Inc. ³	-	-	373,939	(770,004)	(770,004)
RisingWings Inc. (formerly, PNIX, Inc.)	5,514,522	26,557,324	24,467,588	(6,386,843)	(6,993,187)
PUBG Santa Monica, Inc.	29,090,324	24,730,476	25,840,528	2,532,468	2,236,715
PUBG Amsterdam B.V.	19,364,403	18,978,766	20,249,819	(6,618,527)	(6,344,779)
Red Sahara Studio Inc.	3,109,617	20,627,365	4,761,285	(3,697,349)	(3,784,880)
Delusion Studio Inc. ²	-	-	632,601	(7,093,220)	(7,093,220)

(in thousands of Korean won)	December 31, 2020 ¹				
	Total				Total
	Assets	Liabilities	Sales	Net profit or loss	comprehensive
Subsidiary					income
PUBG Shanghai	11,793,455	6,292,088	6,709,614	(218,048)	(171,082)
PUBG LABS, Inc. ²	-	-	4,245,047	(639,531)	(639,531)
PUBG WORKS, Inc. ²	-	-	12,771,345	1,611,083	1,611,083
PUBG Mad Glory, LLC	9,828,087	6,654,941	15,431,825	1,312,810	1,082,609
GMT Soft Co., Ltd. ³	-	-	-	(1,308)	(1,308)
KP PTE. LTD.	545,602	594,672	-	(29,784)	(26,075)
Striking Distance Studios, Inc.	29,073,681	17,489,697	44,361,818	3,026,699	2,006,624
PUBG JAPAN Corporation	6,567,225	5,193,639	8,340,824	(37,908)	(48,795)
PUBG Shanghai	11,793,455	6,292,088	6,709,614	(218,048)	(171,082)
Striking Distance Studios Spain, S.L.	2,820,634	1,345,147	1,616,581	134,032	126,994
KRAFTON Ventures, Inc.	2,168,301	-	-	(8,350)	(268,699)
Krafton Ventures, L.L.C.	72,196	-	-	(3,120)	(13,323)
Krafton Ventures Fund, L.P.	2,059,639	11,902	-	(21,110)	(307,123)
Bonus XP, Inc.	3,408,371	4,468,328	2,908,610	(894,935)	(800,326)
PUBG Entertainment, Inc.	-	282,964	-	(306,904)	(282,964)
Indestructible Frying Pan, LLC	-	17,410	-	(18,883)	(17,410)
PUBG INDIA PRIVATE LIMITED	-	-	-	-	-
Bluehole Studio, Inc.	28,600,648	27,558,073	3,942,811	(39,804)	37,034

¹ Intercompany transactions have not been eliminated in the summarized financial information above.

² The amounts are based on the financial information included in the consolidated financial statements before the merger.

³ The amounts are based on the financial information included in the consolidated financial statements before the exclusion from the scope of consolidation.

1.4 Changes in Scope for Consolidation

Subsidiaries newly included in the consolidation scope for the years ended December 31, 2021 and 2020, are as follows:

	December 31, 2021			
Subsidiary	Reason			
Between Us Co. Ltd.	Newly established			
SDS Interactive Canada Inc.	Newly established			
Tiptoe Games, Inc.	Newly established			
Krafton Global GP, LLC	Newly established			
Krafton Global, LP	Newly established			

Subsidiary	December 31, 2021 Reason		
Dream Motion, Inc.	Purchased		
Thingsflow Inc. (Domestic)	Purchased		
Thingsflow Inc. (Japan) Unknown Worlds Entertainment, Inc.	Purchased Purchased		
Unknown Worlds Entertainment, Ltd (UK)	Purchased		
_	December 31, 2020		
Subsidiary	Reason		
Bluehole Studio Inc.	Split-off		
Bluehole Studio Inc. Striking Distance Studios Spain, S.L.	Split-off Newly established		
	•		
Striking Distance Studios Spain, S.L. KRAFTON Ventures, Inc. Krafton Ventures, L.L.C.	Newly established Newly established Newly established		
Striking Distance Studios Spain, S.L. KRAFTON Ventures, Inc. Krafton Ventures, L.L.C. Krafton Ventures Fund, L.P.	Newly established Newly established Newly established Newly established		
Striking Distance Studios Spain, S.L. KRAFTON Ventures, Inc. Krafton Ventures, L.L.C. Krafton Ventures Fund, L.P. PUBG Entertainment, Inc.	Newly established Newly established Newly established		
Striking Distance Studios Spain, S.L. KRAFTON Ventures, Inc. Krafton Ventures, L.L.C. Krafton Ventures Fund, L.P. PUBG Entertainment, Inc. Indestructible Frying Pan, LLC	Newly established Newly established Newly established Newly established		
Striking Distance Studios Spain, S.L. KRAFTON Ventures, Inc. Krafton Ventures, L.L.C. Krafton Ventures Fund, L.P. PUBG Entertainment, Inc.	Newly established Newly established Newly established Newly established Newly established		

Subsidiaries excluded from the consolidation scope for the years ended December 31, 2021 and 2020, are as follows:

Subsidiary

December 31, 2021 Reason

December 31, 2020

Reason

Red Sahara Studio Inc.

Bankruptcy declaration

Subsidiary

PUBG Corporation Delusion Studio Inc. PUBG LABS, Inc. PUBG WORKS, Inc. Squall, Inc. GMT Soft Co., Ltd.

Merger Merger Merger Merger Bankruptcy declaration Disposal

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 Group maintains its accounting records in Korean won and prepares statutory consolidated financial statements in the Korean language (Hangul) in accordance with KIFRS. The accompanying consolidated financial statements have been condensed, restructured and translated into English from the Korean language consolidated financial statements. In the event of any differences in interpreting the consolidated financial statements or the independent auditor's report thereon, Korean version, which is used for regulatory reporting purposes, shall prevail.

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

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

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

- Certain financial assets and liabilities (including derivative instruments), certain classes of property, plant and equipment and investment properties 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 consolidated financial statements requires the use of critical accounting estimates. Management also needs to exercise judgment 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 Policy and Disclosures

2.2.1 New and amended standards and interpretations adopted by the Group

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

(a) Amendments to KIFRS 1116 Leases – Practical expedient for COVID-19 - Related Rent Concessions

The amendments provide relief to lessees from applying KIFRS 1116 guidance on lease modification accounting for rent concessions arising as a direct consequence of the COVID-19 pandemic. As a practical expedient, a lessee may elect not to assess whether a COVID-19 related rent concession from a lessor is a lease modification. A lessee that makes this election accounts for any change in lease payments resulting from the COVID-19 related rent concession the same way it would account for the change under KIFRS 1116 if the change were not a lease modification. The amendment does not have a significant impact on the consolidated financial statements.

(b) KIFRS 1109, KIFRS 1039, KIFRS 1107, KIFRS 1104 and KIFRS 1116 (Amendments) – Interest Rate Benchmark Reform - Phase 2

The amendments provide temporary reliefs which address the financial reporting effects when an interbank offered rate (IBOR) is replaced with an alternative nearly risk-free interest rate (RFR).

The amendments include the following practical expedients:

• A practical expedient to require contractual changes, or changes to cash flows that are directly required by the reform, to be treated as changes to a floating interest rate, equivalent to a movement in a market rate of interest

• Permit changes required by IBOR reform to be made to hedge designations and hedge documentation without the hedging relationship being discontinued

• Provide temporary relief to entities from having to meet the separately identifiable requirement when an RFR instrument is designated as a hedge of a risk component

These amendments had no impact on the consolidated financial statements of the Group. The Group intends to use the practical expedients in future periods if they become applicable.

2.2.2 New standards and interpretations not yet adopted by the Group

The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's consolidated financial statements are disclosed below. The Group intends to adopt these new and amended standards and interpretations, if applicable, when they become effective.

(a) Amendments to KIFRS 1116 COVID-19 Related Rent Concessions beyond June 30, 2021

The application of the practical expedient, in which a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification, is extended to lease payments originally due on or before June 30, 2022. A lessee shall apply the practical expedient consistently to eligible contracts with similar characteristics and in similar circumstances. The amendment applies to annual reporting periods beginning on or after April 1,

2021, and early application is permitted. The Group does not expect these amendments to have a significant impact on the consolidated financial statements.

(b) Amendments to KIFRS 1103 Business Combinations – Reference to the Conceptual Framework

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

(c) Amendments to KIFRS 1016 Property, Plant and Equipment - Proceeds before intended use

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

(d) Amendments to KIFRS 1037 Provisions, Contingent Liabilities and Contingent Assets - Onerous Contracts : Cost of Fulfilling a Contract

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

(e) Amendments to KIFRS 1001 Presentation of Financial Statements - Classification of Liabilities as Current or Non-current

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

(f) 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.

(g) Korean IFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies

The amendments to Korean IFRS 1001 define and require entities to disclose their material accounting policies. The IASB amended IFRS Practice Statement 2 Disclosure of Accounting Policies to provide guidance on how to apply the concept of materiality to accounting policy disclosures.

The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted.

(*h*) 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.

(i) 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.

(j) Annual improvements to KIFRS 2018-2020

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

• KIFRS 1101 First time Adoption of Korean International Financial Reporting Standards – Subsidiaries that are first-time adopters

- KIFRS 1109 *Financial Instruments* Fees related to the 10% test for derecognition of financial liabilities
- KIFRS 1116 Leases Lease incentives
- KIFRS 1041 Agriculture Measuring fair value

2.3 Consolidation

The Group has prepared the consolidated financial statements in accordance with KIFRS 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.

The acquisition method of accounting is used to account for business combinations by the Group. 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 recoded 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. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

(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 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 value as impairment loss.

(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 consolidated financial statements are presented in Korean won, which is the Parent Company's functional and presentation currency.

(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.

Foreign exchange gains and losses that relate to cash and cash equivalents, long and short-term financial instruments, loans, borrowings and others are presented in the statement of profit or loss, within finance income and finance expenses. All other foreign exchange gains and losses are presented in the statement of profit or loss within other income or other expenses.

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. Translation differences on non-monetary assets and liabilities such as available-for-sale equities are recognized in other comprehensive income for fair value gain or loss.

The functional currency of all the foreign operations are different from the presentation currency of the Group. Assets and liabilities of each foreign operation's statement of financial position presented are translated at the closing rate at the end of the reporting date, and income and expenses for each statement of comprehensive income are translated at average exchange rates.

Exchange differences arising from the translation of the net investment in foreign operations are recognized in other comprehensive income and presented as a separate component of equity. When a foreign operation is partially disposed of or sold, the exchange differences that were recorded in equity are recognized in the statement of profit or loss.

(c) Translation of financial statements of overseas subsidiaries

Items on the statements of financial position are translated at the closing rate at the end of the reporting period, except historical exchange rate applied to equity accounts. Items on the statements of comprehensive are translated at average exchange rates. All resulting exchange differences are recognized in other comprehensive income and allocated to equity attributable to owners of the parent and non-controlling interests. Differences allocated to equity attributable to owners of the parent are presented on the consolidated statements of financial position as other component of equity (exchange differences).

2.5 Cash and Cash Equivalents

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

2.6 Revenue Recognition

(a) Identification of performance obligation

The Group engages in game publishing business which it provides a right to access the game, and updating, planning, developing and maintaining services of game to customers. A publishing contract with a customer is identified as a single performance obligation since the benefits from the sales of game is significantly restricted without updating services. On the other hand, virtual item sales through online and mobile games are classified as a single performance obligation.

In addition, the Group recognizes royalty revenue by providing a license of the Group's intellectual property (IP) to publishing companies. The Group determines to recognize as a single performance obligation for providing updates and technical support services for incidental to the game service.

(b) A performance obligation is satisfied over time

Game revenue consists of (i) revenue from providing a right to access games and (ii) revenue from sales of game items, and is deferred and recognized over the expected period of use, since the Group is required to provide games with updates during the period.

In addition, the Company recognizes royalty revenue from providing a license for the Group's IP. According to KIFRS 1115, royalty revenue from providing a right to access the entity's IP is recognized over the license period. However, the Group recognizes revenue for a sales-based or usage-based royalty promised in exchange for a license of intellectual property when the subsequent sale or usage occurs.

(c) Costs incurred to fulfill a contract

Costs to fulfill a contract are capitalized only if (i) the costs relate directly to the contract or to an anticipated contract that the Group can specifically identify; (ii) the costs generate or enhance resources of the Group that will be used in satisfying (or in continuing to satisfy) performance obligations in the future; and (iii) the costs are expected to be recovered. The capitalized costs are recognized as contract costs over service providing period under reasonable method.

(d) Contract assets and contract liabilities

A contract asset is the Group's right to receive consideration for goods or services transferred to a customer, and a contract liability is defined as the Group's obligation to transfer goods or services to the customer in proportion to the consideration received by the Group (or due consideration). The Group offsets the contract assets and contract liabilities arising from one contract and presents them in the consolidated statement of financial position in net terms.

2.7 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 or the issuance of the financial liability. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

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 from these financial assets is included in 'finance income' using the effective interest rate method. Foreign exchange gains and losses are presented in 'other expenses' and impairment losses are presented in 'other 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 'other income and 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 'other 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, 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 consolidated statement of financial position.

(e) Offsetting

Financial assets and liabilities are offset and the net amount reported in the consolidated 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.

2.8 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 within 'other income (expenses)' based on the nature of transactions.

2.9 Trade Receivables

Trade receivables are recognized initially at the amount of consideration that is unconditional, unless they contain significant financing components when they are recognized at fair value. Trade receivables are subsequently measured at amortized cost using the effective interest method, less loss allowance.

2.10 Property and Equipment

Property and equipment are stated at historical cost less accumulated depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items. The estimated costs of dismantling and removing an asset and restoring the site on which it is located are also included in the historical cost.

Depreciation of all property and equipment is calculated using the straight-line method to allocate

their cost or revalued amounts, net of their residual values, over their estimated useful lives as follows:

Useful lives

Fixtures	3 - 7 years
Facilities	5 - 7 years

The assets' depreciation method, residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

2.11 Government Grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions. Government grants related to assets are presented in the statement of financial position by deducting the grant in arriving at the carrying amount of the asset, and government grants related to income are deferred and later deducted from the related expense.

2.12 Intangible Assets

Intangible assets are initially recognized at its historical cost and carried at cost less accumulated amortization and accumulated impairment losses.

Software development costs that are internally generated are recognized as intangible assets when the criteria; such as, technically feasible, generate probable future economic benefits and other, are met. Customer contracts acquired in a business combination are recognized at fair value at the acquisition date. Membership rights that have an indefinite useful life are not subject to amortization because there is no foreseeable limit to the period over which the assets are expected to be utilized. The Group amortizes intangible assets with a limited useful life using the straight-line method over the following periods.

Goodwill arising from the business combination is measured as the excess of the acquisition cost over the identifiable assets required, the liabilities assumed and contingent liabilities in the fair value of the asset acquired and the liabilities assumed. Goodwill is initially recognized at acquisition cost and carried at cost less accumulated impairment losses.

Useful lives

Industrial property rights Software Membership rights Other intangible assets Goodwill

5 - 10 years 2 – 5 years Indefinite 5 years Indefinite

2.13 Investment Properties

Investment property is property held to earn rentals or for capital appreciation or both. An investment property is measured initially at its cost. An investment property is measured after initial measurement at depreciated cost (less any accumulated impairment losses). 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, using the straight-line method over their useful lives of 40 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. 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 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 'trade payables', 'borrowings', and 'other financial liabilities' in the statement of financial position. Interest expenses recognized from financial liabilities are recognized in the statement of profit or loss as 'finance costs'.

Financial liabilities are classified at fair value through profit or loss when the financial liability is contingent consideration that may be paid by an acquirer as a part of a business combination, or held for trading, or it is designated at fair value through profit or loss upon initial recognition.

The Group may, at initial recognition, irrevocably designate a financial liability as a financial liability measured at fair value through profit or loss in the following cases:

- Such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise;
- The financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the group is provided internally on that basis; or
- It forms part of a contract containing one or more embedded derivatives, and KIFRS 1109 *Financial Instruments: Recognition and Measurement* permits the entire hybrid contract to be designated at fair value through profit or loss.

Financial liabilities at fair value through profit or loss are stated at fair value, with any valuation gain or loss arising from changes in fair value, excluding the portion designated as hedge relationships, recognized in profit or loss. Interest expenses paid for the financial liabilities at fair value through profit or loss are recognized as 'gain or loss on financial liabilities at fair value through profit or loss' included in the 'other income and expenses'.

However, for financial liabilities designated as financial liabilities measured at fair value through profit or loss, the amount of the change in the liability's fair value attributable to changes in its credit risk is recognized in other comprehensive income, unless this treatment of the credit risk component creates or enlarges a measurement mismatch. Other changes in the liability's fair value is recognized in profit or loss. The amount recognized as other comprehensive income is not subsequently reclassified to profit or loss, but rather transferred to retained earnings when financial liabilities are derecognized.

(b) Derecognition

Financial liabilities are removed from the consolidated statement of financial position when it is extinguished; for example, when the obligation specified in the contract is discharged or cancelled or expired 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.

2.16 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 they are due.

A defined benefit plan is a pension plan that is not a defined contribution plan. While the Group operates a defined contribution as its primary post-employment benefit plan, the Group pays additional amounts to the employees if each employee's investment results on the contributed amount is less than the payment amount under defined benefit plan, according to the separate agreement with the employees. The Group measures the additional amount payable to the employees in the same manner as the Group measures defined benefit obligation. Generally, post-employment benefits are payable after the completion of employment, and the benefit amount depended on the employee's age, periods of service or salary levels. The liability recognized in the consolidated statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds

that are denominated in the currency in which the benefits will be paid, and that have terms approximating to the terms of the related obligation. Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in the period in which they occur, directly in other comprehensive income. 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) Other long-term employee benefits

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

In addition, the Group entered into an agreement to pay performance-based incentives in proportion to the sales performance to the executives and employees, including the key developers, who can contribute to the Group's long-term growth. Performance-based incentives are estimated using actuarial valuation method.

(c) Share-based payments

Equity-settled share-based payment is recognized at fair value of equity instruments granted, and employee benefit expense is recognized over the vesting period. At the end of each period, the Group revises its estimates of the number of options that are expected to vest based on the non-market vesting and service conditions. It recognizes the impact of the revision to original estimates, if any, in profit or loss, with a corresponding adjustment to equity.

When the options are exercised, the Group issues new shares. The proceeds received, net of any directly attributable transaction costs, are recognized as share capital (nominal value) and share premium.

The Group operates a cash-settled share-based payment and a share-based payment with cash althernatives to compensate the difference between the market price and the exercise price of stock options in return for services provided by employees. The total amount to be recognized as an expense during the vesting period is determined based on the fair value of the share options granted taking into account the terms of service. In addition, the fair value of the liability is remeasured at the end of each reporting period and settlement date until the liability is settled, and changes in fair value are recognized in profit or loss.

2.17 Provisions

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the end of the reporting period, and the increase in the provision due to the passage of time is recognized as interest expense.

2.18 Dividends

Dividends declared are recognized as liabilities at a point in time when approved by the institution prescribed by the Commercial Law.

2.19 Current and Deferred Tax

The tax expense for the period 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 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.

The 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 as of 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.

The Group applies the consolidated tax return, where the Parent Company and all domestic subsidiaries on which the Parent Company completely controls over, as a single taxation unit, report and pay income tax based on the total amount of income arising from the entities. The Group evaluates realizability of the temporary differences considering future taxable income of each companies that consist the taxation unit. The changes in deferred tax assets (liabilities) are recognized in income tax expenses (benefits) after excluding the amounts related to accounts directly reflected in equity.

Deferred 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 financial statements. However, deferred 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 profit 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 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 either to settle on a net basis.

2.20 Leases

(a) Lessor

Lease income from operating leases where the Group is a lessor is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognized as an expense over the lease term on the same basis as the lease income. The respective leased assets are included in the consolidated statement of financial position based on their nature.

(b) Lessee

The Group has entered into various lease agreements including leases of offices. Lease contracts are typically entered into for fixed periods of 4 to 6 years, but may have extension options as described in (c) below.

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 standalone prices. However, for leases of real estate for which the Group is lessee, the Group applies the practical expedient which has elected not to separate lease and non-lease components and instead accounts for these as a single lease component.

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 of 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

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 is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

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

The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. If the Group is reasonably certain to exercise a purchase option, the rightof-use asset is depreciated over the underlying asset's useful life.

Payments associated with short-term leases of fixtures and vehicles and leases of low-value assets are recognized on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise IT-equipment and small items of office furniture.

(c) Extension and termination options

Extension and termination options are included in several property and equipment leases across the Group. These terms are used to maximize operational flexibility in terms of managing contracts. The majority of extension and termination options held are exercisable only by the Group and not by the respective lessor.

2.21 Segment Reporting

Information of each operating segment is reported in a manner consistent with the internal business segment reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Management Committee that makes strategic decisions.

2.22 Earnings Per Share

The Group presents in the consolidated statement of comprehensive income basic and diluted earnings per share attributable to the ordinary shareholders of the Group. Basic earnings per share is calculated by dividing profit or loss attributable to ordinary shareholders of the Group by the weighted average number of ordinary shares outstanding during the period. For the purpose of calculating diluted earnings per share, the Group adjusts profit or loss attributable to ordinary shareholders of the Group, and the weighted average number of shares outstanding, for the effects of all dilutive potential ordinary shares.

2.23 Share Capital

When the Group purchases its ordinary shares, the acquisition cost including direct transaction costs are deducted from equity until the redemption or reissuance of treasury shares. Consideration received on the subsequent or issue of treasury shares is credited to equity.

2.24 Business Combination

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognized in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognized at their fair value at the acquisition date, except that:

- Deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognized and measured in accordance with KIFRS 1012 *Income Taxes* and KIFRS 1019 *Employee Benefits*, respectively;

- Liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered in to replace share-based payment arrangements of the acquiree are measured in accordance with KIFRS 1102 *Share-based Payment* at the acquisition date; and

- Assets that are classified as held for sale in accordance with KIFRS 1105 *Non-current Assets Held for Sale and Discontinued Operations* are measured in accordance with that Standard.

Goodwill is measured as the excess of the sum of the fair value of the consideration transferred over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities

assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of fair value of the consideration transferred, the excess is recognized immediately in profit or loss as a bargain purchase gain.

2.25 Approval of Issuance of the Financial Statements

The consolidated financial statements for the year ended December 31, 2021 were approved for issuance by the Board of Directors of the Company on February 10, 2022 and final approval will be obtained from the shareholders at their Annual General Meeting on March 31, 2022.

3. Critical Accounting Estimates and Assumptions

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

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

(a) Revenue recognition

Game revenue consists of (i) revenue from sales of a right to access games and (ii) revenue from sales of items, and is deferred and recognized over the respective expected period of use. The Group estimates the expected period of use by analyzing customer's behavior pattern considering the attributes of the item and game, and it can be changed significantly according to changes of market and customer behavior pattern.

(b) Fair value of financial instruments

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

(c) Impairment of financial assets

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

(d) Goodwill

Goodwill is tested for impairment on an annual basis. The recoverable amount of a cash generating unit (CGU) is determined based on value-in-use calculations (Note 14).

(e) Net defined benefit liability

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

(f) 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.

If certain portion of the taxable income is not used for investments or increase in wages or dividends 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 the tax effects from the new tax system. As the Group's income tax is dependent on the investments, increase in wages and dividends, there is an uncertainty measuring the final tax effects.

(g) Leases

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

Most extension options in offices and vehicles leases have not been included in the lease liability, because the Group could replace the assets without significant cost or business disruption.

The lease term is reassessed if an option is actually exercised (or not exercised) or the Group becomes obliged to exercise (or not exercise) it. The assessment of reasonable certainty is only revised if a significant event or a significant change in circumstances occurs, which affects this assessment, and that is within the control of the lessee.

4. Financial Risk Management

4.1 Financial Risk Factors

(a) The Group is exposed to market risk, credit risk and liquidity risk (market risk refers to foreign exchange risk, interest rate risk and market risk for equity securities). The Group establishes and operates financial risk management policy in place to actively manage these risk factors. The Group's financial assets that are under financial risk management are composed of cash and cash equivalents, trade receivables, other financial instruments at amortized cost, financial instruments at fair value through other comprehensive income and financial instruments at fair value through profit or loss. The Group's financial liabilities under financial risk management are composed of trade and other payables, and borrowings.

(b) Market risk

A. Foreign exchange risk

The Group is exposed to foreign exchange risk arising from international operations and transactions with different foreign currencies. Most widely used foreign currencies are the US Dollar, Euro, Japanese Yen and others. The risks of foreign currency exposure to receivables and payables are periodically evaluated, managed and reported.

Assets and liabilities denominated in foreign currency as of December 31, 2021 and 2020, are summarized as follows:

(in thousands of Korean won)		December 31,	2021						
	USD	EUR	JPY	Others					
Financial assets denominated in foreign currency Financial liabilities denominated in foreign	₩ 1,097,780,132 ₩	2,810,642 ₩	1,871,151	₩ 14,968,364					
currency	54,829,142	4,146,170	204,882	5,713,729					
(in thousands of Korean won)	December 31, 2020								
	USD	EUR	JPY	Others					
Financial assets denominated in foreign currency Financial liabilities	₩ 1,029,728,268 ₩	4,915,044 ₩	4,126,825	₩ 9,361,486					
denominated in foreign currency	58,888,070	4,527,675	1,394,318	1,800,953					

The table below summarizes the impact of weakened/strengthened Korean won on the Group's profit before income tax. The analysis is based on the assumption that Korean won has weakened/strengthened by 5% with all other variables held constant.

(in thousands of Korean won)	December 31, 2020						
	Strengthened			/eakened			
Assets denominated in foreign currency	₩	(55,871,514)	₩	55,871,514			
Liabilities denominated in foreign currency		3,244,696		(3,244,696)			
Net effect	₩	(52,626,818)	₩	52,626,818			
(in thousands of Korean won)	December 31, 2020						
	Strengthened			Weakened			
Assets denominated in foreign currency	₩	(52,406,581)	₩	52,406,581			
Liabilities denominated in foreign currency		3,330,551		(3,330,551)			
Net effect	₩	(49,076,030)	₩	49,076,030			

B. Interest rate risk

To mitigate interest rate risk, the Group manages interest rate risk proactively by minimizing uncertainty resulted from interest fluctuations through periodic monitoring of interest rate trends in domestic and international markets.

There are no financial assets and liabilities exposed to interest rate risk as of December 31, 2021.

C. Price risk

The effects on the consolidated statement of comprehensive income when price per share of listed share fluctuates by approximately 1% as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Dec	ember 31, 2021	De	cember 31, 2020
Changes in other comprehensive income when price per share of listed shares fluctuates by approximately 1% (after deduction of tax effects)	₩	724,071	₩	522,939

(c) Credit risk

Credit risk arises in connection with the normal course of transactions and investing activities, where clients or other parties fail to discharge an obligation.

Credit risk also arises from cash and cash equivalents, savings and derivative instruments transactions with financial institutions. To mitigate or eliminate certain of those exposures, the

Group transacts only with highly rated financial institutions. The maximum amount exposed to credit risks by each financial instrument is its book value.

A. Trade receivables

The Group applies the simplified approach to measure the loss allowance at an amount equal to lifetime expected credit losses for trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected credit losses include forward looking information. The loss allowance provision as of December 31, 2021, is determined as follows:

(in thousands of

Korean won)					C)ecer	mber 31, 202	1				
	Less than 90 days past due and within due	_	ess than) days past due	_	ess than days past due		ess than year past due		lore than ar past due		mpaired ceivables	Total
Expected loss rate	0.12%		77.83%		100.00%		100.00%		92.38%		5.10%	
Gross carrying amount	₩ 530,170,765	₩	379,000	₩	373,440	₩	339,598	₩	251,638	₩	1,153,337	₩ 532,667,778
Loss allowance provision	(638,545)		(294,969)		(373,440)		(339,598)		(232,467)		(58,773)	(1,937,792)

The amounts recognized in profit or loss within 'impairment loss' in relation to the impairment of trade receivables for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	December	31, 2021	December	31, 2020
Impairment loss				
Operating costs	₩	961,724	₩	943,613

B. Other financial assets at amortized cost

All of other financial assets at amortized costs other than trade receivables are considered to be low credit risk when they have a low risk of default and the issuer has a strong capacity to meet its contractual cash flow obligations in the near term, and thus the loss allowance provision recognized was limited to 12 months expected losses during the year. However, when a significant increase in credit risk is identified, the loss allowance provision for lifetime expected credit losses should be recognized.

The amounts recognized in profit or loss in relation to the impairment of other financial assets at amortized costs for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Decembo	er 31, 2021	December	[.] 31, 2020
Impairment loss Other expenses	₩	(292,189)	₩	498,894

(d) Liquidity risk

The ultimate responsibility for our liquidity risk management lies with the Board of Directors, which establishes basic policies to properly manage short-term and mid to long-term funding and liquidity management regulations. The Group maintains liquidity risk by maintaining sufficient reserves and borrowing limits, by continually monitoring forecast cash flows and actual cash flows, and by matching the maturity structure of financial assets and financial liabilities.

The table below summarizes the details of the Group's financial liabilities classified into relevant maturity groupings based on the remaining period as of December 31, 2021 and 2020, to the contractual maturity date:

(in thousands of			Decemb	er 31, 2021		
Korean won)	Book value	Contractual cash flows	Less than 1 year	Between 1 and 5 years	Over 5 years	Total
Financial liabilities at fair value through profit or loss	₩ 197,309,714	₩ 197,309,714	₩ -	₩ 197,309,714	₩ -	₩ 197,309,714
Lease liabilities	173,203,471	186,540,291	55,080,045	127,230,410	4,229,836	186,540,291
Other payables	62,165,698	62,192,192	62,192,192	-	-	62,192,192
Accrued expenses	261,591,282	261,591,282	261,591,282	-	-	261,591,282
Account payable	795	795	795	-	-	795
Current leasehold deposits received	4,226,351	4,500,958	4,500,958	-	-	4,500,958
Leasehold deposits received	2,425,544	2,559,121	-	2,364,983	194,138	2,559,121
Long-term Other payables	20,700,229	20,734,997	-	20,734,997	-	20,734,997
Long-term accrued expenses	17,333,973	17,333,973	30,607	17,303,366		17,333,973
	₩ 738,957,057	₩ 752,763,323	₩ 383,395,879	₩ 364,943,470	₩ 4,423,974	₩ 752,763,323

(in thousands of				De	cem	ber 31, 2020	-			
Korean won)	E	3ook value	Con	tractual cash flows		Less than 1 year		Between and 5 years		Total
Other payables	₩	27,998,223	₩	27,998,224	₩	27,679,367	₩	318,857	₩	27,998,224
Accrued expenses		176,758,122		176,758,123		153,146,610		23,611,513		176,758,123
Borrowings		1,000,000		1,000,000		1,000,000		-		1,000,000
	₩	205,756,345	₩	205,756,347	₩	181,825,977	₩	23,930,370	₩	205,756,347

4.2 Capital Risk Management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern. The Group considers the debt ratio, and it is calculated by dividing the Group's total liabilities by its shareholder equity presented in the consolidated financial statements.

Debt-to-equity ratios as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	December 31, 2021	December 31, 2020
Debt (A)	₩ 1,026,856,416	₩ 505,010,038
Equity (B)	4,608,244,309	1,214,095,694
Debt-to-equity ratio (A/B)	22.28%	41.60%

5. Fair Value Measurement

(a) The carrying amount and fair value of financial assets and liabilities as of December 31, 2021 and December 31, 2020, are as follows:

(in thousands of Korean won)	Decembe	r 31, 2021	December 31, 2020			
	Carrying amount	Fair value	Carrying amount	Fair value		
Financial assets measured at fai	ir value					
Current portion of financial assets at fair value through profit or loss	₩ -	₩ -	₩ 12,070,055	₩ 12,070,055		
Financial assets at fair value through profit or loss	84,851,005	84,851,005	28,068,007	28,068,007		
Financial assets at fair value through other comprehensive income	100 880 520	100 880 520	74 200 744	74 200 744		
Derivative assets	109,880,530 844,177	109,880,530 844,177	71,389,744	71,389,744		
Financial assets measured at an		044,177				
Cash and cash equivalents	3,019,311,210	3,019,311,210	719,846,888	719,846,888		
Trade receivables	530,729,987	530,729,987	462,478,128	462,478,128		
Other current financial assets	54,186,910	54,186,910	53,979,798	53,979,798		
Other non-current financial assets	30,795,939	30,795,939	16,147,305	16,147,305		
Other financial assets						
Current lease receivables	3,336,953	3,336,953	378,371	378,371		
Non-current lease receivables	4,986,204	4,986,204	521,583	521,583		
	₩ 3,838,922,915	₩ 3,838,922,915	₩ 1,364,879,879	₩ 1,364,879,879		

(in thousands of Korean won)		December	r 31, 2	2021		Decembe	r 31,	2020
	Carr	ying amount		Fair value	Car	rying amount		Fair value
Financial liabilities measured at fa	air val	ue						
Current derivative liabilities	₩	-	₩	-	₩	774,000	₩	774,000
Financial liabilities at fair value								
through profit or loss		197,309,714		197,309,714		-		-
Financial liabilities measured at a	mortiz	zed cost						
Current portion of long-term								
borrowings		-		-		1,000,000		1,000,000
Other current financial liabilities		327,984,126		327,984,126		185,349,501		185,349,501
Other non-current financial								
liabilities		40,459,747		40,459,747		23,715,974		23,715,974
Other financial liabilities								
Current lease liabilities		54,506,202		54,506,202		32,690,465		32,690,465
Non-current lease liabilities	_	118,697,269		118,697,269		53,746,743		53,746,743
	₩	738,957,058	₩	738,957,058	₩	297,276,683	₩	297,276,683

(b) Fair value measurement of assets and liabilities measured at fair value

A. Fair value hierarchy and fair value measurement

The fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The fair value measurement is to estimate the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions. When measuring fair value using valuation techniques, the Group maximizes the use of market information and minimizes the use of unobservable inputs.

The Group categorize asset and liabilities measured at fair value by fair value hierarchy levels, and defined levels are as follows:

- 1. Quoted prices (unadjusted) in active markets for identical assets or liabilities that an entity can access at the measurement date (Level 1). Marketable equity securities are categorized in Level 1.
- 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 2). Derivatives instruments are categorized in this level.
- 3. Unobservable inputs for the asset or liability (Level 3).

The fair value of financial instruments traded in active markets is based on quoted prices at the end of reporting period. It is regarded as an active market if quoted prices are readily and regularly available from exchange markets, dealers, brokers, industry groups, pricing services, or regulatory agencies, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted price used for financial assets held by the Group is the closing price as of the end of reporting period. These instruments are categorized in 'Level 1'. Instruments included in 'Level 1' are classified as financial assets at fair value through other comprehensive income.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The fair value of assets and liabilities is determined by using an internal valuation model developed by the Group or by an independent external pricing service. The Group uses discounted cash flow techniques and establishes an assumption based on the market condition as of the end of the reporting period. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in 'Level 2'.

If one or more of the significant inputs is not based on observable market data, the instrument is included in 'Level 3'. Assets and liabilities included in 'Level 3' use cost-based approach, Net asset valuation model, binomial model.

B. Financial assets and liabilities measured at fair value

Fair value hierarchy classifications of the financial assets and liabilities that are measured at fair value as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean				December	31,	2021				
won)	L	evel 1		Level 2		Level 3		Total		
Financial assets measured a	at fair va	lue								
Financial assets at fair value through profit or										
loss	₩	-	₩	-	₩	84,851,005	₩	84,851,005		
Financial assets at fair value through other		00.074.000				40,000,000				
comprehensive income		99,871,898		-		10,008,632		109,880,530		
Derivative assets		-		-		844,177		844,177		
Financial liabilities measure	d at fair	value								
Financial liabilities at fair value through profit or										
loss	₩	-	₩	-	₩	197,309,714	₩	197,309,714		
	December 31, 2020									
// // / / / / /				December	. 31	2020				
(in thousands of Korean	·				[.] 31,			Total		
(in thousands of Korean won)	L	evel 1		December Level 2	[.] 31,	2020 Level 3		Total		
•					[.] 31,			Total		
<i>won)</i> Financial assets measured a Current portion of financial					<u>31,</u>			Total		
won) Financial assets measured a			₩		• <u>31,</u> ₩		₩	Total 12,070,055		
won) Financial assets measured a Current portion of financial assets at fair value through profit or loss Financial assets at fair	at fair va		₩	Level 2			₩			
won) Financial assets measured a Current portion of financial assets at fair value through profit or loss	at fair va		₩	Level 2			₩			
won) Financial assets measured a Current portion of financial assets at fair value through profit or loss Financial assets at fair value through profit or loss Financial assets at fair	at fair va		₩	Level 2		Level 3	₩	12,070,055		
won) Financial assets measured a Current portion of financial assets at fair value through profit or loss Financial assets at fair value through profit or loss	at fair va ₩		₩	Level 2		Level 3	₩	12,070,055		
won) Financial assets measured a Current portion of financial assets at fair value through profit or loss Financial assets at fair value through profit or loss Financial assets at fair value through other	at fair va ₩	lue - - 68,989,344	₩	Level 2		Level 3 - 28,068,007	₩	12,070,055 28,068,007		

Valuation techniques and inputs used in the fair value measurements categorized within Level 3 of the fair value hierarchy as of December 31, 2021 and 2020, are as follows:

(in thousands of	in thousands of Fair value			Valuation	techniques	Inputs		
Korean won)	December 31, 2021	December 31, 2020	Level	December 31, 2021	December 31, 2020	December 31, 2021	December 31, 2020	
Financial assets at fair value through profit or loss	₩ 84,851,005	₩ 28,068,007	3	based approac	tion model, cost- h ¹ and binomial I(T-F)	Fair value of the investee's assets, acquisition cost, annualized variability of stock prices and others		
Financial assets at fair value through other comprehensive income	10,008,632	2,400,400	3	Cost-based	d approach ¹	Acquisit	ion cost	
Derivative assets	844,177	-	3	Binomial model (TF model)		Fair value of the investee's assets, annualized variability of stock prices and others	-	
Financial liabilities at fair value through profit or loss	197,309,714	-	3	Present value valuation ²	-	Discount rate considering credit rating and others	-	

¹ For financial assets held by the Group, the costs are deemed the best estimate of the fair value, since (i) the Group cannot obtain sufficient information for measuring fair value; and (ii) there are no significant changes in the value of investee during the past or the current year.

- ² The discounted cash flow method was applied to evaluate only the cash flows included in the contract terms.
- C. Valuation processes for fair value measurements categorized as Level 3

Each finance department of the Group's segments is responsible for fair value measurements, which include fair value measurements categorized as Level 3, for the purpose of financial reporting. The department periodically reports the fair value valuation process and its outcome on reporting schedule at the end of each reporting period.

Sensitivity analysis of financial instruments is performed to measure the favorable and unfavorable changes in the fair value of financial instruments which are affected by the unobservable parameters, using a statistical technique. When the fair value is affected by more than two input parameters, the calculation is based on the most favorable or most unfavorable amount.

The results of the sensitivity analysis for the effect on profit or loss from changes in inputs for each financial instrument classified as Level 3 for the year ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)

won)	December 31, 2021										
		Favorable changes					Unfavorable changes				
	Pro	ofit (loss)		Equity		Pr	ofit (loss)	I	Equity		
Financial assets at fair value through profit or loss	₩	459,161	₩		-	₩	(414,881)	₩		-	
Derivative assets		145,440			-		(160,041)				
Financial liabilities at fair value through profit or loss		2,286,293			-		(2,320,237)				

Sensitivity analysis for derivatives related to equity instruments were performed by increasing and decreasing the correlation between the stock price and the variability by 10%.

(in thousands of Korean won)

won)	December 31, 2020								
		Favorable changes				Unfavorable changes			
	Pro	fit (loss)	Equity	_	Pro	ofit (loss)	Equity		
Financial assets at fair value through other comprehensive income	₩	433,218	₩	-	₩	(392,059)	₩	-	

(c) Offsetting financial assets and financial liabilities

The Group recognizes both trade receivables from and payables to platform providers, which satisfy the criteria for offsetting described in KIFRS 1032 paragraph 42. Therefore, the trade receivables are presented in net basis in the consolidated financial statements of the Group. Trade payables which are offset with trade receivables amount to \forall 14,301 million (December 31, 2020: \forall 12,380 million) as of December 31, 2021.

6. Financial Instruments by Category

6.1 Carrying Amounts of Financial Instruments by Category

Carrying amounts of financial assets and liabilities by category as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	December 31, 2021	December 31, 2020
Financial assets		
Financial assets at fair value: Current financial assets at fair value through profit or loss	₩ -	. ₩ 12,070,055
Financial assets at fair value		
through profit or loss Financial assets at fair value through other comprehensive	84,851,005	28,068,007
income	109,880,530	71,389,744
Derivative assets	844,177	-
Financial assets at amortized cost:		
Cash and cash equivalents	3,019,311,210	
Trade receivables	530,729,987	
Other current financial assets	54,186,910	
Other non-current financial assets	30,795,939	16,147,305
Other financial assets:		
Current lease receivables	3,336,953	,
Non-current lease receivables	4,986,204	
	₩ 3,838,922,915	₩ 1,364,879,879
(in thousands of Korean won)	December 31, 2021	December 31, 2020
Financial liabilities		
Financial liabilities at fair value:		
Financial liabilities at fair value	407 000 744	
through profit or loss	197,309,714	
through profit or loss Current derivative liabilities	197,309,714	- 774,000
through profit or loss Current derivative liabilities Financial liabilities at amortized cost: Current portion of long-term	197,309,714	. 774,000
through profit or loss Current derivative liabilities Financial liabilities at amortized cost:	-	· 774,000 · ₩ 1,000,000
through profit or loss Current derivative liabilities Financial liabilities at amortized cost: Current portion of long-term borrowings Other current financial liabilities Other non-current financial liabilities	₩	774,000 ₩ 1,000,000 185,349,501
through profit or loss Current derivative liabilities Financial liabilities at amortized cost: Current portion of long-term borrowings Other current financial liabilities Other non-current financial liabilities Other financial liabilities:		774,000 ₩ 1,000,000 185,349,501
 through profit or loss Current derivative liabilities Financial liabilities at amortized cost: Current portion of long-term borrowings Other current financial liabilities Other non-current financial liabilities Other financial liabilities: Current lease liabilities 		774,000 ₩ 1,000,000 185,349,501 23,715,974
through profit or loss Current derivative liabilities Financial liabilities at amortized cost: Current portion of long-term borrowings Other current financial liabilities Other non-current financial liabilities Other financial liabilities:	₩ 327,984,126 40,459,747	 774,000 ₩ 1,000,000 185,349,501 23,715,974 32,690,465

Fair value of financial instruments is equal to the carrying amounts, except for equity instruments that do not have a quoted price in an active market and whose fair value cannot be measured reliably.

6.2 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, 2021 and 2020, are as follows:

(in thousands of Korean won)	Dece	mber 31, 2021	Decen	nber 31, 2020
Dividend income:				
Financial assets at fair value through profit or loss	₩	229,827	₩	128,521
Interest income/expenses:				
Financial assets at amortized cost		10,704,497		3,372,444
Financial liabilities at amortized cost		(375,480)		(550,254)
Other financial assets		170,941		71,678
Other financial liabilities		(6,450,493)		(5,017,645)
Gain on disposal:				
Financial assets at amortized costs		-		2,575
Financial assets at fair value through profit or loss		891,732		2,154,769
Current derivative liabilities		253,841		-
Other financial assets		19,655		-
Financial liabilities at fair value through profit or loss		(555,013)		-
Gain (loss) on valuation:				
Financial assets at fair value through profit or loss		20,971,111		1,617,554
Financial assets at fair value through other		00 057 400		07.040.004
comprehensive income		22,657,183		37,643,291
Financial liabilities at fair value through profit or loss		(1,795,706)		(774,000)
Derivative liabilities		(234,972)		-
Net impairment loss:				
Trade receivables		(961,724)		(943,613)
Financial assets at amortized cost		292,189		(498,894)
Net loss on foreign currency translation		104,462,402		(89,954,934)
	₩	150,279,990	₩	(52,748,508)

7. Trade Receivables, Other Financial Assets and Other Assets

Details of trade receivables, other financial assets and other assets as of December 31, 2021 and 2020, are as follows:

(in thousands of	D	December 31, 2020		
Korean won)		Provision for		
	Gross amount	impairment	Net amount	Net amount
Trade receivables	₩ 532,667,779	₩ (1,937,792)	₩ 530,729,987	₩ 462,478,129
Other assets (current)				
Financial assets: Short-term financial				
instruments	32,200,958	-	32,200,958	40,860,958
Short-term loans	-	-	-	68,528
Other receivables	17,179,433	(1,159,957)	16,019,476	10,449,349
Accrued income	1,839,762	(1,341,081)	498,681	740,060
Deposits	5,467,795	-	5,467,795	1,860,902
Lease receivables	3,336,953		3,336,953	378,371
	60,024,901	(2,501,038)	57,523,863	54,358,168
Advanced payments	7,886,073	-	7,886,073	7,078,744
Prepaid expenses	37,250,958	-	37,250,958	35,317,832
Others	593,940		593,940	1,381,129
	105,755,872	(2,501,038)	103,254,834	98,135,873
Other assets (non- current)				
Financial assets:				
Long-term loans Long-term financial	16,202,626	(15,220,000)	982,626	163,200
instruments	2,085,635	-	2,085,635	874,393
Deposits	27,727,678	-	27,727,678	15,109,712
Lease receivables	4,986,204		4,986,204	521,583
	51,002,143	(15,220,000)	35,782,143	16,668,888
Advanced payments	4,658,866		4,658,866	4,862,427
	55,661,009	(15,220,000)	40,441,009	21,531,315
	₩ 694,084,660	₩ (19,658,830)	₩ 674,425,830	₩ 582,145,317

(in thousands of	D	December 31, 2020			
Korean won)	Gross amount	Net amount			
Third party receivables Related party	₩ 689,946,299	₩ (19,658,830)	₩ 670,287,469	₩ 161,552,870	
receivables	4,138,361		4,138,361	420,592,447	
	₩ 694,084,660	₩ (19,658,830)	₩ 674,425,830	₩ 582,145,317	

7. Trade Receivables, Other Financial Assets and Other Assets, (cont'd)

Changes in the provision for impairment for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of	December 31, 2021										
Korean won)	Beginning		Provision			Write-off	Changes in scope of consolidation			Ending	
Trade receivables	₩	1,074,448	₩	961,724	₩	(128,651)	₩	30,271	₩	1,937,792	
Other assets (current)											
Financial assets:											
Short-term loan		9,500		-		(9,500)		-		-	
Other receivables		923,136		3,240		(223,075)		456,656		1,159,957	
Accrued income		323,713		-		(323,713)		1,341,081		1,341,081	
Other assets (non- current)											
Financial assets:											
Long-term loans Other long-term		6,200,000		(298,290)		(5,901,710)		15,220,000		15,220,000	
financial assets		-		2,861		(2,861)		-		-	
	₩	8,530,797	₩	669,535	₩	(6,589,510)	₩	17,048,008	₩	19,658,830	

	December 31, 2020										
(in thousands of Korean won)		Beginning		rovision	Changes in scope of consolidation			Ending			
Trade receivables	₩	407,947	₩	943,613	₩	(277,112)	₩	1,074,448			
Other assets (current)											
Financial assets:											
Short-term loans		-		-		9,500		9,500			
Other receivables		188,030		498,894		236,212		923,136			
Accrued income		-		-		323,713		323,713			
Other assets:											
Advanced payments		2,692		-		(2,692)		-			
Other assets (non-current)											
Financial assets:											
Long-term loans		606,578		-		5,593,422		6,200,000			
	₩	1,205,247	₩	1,442,507	₩	5,883,043	₩	8,530,797			

As of December 31, 2021, fair values of trade receivables, other current assets and other noncurrent assets are equal to their book value. The maximum exposure of trade and other receivables to credit risk is the book value of receivables mentioned above.

8. Restricted Financial Instruments

Financial instruments which are restricted in use as of December 31, 2021 and 2020 are summarized as follows:

(in thousands of Korean won)		December 31, December 31, 2020 2021			Restriction		
Short-term financial instruments	Woori Bank	₩	-	₩	2,650,000	-	
	Woori Bank		4,490,958		4,490,958	Provided as collateral ¹	
Long-term financial							
instruments	Shinhan Bank Silicon		1,787,649		-	Provided as collateral ¹	
	Valley Bank		-		598,400		
	Chase Bank		-		91,392		
		₩	6,278,607	₩	7,830,750		

¹ Pledged as a collateral for leasehold deposits received (Note 19).

9. Other Liabilities

Details of other liabilities as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean won) Decer	nber 31, 2021	December 31, 2020			
Other liabilities (current)					
Financial liabilities: Account pavables ₩	795	₩ -			
/ lood and payabled	62,165,698				
Other payables	261,591,282	27,998,223			
Accrued expenses ¹ Lease liabilities	54,506,202	153,134,927			
	4,226,351	32,690,465			
Current portion of leasehold deposits received	382,490,328	4,216,352			
Contract lightlitics and other lightlitics.	302,490,320	218,039,967			
Contract liabilities and other liabilities:	12,080,334	40 770 760			
Withholdings	89,569,327	10,773,760			
Unearned revenue (Note 22)	1,795,621	83,072,090			
Advance receipts	793,201	277,108			
Others	, , , , , , , , , , , , , , , , , , , ,	446,353			
	104,238,483	94,569,311			
Other liabilities (non-current) Financial liabilities:					
Long-term other payables	20,700,229	-			
Long-term accrued expenses ²	17,333,974	23,623,195			
Leasehold deposits received	2,425,544	92,779			
Lease liabilities	118,697,269	53,746,743			
	159,157,016	77,462,717			
\forall	645,885,827	₩ 390,071,995			

¹ Includes employee benefit liabilities amounting to $\forall 199,900,517$ thousand (2020: $\forall 91,337,029$ thousand).

² Includes employee benefit liabilities amounting to $\forall 16,157,962$ thousand (2020: $\forall 21,914,015$ thousand).

10. Financial Assets at Fair Value through Profit or Loss

Details of financial assets at fair value through profit or loss as of December 31, 2021 and 2020, are as follows:

are as follows.								
(in thousands of				December 31	, 20	21		
Korean won)	_			umulated gain				
	Acq	uisition cost	(los	s) on valuation		Book value		Non-current
Convertible bonds:								
Super Awesome Inc.	₩	500,000	₩	(500,000)	₩	-	₩	-
Beneficiary certificates:								
BITKRAFT Esports Ventures								
Fund I, LP		1,045,815		(87,175)		958,640		958,640
MAKERS FUND LP ESDF INTERNATIONAL		4,402,513		10,699,348		15,101,861		15,101,861
HOLDINGS LLC. LAGUNA Young Entrepreneur		513,328		(513,328)		-		-
Fund No. 1		1,500,000		(630)		1,499,370		1,499,370
KNET VALUE-UP Venture		.,,		()		, ,		.,,
Investment		4,878,224		9,129,311		14,007,535		14,007,535
KJ& The 1 st Game Fund		1,000,000		-		1,000,000		1,000,000
Kowloon Nights Fund LP		5,534,046		175,311		5,709,357		5,709,357
Lumikai Fund I		771,034		9,715		780,749		780,749
Progression Fund I, L.P.		433,813		10,750		444,563		444,563
WindWalk Games Corp.		895,125		-		895,125		895,125
NPTK Emerging Asia Fund 1								
Private Equity Fund		1,111,200		-		1,111,200		1,111,200
Hashed Venture Fund 1		2,000,000		-		2,000,000		2,000,000
Makers Fund II LP		1,597,108		88,016		1,685,124		1,685,124
Future Innovation Private Equity Joint Venture								
Company 3		18,106,400		427,239		18,533,639		18,533,639
Impact Collective Korea Fund BITKRAFT Ventures Fund II,		500,000		-		500,000		500,000
L.P.		344,220		11,430		355,650		355,650
Hashed Venture Fund 2		800,000		-		800,000		800,000
Intudo Ventures III, LP		292,925		3,450		296,375		296,375
China Ventures Fund II, L.P.		11,537,145		78,263		11,615,408		11,615,408
Sonantic (SAFE)		599,152		-		599,152		599,152
Creators Collective (SAFE)		118,550		-		118,550		118,550
Multiverse (SAFE)		59,275		-		59,275		59,275
Juice Technologies (SAFE)		237,100		-		237,100		237,100
Moonrise Fund		177,825		-		177,825		177,825
Redeemable convertible preference shares								
Hidden Sequence Co., Ltd.		2,976,787		1,106,942		4,083,729		4,083,729
21 Studios, Inc		999,999		280,766		1,280,765		1,280,765
Scatter Lab Co., Ltd.		1,000,013		-		1,000,013		1,000,013
	₩	63,931,597	₩	20,919,408	₩	84,851,005	₩	84,851,005
		00,001,001		_0,010,100		0.,001,000		0.,001,000

(in thousands of	December 31, 2020									
Korean won)	Acquisition cost	Accumulated gain (loss) on valuation	Book value	Current N	on-current					
Convertible bonds:										
Super Awesome Inc.	₩ 500,000	₩ (500,000)	₩ - ∀	∀ - ₩	-					
Beacon Studio Co., Ltd.	500,000	(500,000)	-	-	-					
Moloco, Inc.	1,107,100	(000,000)	1,107,100	-	1,107,100					
Beneficiary certificates: BITKRAFT Esports	.,,		.,		.,,					
Ventures Fund I, LP	690,370	189,215	879,585	-	879,585					
MAKERS FUND LP ESDF INTERNATIONAL	4,434,644	804,561	5,239,205	-	5,239,205					
HOLDINGS LLC. Monster Squad	513,328	(513,328)	-	-	-					
Entertainment, Inc. LAGUNA Young Entrepreneur Fund	2,238,600	(2,238,600)	-	-	-					
No. 1 KNET VALUE-UP	1,500,000	(630)	1,499,370	-	1,499,370					
Venture Investment	4,990,000	799,257	5,789,257	-	5,789,257					
KJ& The 1 st Game Fund Kowloon Nights Fund	500,000	-	500,000	-	500,000					
LP	4,411,146	(694,773)	3,716,373	-	3,716,373					
Lumikai Fund I	478,559	-	478,559	-	478,559					
Progression Fund I, L.P. NPTK Emerging Asia Fund 1 Private Equity	287,000	-	287,000	-	287,000					
Fund	1,111,200	-	1,111,200	-	1,111,200					
WindWalk Games Corp	895,125	-	895,125	-	895,125					
Hashed Venture Fund 1	800,000	-	800,000	-	800,000					
Creators Collective	108,800	-	108,800	-	108,800					
Multiverse	54,400	-	54,400	-	54,400					
Sonantic	549,875	-	549,875	-	549,875					
Juice Technologies	217,600	-	217,600	-	217,600					
Money market trusts Redeemable convertible preference shares SUPERBLOKE	12,244,692	(174,637)	12,070,055	12,070,055	-					
Corporation Hidden Sequence Co.,	200,003	(200,003)	-	-	-					
Ltd.	2,976,787	732,654	3,709,441	-	3,709,441					
21 Studios, Inc.	999,999	125,118	1,125,117	-	1,125,117					
Ordinary shares SUPERBLOKE										
Corporation	242,358	(242,358)		-	-					
	₩ 42,551,586	₩ (2,413,524)	₩ 40,138,062 ₩	₩ 12,070,055 ₩	28,068,007					

10. Financial Assets at Fair Value through Profit or Loss, (cont'd)

11. Financial Assets at Fair Value through Other Comprehensive Income

Details of financial assets at fair value through other comprehensive income as of December 31, 2021 and 2010, are as follows:

(in thousands of	December 31, 2021										
Korean won)	Ac	cquisition cost		cumulated gain on /aluation	B	ook value		Current		N	on-current
Unlisted equity securities:											
Bunch. Live	₩	2,380,400	₩	-	₩	2,380,400	₩		-	₩	2,380,400
APPETIZER GAMES CO., LTD.		20,000		-		20,000			_		20,000
AccelByte Inc. SVA ZEPETO		1,132,399		53,100		1,185,499					1,185,499
METAVERSE I PTE. LTD		5,000,000		237,233		5,237,233					5,237,233
Moloco Inc.		1,107,100		78,400		1,185,500					1,185,500
Listed equity securities:											
Kakao Games Corp.		10,000,121		48,573,849		58,573,970			-		58,573,970
Neptune Company		10,029,497		31,268,431		41,297,928			-		41,297,928
	₩	29,669,517	₩	80,211,013	₩	109,880,530	₩		_	₩	109,880,530

(in thousands of	December 31, 2020										
Korean won)	A	cquisition cost		cumulated gain on valuation	В	ook value	Current		N	on-current	
Unlisted equity securities:											
Bunch. Live APPETIZER GAMES	₩	2,380,400	₩	-	₩	2,380,400	₩	-	₩	2,380,400	
CO., LTD.		20,000		-		20,000		-		20,000	
Listed equity securities:											
Kakao Games Corp.		10,000,121		19,608,698		29,608,819		-		29,608,819	
Neptune Company		10,029,497		29,351,028		39,380,525		-		39,380,525	
	₩	22,430,018	₩	48,959,726	₩	71,389,744	₩	-	₩	71,389,744	

12.Investments in Associates

Set out below are the associates of the Group as of December 31, 2021 and 2020.

		Decemb	oer 31, 2021	
	Percentage		Date of financial	
	of ownership	Location	statements ²	Remarks
Shinhan Alpha REIT Co., Ltd.	1.91%	Korea	December 31	1,2
1Up Ventures, L.P.	33.42%	U.S.A	December 31	3
Hidden Sequence Co., Ltd.	13.57%	Korea	December 31	1
Smart Krafton-BonAngels Fund	54.55%	Korea	December 31	4
Nodwin Gaming Private Limited	15.00%	India	December 31	1
Un Note Co., Ltd.	12.57%	Domestic	December 31	1
Loco Interactive Pte Limited	12.38%	India	December 31	1
Nasadiya Technologies Private Limited	17.10%	India	December 31	1
Mirae Asset Maps General Private Real Estate Investment Trust 66	74.36%	Domestic	December 31	4

¹ Although the Group holds less than 20% of shares, the Group classified the investment as an associate, as the Group has significant influence over the investee.

² Shinhan Alpha REIT Co., Ltd. has six-month fiscal periods, which end March 31 and September 30. The financial statements were adjusted to one-year period from January 1, 2021 to December 31, 2021, using the interim financial statements ending December 31, 2021.

³ 1Up Ventures, L.P. was reclassified from financial assets at fair value through profit or loss to investments in associates as the Group obtained a significant influence.

⁴ Although the Group holds more than 50%, the Group classified the investment as an associate, as the Group does not satisfy the requirement of having control and has significant influence over the investee.

	December 31, 2020								
	Percentage of ownership	Location	Date of financial statements ²	Remarks					
Shinhan Alpha REIT Co., Ltd.	1.91%	Korea	December 31	1,2					
1Up Ventures, L.P.	49.26%	U.S.A	December 31	3					
Hidden Sequence Co., Ltd.	13.57%	Korea	December 31	1					
Smart Krafton-BonAngels Fund	54.55%	Korea	December 31	4					

¹ Although the Group holds less than 20% of Shinhan Alpha REIT Co., Ltd.'s equity shares, the Group classified the investment as an associate, as the Group has significant influence over the investee.

² Shinhan Alpha REIT Co., Ltd. has six-month fiscal periods, which end March 31 and September 30. The financial statements were adjusted to one-year period from January 1, 2020 to December 31, 2020, using the interim financial statements ending December 31, 2020.

³ 1Up Ventures, L.P. was reclassified from financial assets at fair value through profit or loss to investments in associates as the Group obtained a significant influence.

⁴ Although the Group holds more than 50%, the Group classified the investment as an associate, as the Group does not satisfy the requirement of having control and has significant influence over the investee.

Details of valuation of investments in associates that are accounted for using the equity method for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of	December 31, 2021										
Korean won)	Beginning	Acquisition	Transfer		Dividend	Share of profit (loss) of associates	Share of other comprehensive loss of associates	Ending			
Shinhan Alpha REIT Co., Ltd.	₩4,388,609	₩ -	₩	-	₩ (341,000)	₩ 33,862	₩ (7,602)	₩ 4,073,869			
1Up Ventures, L.P.	6,770,537	935,750		-	-	(286,453)	773,979	8,193,813			
Hidden Sequence Co., Ltd.	1,950,955	-		-	-	(64,221)	-	1,886,734			
Smart Krafton- BonAngels Fund	3,590,435	6,600,000		-	-	(179,914)	-	10,010,521			
Nodwin Gaming Private Limited	-	25,615,890		-	-	29,156	(55,569)	25,589,477			
Un Note Co., Ltd.	-	1,478		-	-	1,412,899	-	1,414,377			
Loco Interactive Pte Limited	-	3,407,400		-	-	(385,748)	(222,686)	2,798,966			
Nasadiya Technologies Private Limited	-	52,238,006		-	-	(1,358,200)	(51,253)	50,828,553			
Mirae Asset Maps General Private Real Estate Investment Trust 66		290,000,000		-	-	(176,297)		289,823,703			
	₩ 16,700,536	₩ 378,798,524	₩	-	₩ (341,000)	₩ (974,916)	₩ 436,869	₩ 394,620,013			

(in thousands of			I	December 31,	2020		
Korean won)	Beginning	Acquisition	Transfer	Dividend	Share of profit (loss) of associates	Share of other comprehensive loss of associates	Ending
Shinhan Alpha REIT Co., Ltd.	₩4,477,483	₩ -	₩ -	₩ (303,000)	₩ 216,130	₩ (2,004)	₩ 4,388,609
1Up Ventures, L.P.	-	2,034,000	5,769,500	-	(407,626)	(625,337)	6,770,537
Hidden Sequence Co., Ltd.	-	2,022,872	-	-	(71,917)	-	1,950,955
Smart Krafton- BonAngels Fund	-	3,600,000			(9,565)		3,590,435
	₩4,477,483	₩ 7,656,872	₩ 5,769,500	₩ (303,000)	₩ (272,978)	₩ (627,341)	₩ 16,700,536

The table below provides summarized financial information of the associates as of and for the years ended December 31, 2021 and 2020:

(in thousands of Korean won)		December 31, 2021								
	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Profit (loss) for the year	Total comprehensive income (loss)			
Shinhan Alpha REIT Co., Ltd.¹	₩ 52,792,035	₩ 1,852,725,440	₩ 178,571,390	₩ 1,383,119,294	₩ 62,105,548	₩ 7,038,375	₩ 7,038,375			
1Up Ventures, L.P.	3,202,821	21,326,137	11,262	-	-	(986,133)	704,684			
Hidden Sequence Co., Ltd.	9,661,229	1,312,402	6,648,728	7,649,979	18,657,593	(406,615)	(406,615)			
Smart Krafton- BonAngels Fund	3,614,309	14,852,917	114,605	-	-	(329,842)	(329,842)			
Nodwin Gaming Private Limited	20,517,300	14,303,228	11,003,243	152,609	11,261,080	194,351	(176,063)			
Un Note Co., Ltd.	4,648,369	10,866,609	4,189,950	71,371	9,679,601	8,778,745	8,778,745			
Loco Interactive Pte Limited	7,425,839	2,965,670	1,855,678	7,008,272	37,966	(5,451,525)	(9,103,323)			
Nasadiya Technologies Private Limited	45,479,473	7,164,767	1,924,681	2,858,852	495,614	(7,942,534)	(8,242,252)			
Mirae Asset Maps General Private Real Estate Investment Trust 66	24,009,785	366,014,550	261,424	-	-	(237,089)	(237,089)			

¹ The financial information of Shinhan Alpha REIT Co., Ltd. relating to profit or loss is adjusted to one-year period from January 1, 2021 to December 31, 2021.

(in thousands of Korean won)		December 31, 2020												
Kolean wonj	-	urrent ssets	I	Non-current assets		Current liabilities	N	lon-current liabilities		Revenue		ofit (loss) r the year		Total prehensive come (loss)
Shinhan Alpha REIT Co., Ltd. ¹	₩ 2	2,552,905	₩	1,335,554,834	₩	140,931,163	₩	867,094,399	₩	55,525,192	₩	7,855,461	₩	7,855,461
1Up Ventures, L.P.	:	3,970,424		9,784,591		10,521		-		-		(689,651)		(1,582,075)
Hidden Sequence Co., Ltd.		6,389,527		216,605		2,276,814		7,247,780		3,398,075		(1,046,915)		(1,046,915)
Smart Krafton- BonAngels Fund		4,800,471		1,800,217		18,223		-		-		(17,536)		(17,536)

¹ The financial information of Shinhan Alpha REIT Co., Ltd. relating to profit or loss is adjusted to one-year period from January 1, 2020 to December 31, 2020.

The table below provides a reconciliation of the summarized financial information presented to the carrying amount of its interest in the associate as of December 31, 2021 and 2020.

(in thousands of Korean	December 31, 2021									
won)	Net assets attributable to ordinary shares	D Equity Percentage accounted of ownership interest		Investment difference	Book amount					
Shinhan Alpha REIT Co., Ltd.	₩ 213,186,023	1.91%	₩ 4,073,868	₩ -	₩ 4,073,868					
1Up Ventures, L.P.	24,517,697	33.42%	8,193,814	-	8,193,814					
Hidden Sequence Co., Ltd.	(3,425,070)	13.57%	(464,760)	2,351,494	1,886,734					
Smart Krafton-BonAngels Fund	18,352,621	54.55%	10,010,521	-	10,010,521					
Nodwin Gaming Private Limited	23,664,676	15.00%	3,550,135	22,039,343	25,589,478					
Un Note Co., Ltd.	11,253,656	12.57%	1,414,377	-	1,414,377					
Loco Interactive Pte Limited	450,587	12.38%	55,761	2,743,205	2,798,966					
Nasadiya Technologies Private Limited	47,860,708	17.10%	8,184,343	42,644,209	50,828,552					
Mirae Asset Maps General Private Real Estate Investment Trust 66	389,762,911	74.36%	289,823,703	-	289,823,703					

(in thousands of Korean won)	December 31, 2020									
	Net assets attributable to ordinary shares	Percentage of ownership	Equity accounted interest	Investment difference	Book amount					
Shinhan Alpha REIT Co., Ltd.	₩ 229,656,444	1.91%	₩ 4,388,609	₩ -	₩ 4,388,609					
1Up Ventures, L.P.	13,744,494	49.26%	6,770,537	-	6,770,537					
Hidden Sequence Co., Ltd.	(2,951,793)	13.57%	(400,539)	2,351,494	1,950,955					
Smart Krafton- BonAngels Fund	6,582,465	54.55%	3,590,435	-	3,590,435					

Fair value of investments in associates that has a quoted market price as of December 31, 2021 and 2020, are as follows:

(in thousands of		Decembe	er 31, 2021	December 31, 2020			
Korean won)	Company	Fair value	Book value	Fair value	Book value		
Associates	Shinhan Alpha REIT Co., Ltd.	₩ 7,950,000	₩ 4,073,869	₩ 7,120,000	₩ 4,341,879		

13. Property and Equipment and Leases

Details of property and equipment as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean				0						
won)		Fixtures		Right-of-use Facilities assets		Construction-in- progress		Total		
Acquisition cost	₩	49,841,802	₩	54,777,289	₩	253,092,869	₩	15,924,670	₩	373,636,630
Accumulated depreciation Accumulated impairment		(19,676,816)		(17,276,410)		(91,451,018) (203,323)		-		(128,404,244) (203,323)
Government grants ¹		-		(1,279,581)		- (200,020)		-		(1,279,581)
	₩	30,164,986	₩	36,221,298	₩	161,438,528	₩	15,924,670	₩	243,749,482

¹ There are no unfulfilled conditions or other contingencies related to the government grants as of December 31, 2021.

(in thousands of Korean	December 31, 2020									
won)	Fixtures Facilities		Facilities	Right-of-use assets		Construction-in- progress			Total	
Acquisition cost	₩	29,347,371	₩	30,585,442	₩	135,580,454	₩	23,759,311	₩	219,272,578
Accumulated depreciation		(11,811,430)		(11,648,239)		(54,119,467)		-		(77,579,136)
Accumulated impairment		-		-		(186,601)		-		(186,601)
Government grants ¹				(1,145,431)		-		-		(1,145,431)
	₩	17,535,941	₩	17,791,772	₩	81,274,386	₩	23,759,311	₩	140,361,410

¹ There are no unfulfilled conditions or other contingencies related to the government grants as of December 31, 2020.

13. Property and Equipment and Leases, (cont'd)

Changes in property and equipment for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of	December 31, 2021										
Korean won)	Vehicles	Fixtures	Facilities	Right-of-use assets	Construction- in-progress	Total					
Beginning	₩ -	₩ 17,535,941	₩ 17,791,772	₩ 81,274,386	₩ 23,759,311	₩ 140,361,410					
Increase due to business combination	-	69,639	35,150	115,005	-	219,794					
Acquisitions	-	20,177,174	25,443,716	118,149,324	4,738,438	168,508,652					
Transfers ¹	22,030	789,868	1,420,823	8,754,796	(12,604,872)	(1,617,355)					
Disposals	(19,360)	(739,081)	(1,730,332)	(2,288,833)	-	(4,777,606)					
Depreciation	(2,670)	(8,140,551)	(7,235,884)	(45,711,316)	-	(61,090,421)					
Changes in the scope of consolidation	-	(59,945)	-	-	-	(59,945)					
Others ²	-	531,941	496,053	1,145,166	31,793	2,204,953					
Ending	₩ -	₩ 30,164,986	₩ 36,221,298	₩ 161,438,528	₩ 15,924,670	₩ 243,749,482					

¹ Construction in-progress of $\forall 1,972,797$ thousand and $\forall 8,399,354$ thousand is reclassified to intangible assets and investment properties, respectively, for the year ended December 31, 2021.

² Includes exchange rate differences

(in thousands of					December 31, 2020						
Korean won)		Fixtures	Facilities		Right-of-use assets		Construction- in-progress		Total		
Beginning Increase due to business	₩	13,742,221	₩	18,675,377	₩	93,440,240	₩	1,475,047	₩	127,332,885	
combination		-		6,278		-		-		6,278	
Acquisitions		7,867,572		4,725,944		18,547,594		26,133,850		57,274,960	
Transfers		1,835,836		917,567		-		(3,812,780)		(1,059,377)	
Disposals		(343,551)		(345,998)		(55,232)		-		(744,781)	
Depreciation Changes in the scope of		(5,190,351)		(5,749,322)		(29,933,551)		-		(40,873,224)	
consolidation		(10,219)		-		-		-		(10,219)	
Others ¹		(365,567)		(438,074)		(724,665)		(36,806)		(1,565,112)	
Ending	₩	17,535,941	₩	17,791,772	₩	81,274,386	₩	23,759,311	₩	140,361,410	

¹ Includes exchange rate differences

13. Property and Equipment and Leases, (cont'd) Leases

A. Amounts recognized in the consolidated statements of financial position

Lease related amounts recognized in the consolidated statements of financial position are as follows:

(in thousands of Korean won)	December 31, 2021		Decer	nber 31, 2020
Right-of-use assets ¹				
Properties	₩	161,438,529	$\forall \forall$	81,274,386
Lease receivables ²				
Current		3,336,953		378,371
Non-current		4,986,204		521,583
		8,323,157		899,954
	₩	169,761,686	₩	82,174,340
Lease liabilities ³				
Current	₩	54,506,202	₩	32,690,465
Non-current		118,697,269		53,746,743
	₩	173,203,471	₩	86,437,208

¹ Included in the 'property and equipment' of the consolidated statements of financial position.

² Included in the 'other current financial assets' and 'other non-current financial assets' of the consolidated statements of financial position.

³ Included in the 'other current financial liabilities' and 'other non-current financial liabilities' of the consolidated statements of financial position.

Additions to the right-of-use assets for the years ended December 31, 2021 amounts to \forall 118,149,324 thousand (December 31, 2020: \forall 18,547,594 thousand).

13. Property and Equipment and Leases, (cont'd)

The Group has entered into a sublease contract for part of the right-of-use assets and classified them as operating leases. The future lease payments that the Company is expected to receive, are as follows:

(in thousands of Korean won)

			December	31, 202	21			
	Total contractual cash flows		Less than 1 years		Between and 5 years	Total		
₩	5,447,194	₩	5,429,154	₩	18,040	₩	5,447,194	
			December	31, 202	20			
	Total Contractual cash flows		Less than 1 years	-	Between Ind 5 years		Total	
₩	5,615,172	₩	5,615,172	₩	216,098	₩	5,615,172	

B. Amounts recognized in the consolidated statements of comprehensive income

Lease related amounts recognized in the consolidated statements of comprehensive income are as follows:

(in thousands of Korean won)	Dece	mber 31, 2021	December 31, 2020		
Depreciation of right-of-use assets					
Properties	₩	(45,711,316)	₩	(29,933,551)	
Interest expense relating to lease liabilities (included in finance costs)		(6,450,493)		(5,017,645)	
Expense relating to short-term leases (included in operating costs)		(1,035,821)		(1,959,561)	
Expense relating to leases of low-value assets (included in operating costs)		(251,086)		(239,341)	
Revenue from sublease lease (included in revenue)		8,124,522		8,264,535	
Interest income relating to lease receivables (included in finance income)		170,941		71,678	

The total cash outflow for leases for the year ended December 31, 2021 amounts to \forall 44,787,416 thousand (December 31, 2020: \forall 34,146,075 thousand).

14. Intangible Assets

Intangible assets as of December 31, 2021 and 2020, consist of:

(in thousands of Korean won)			De	cember 31, 2021					
		Accumulated amortization and							
	Ace	quisition cost		impairment		Book value			
Software	₩	27,740,670	₩	(19,004,847)	₩	8,735,823			
Industrial property rights		1,459,865		(671,849)		788,016			
Membership rights		1,373,669		(34,717)		1,338,952			
Goodwill		871,327,470		(62,774,958)		808,552,512			
Other intangible assets		15,077,942		(5,842,492)		9,235,450			
č	₩	916,979,616	₩	(88,328,863)	₩	828,650,753			

(in thousands of Korean won)	December 31, 2020								
	٨٥	Accumulated amortization and Acquisition cost impairment Book va							
	AU	quisition cost		impairment		BOOK Value			
Software	₩	23,163,927	₩	(17,199,964)	₩	5,963,963			
Industrial property rights		1,170,613		(425,572)		745,041			
Membership rights		679,323		-		679,323			
Goodwill		105,015,328		(105,015,328)		-			
Other intangible assets		9,580,059		(5,325,061)		4,254,998			
	₩	139,609,250	₩	(127,965,925)	₩	11,643,325			

14. Intangible Assets, (cont'd)

Changes in intangible assets for the years ended December 31, 2021 and 2020, are as follows:

(in thousands	December 31, 2021											
of Korean won)	s	oftware	pr	Industrial property Membership rights rights		G	oodwill	Other intangible assets			Total	
Beginning balance Business Combination and	₩	5,963,963	₩	745,041	₩	679,323	₩	-	₩	4,254,998	₩	11,643,325
changes in the scope of consolidation		62,316		7,060		-		835,087,648		7,465,469		842,622,493
Acquisitions		3,298,523		116,968		694,345		-		180,759		4,290,595
Transfers ¹		1,972,797		194,135		-		-		-		2,166,932
Disposals		-		(39,119)		-		-		(858)		(39,977)
Amortization		(2,585,596)		(236,490)		(34,717)		-		(2,977,564)		(5,834,367)
Impairment loss		-		-		-		(26,535,136)		-		(26,535,136)
Others ²		23,820		421		-		-		312,647		336,888
Ending balance	₩	8,735,823	₩	788,016	₩	1,338,951	₩	808,552,512	₩	9,235,451	₩	828,650,753

¹ Construction in-progress of \forall 1,972,797 thousand was reclassified to software and long-term advanced payments of \forall 194,135 thousand was reclassified to industrial property rights during the year ended December 31, 2021.

² Includes exchange rate differences

(in thousands	December 31, 2020										
of Korean won)	Software	Industrial property rights	Membership rights	Goodwill	Other intangible assets	Total					
Beginning balance Business Combination	₩ 3,641,741	,	₩ 679,323		₩ 578,900	-,- ,					
and changes in the scope of consolidation	(8,000)		· -	5,151,326	6,932,313	12,075,639					
Acquisitions	3,222,211	39,682	-	-	35,000	3,296,893					
Transfers	1,059,378	256,462	-	-	-	1,315,840					
Disposals	(85,895)			-	-	(85,895)					
Amortization	(1,416,655)	(192,324)		-	(1,651,113)	(3,260,092)					
Impairment loss	(437,334)			(5,052,974)	(1,162,412)	(6,652,720)					
Others ¹	(11,483)	(223)	-	(98,352)	(477,690)	(587,748)					
Ending balance	₩ 5,963,963	₩ 745,041	₩ 679,323	₩ -	₩ 4,254,998	₩ 11,643,325					

¹ Includes exchange rate differences

14. Intangible Assets, (cont'd)

Impairment Tests for Goodwill

The Group performed an impairment test on the goodwill at the end of the year. The recoverable amount of the CGUs has been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management covering a five-year period. The following table sets out the key assumptions for calculating the value-in-use of the major CGUs as of December 31, 2021.

Key assumptions

Average operating margin	-4.76%~6.71%
Average sales growth rate ¹	7.55%~56.37%
Permanent growth rate ²	1.00%
Pre-tax discount rate ³	15.50%~17.95%

¹ Weighted average sales growth rate and operating profit ratio is used to estimate cash flows for five years and is determined based on the Group's expectations of sales and operating profit in the future.

² The long-term growth rate is a weighted average growth rate used for estimating cash flows for a year that exceeds the forecast period. This growth rate does not exceed the expected growth rate in the industry report specific to the industry in which the CGUs operates.

³ The discount rates used are pre-tax and reflect specific risks relating to the relevant operating segments.

The impairment test suggests that the carrying amount of the CGUs exceed the recoverable amount and the Group fully impaired the goodwill.

The recoverable amount of the cash-generating unit of the Group is determined based on the key assumptions used in the goodwill impairment test. The effects of the changes in the assumptions in excess of the carrying amount are as follows:

(in thousands of Korean won)	Change in pre-tax discount				
	Increase by 1%		Decrease by 1%		
Excess portion of goodwill's recoverable amount	₩	2,079,822	₩	(1,234,045)	

15. Investment Properties

Details of investment properties as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	December 31, 2021			
	Accumulated			
	Cost	depreciation	Book value	
Land	₩ 156,224,557	₩ -	₩ 156,224,557	
Buildings	27,677,095	(642,427)	27,034,668	
	₩ 27,034,668	₩ (642,427)	₩ 183,259,225	
(in thousands of Korean won)	December 31, 2020			
	Cost	Accumulated depreciation	Book value	
Land	₩ 59,278,258	₩ -	₩ 59,278,258	
Buildings	9,420,500	(19,627)	9,400,873	
	₩ 68,698,758	₩ (19,627)	₩ 68,679,131	

Changes in investment properties for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		December 31, 2021				
		Land	Buildings		Total	
Beginning balance	₩	59,278,258	₩ 9,400,873	₩	68,679,131	
Acquisitions		89,338,959	17,464,582		106,803,541	
Transfers ¹		7,607,340	792,014		8,399,354	
Depreciation		-	(622,801)		(622,801)	
Ending balance	₩	156,224,557	₩ 27,034,668	₩	183,259,225	

¹ Construction in-progress of ₩8,399,354 thousand was reclassified to investment properties during the year ended December 31, 2021.

15. Investment Properties, (cont'd)

(in thousands of Korean won)		December 31, 2020			
		Land Buildings		Total	
Beginning balance	₩	-	₩	-	₩ -
Acquisitions		59,278,258		9,420,500	68,698,758
Depreciation		-		(19,627)	(19,627)
Ending balance	₩	59,278,258	₩	9,400,873	₩ 68,679,131

During the year, rental income earned from operating leases of investment property is $\forall 48$ million, and direct operating expenses (including repairs and maintenance) from property that generated rental income are $\forall 0$ million. Direct operating expenses (including repairs and maintenance) from property that did not generate rental income are $\forall 82$ million.

Fair value of investment properties as at December 31, 2021, is ₩ 167,105 million (2020: ₩ 68,698 million). The valuation of investment properties is performed by an independent valuer.

16. Long-term Borrowings

Details of long-term borrowings as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Creditor	Interest rate	December 31, 2021	December 31, 2020
Working capital Less: Current portion	Hana Bank and others	-	₩ -	₩ 1,000,000 (1,000,000)
			₩ -	₩ -

17. Net Defined Benefit Liabilities

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

(in thousands of Korean won)	Decem	ber 31, 2021	December 31, 2020		
Present value of defined benefit obligations	₩	17,755,435	₩	14,809,815	

Changes in the defined benefit obligations for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Dee	cember 31, 2021	Dee	cember 31, 2020
Beginning	₩	14,809,815	₩	17,834,531
Changes in the scope of consolidation		635,464		
Current service cost		4,268,159		5,186,206
Interest expense		302,415		314,480
Benefit payments		(1,744,052)		(4,754,392)
Remeasurements: Actuarial gain(loss) from change in financial assumptions		(1,405,701)		3,281,162
Actuarial gain(loss) from experience adjustments Actuarial gain(loss)loss from change in demographic assumptions		4,520,912		(29,671) (239,458)
Past service cost and gains or losses on settlements		(5,546,660)		(6,783,043)
Others ¹		(1,993)		-
Ending	₩	17,755,435	₩	14,809,815
¹ Includes exchange rate differences				

The amounts recognized in the consolidated statements of comprehensive income related to defined benefit plan for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Dee	cember 31, 2021	De	cember 31, 2020
Current service cost	₩	4,268,159	₩	5,186,206
Interest expense		302,415		314,480
Past service cost and gains or losses on settlements		(5,546,660)		(6,783,043)
	₩	(976,086)	₩	(1,282,357)

17. Net Defined Benefit Liabilities, (cont'd)

The significant actuarial assumptions as of December 31, 2021 and 2020, are as follows:

(in percentage, %)	December 31, 2021	December 31, 2020
Discount rate	2.89% - 3.13%	2.03% - 2.59%
Salary growth rate	3.78% - 8.05%	7.31% - 7.88%

Discount rate is measured by reference to corporate bond rated AA+. Mortality rate for defined benefit pension plan announced by Korea Insurance Development Institute is adopted, and the retirement rate is measured by reference to the historical record of retirement.

The sensitivity of the defined benefit obligation to changes in the principal assumptions is:

(in thousands of Korean won)	1%p increase		1%p decrease		
Discount rate	₩	(3,321,159)	₩	2,604,018	
Salary growth rate		2,428,371		(3,233,777)	

Details of remeasurements incurred related to defined benefit plan for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	De	cember 31, 2021	Dec	ember 31, 2020
Remeasurements of net defined benefit liability	₩	5,032,287	₩	3,012,033
Income tax effect		(1,373,612)		(728,912)
Remeasurements of net defined benefit liability, after tax	₩	3,658,675	₩	2,283,121

The weighted average duration of the defined benefit obligation is $4.1 \sim 11.3$ years. The expected maturity analysis of undiscounted pension benefits as of December 31, 2021, is as follows:

(in thousands of Korean won)	L	ess than 1 year		etween 2 years		Between 2-5 years		Over 5 years		Total
Pension benefits	₩	1,115,446	₩	585,854	₩	2,852,677	₩	16,646,611	₩	21,200,588

The expense recognized in the current year in relation to the defined contribution plan amounted to $\forall 14,644,743$ thousand(2020: $\forall 3,971,245$ thousand).

The Group provides long-term employee benefits to employees who have provided services for a year of five years or more years. The Group measures the long-term employee benefit liabilities using actuarial assumptions.

18.Provisions

Changes in provisions for restoration for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	December 31, 2021						
	Provision for restoration costs						
Beginning	₩	5,289,452	₩	44,762,724			
Increase due to business combination		8,914		-			
Additions ¹		8,210,928		8,429,527			
Unwinding of discount		-		(11,188,395)			
Used		(75,898)		(4,474,180)			
Others ²		(821,378)		-			
Exchange rate differences		(4,143)		-			
Ending	₩	12,607,875	₩	37,529,676			
Current portion		-		37,529,676			
Non-current portion		12,607,875		-			

¹ The amount is related to the leasehold improvements of the head office. The Company measured the provision for restoring costs by discounting the best estimate of the restoring costs expected to occur at the end of the lease term with an appropriate discount rate.

² Includes the reduction in the obligation for restoration at the end of the lease period due to the new sub-lease contract

(in thousands of Korean won)	December 31, 2020						
		ovision for pration costs	Othe	r provisions			
Beginning	₩	4,911,354	₩	-			
Increase due to business combination		-		-			
Addition ¹		431,757		44,762,724			
Unwinding of discount		-		-			
Others ²		(43,346)		-			
Exchange rate differences		(10,313)		-			
Ending	₩	5,289,452	₩	44,762,724			
Current portion		-		44,762,724			
Non-current portion		5,289,452		-			

¹ The amount is related to the leasehold improvements of the head office. The Company measured the provision for restoration costs by discounting the best estimate of the restoration costs expected to occur at the end of the lease term using an appropriate discount rate.

² Includes the reduction in the obligation for restoration at the end of the lease period due to the new sub-lease contract

19.Contingencies and Commitments

As of December 31, 2021, the Group is providing game services to end-users through contracts with the following major platform operators:

Game	Counterparty	Service region
PLAYERUNKNOWN'S	Valve Corporation	Worldwide
BATTLEGROUNDS (PC)	Hangzhou Shunwang Technology Co., Ltd.	China (except for Hong Kong, Macau and Taiwan)
	Qingfeng(Beijing) Technology Co.,Ltd.	China (except for Hong Kong, Macau and Taiwan)
Thunder Tier One (PC)	Valve Corporation	Worldwide
PLAYERUNKNOWN'S	Google	Korea, Japan, India
BATTLEGROUNDS (Mobile)	Apple	Korea, Japan, India
	Samsung Electronics	Korea
	Coda Payments Pte.Ltd	India
PUBG NEW STATE (Mobile)	Google	Worldwide
	Apple	Worldwide
	Samsung Electronics	Worldwide
PLAYERUNKNOWN'S BATTLEGROUNDS (Stadia)	Google	Part of Europe and U.S.A

The Group has contracts with more than 8 domestic and foreign companies including the above contracts, and the contract period is 1~3 years or longer.

The Group collects considerations for game services from the end-users through the platform providers and pays a certain percentage of revenue generated from the end-users as a fee in exchange for using their platform.

Major publishing contracts of the Group as of December 31, 2021, are as follows:

Game	Counterparty	Service region
PLAYERUNKNOWN'S	Microsoft Corporation	Worldwide
BATTLEGROUNDS (Console)	Sony Interactive Entertainment LLC	Worldwide
PLAYERUNKNOWN'S BATTLEGROUNDS(PC)	Kakao Games Corp.	Korea
PLAYERUNKNOWN'S	Tencent Technology (Shenzhen) Company Limited	China
BATTLEGROUNDS (Mobile)	Proxima Beta Pte. Limited	Worldwide

19. Contingencies and Commitments, (cont'd)

Major other contracts of the Group as of December 31, 2021, are as follows:

Game	Counterparty	Service region
PLAYERUNKNOWN'S BATTLEGROUNDS	Beijing Kuaishou Technology Ltd. Guangzhou Huya Information Technology Ltd.	China China

The Group has entered into a license agreement with Epic Games International S.a.r.l. for the "Unreal Engine" required to drive the game, which the Group is obliged to pay a certain percentage of revenue as royalties.

As of December 31, 2021, there are two litigation cases filed against the Group (relating to claim for damages related to stock options and others) and four pending litigations (relating to claim for damages of purchased IT assets and others) filed by the Group. The Group's management believes that the ultimate results of these cases will not have a significant impact on the consolidated financial statements of the Group and the results of the cases cannot be reliably estimated as of December 31, 2021.

As of December 31, 2021, the Group has been provided guarantees up to $\forall 3,015$ million from Seoul Guarantee Insurance Co., Ltd. in connection with the repayment of contributions for supporting the workplace nursery installation, $\forall 120$ million from the management of subsidiaries in relation to the corporate card limit, and up to USD2,594 thousand from Citibank N.A in connection with the office rent payment.

As of December 31, 2021, the payment guarantees and collateral provided by the Group in relation to its subsidiaries are as follows.

Subsidiary company	Guarantee	Provider	Currency	Amount
Striking Distance Studios, Inc.	Payment guarantee related to rent	Sunset Building Company, LLC	USD	2,280,000
PUBG Santa Monica, Inc.	Payment guarantee related to rent	Water Garden Realty Holdings LLC etc.	USD	900,000
PUBG Santa Monica, Inc., PUBG Mad Glory LLC, Striking Distance Studios, Inc	Corporate card issuance guarantee	Citibank N.A.	USD	600,000
PUBG Mad Glory, LLC	Office Rent Guarantee	25 West Main Office LLC	USD	2,110,865

19. Contingencies and Commitments, (cont'd)

As of December 31, 2021, ₩6,279 million of short-term financial instruments are provided as collateral related to leasehold deposits received from sublessee of Krafton Tower.

As of December 31, 2021, the Group has entered into loan commitments up to \forall 1,500 million with Woori Bank, and there is no outstanding loan balance.

The Group has entered into an agreement to pay performance-based incentives in proportion to the sales performance to executives and employees, including key developers, who can contribute to the Group's long-term growth.

On June 25, 2021, the Group entered into a shareholder agreement with existing shareholders in relation to the acquisition of redeemable convertible preferred stock and common stock of Thingsflow Inc. The main conditions of the contract are summarized as follows:

Туре	Contents
Put option	Existing shareholders can request the purchase of all the remaining shares within 3 months from the expiration date of the sale if the IPO is not completed by the deadline for the sale, or if the existing shareholders are unable to sell 50% or more of the shares held to a third party.
Call option	During the exercise period of the put option, the Group's call option contract allows the sale of all shares held by the existing shareholders at an amount equivalent to 120% of the put option exercise price.
Others	Existing shareholders cannot sell, transfer, set up as collateral, or other dispositions without prior written consent within the disposition restriction period.
	The Group retains the preferred right to purchase all or part of the shares held by the existing shareholders even after the existing shareholders have obtained prior signed consent or after the disposition restriction period has expired.

As of December 31, 2021, the Group has entered into responsible lease agreement with the associate, Mirae Asset Maps General Private Equity Investment Trust No.66, for the business facilities and neighborhood living facilities to be developed by the associate on 333-16 Seongsudong 2-ga, Seongdong-gu, Seoul, and 4 lots of land, for 10 years from completion of construction.

20. Equity

(a) Share capital

Details of share capital as of December 31, 2021 and 2020, are as follows:

(in Korean won and in shares)	Dece	mber 31, 2021	Decem	ber 31, 2020
Authorized number of shares		300,000,000		100,000,000
Par value in Korean won	₩	100	₩	500
Issued and outstanding number of shares				
Ordinary shares		48,967,045		8,557,037
¹ The Group conducted a share split by lowering	g the par val	ue from ₩500 to	o ₩100 o	n May 4, 2021,
as the effective date.				

(b) Changes in share capital and capital surplus

Changes in share capital and consolidated capital surplus for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)

	Share capital		
Balance at January 1, 2020	₩	4,022,749	
Exercise of share options and others		36,494	
Increase due to business combination		219,276	
Balance at December 31, 2020	$\forall \forall$	4,278,519	
Balance at January 1, 2021	$\forall \forall$	4,278,519	
Exercise of share options and others		55,786	
Disposal of treasury shares		-	
Paid-in capital increase		562,400	
Paid-in capital increase of subsidiaries		-	
Balance at December 31, 2021	$\forall \forall$	4,896,705	

KRAFTON, Inc. and its Subsidiaries Notes to the Consolidated Financial Statements December 31, 2020 and 2019

20. Equity, (cont'd)

(in thousands of Korean	Capital surplus							
won)	Share	e premium	0	ther capital surplus	of tre	disposal asury ares		Total
Balance at January 1, 2020	₩ 9	82,564,532	₩	2,076,748	₩	-	₩	984,641,280
Exercise of share options and others		19,349,191		-		-		19,349,191
Increase due to business combination		(219,276)						(219,276)
Balance at December 31, 2020	₩ 1,0	01,694,447	₩	2,076,748	₩	-	₩	1,003,771,195
Balance at January 1, 2021	₩ 1,0	01,694,447	₩	2,076,748	₩	-	₩	1,003,771,195
Exercise of share options and others		57,233,632		-		-		57,233,632
Disposal of treasury shares		-		-	6	6,452,617		6,452,617
Paid-in capital increase	2,7	71,641,092		-		-		2,771,641,092
Paid-in capital increase of subsidiaries		-		(43)		-		(43)
Balance at December 31, 2021	₩ 3,8	30,569,171	₩	2,076,705	₩ 6	6,452,617	₩	3,839,098,493

(c) Other components of equity

Other components of equity as of December 31, 2021 and 2020, consist of:

(in thousands of Korean won)	December 31, 2020			
	Decer	nber 31, 2021		
Treasury shares ¹	₩	-	₩	-
Share-based payments (Note 21)		46,836,184		87,698,621
Other capital adjustments		108,742,903		47,444,118
Gain on valuation of financial assets at fair value through other comprehensive income (Note 11)		59,656,652		36,999,470
Actuarial loss		(9,450,771)		(5,792,096)
Equity adjustments of investments in associates		(190,471)		(627,340)
Exchange differences	_	732,540		2,391,162
	₩	206,327,037	₩	168,113,935

¹ The acquisition cost of treasury shares is $\forall 0$.

21. Share-based Payments

The terms and conditions of stock options granted by Krafton, Inc. as of December 31, 2021, are as follows:

(in Korean won, excep number of shares)	ot 11	th	1	18 th -1		18 th -2	1	8 th -3
Type of arrangement	Equity-	Equity-settled		ty-settled	Ec	quity-settled	Equit	y-settled
Grantee	Emplo	oyees	Em	ployees	E	Employees	Emp	oloyees
Date of grant	Apr. 1	2015	Mar.	30, 2017	Ma	ar. 30, 2017	Mar. 3	30, 2017
No. of shares granted	118,	500	15	58,815		158,810	13	6,125
Outstanding shares as December 31, 2020	s of 1,0	00	4	9,875		49,875	87	7,375
No. of shares granted during the year	-			-		-		-
No. of shares exercise during the year	1,0	00	1	4,875		14,875	57	7,375
No. of shares cancelle during the year	-			-		-		-
Outstanding shares as December 31, 2021	s of		3	5,000		35,000	30),000
Exercise price	₩ 1	014	₩	⁴ 1,003		₩ 1,003	₩	1,003
Vesting conditions	Continue from the g to date o	rant date	from the	nue to work e grant date e of vesting	from	ntinue to work the grant date ate of vesting	from the	ue to work grant date of vesting
Date of vesting	Apr. 1	2018	Apr.	. 1, 2019	A	pr. 1, 2020	Apr.	1, 2021
Date of expiration	Mar. 31	, 2021	Mar.	31, 2026	Ma	ar. 31, 2026	Mar. 3	31, 2026
(in Korean won, except number of shares)	19 th -2	19 th -	3	19 th -5		20 th		21 th
Type of arrangement Grantee Date of grant No. of shares granted	Equity-settled Employees Oct. 20, 2017 354,375	Equity-se Employ Oct. 20, 303,7	ees 2017	Equity-sett Employed Oct. 20, 20 150,000	es 017	Equity-settle Employee Jul. 1, 201 37,500	s	Equity-settled Employees Aug. 1, 2019 29,500
Outstanding shares as of December 31, 2020	354,375	303,7	50	150,000)	37,500		29,500
No. of shares granted during the year	-	-		_				
No. of shares exercised during the year	334,135	-		135,500)	_		100
No. of shares cancelled during the year	-	-		-		_		-
Outstanding shares as of December 31, 2021	20,240	303,7	50	14,500		37,500		29,400
Exercise price	₩ 1,452	₩ 1,4	52	₩ 1,452	2	₩ 44,000)	₩ 44,000
Vesting conditions	Continue to work from the grant date to date of vesting	-	ant date	Continue to from the gran to date of ve	nt date	to date of ves	date fro ting to	ontinue to work m the grant date date of vesting . 31, 2021 (35%)
Date of vesting	Oct. 20, 2020	Oct. 20,	2021	Oct. 20, 20	020	Jun. 30, 2022 ((35%) Jul	. 31, 2022 (35%) . 31, 2023 (30%)
Date of expiration	Oct. 19, 2026	Oct. 19,	2026	Oct. 19, 20	025	Jun. 30, 20		Jul. 31, 2028

KRAFTON, Inc. and its Subsidiaries Notes to the Consolidated Financial Statements December 31, 2020 and 2019

(in Korean won, except number of shares)	22 nd	23 rd	24 th	25 th	26 th
Type of arrangement	Equity-settled	Equity-settled Cash-settled	Equity-settled Cash-settled	Equity-settled	Equity-settled
Grantee	Employees	Employees	Employees	Employees	Employees
Date of grant	Oct. 1, 2019	Nov. 5, 2020	Nov. 5, 2020	Mar. 31, 2021	Mar. 31, 2021
No. of shares granted	6,500	50,000	650,000	178,750	2,500
Outstanding shares as of December 31, 2020	6,500	50,000	650,000	_	-
No. of shares granted during the year	_	_	-	178,750	2,500
No. of shares exercised during the year	-	-	-	-	-
No. of shares cancelled during the year	-	-	-	3,750	-
Outstanding shares as of December 31, 2021	6,500	50,000	650,000	175,000	2,500
Exercise price	₩ 44,000	₩ 144,000	₩ 144,000	₩ 190,000	₩ 190,000
Vesting conditions	Continue to work from the grant date to date of vesting	Continue to work from the grant date to date of vesting	Achievement of the target share price after IPO	Continue to work from the grant date to date of vesting	Continue to work from the grant date to date of vesting
Date of vesting	Sept. 30, 2021(35%) Sept. 30, 2022(35%) Sept. 30, 2023(30%)	Nov. 5, 2022(35%) Nov. 5, 2023(35%) Nov. 5, 2024(30%)	25% each upon achievement of the target share price after IPO	Mar. 31, 2023(35%) Mar. 31, 2024(35%) Mar. 31, 2025(30%)	Mar. 31, 2023(70%) Mar. 31, 2024(30%)
Date of expiration	Sept. 30, 2028	Nov. 4, 2032	Nov. 4, 2032	Mar. 30, 2028	Mar. 30, 2025(70%) Mar. 30, 2027(30%)

¹ The Group conducted a share split by lowering the par value from \forall 500 to \forall 100 on May 4, 2021, as the effective date. Accordingly, the quantity and exercise price of stock options have been adjusted.

21. Share-based Payments, (cont'd)

The terms and conditions of stock options granted by Thingsflow Inc. as of December 31, 2021, are as follows:

(in Korean won, except number of shares)	3 rd -1	3 rd -2	3 rd -3
Type of arrangement	Equity-settled	Equity-settled	Equity-settled
Grantee	Employees	Employees	Employees
Date of grant	Nov. 1, 2020	Nov. 1, 2020	Nov. 1, 2020
No. of shares granted	90	500	320
Outstanding shares as			
of business	60	500	290
combination			
No. of shares granted during the year	-	-	-
No. of shares			
exercised during the	-	-	-
year			
No. of shares			
cancelled during the	-	-	-
year Outstanding shares as			
of December 31,	60	500	290
2021			
Exercise price	₩ 99,174	₩ 99,174	₩ 99,174
	Continue to work	Continue to work	Continue to work
Vesting conditions	from the grant date	from the grant date	from the grant date
Data of venting	to date of vesting	to date of vesting	to date of vesting
Date of vesting	Nov. 1, 2022	Jan. 1, 2023	Jun. 1, 2023
Date of expiration	Nov. 1, 2024	Jan. 1, 2025	Jun. 1, 2025

The terms and conditions of performance-based incentives as of December 31, 2021, are as follows:

(in Korean won, except number of shares)	2 nd	3 rd -0	3 rd -1	3 rd -2
Date of grant	Oct. 31, 2017	Dec. 22, 2017	Dec. 22, 2017	Feb. 1, 2018
Type of arrangement	Equity-linked Cash Compensation	Equity-linked Cash Compensation	Equity-linked Cash Compensation	Equity-linked Cash Compensation
No. of shares granted	23,062	28,000	26,188	3,750
Outstanding shares as of December 31, 2021	17,250	22,500	16,455	3,250
Exercise price	₩ 1,452	₩ 1,452	₩ 1,452	₩ 1,452
Vesting conditions	Provision of services / Non-market performance conditions.	Provision of services / Non-market performance conditions.	Provision of services / Non-market performance conditions.	Provision of services / Non-market performance conditions.
Type of arrangement	Cash	Cash	Cash	Cash

KRAFTON, Inc. and its Subsidiaries Notes to the Consolidated Financial Statements December 31, 2020 and 2019

Date of vesting Date of expiration	Nov. 1, 2019(35%) Nov. 1, 2020(35%) Nov. 1, 2021(30%) 4 years from date of vesting	Dec. 23, 2019(35%) Dec. 23, 2020(35%) Dec. 23, 2021(30%) 4 years from date of vesting	Dec. 23, 2019(35%) Dec. 23, 2020(35%) Dec. 23, 2021(30%) 4 years from date of vesting	Feb. 2, 2021(35%)
(in Korean won, except number of shares)	4 th -1	4 th -2	5 th -1	5 th -2
Date of grant	Mar. 31, 2018	Mar. 31, 2018	Jun. 30, 2018	Jun. 30, 2018
Type of arrangement	Equity-linked	Equity-linked Cash Compensation	Equity-linked Cash Compensation	Equity-linked
No. of shares granted	56,500	48,250	6,250	7,500
Outstanding shares as of December 31, 2021	37,375	23,000	4,500	7,500
Exercise price	₩ 14,000	₩ 44,000	₩ 14,000	₩ 58,000
	Provision of	Provision of	Provision of	Provision of
	services	services	services	services
Vesting conditions	/ Non-market performance	/ Non-market performance	/ Non-market performance	/ Non-market performance
	conditions.	conditions.	conditions.	conditions.
Type of arrangement	Cash	Cash	Cash	Cash
Date of vesting	Apr. 1, 2020(35%) Apr. 1, 2021(35%) Apr. 1, 2022(30%)	Apr. 1, 2020(35%) Apr. 1, 2021(35%) Apr. 1, 2022(30%)	Jul. 1, 2020(35%) Jul. 1, 2021(35%) Jul. 1, 2022(30%)	Jul. 1, 2020(35%) Jul. 1, 2021(35%) Jul. 1, 2022(30%)
Date of expiration	4 years from date of vesting	4 years from date of vesting	4 years from date of vesting	4 years from date of vesting
(in Korean won, except				
number of shares)	6 th -1	6 th -2	7 th	8 th
	6th-1 Aug. 1, 2018	6th-2 Aug. 1, 2018	7th Aug. 31, 2018	8 th Sep. 30, 2018
number of shares)	• •		Aug. 31, 2018 Equity-linked	-
number of shares) Date of grant	Aug. 1, 2018 Equity-linked	Aug. 1, 2018 Equity-linked	Aug. 31, 2018 Equity-linked	Sep. 30, 2018 Equity-linked
number of shares) Date of grant Type of arrangement	Aug. 1, 2018 Equity-linked Cash Compensation	Aug. 1, 2018 Equity-linked Cash Compensation	Aug. 31, 2018 Equity-linked Cash Compensation	Sep. 30, 2018 Equity-linked Cash Compensation
number of shares) Date of grant Type of arrangement No. of shares granted Outstanding shares as of	Aug. 1, 2018 Equity-linked Cash Compensation 55,725	Aug. 1, 2018 Equity-linked Cash Compensation 5,000	Aug. 31, 2018 Equity-linked Cash Compensation 25,000	Sep. 30, 2018 Equity-linked Cash Compensation 6,250
number of shares) Date of grant Type of arrangement No. of shares granted Outstanding shares as of December 31, 2021 Exercise price	Aug. 1, 2018 Equity-linked Cash Compensation 55,725 51,225 ₩ 44,000 Provision of services	Aug. 1, 2018 Equity-linked Cash Compensation 5,000 3,000 ₩ 58,000 Provision of services	Aug. 31, 2018 Equity-linked Cash Compensation 25,000 20,000 ₩ 44,000 Provision of services	Sep. 30, 2018 Equity-linked Cash Compensation 6,250 5,375 ₩ 44,000 Provision of services
number of shares) Date of grant Type of arrangement No. of shares granted Outstanding shares as of December 31, 2021	Aug. 1, 2018 Equity-linked Cash Compensation 55,725 51,225 ₩ 44,000 Provision of	Aug. 1, 2018 Equity-linked Cash Compensation 5,000 3,000 ₩ 58,000 Provision of	Aug. 31, 2018 Equity-linked Cash Compensation 25,000 20,000 ₩ 44,000 Provision of	Sep. 30, 2018 Equity-linked Cash Compensation 6,250 5,375 ₩ 44,000 Provision of
number of shares) Date of grant Type of arrangement No. of shares granted Outstanding shares as of December 31, 2021 Exercise price	Aug. 1, 2018 Equity-linked Cash Compensation 55,725 51,225 ₩ 44,000 Provision of services / Non-market performance	Aug. 1, 2018 Equity-linked Cash Compensation 5,000 3,000 ₩ 58,000 Provision of services / Non-market performance	Aug. 31, 2018 Equity-linked Cash Compensation 25,000 20,000 ₩ 44,000 Provision of services / Non-market performance	Sep. 30, 2018 Equity-linked Cash Compensation 6,250 5,375 ₩ 44,000 Provision of services / Non-market performance
number of shares) Date of grant Type of arrangement No. of shares granted Outstanding shares as of December 31, 2021 Exercise price Vesting conditions	Aug. 1, 2018 Equity-linked Cash Compensation 55,725 51,225 ₩ 44,000 Provision of services / Non-market performance conditions. Cash Aug. 2, 2020(20%) Aug. 2, 2021(30%) Aug. 2, 2022(20%) Aug. 2, 2023(30%)	Aug. 1, 2018 Equity-linked Cash Compensation 5,000 3,000 ₩ 58,000 Provision of services / Non-market performance conditions. Cash Aug. 2, 2020(35%) Aug. 2, 2021(35%) Aug. 2, 2022(30%)	Aug. 31, 2018 Equity-linked Cash Compensation 25,000 20,000 ₩ 44,000 Provision of services / Non-market performance conditions. Cash Sep. 1, 2020(35%) Sep. 1, 2021(35%)	Sep. 30, 2018 Equity-linked Cash Compensation 6,250 5,375 ₩ 44,000 Provision of services / Non-market performance conditions. Cash Oct. 1, 2020(35%) Oct. 1, 2021(35%) Oct. 1, 2022(30%)
number of shares) Date of grant Type of arrangement No. of shares granted Outstanding shares as of December 31, 2021 Exercise price Vesting conditions Type of arrangement	Aug. 1, 2018 Equity-linked Cash Compensation 55,725 51,225 ₩ 44,000 Provision of services / Non-market performance conditions. Cash Aug. 2, 2020(20%) Aug. 2, 2021(30%) Aug. 2, 2022(20%)	Aug. 1, 2018 Equity-linked Cash Compensation 5,000 3,000 ₩ 58,000 Provision of services / Non-market performance conditions. Cash Aug. 2, 2020(35%) Aug. 2, 2021(35%)	Aug. 31, 2018 Equity-linked Cash Compensation 25,000 20,000 ₩ 44,000 Provision of services / Non-market performance conditions. Cash Sep. 1, 2020(35%) Sep. 1, 2021(35%)	Sep. 30, 2018 Equity-linked Cash Compensation 6,250 5,375 ₩ 44,000 Provision of services / Non-market performance conditions. Cash Oct. 1, 2020(35%) Oct. 1, 2021(35%)

KRAFTON, Inc. and its Subsidiaries Notes to the Consolidated Financial Statements December 31, 2020 and 2019

Date of grant Type of arrangement	Nov. 12, 2018 Equity-linked	Jan. 2, 2020 Equity-linked
No. of shares granted	7,500	Cash Compensation 6,500
Outstanding shares as of December 31, 2021	7,500	6,000
Exercise price	₩ 78,000	₩ 1,452
	Provision of	Provision of
	services	services
Vesting conditions	/ Non-market	/ Non-market
	performance	performance
	conditions.	conditions.
Type of arrangement	Cash	Cash
	Nov. 13, 2020(35%)	Dec. 23, 2020(54%)
Date of vesting	Nov. 13, 2021(35%)	Dec. 23, 2021(46%)
	Nov. 13, 2022(30%)	
Date of expiration	4 years from date of vesting	4 years from date of vesting

¹ The Group conducted a share split by lowering the par value from \forall 500 to \forall 100 on May 4, 2021, as the effective date. Accordingly, the quantity and exercise price of performance-based incentives have been adjusted.

² According to the terms of the performance-based incentives granted by the Group to its executives and employees, the compensation has been changed to be granted in accordance with the stock price at the time of exercise after the listing.

Changes in the number of share options(Krafton, Inc.) granted and weighted average exercise price for the years ended December 31, 2021 and 2020, are as follows:

(in Korean won,	Decembe	r 31, 2021	December 31, 2020		
except number of shares)	Granted number	Weighted average exercise price	Granted number	Weighted average exercise price	
Beginning	1,769,750	₩ 59,554	1,437,185	₩ 3,501	
Grant	181,250	190,000	700,000	144,000	
Forfeit / Expired	(3,750)	190,000	(2,500)	1,003	
Exercise	(557,860)	1,389	(364,935)	1,184	
Ending	1,389,390	₩ 99,573	1,769,750	₩ 59,554	

21. Share-based Payments, (cont'd)

Changes in the number of share options(Thingsflow Inc.) granted and weighted average exercise price for the year ended December 31, 2021 are as follows:

(in Korean won,	December 31, 2021			
except number of shares)	Granted number	Weighted average exercise price		
Beginning Increase due to	-	₩ -		
business combination	850	99,174		
Ending	850	₩ 99,174		

Changes in the number of equity-linked cash compensation granted and weighted average exercise price for the year ended December 31, 2021 are as follows:

(in Korean won,	December 31, 2021				
except number of shares)	Granted number	Weighted Granted average			
Beginning	280,295	₩	27,818		
Exercise	(55,365)		27,805		
Ending	224,930	₩	27,821		

As of December 31, 2021, 464,115 of share options of The Group are exercisable and the weighted average exercise price is $\forall 3,704$. Also, as of December 31, 2021, no share options of the Thingsflow Inc. are exercisable.

As of December 31, 2021, 153,993 of performance-based incentives are exercisable and the weighted average exercise price is $\forall 23,508$.

The Group measured the cost of the share options granted for the year ended December 31, 2021, by fair value using the binomial model method. The related assumptions and variables to measure the cost of the stock options granted are as follows:

(in Korean won)	Decem	ber 31, 2021
Weighted average fair value of share options granted during the year	₩	92,629
Weighted average share price at grant date		241,811
Price volatility		41.90%
Risk-free interest rate	0.92	15%~1.457%

21. Share-based Payments, (cont'd)

The Group measured the cost of the share options granted for the year ended December 31, 2021, by fair value using the binomial model and Monte Carlo method. The related assumptions and variables to measure the cost of the stock options granted are as follows:

(in Korean won)		December 31, 2021	
Weighted average fair value of share options granted during the year	₩	153,904	
Weighted average share price at grant date		460,000	
Price volatility		57.22%	
Risk-free interest rate		0.97%~2.21%	

The Group measured the cost of the performance-based incentives granted for the year ended December 31, 2021, by fair value using the Monte Carlo method. The related assumptions and variables to measure the cost of the stock options granted are as follows:

(in Korean won)		December 31, 2021	
Weighted average fair value of share options granted during the year	₩	439,496	
Weighted average share price at grant date		460,000	
Price volatility		57.22%	
Risk-free interest rate		0.97%~1.65%	

Details of the expenses in relation to the share options granted to employees of the Group for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	December 31, 2021	December 31, 2020
Total share-based payment expenses		
Operating costs	₩ 167,027,026	₩ 39,845,818
	₩ 167,027,026	₩ 39,845,818

¹During the current period, shareholder of The Group has notified of plan to donate The Group's stocks to executives and employees free of charge. Accordingly, The Group includes estimates based on the fair value and vesting period of stocks by applying share-based payment accounting.

22. Revenue from Contracts with Customers

(a) Revenue from contracts with customers

The Group derives revenue from the transfer of goods and services over time and at a point in time in the following major services:

(in thousands of Korean won)	D	ecember 31, 2021	December 31, 2020	
Timing of revenue recognition				
Over time				
PC	₩	394,382,977	₩	264,899,176
Mobile		1,417,184,937		1,341,369,894
Console		18,672,017		29,498,662
Others		42,305,812		27,532,598
At a point in time				
PC		4,092,379		-
Console		1,271,027		-
Others		8,407,342		7,127,589
	₩	1,886,316,491	₩	1,670,427,919

Details of the Group's revenue by geographic areas for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Decembe	r 31, 2021	December 31, 2020		
	Revenue	Ratio	Revenue	Ratio	
Korea	₩ 1,630,504,024	₩ 86.44%	₩ 1,432,490,713	₩ 85.76%	
Asia	121,784,536	6.46%	88,977,297	5.33%	
North America / Europe	107,742,211	5.71%	130,873,155	7.83%	
Others	26,285,720	1.39%	18,086,754	1.08%	
	₩ 1,886,316,491	₩ 100.00%	₩ 1,670,427,919	₩ 100.00%	

22. Revenue from Contracts with Customers, (cont'd)

(b) Contract liabilities

The Group has recognized the following assets and liabilities related to contracts with customers:

(in thousands of Korean won)	December 31, 2021		December 31, 2020	
Contracts liabilities (unearned revenue)	₩	89,569,327	₩	82,825,450

(c) Significant changes in contract assets and liabilities

Contract liabilities are unearned revenue from rendering online game services recognized over time, and the amount changes when there are new customers and time elapses.

(d) Revenue recognized in relation to contract liabilities

The following table shows how much of the revenue recognized in the current reporting period relates to carried-forward contract liabilities in a prior year.

(in thousands of Korean won)		December 31, 2021		December 31, 2020	
Revenue recognized that was included in the contract liability balance at the beginning of the year	₩	67,749,770	₩	96,956,059	

23. Operating Costs

Operating costs for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Dee	cember 31, 2021	December 31, 202	
Application fees / Cost of sales	₩	193,354,179	₩	150,871,303
Salaries and bonuses		297,156,572		283,801,042
Post-employment benefits		13,688,656		9,789,767
Employee benefits		42,892,778		37,575,380
Travel		2,966,419		2,789,914
Depreciation		61,090,420		40,873,225
Depreciation – Investment properties		622,801		19,626
Amortization		5,834,367		3,260,092
Rent		1,103,631		1,946,994
Insurance		3,859,132		2,122,618
Supplies		5,062,703		2,737,029
Commissions and fees		359,553,070		271,968,163
Advertising		82,253,057		42,585,800
Share-based payment expenses		167,027,026		36,813,098
Bad debts expense		961,724		943,613
Others		9,250,707		8,459,502
	₩	1,246,677,242	₩	896,557,166

24.Other Income and Expenses

Other income and expenses for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	De	cember 31, 2021	De	cember 31, 2020
Other income				
Gain on foreign currency transactions	₩	55,439,246	₩	34,705,171
Gain on foreign currency translation		62,257,334		3,843,817
Gain on transactions of derivative instruments		253,841		-
Gain on disposal of investments in subsidiaries		-		1,071,409
Gain on disposal of property and equipment		22,573		18,067
Gain on disposal of leases		934,733		186,665
Gain on disposal of intangible assets		12,092,613		-
Gain on valuation of other investment assets		19,655		-
Gain on disposal of financial assets at fair value through profit or loss		891,732		2,154,769
Gain on valuation of financial assets at fair value through profit or loss		21,058,286		3,338,251
Dividend income		229,827		128,521
Reversal other impairment loss		308,519		-
Others		3,334,695		2,424,697
	₩	156,843,054	₩	47,871,367
Other expenses				
Loss on foreign currency transactions	₩	11,459,456	₩	45,233,873
Loss on foreign currency translation		1,774,722		83,140,984
Loss on transactions of derivative instruments		-		3,975,375
Loss on valuation of derivative instruments		234,972		774,000
Loss on disposal of property and equipment		904,513		526,324
Loss on disposal of leases		357,045		241,897
Impairment loss on intangible assets		26,535,136		6,652,720
Loss on disposal of intangible assets		1		85,888
Other impairment loss		16,330		498,894
Loss on valuation of financial assets at fair value through profit or loss		87,175		1,720,697
Loss on valuation of financial liabilities at fair value through profit or loss		1,795,706		-
Loss on transactions of financial liabilities at fair value through profit or loss		555,013		-
Donations		4,220,134		2,500,936
Loss on transactions of investments in subsidiaries		73,665		-
Others		1,000,276		7,102,064
	₩	49,014,144	₩	152,453,652

25. Finance Income and Costs

Finance income and finance costs for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Dee	cember 31, 2021	Dec	ember 31, 2020
Finance income				
Interest income	₩	10,875,438	₩	3,444,122
Financial guarantee income		305		16,001
	₩	10,875,743	₩	3,460,123
Finance costs				
Interest expenses	₩	6,961,253	₩	5,666,438
Financial guarantee expenses		21,929		40,721
	₩	6,983,182	₩	5,707,159

26. Income Tax Expense

Income tax expense for the years ended December 31, 2021 and 2020, consists of:

(in thousands of Korean won)	De	cember 31, 2021	De	cember 31, 2020
Current tax	₩	265,977,548	₩	143,246,481
Deferred tax due to temporary differences		(25,804,697)		(21,428,141)
Income tax expense charged directly to equity		(9,664,670)		(11,317,076)
Income tax expense	₩	230,508,181	₩	110,501,264

Reconciliation between profit before income tax and income tax expense for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	De	cember 31, 2021	De	ecember 31, 2020
Profit before income tax	₩	750,385,804	₩	666,768,453
Income tax based on statutory tax rate		195,994,096		172,999,324
Adjustments:				
Income not subject to tax		13,617,350		12,107,867
Tax credit and others		(86,687,785)		(111,471,982)
Foreign tax credit		121,897,490		107,664,327
Claim for rectification ¹		6,156,287		(61,932,896)
Additional tax on corporate income		5,243,268		4,361,405
Recognition of deferred tax assets due to consolidated tax return		(10,378,730)		(5,270,500)
Others		(15,333,795)		(7,956,281)
Income tax expense	₩	230,508,181	₩	110,501,264
Effective tax rate		30.72%		16.57%

¹ The Group appealed the tax authority for the correction of Tax Reductions for Small or Medium Start-Up Enterprises under the Restriction of Special Taxation Act of the Republic of Korea and received a notice from National Tax Service Seoul Office on February 8, 2021 that the request is reasonable. The Group reclaimed corporate income tax amounting to $\forall 31,652,740$ thousand and interest on the tax amounting to $\forall 70,243$ thousand.

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26. Income Tax Expense, (cont'd)

Changes in the temporary differences and related deferred tax assets and liabilities for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of			December 31, 2021	31, 2021		
Korean won)	Tempo	Temporary differences and others	others	Deferr	Deferred tax assets (liabilities)	ities)
		Increase			Increase	
	Beginning	(decrease)	Ending	Beginning	(decrease)	Ending
Post-employment benefit obligation	W 14,731,026	W 2,453,671	17,184,697	3,564,908	\\\ 1,160,884	W 4,725,792
Accrued income	(1,243,040)	364,229	(878,811)	(300,816)	59,143	(241,673)
Unearned revenue	70,740,462	(1,275,298)	69,465,164	17,119,192	1,983,728	19,102,920
Deferred expenses	(11,562,158)	(1,179,228)	(12,741,386)	(2,798,042)	(705,839)	(3,503,881)
Accrued expenses	119,140,931	35,443,084	154,584,015	28,832,105	13,678,499	42,510,604
Right-of-use assets	(81,364,562)	(63,567,534)	(144,932,096)	(19,690,224)	(20,166,102)	(39,856,326)
Lease liabilities	94,002,142	61,728,555	155,730,697	22,748,518	20,077,424	42,825,942
Lease receivables	(899,954)	(8,374,001)	(9,273,955)	(217,789)	(2,332,549)	(2,550,338)
Present value discounts	2,528,904	3,192,831	5,721,735	611,995	961,482	1,573,477
Provision for impairment	81,271,091	13,479,331	94,750,422	19,667,604	6,388,762	26,056,366
Depreciation	18,350	2,651	21,001	4,441	1,334	5,775
Amortization	44,448	6,661,237	6,705,685	10,756	1,833,307	1,844,063
Government grants	1,145,763	133,818	1,279,581	277,275	74,610	351,885
Allowance for depreciation	(1,145,763)	(133,818)	(1,279,581)	(277,275)	(74,610)	(351,885)
Accumulated depreciation	(4,447)	1,197	(3,250)	(1,076)	182	(894)
Facilities	(1,998,378)	1,374,092	(624,286)	(483,607)	311,928	(171,679)
Bad debt expenses	119,265	I	119,265	28,862	3,936	32,798
Gain on valuation of financial						
assets at fair value through	1,990,294	(19,734,244)	(17,743,950)	481,651	(5,361,237)	(4,879,586)
profit or loss						
Gain on valuation of financial						
assets at fair value through	(45,401,326)	(31,251,287)	(76,652,613)	(10,987,121)	(10,092,348)	(21,079,469)
other comprehensive income						

KRAFTON, Inc. and its Subsidiaries Notes to the Consolidated Financial Statements December 31, 2020 and 2019

26. Income Tax Expense, (cont'd)

(in thousands of

December 31, 2021

Korean won)	Tem	porary	Temporary differences and others	d oth	lers		Deferr	ed ta)	Deferred tax assets (liabilities)	ities)	
			Increase					-	Increase		
	Beginning	0	(decrease)		Ending	ß	Beginning	J	(decrease)		Ending
Investments in subsidiaries	W (25,109,294)	*	76,150,022	\mathbf{A}	51,040,728	¥	(6,076,449)	M	20,112,649	¥	14,036,200
Investments in associates	865,517		(34,641,966)		(33,776,449)		209,455		(9,497,978)		(9,288,523)
Provision for restoration costs	5,075,453		7,322,565		12,398,018		1,228,260		2,181,195		3,409,455
Other provisions	44,762,724		(7,233,048)		37,529,676		10,832,579		(511,918)		10,320,661
Financial guarantee liabilities	12,236		657		12,893		2,961		585		3,546
Derivative instruments	774,000		4,353,343		5,127,343		187,308		1,222,711		1,410,019
Impairment loss on intangible assets	1,090,077		(664,459)		425,618		263,799		(146,754)		117,045
Bonuses	231,640		(198,549)		33,091		56,057		(46,957)		9,100
Other receivables	(147,429)				(147,429)		(35,678)		(4,865)		(40,543)
Long-term other payables	12,877		134,613		147,490		3,116		37,444		40,560
Share-based payment expenses	I		5,326,466		5,326,466		I		1,464,778		1,464,778
accounts payable			59,650,111		59,650,111		ı		16,403,781		16,403,781
Development costs			523,413		523,413		ı		143,939		143,939
Membership rights			187,117		187,117		ı		51,457		51,457
unpaid interest			42,155		42,155		ı		11,593		11,593
Development costs			317,152		317,152		ı		87,217		87,217
Others	14,687,643		2,913,695		17,601,338		3,084,405		1,755,963		4,840,368
Tax losses	113,568,314		(12,370,116)		101,198,198		27,483,532		345,972		27,829,504
Tax credits	24,278,801		(14,482,749)		9,796,052		24,278,801		(14,482,749)		9,796,052
	W 422,215,607	≱	86,649,708	≯	508,865,315		120,109,503		26,930,597		147,040,100
Unrecognized deferred assets					Ţ		(52,680,388)		(1,125,900)		(53,806,288)
					•	≱	67,429,115	≯	25,804,697	≱	93,233,812

26. Income Tax Expense, (cont'd)	e, (conťd)			December 31, 2020	1, 2020				
Korean won)		Temporary differences and others	inces and others			Deferred tax assets (liabilities)	sets (liabilities)		
		Increase due to				Increase due			
		business	Increase			to business	Increase		
	Beginning	combination	(decrease)	Ending	Beginning	combination	(decrease)	Ending	ő
Post-employment benefit obligation	18,398,705 ₩	-	\\ (3,667,679)	14,731,026	4,452,487	-	W (887,579)	₩ 3,5	3,564,908
Accrued income	(1,815,104)	•	572,064	(1,243,040)	(439,255)	•	138,439	(30	(300,816)
Unearned revenue	109,415,415		(38,674,953)	70,740,462	26,478,530		(9,359,338)	17,1	17,119,192
Deferred expenses	(19,360,354)		7,798,196	(11,562,158)	(4,685,206)		1,887,164	(2,79	(2,798,042)
Accrued expenses	49,595,980		69,544,951	119,140,931	12,002,227		16,829,878	28,8	28,832,105
Right-of-use assets	(93,440,240)		12,075,678	(81,364,562)	(22,612,538)	ı	2,922,314	(19,69	(19,690,224)
Lease liabilities	94,450,067		(447,925)	94,002,142	22,856,916	ı	(108,398)	22,7.	22,748,518
Lease receivables	(1,270,229)		370,275	(899,954)	(307,395)		89,606	(21	(217,789)
Present value discounts	4,016,738		(1,487,834)	2,528,904	972,051	ı	(360,056)	9	611,995
Provision for impairment	628,738		80,642,353	81,271,091	152,155	I	19,515,449	19,6	19,667,604
Depreciation	23,003		(4,653)	18,350	5,567	I	(1,126)		4,441
Amortization	9,982		34,466	44,448	2,416	ı	8,340		10,756
Government grants	1,347,899		(202,136)	1,145,763	326,192		(48,917)	2	277,275
Allowance for depreciation	(1,347,036)		201,273	(1,145,763)	(325,983)	ı	48,708	(27	(277,275)
Accumulated depreciation	(44,147)		39,700	(4,447)	(10,684)	ı	9,608	•	(1,076)
Facilities	(2,774,001)		775,623	(1,998,378)	(671,308)	ı	187,701	(48	(483,607)
Bad debt expenses	238,286		(119,021)	119,265	57,665	I	(28,803)		28,862
Gain on valuation of financial									
assets at fair value through	3, 192,540	ı	(1,202,246)	1,990,294	772,595	ı	(290,944)	4	481,651
profit or loss									
Gain on valuation of financial									
assets at fair value through	4,375,484		(49,776,810)	(45,401,326)	1,058,867		(12,045,988)	(10,98	(10,987,121)
other comprehensive income									

KRAFTON, Inc. and its Subsidiaries Notes to the Consolidated Financial Statements December 31, 2020 and 2019

20. Income 1 ax Expense, (cont a) (in thousands of	e, (co	ur a)					De	December 31, 2020	, 2020						
Korean won)			Tem	Temporary differences and others	nces	and others					Deferred tax assets (liabilities)	ssets (liabilities)		
			Incre	Increase due to							Increase due				
			ā	business	-	Increase					to business	-	Increase		
		Beginning	COL	combination	p)	(decrease)	Ending	b	Beginning	ing	combination	p)	(decrease)	ш	Ending
Investments in subsidiaries	A	12,664,690	¥		≱	(37,773,984)	W (25,1	(25,109,294)	W 3,06	3,064,855	-	¥	(9,141,304)	≯	(6,076,449)
Investments in associates		865,517		ı			~	865,517	Ñ	209,455	'		1		209,455
Provision for restoration costs		4,903,866		ı		171,587	5,(5,075,453	1,1	1,186,736			41,524		1,228,260
Other provisions		'		•		44,762,724	44.	44,762,724		'	'		10,832,579		10,832,579
Financial guarantee liabilities		2,557		•		9,679		12,236		619	'		2,342		2,961
Derivative instruments		'		•		774,000		774,000			'		187,308		187,308
Impairment loss on intangible assets		904,499				185,578	1,(1,090,077	0	218,889	I		44,910		263,799
Bonuses		'		•		231,640	. 1	231,640			'		56,057		56,057
Other receivables		'		•		(147,429)	1	(147,429)			'		(35,678)		(35,678)
Commissions		'		ı		12,877		12,877		,	'		3,116		3,116
Prepaid expenses		(839,614)		'		839,614		•	(20	(203,187)	'		203,187		'
Long-term other payables		11,298,714		•	-	(11,298,714)		•	2,7;	2,734,289	'		(2,734,289)		'
Development costs		11,300,000		•	-	(11,300,000)		•	2,7;	2,734,600	'		(2,734,600)		'
Others		(4,439,357)		(7,532,825)		26,659,825	14,6	14,687,643	(1,33	(1,337,537)	(1,601,110)		6,023,052		3,084,405
Tax losses		134,944,526		ı		(21,376,212)	113,6	113,568,314	32,6	32,656,575	'		(5,173,043)		27,483,532
Tax credits		25,130,842				(852,041)	24,2	24,278,801	25,1;	25,130,842	'		(852,041)		24,278,801
	≯	362,377,966	≯	(7,532,825)	≱	67,370,466	W 422,2	422,215,607	106,4	106,481,435	(1,601,110)		15,229,178		120,109,503
Unrecognized deferred assets								I	(58,87	(58,879,351)	'		6,198,963		(52,680,388)
								I	W 47,6(47,602,084	W (1,601,110)	≯	21,428,141	₩	67,429,115

Notes to the Consolidated Financial Statements December 31, 2020 and 2019

KRAFTON, Inc. and its Subsidiaries

26. Income Tax Expense, (cont'd)

The analysis of deferred tax assets and liabilities as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	De	ecember 31, 2021	De	ecember 31, 2020
Deferred tax assets				
Deferred tax asset to be recovered within 12 months	₩	73,628,566	₩	57,033,318
Deferred tax asset to be recovered after more than 12 months		127,172,022		103,944,262
Deferred tax liabilities				
Deferred tax liability to be recovered within 12 months		(3,786,097)		(3,134,536)
Deferred tax liability to be recovered after more than 12 months		(103,780,679)		(90,413,929)
Deferred tax assets, net	₩	93,233,812	₩	67,429,115

The tax effect that is charged or credited directly to other comprehensive income (expenses) for the years ended December 31, 2021 and 2020, are as follows:

	Before tax	Tax effect				
		Tax effect	After tax	Before tax	Tax effect	After tax
Remeasurements of net defined benefit liability	₩ (4,994,953)	₩ 1,373,612	₩ (3,621,341)	₩ 3,012,033	₩ (728,912)	₩ 2,283,121
Gain (loss) on valuation of financial assets at fair value through other comprehensive income	31,251,286	(8,594,104)	22,657,182	(49,689,279)	12,045,988	(37,643,291)
Gain on disposal of treasury shares	8,900,161	(2,447,544)	6,452,617	-	-	-
Exchange differences on translation of foreign operations	(12,239)	3,366	(8,873)	-	-	-
A	₩ 35,144,255	₩ (9,664,670)	₩ 25,479,585	₩ (46,677,246)	₩ 11,317,076	₩ (35,360,170)

26. Income Tax Expense, (cont'd)

Details of deductible temporary differences unrecognized as deferred tax assets as of December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Dec	cember 31, 2021	De	cember 31, 2020
Deductible temporary differences	₩	94,461,033	₩	3,793,616
Tax losses		101,198,198		113,568,314
Tax credits		4,169,105		24,278,801

As of December 31, 2021 and 2020, the Group recognized deferred tax assets only to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilized and the deferred tax deduction effect will be realized in the foreseeable future. In addition, deferred tax assets were not recognized for tax losses and tax credits.

As of December 31, 2021, The Group did not recognize deferred tax assets arising from the certain deductible (taxable) temporary differences associated with investments in subsidiaries and allowance for bad debt amounting to $\forall 94,461,033$ thousands, since it is probable that the temporary differences will not reverse in the foreseeable future.

The maturity of unused losses and credit as of December 31, 2021, is as follows:

(in thousands of Korean won)	Tax los	ses	Tax credits					
,	Amount	Maturity	Amount	Maturity				
2014	42,025	2024	-	2019				
2015	2,078,885	2025	-	2020				
2017	37,611,924	2027	1,228,150	2022				
2018	43,220,089	2028	1,417,564	2023				
2019	-	2029	1,433,348	2024				
2020	18,245,275	2035	90,043	2025				
2021	-	2036	5,626,947	2026				
	₩ 101,198,198		₩ 9,796,052					

27. Earnings per Share

Basic earnings per share is calculated by dividing the profit attributable to owners of the Group by the weighted average number of ordinary shares outstanding during the year ended December 31, 2021, excluding treasury shares.

(a) Basic earnings per share

(in Korean won)	De	cember 31, 2021	December 31, 2020			
Profit attributable to the ordinary equity holders of the Company <i>(in shares)</i>	₩	519,877,658,346	₩	556,267,188,896		
Weighted average number of ordinary shares outstanding		43,245,333		40,394,305		
<i>(in Korean won)</i> Basic earnings per share¹	₩	12,022	₩	13,771		

¹ The Company conducted a share split by lowering the par value from \forall 500 to \forall 100 on May 4, 2021, as the effective date. Accordingly, comparative basic earnings per share and diluted earnings per share for the year ended December 31, 2020, have been retrospectively adjusted.

(b) Diluted earnings per share

Diluted earnings per share are calculated by applying the weighted average number of outstanding ordinary shares adjusted to the assumption that all dilutive potential ordinary shares are converted into ordinary shares. The Group has one category of dilutive potential ordinary shares: share options. For the share options, a calculation is done to determine the number of shares that could have been acquired at fair value (determined as average market price for the year) based on the monetary value of the subscription rights attached to outstanding share options.

(in Korean won)	December 31, 2021	December 31, 2020
Profit attributable to the owners of the Company	₩519,877,658,346	₩556,267,188,896
<i>(in shares)</i> Weighted average number of ordinary shares in issue Adjustment for:	43,245,333	40,394,305
Share options	881,545	738,497
Weighted average number of ordinary shares for diluted earnings per share	44,126,877	41,132,802
<i>(in Korean won)</i> Diluted earnings per share:	₩ 11,781	₩ 13,524

¹ The Company conducted a share split by lowering the par value from ₩500 to ₩100 on May 4, 2021, as the effective date. Accordingly, comparative basic earnings per share and diluted earnings per share for the year ended December 31, 2020, have been retrospectively adjusted.

(c) Weighted average number of ordinary shares outstanding

Details of weighted average number of ordinary shares outstanding calculation for the years ended December 31, 2021 and 2020, are as follows:

(in shares)	December 31, 2021							
	Shares	Weight (Days)	Multiple					
Beginning	42,785,185	365	15,616,592,525					
Acquisition of treasury shares	(2,192,760)	365	(800,357,400)					
Exercise of share options	1,000	348	348,000					
Exercise of share options	318,630	266	84,755,580					
Exercise of share options	169,255	222	37,574,610					
Disposal of treasury shares	25,342	212	5,372,504					
Paid-in capital increases	5,624,000	148	832,352,000					
Exercise of share options	53,375	136	7,259,000					
Exercise of share options	100	81	8,100					
Exercise of share options	5,000	80	400,000					
Exercise of share options	10,500	23	241,500					
		_	15,784,546,419					
Days		_	365					
Weighted average number of ordinary shares outstanding ¹		-	43,245,333					

¹ The Company conducted a share split by lowering the par value from \forall 500 to \forall 100 on May 4, 2021, as the effective date. Accordingly, comparative weighted average number of ordinary shares outstanding for the year ended December 31, 2020, have been retrospectively adjusted.

27. Earnings per Share, (cont'd)

(in shares)	December 31, 2020								
	Shares	Weight (Days)	Multiple						
Beginning	8,045,498	366	2,944,652,268						
Issuance of ordinary shares	438,552	30	13,156,560						
Acquisition of treasury shares	(438,552)	30	(13,156,560)						
Exercise of stock options	37,287	253	9,433,611						
Exercise of stock options	2,500	168	420,000						
Exercise of stock options	33,200	71	2,357,200						
		_	2,956,863,079						
Days		-	366						
Weighted average number of ordinary shares outstanding		-	8,078,861						
Effects resulting from share split			32,315,444						
Weighted average number of ordinary shares outstanding after retrospective adjustment for share									
split ¹		-	40,394,305						

¹ The Company conducted a share split by lowering the par value from \forall 500 to \forall 100 on May 4, 2021, as the effective date. Accordingly, comparative weighted average number of ordinary shares outstanding for the year ended December 31, 2020, have been retrospectively adjusted.

28. Statements of Cash Flows

(a) Cash generated from operations

(in thousands of Korean won)	De	cember 31, 2021	December 31, 2020		
Profit for the year	₩	519,877,623	₩	556,267,189	
Adjustments for:					
Interest expenses		6,961,253		5,666,438	
Income tax expense		230,508,181	110,501,264		
Depreciation		61,090,420	40,873,225		
Depreciation – investment properties		622,801		19,626	
Amortization		5,834,367		3,260,092	
Post-employment benefits		(978,079)		(1,282,357)	
Impairment loss		961,724		943,613	
Other impairment loss	16,330			498,894	
Loss on foreign currency translation	1,774,722			83,140,984	
Share-based payment expenses		167,027,026	36,813,098		
Performance-based incentive		41,518,874		67,857,910	

Loss on disposal of invostments in subsidiaries	73,665	_
Loss on disposal of investments in subsidiaries Loss on equity method	2,450,833	489,109
Loss on equity method Loss on valuation of financial assets at fair value through profit or loss	87,175	1,720,697
Loss on disposal of property and equipment	904,513	526,324
Loss on disposal of intangible assets	, 1	-
Loss on disuse of intangible assets	-	85,888
Impairment loss on intangible assets	26,535,136	6,652,720
Loss on disposal of leases	357,045	241,897
Loss on valuation of derivative instruments	234,972	774,000
Loss on transaction of derivative instruments	, _	3,975,375
Loss on valuation of financial liabilities at fair value through profit or loss	1,795,706	-
Loss on disposal of financial liabilities at fair value through profit or loss	555,013	-
Financial guarantee expense	21,930	40,721
Other expense	-	44,762,928
Interest income	(10,875,438)	(3,444,122)
Gain on disposal of leases	(934,733)	(186,665)
Dividend income	(229,827)	(128,521)
Gain on foreign currency translation	(62,257,334)	(3,843,817)
Gain on equity method	(1,475,917)	(216,130)
Gain on disposal of investments in subsidiaries	-	(1,071,409)
Gain on disposal of financial assets at fair value through profit or loss	(891,732)	(2,154,769)
Gain on valuation of financial assets at fair value through profit or loss	(21,058,286)	(3,338,251)
Gain on transactions of derivative instruments	(253,841)	-
Gain on disposal of property and equipment	(22,573)	(18,067)
Gain on disposal of intangible assets	(12,092,613)	-
Gain on disposal of long-term and short-term financial instruments	(19,655)	-
Reversal of other impairment loss	(308,519)	-
Financial guarantee income	(304)	-
Other income	(2,758,868)	(2,779)
Change in operating assets and liabilities:		
Increase in trade receivables	(56,715,315)	(124,824,925)
Increase (decrease) in other receivables	(4,331,100)	1,006,270
Decrease in accrued income	-	1,174,066
Increase in advance payment	(308,063)	(5,938,162)
Increase in prepaid expenses	(1,749,519)	(7,645,929)
Decrease (increase) in other assets	538,803	(413,602)
Increase in trade payables	(13,485)	-
Increase (decrease) in other payables	40,907,775	(7,633,385)

Increase (decrease) in accrued expenses		(1,708,606)		30,043,293
Increase in withholdings		1,010,765		1,429,543
Increase (decrease) in advance receipts		1,499,260		(2,336,046)
Decrease in unearned revenue		(4,618,886)		(31,057,358)
Increase in long-term payables		19,750,173		-
Decrease in long-term accrued expenses		(22,815,899)		(1,529,109)
Decrease in provision for restoration costs		(75,898)		(43,346)
Decrease in other provisions		(4,474,180)		-
Payments of net defined benefit liability		(1,721,921)		(4,754,391)
Cash provided by(used in) operations	₩	920,225,495	₩	796,902,024

(b) Non-cash transactions

(in thousands of Korean won)	December 31, 2021	December 31, 2020
Reclassification to equity method investments from financial assets at fair value through profit or loss	₩ -	₩ 5,769,500
Increase in right-of-use assets	118,149,324	18,547,594
Current portion of lease liabilities	21,815,736	4,353,095
Current portion of long-term loans	-	53,102
Increase in other payables related to acquisition of investments in subsidiaries	2,858,095	1,743,675
Current portion of lease receivables	2,958,582	10,993
Reclassification to intangible assets from long-term advanced payments	194,135	256,462
Current portion of long-term financial instruments	-	7,136,238
Current portion of long-term borrowings	-	1,000,000
Current portion of deposits rental deposits	-	4,216,351
Reclassification from construction-in-progress	12,604,872	2,753,402
Increase in other payables related to acquisition of construction-in-progress	10,610,400	-
Distribution of treasury shares as purchase consideration of investments in subsidiaries	8,900,161	-
Increase in financial liabilities at fair value through profit or loss related to acquisition of investments in subsidiaries	193,850,516	-

28. Statements of Cash Flows, (cont'd)

(c) Changes in liabilities arising from financing activities

Changes in liabilities arising from financial activities for the years ended December 31, 2021 and 2020 are as follows:

(in thousands of Korean won)						December	· 31, 2	021				
				sh flows from			Non	-cash flows				
	B	Beginning		financing activities	An	nortization	Co	onversion		Others		Ending
Short-term borrowings	₩	-	₩	(445)	₩	-	₩	-	₩	445	₩	-
Current portion of leasehold deposits received		4,216,351		4,500,958		-		-		(4,490,958)		4,226,351
Current portion of long- term borrowings		1,000,000		(1,526,000)		-				526,000		-
Leasehold deposits received		92,779		(2,735,767)		380,280		-		4,688,252		2,425,544
Lease liabilities ¹		86,437,209		(37,050,016)		6,450,493		-		117,365,785		173,203,471
	₩	91,746,339	₩	(36,811,270)	₩	6,830,773	₩	-	₩	118,089,524	₩	179,855,366

(in thousands of

Korean won)						December	[·] 31, 202	0				
			Cas	sh flows from			Non-ca	ash flows				
	В	eginning		financing activities	Ar	nortization	Conv	version		Others		Ending
Short-term borrowings Current portion of leasehold deposits received	₩		₩	(601,450)	₩		₩	-	₩	1,601,450 4,216,351	₩	1,000,000 4,216,351
Long-term borrowings		1,000,000		-		-		-		(1,000,000)		-
Leasehold deposits received		3,834,108		-		382,243		-		(4,123,572)		92,779
Lease liabilities ¹		94,450,067		(26,929,528)	_	5,017,645		-		13,899,025		86,437,209
	₩	99,284,175	₩	(27,530,978)	₩	5,399,888	₩	-	₩	14,593,254	₩	91,746,339

29. Related Party Transactions

As of December 31, 2021 and December 31, 2020, the subsidiaries of the Group are as follows:

Туре	December 31, 2021	December 31, 2020
Associates	Shinhan Alpha REIT Co., Ltd.	Shinhan Alpha REIT Co., Ltd.
	Hidden Sequence Co., Ltd.	Hidden Sequence Co., Ltd.
	1Up Ventures, L.P.	1Up Ventures, L.P.
	Smart Krafton-BonAngels Fund	Smart Krafton-BonAngels Fund
	Nodwin Gaming Private Limited	
	Un Note Co., Ltd	
	Loco Interactive Pte Limited	
	Nasadiya Technologies Private Limited	
	Mirae Asset Maps General Private Real Es tate Investment Trust 66	
Other related parties	Spetznatz Helmet, LLC	Spetznatz Helmet, LLC
	VoyagerX, Inc	VoyagerX, Inc
	BonAngels Pacemaker Fund 2	BonAngels Pacemaker Fund 2 Tencent Technology (Shenzhen) Company Limited and its subsidiaries

Significant transactions with related parties for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of	December 31, 2021									
Korean won)	Finan	ce income ¹	Operating costs		Finance costs ¹		Dividends			
Associates Shinhan Alpha REIT Co., Ltd. Nodwin Gaming Private	₩	395,595	₩	276,176	₩	1,726,717	₩	341,000		
Limited		-		2,005,515		-		-		
Sub Total	₩	395,595	₩	2,281,691	₩	1,726,717	₩	341,000		
Other Related Parties										
Voyager X, Inc	₩	-	₩	670,100	₩	-	₩	-		
Total	₩	395,595	₩	2,951,791	₩	1,726,717	₩	341,000		

(in thousands of	December 31, 2020									
Korean won)	Financ	ce income ¹	Operating costs		Finance costs ¹		Dividends			
Associates Shinhan Alpha REIT Co., Ltd.	₩	366,234	₩	330,569	₩	2,909,851	₩	303,000		
Other Related Parties										
Voyager X, Inc	₩	-	₩	113,400	₩	-	₩			
Total	₩	366,234	₩	443,969	₩	2,909,851	₩	303,000		

¹ Includes lease related profit or loss.

29. Related Party Transactions, (cont'd)

Outstanding balances arising from sales/purchases of goods and services as of December 31, 2021 and 2020, are as follows:

(in thousands of	December 31, 2021							
Korean won)		Other Receivables ^{1,}		Other Payables ¹				
Associates Shinhan Alpha REIT Co., Ltd.	₩	4,040,999	₩	43,779,530				
Spetznatz Helmet, LLC		97,362		-				
Total	₩	4,138,361	₩	43,779,530				

¹ Includes lease related receivables or payables

(in thousands of	December 31, 2020							
Korean won)		Other Receivables ^{1,}	Other Payables ¹					
Associates Shinhan Alpha REIT Co., Ltd.	₩	3,950,823 82,523	₩	41,246,255				
Spetznatz Helmet, LLC Total	₩	4,033,346	₩	41,246,255				

¹ Includes lease related receivables or payables

Financing transactions with related parties for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of	December 31, 2021								
Korean won)	Payment of lease liabilities				P	ayment of Capital	Collection of Capital		
Associates Shinhan Alpha REIT Co., Ltd.	₩	15,875,229	₩	-	₩	-	₩	-	
1Up Ventures, L.P Smart Krafton- BonAngels Fund		-		-		935,750 6,600,000		-	
Nodwin Gaming Private Limited		-		-		25,615,890		-	
Un Note Co., Ltd. Loco Interactive Pte Limited		-		-		1,478 3,407,400		-	
Nasadiya Technologies Private Limited		-		-		52,238,006		-	
Mirae Asset Maps General Private Real Estate Investment Trust 66		-		-		290,000,000		-	
Total	₩	15,875,229	₩	-	₩	378,798,524	₩	-	

29. Related Party Transactions, (cont'd)

(in thousands of	December 31, 2021								
Korean won)	-	ent of lease abilities	Collection receiv			yment of Capital	Collec Cap	tion of bital	
Associates Shinhan Alpha REIT Co., Ltd.	₩	14,242,702	₩	-	₩	-	₩	-	
Smart Krafton- BonAngels Fund		-		-		3,600,000		-	
Total	₩	14,242,702	₩	-	₩	3,600,000	₩	-	

Key management includes registered directors and the executives who have significant authority and responsibility in respect to planning, operating and controlling of the Group's business activities. Compensation for key management for the years ended December 31, 2021 and 2020, consists of:

(in thousands of Korean won)	Decen	nber 31, 2021	December 31, 2020		
Salaries	₩	2,421,467	₩	2,085,591	
Share-based payment expenses		64,200,320		1,113,055	
Incentives		-		3,878,152	
Post-employment benefits		86,567		2,183,651	
	₩	66,708,354	₩	9,260,449	

In the event when Shinhan Alpha REIT Co., Ltd., a related party, proposes to sell Pangyo Krafton Tower to a third party, the Group has a preemption right to purchase the real estate.

For the year ended December 31, 2021, the Group recognized revenue of $\forall 1,096,903,623$ thousand ($\forall 1,137,515,125$ thousand for the year ended December 31, 2020) and operating costs of $\forall 43,411,154$ thousand ($\forall 51,486,279$ thousand for the year ended December 31, 2020) related to the transactions with Tencent Technology (Shenzhen) Company Limited and its subsidiaries. In addition, the related receivables of $\forall 416,317,087$ and payables of $\forall 48,940,601$ were recognized as of December 31, 2020. Meanwhile, on September 11, 2020, there was a change in the shareholder agreement with the largest shareholder and Tencent, and after the date of the change in the shareholder agreement, the Group recognized revenue of $\forall 265,101,985$ thousand and operating costs of $\forall 15,197,868$ thousand, for the year ended December 31, 2020.

The Group purchased 3,433 convertible redeemable preferred stocks held by BonAngels Pacemaker Fund 2, a related party, at $\forall 1,280,001$ thousand during the year ended December 31, 2021.

30. Operating Segment

The Group has a single operating segment. The financial information reported to the Chief Executive Officer is identical to the disclosed consolidated financial statements.

Revenue per revenue stream for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	Dec	ember 31, 2021	December 31, 2020		
PC	₩	398,475,356	₩	264,899,176	
Mobile		1,417,184,937		1,341,369,894	
Console		19,943,044		29,498,662	
Others	_	50,713,154		34,660,187	
	₩	1,886,316,491	₩	1,670,427,919	

Revenue by geographical area for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		December 31	, 2021	December 31, 2020				
		Revenue	Ratio		Revenue	Ratio		
Asia	₩	1,630,504,024	86.44%	₩	1,432,490,713	85.76%		
Korea		121,784,536	6.46%		88,977,297	5.33%		
America / Europe		107,742,211	5.71%		130,873,155	7.83%		
Other area	_	26,285,720	1.39%		18,086,754	1.08%		
	₩	1,886,316,491	100.00%	₩	1,670,427,919	` 100.00%		

Revenue amounting to $\forall 1,179,832,120$ thousand ($\forall 1,137,515,125$ thousand for the year ended December 31, 2020), accounting for more than 10% of the Group's revenue, is derived from a single external customer (Customer A) for the year ended December 31, 2021.

31. Business Combinations

As of May 31, 2021 the Group acquired Between application business unit of VCNC Inc. at ₩9,940 million in order to expand business diversification through Between US Co. Ltd., which was established with 100% ownership as of March 9, 2021.

As of June 3, 2021, the Group acquired 100% shares of Dream Motion, Inc. at $\forall 37,678$ million through share purchase and treasury share payment in order to expand the production line for new game development.

As of July 30, 2021, the Group acquired 81.49% of shares of Thingsflow, Inc. at \forall 5,741 million through share purchase in order to expand the production line for new game development.

As of December 9, 2021, the Group acquired 100% of shares of Unknown Worlds Entertainment, Inc. at $\forall 844,671$ million through share purchase in order to secure competent studios and strengthening global business synergies.

Details of the purchase consideration fair value of the assets and liabilities at the acquisition date due to the business combination are as follows:

(in thousands of Korean won)	Between US Co. Ltd.	Dream Motion, Inc.	Thingsflow Inc.	Unknown Worlds Entertainment, Inc.	Total
I. Purchase consideration	₩ 9,939,645	₩ 37,678,073	₩ 5,740,890	₩ 844,670,857 ₩	898,029,465
Cash	9,939,645	28,777,912	5,156,549	650,820,341	694,694,447
Derivatives	-	-	(1,079,150)	-	(1,079,150)
Financial liabilities	-	-	1,663,491	193,850,516	195,514,007
Treasury shares	-	8,900,161	-	-	8,900,161
II. Non-controlling interest III. Amounts recognized	-	-	71,907	-	71,907
as identifiable assets and liabilities	410,150	7,724,917	(1,822,908)	56,701,568	63,013,727
Cash and cash equivalents	44,520	5,694,031	843,842	66,602,629	73,185,022
Trade receivables	-	896,259	482,803	2,608,267	3,987,329
Other current financial assets	-	133	3,925	859,250	863,308
Other current assets	125,974	220,008	459,411	113,142	918,535
Current tax assets Financial assets at fair	-	-	96	-	96
value through profit or loss	-	-	-	179,910	179,010
Property and equipment	-	178,844	16,422	24,528	219,794
Intangible assets	309,000	3,140,000	4,092,811	62,316	7,604,127

Other non-current financial assets		-	48,586	10,802		-	59,388
Deferred tax assets		-	137,406	-		-	137,406
Current bonds and borrowings Current financial		-	-	(526,445)		-	(526,445)
liabilities at fair value through profit or loss		-	-	(4,369,895)		-	(4,369,895)
Other current financial liabilities		(1,344)	(65,844)	(106,214)		(563,801)	(737,203)
Other current liabilities		-	(358,822)	(514,231)		(10,372,638)	(11,245,691)
Current tax liabilities		-	(1,043,758)	-		(2,811,135)	(3,854,893)
Bonds and borrowings Financial liabilities at		-	-	(970,017)		-	(970,017)
fair value through profit or loss		-	-	-		-	-
Net defined benefit liability		-	(287,829)	(347,635)		-	(635,464)
Provision		-	(8,914)	-		-	(8,914)
Other non-current financial liabilities		-	(29,706)	-		-	(29,706)
Other non-current liabilities		-	(104,677)	-		-	(104,677)
Deferred tax liabilities		(68,000)	(690,800)	(898,583)		-	(1,657,383)
IV. Goodwill(I+ II - III) ¹	₩	9,529,495	₩ 29,953,156 ₩	∀ 7,635,705	₩	787,969,289 ₩	835,087,645

¹The Group recognized the goodwill as the difference between the consideration transferred and the net asset value measured at the fair value at the acquisition date. For a period not exceeding one year from the date of the business combination, if the Group has newly obtained information on facts and circumstances that existed as of the date of the business combination, the amount of fair value recognized at the date of the business combination may change to reflect the information that would have affected the fair value measurement of the acquired company.

Revenue and net profit incurred from Between US Co. Ltd. and Dream Motion, Inc. subsequent to the acquisition amounts to $\forall 733,013$ thousand and (-) $\forall 233,876$ thousand and $\forall 2,894,355$ thousand and $\forall 1,523,347$ thousand, respectively. In addition, revenue and net profit incurred from Thingsflow Inc. subsequent to the acquisition amounts to $\forall 1,069,284$ thousand and (-) $\forall 28,085$ thousand. Revenue and net profit incurred from Unknown Worlds Entertainment, Inc. subsequent to the acquisition amounts to $\forall 6,361,014$ thousand and $\forall 2,967,719$ thousand.

If Dream Motion, Inc., Thingsflow Inc. and Unknown Worlds Entertainment, Inc. had been included in the Group's consolidation scope effective on January 1, 2021, the revenue and net profit that would be included in the consolidated statement of comprehensive income would amount to W6,705,617 thousand, W4,538,116 thousand, W2,685,996 thousand and W546,530 thousand and W69,060,443 thousand, W36,108,799 respectively.

The Group entered into a contract for contingent consideration to be paid in conjunction with the performance after the acquisition while acquiring a subsidiary Unknown Worlds Entertainment, Inc. The contingent consideration recognized as of December 31, 2021 is $\forall 195,350,040$ thousand.

32. Uncertainties Arising from COVID-19

In order to contain the spread of Coronavirus disease 2019 ("COVID-19"), various preventive and regulatory measures have been implemented globally, including restrictions on travel. As a result, the global economy has been impacted extensively. In addition, governments have announced various policies to aid and provide relief from the impact of COVID-19.

The Group's business is mainly accessible by customers through personal computers and mobile platforms. Potential areas which might be impacted by COVID-19 include recoverability of trade receivables, impairment of tangible and intangible assets, and others. The Group has reasonably estimated the impact of COVID-19 in preparing the consolidated financial statements.

However, at this stage, significant uncertainties exist in estimating the duration and severity of COVID-19 as well as the ultimate impact of COVID-19 on the Group's consolidated financial statements.