NAVER Corporation and Subsidiaries Consolidated Financial Statements

December 31, 2021 and 2020

NAVER Corporation and Subsidiaries

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December 31, 2021 and 2020

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Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Shareholders and Board of Directors of NAVER Corporation

Opinion

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

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

Basis for Opinion

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

Key Audit Matters

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

(1) Revenue recognition of search advertisement service

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

The Group recognizes search advertisement service revenue when a platform user has searched relevant information and executed related activities on the Group's platform (Note 2). For the year ended December 31, 2021, total operating revenues and search advertisement revenue are \forall 6,818 billion and \forall 3,318 billion, respectively.

We have determined the revenue recognition (occurrence) of the search advertisement service as a key audit matter because (i) search advertisement service revenue represents a significant portion of the Group's total operating revenues and (ii) there is a risk of potential material misstatement related to search advertisement service revenue due to various and complex systems involved in recognition and measurement of such revenue.

How our audit addressed the key audit matter

Our main audit procedures performed on the Group's revenue recognition of the search advertisement service are as follows:

- Obtained an understanding of the Group's accounting policies, processes, and internal controls relating to the search advertisement service revenue recognition
- Evaluated the design and operating effectiveness of IT general controls and internal controls relating to the search advertisement service revenue recognition
- Tested the accuracy and completeness of the revenue related data transfer between/to search service related systems and accounting system
- Tested the occurrence of revenue transactions by examining related underlying data on a sample basis

(2) Fair value measurement of financial assets categorized as level 3

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

As at December 31, 2021, the Group's financial assets measured at fair value amount to $\mbox{$W$}$ 4,993 billion, of which $\mbox{$W$}$ 2,629 billion were categorized as level 3 financial assets measured based on unobservable valuation inputs (Note 5).

We have determined the fair value measurement of financial assets categorized as level 3 as a key audit matter because (i) book value of the financial assets categorized as level 3 is material to the Group's consolidated financial statements and (ii) the significant judgment and estimation by management when determining valuation models and inputs used to measure the fair value of financial assets.

How our audit addressed the key audit matter

Our main audit procedures performed on the Group's fair value measurement of financial assets categorized as level 3 are as follows:

- Obtained an understanding of the Group's accounting policies, processes, and internal controls relating to the fair value measurement of financial assets based on the risk assessment.
- Evaluated the design and operating effectiveness of the internal controls on the fair value measurement of financial assets
- Reviewed the competency and independence of valuation expert engaged by the Group
- Evaluated the appropriateness of the valuation methods and the reasonableness of input assumptions used in the valuation by management on a sample basis

(3) Fair value measurement for identifiable intangible assets of associates

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

The Group acquired A-Holdings, an investment in associate, in relation to business integration with SoftBank Corp. on March 1, 2021, for \forall 17,283 billion. The Group recognized fair value of identifiable intangible assets of the associate for \forall 3,588 billion to account for equity method in investment in associates (Note 14).

We have determined the fair value measurement for identifiable intangible assets of associate as a key audit matter because (i) the acquisition of A-Holdings, an investment in associate, is an event that has a significant impact on the consolidated financial statements for the year ended December 31, 2021 and (ii) the significant judgment and estimation by management when determining valuation models and inputs used to measure identifiable intangible assets of the associate.

How our audit addressed the key audit matter

Our main audit procedures performed on the fair value measurement for the identified intangible assets of the associate are as follows:

- Obtained an understanding and assessed risks in relation to fair value measurement of intangible assets
- Reviewed the competency and independence of valuation expert engaged by the Group
- Evaluated the appropriateness of the valuation methods and the reasonableness of input assumptions used in the valuation by management on a sample basis

Other Matter

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

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

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

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

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

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

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

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

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

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is Jong-Yup Han, Certified Public Accountant.

Seoul, Korea March 4, 2022

This report is effective as at March 4, 2022, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

NAVER Corporation and Subsidiaries Consolidated Statements of Financial Position December 31, 2021 and 2020

(in Korean won)	Notes	December 31, 2021	December 31, 2020		
Assets					
Current assets					
Cash and cash equivalents	6,7	₩ 2,781,395,543,827	₩ 1,600,304,349,922		
Short-term financial instruments	6,7	673,555,739,311	291,292,142,737		
Financial assets at fair value - profit or loss	5,6,7	461,932,777,511	922,939,095,062		
Trade and other receivables	6	1,454,660,666,688	986,826,023,076		
Financial assets at fair value - other comprehensive income	5,6,7	24,254,505,540	-		
Inventories	9	6,139,904,767	4,344,942,323		
Current tax asset		1,643,037,279	996,472,888		
Other current assets	10	124,296,250,629	77,702,716,446		
Assets held for sale	35	-	6,660,253,457,865		
		5,527,878,425,552	10,544,659,200,319		
Non-current assets		0.444.004.050.040	4 004 500 040 000		
Property and equipment	11	2,111,261,659,613	1,684,563,340,866		
Right-of-use assets	12	290,462,942,745	129,537,198,819		
Intangible assets	13	932,152,347,274	105,136,186,861		
Long-term financial instruments	6,7	14,255,722,000	14,255,722,000		
Financial assets at fair value - profit or loss	5,6,7	2,407,725,020,317	1,801,384,240,769		
Trade and other receivables	6	46,387,217,185	28,578,223,832		
Financial assets at fair value - other comprehensive income	5,6,7	2,099,232,986,626	1,330,951,990,243		
Investments in associates and joint ventures	14	20,090,304,016,842	1,199,425,686,734		
Deferred tax assets	27	98,430,685,422	108,572,845,624		
Other non-current assets	10	72,915,733,464	67,174,027,703		
		28,163,128,331,488	6,469,579,463,451		
Total assets		₩ 33,691,006,757,040	₩ 17,014,238,663,770		
Liabilities					
Current liabilities					
Trade and other payables	15	₩ 992,675,127,701	₩ 689,280,186,019		
Financial liabilities at fair value - profit or loss	4,5,6	-	17,137,640,886		
Short-term borrowings	4,6,17	461,321,818,464	576,223,326,575		
Current tax payables		515,246,293,598	384,340,634,677		
Provisions	18	6,657,331,759	31,708,383,889		
Current lease liabilities	4,12	105,615,989,665	53,345,709,463		
Other current liabilities	16	1,841,802,585,465	1,484,474,330,127		
Liabilities held for sale	35		4,675,241,280,695		
		3,923,319,146,652	7,911,751,492,331		
Non-current liabilities					
Trade and other payables	15	118,079,924,927	68,448,327,272		
Financial liabilities at fair value - profit or loss	4,5,6	508,994,104,631	7,962,264,800		
Long-term borrowings	4,6,17	1,552,014,025,878	150,678,259,061		
Debentures	4,6,17	1,636,827,463,521	-		
Net defined benefit liabilities	19	554,264,628,196	462,094,245,426		
Provisions	18	8,918,100,642	9,186,175,870		
Non-current lease liabilities	4,12	205,661,717,226	92,170,749,140		
Deferred tax liabilities	27	1,155,139,324,751	56,519,491,022		
Other non-current liabilities	16	411,971,341	295,623,635		
Total liabilities		5,740,311,261,113 9,663,630,407,765	847,355,136,226 8,759,106,628,557		
TOTAL HAWHITIES		<u>8,003,030,407,705</u>	0,708,100,020,007		

NAVER Corporation and Subsidiaries Consolidated Statements of Financial Position December 31, 2021 and 2020

(in Korean won)	Notes	December 31, 2021	December 31, 2020
Equity			
Equity attributable to owners of the Parent Company			
Share capital	20	16,481,339,500	16,481,339,500
Share premium	20	1,490,214,367,768	1,793,273,489,872
Other components of equity	21	(1,051,465,837,344)	(1,059,479,508,530)
Accumulated other comprehensive loss relating to assets held for sale	21,35	-	(37,870,641,018)
Retained earnings	23	23,080,407,824,978	6,654,814,483,478
Non-controlling interest		491,738,654,373	887,912,871,911
Total equity		24,027,376,349,275	8,255,132,035,213
Total liabilities and equity		₩ 33,691,006,757,040	₩ 17,014,238,663,770

NAVER Corporation and Subsidiaries Consolidated Statements of Comprehensive Income Years Ended December 31, 2021 and 2020

(in Korean won)	Notes	2021	2020
Operating revenues	34	₩ 6,817,599,707,250	₩ 5,304,145,900,386
Operating expenses	24	(5,492,121,536,133)	(4,088,803,443,113)
Operating profit		1,325,478,171,117	1,215,342,457,273
Other income Other expenses Interest income	25 25	52,722,438,756 (232,866,247,091) 20,004,490,256	43,356,685,840 (118,822,813,655) 15,997,193,160
Finance income Finance costs Share of net profit of associates and joint ventures accounted for	26 26	765,693,953,525 (349,334,091,066)	508,563,848,219 (146,432,800,279)
using the equity method	14	544,701,156,204	115,554,340,355
Profit before income tax Income tax expense	27	2,126,399,871,701 (648,668,889,581)	1,633,558,910,913 (492,534,781,634)
Profit from continuing operations		1,477,730,982,120	1,141,024,129,279
Profit (loss) from discontinued operations	35	14,999,894,577,525	(296,027,152,130)
Profit for the year		₩ 16,477,625,559,645	₩ 844,996,977,149
Profit for the year is attributable to: Owners of the Parent Company Profit from continuing operations Profit (loss) from discontinued operations Non-controlling interests		₩ 1,493,472,246,748 14,996,377,524,381	₩ 1,144,888,651,236 (142,801,884,857)
Loss from continuing operations Profit (loss) from discontinued operations		(15,741,264,628) 3,517,053,144	(3,864,521,957) (153,225,267,273)

NAVER Corporation and Subsidiaries Consolidated Statements of Comprehensive Income Years Ended December 31, 2021 and 2020

(in Korean won)	Notes		2021		2020
Other comprehensive income (loss)					
Items that may be subsequently reclassified to profit or loss					
Loss on valuation of debt instruments at fair value - other comprehensive income		₩	(483,039,456)	₩	(730,019,603)
Exchange differences			71,043,967,706		76,248,398,266
Share of other comprehensive loss of associates and joint ventures Items that will not be reclassified to profit or loss			(261,333,066,732)		(58,076,804,924)
Gain (loss) on valuation of equity instruments at fair value - other					
comprehensive income			(90,787,478,622)		168,450,037,860
Gain on disposal of equity instruments at fair value - other			(50,707,470,022)		100,400,007,000
comprehensive income			21,602,409,626		37,778,484,516
Share of other comprehensive income (loss) of associates and joint ventures			9,512,437,761		(1,084,708,978)
Remeasurements of net defined benefit liabilities			(2,119,976,189)		(1,384,540,226)
Other comprehensive income (loss) for the year, net of tax			(252,564,745,906)		221,200,846,911
Total comprehensive income for the year		₩	16,225,060,813,739	₩	1,066,197,824,060
Total comprehensive income (loss) for the year is attributable to:					
Owners of the Parent Company		₩	16,233,387,235,875	₩	1,219,788,331,559
Non-controlling interests			(8,326,422,136)		(153,590,507,499)
Earnings (losses) per share from continuing and discontinued operations attributable to the owners of the Parent Company					
Basic earnings (losses) per share					
From continuing operations	28	₩	9,977	₩	7,857
From discontinued operations	28		100,877		(980)
Diluted earnings (losses) per share					
From continuing operations	28	₩	9,887	₩	7,813
From discontinued operations	28		99,973		(980)

NAVER Corporation and Subsidiaries Consolidated Statements of Changes in Equity Years Ended December 31, 2021 and 2020

			Attributable to own				
	-			Other			
(in Korean won)	Notes	Share	Share	Components	Retained	Non-controlling	Total
		Capital	Premium	of Equity	Earnings	Interest	Equity
Balance at January 1, 2020	₩	16,481,339,500 ₩	1,575,307,844,438 ₩	(1,498,653,013,809)	₩ 5,712,091,453,142	₩ 698.698.445.309 ₩	∀ 6,503,926,068,580
Total comprehensive income for the year	**	10,101,000,000	1,010,001,011,100	(1,100,000,010,000)	7, 2,001,100,112	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, 0,000,020,000,000
Profit for the year		-	-	-	1,002,086,766,379	(157,089,789,230)	844,996,977,149
Loss on valuation of debt instruments at fair value - other comprehensive income	6	-	-	(730,019,603)	-	-	(730,019,603)
Gain on valuation of equity instrument at fair value - other comprehensive income	6	-	-	158,566,524,618	-	9,883,513,242	168,450,037,860
Gain on disposal of equity instruments at fair value - other comprehensive income	6	-	-	-	37,778,484,516	-	37,778,484,516
Exchange differences		-	-	84,163,969,896	-	(7,915,571,630)	76,248,398,266
Share of other comprehensive loss of associates and joint ventures		-	-	(59,070,748,325)	-	(90,765,577)	(59,161,513,902)
Remeasurements of net defined benefit liabilities		-	-	-	(3,006,645,922)	1,622,105,696	(1,384,540,226)
Transactions with owners							
Dividends	29	-	-	-	(54,688,370,920)	(261,268,720)	(54,949,639,640)
Share-based payment expenses	22	-	-	28,211,760,128	-	44,667,256,627	72,879,016,755
Acquisition of treasury shares		-	-	(15,516,003,480)	-	-	(15,516,003,480)
Retirement of treasury shares		-	-	39,758,492,229	(39,758,492,229)	-	-
Disposal of treasury shares		-	328,485,240,566	151,388,772,301	-	-	479,874,012,867
Share issuance of subsidiaries	36	-	787,962,203,141	-	-	290,070,044,722	1,078,032,247,863
Transactions with non-controlling interests		-	(812,763,446,847)	14,530,116,497	-	43,978,130,648	(754,255,199,702)
Others		<u> </u>	(85,718,351,426)		311,288,512	(35,649,229,176)	(121,056,292,090)
Balance at December 31, 2020	₩	16,481,339,500 ₩	1,793,273,489,872 ₩	(1,097,350,149,548)	₩ 6,654,814,483,478	₩ 887,912,871,911 ₩	8,255,132,035,213

NAVER Corporation and Subsidiaries Consolidated Statements of Changes in Equity Years Ended December 31, 2021 and 2020

			Attributable to ov				
		<u> </u>		Other			
(in Korean won)	Notes	Share	Share	Components	Retained	Non-controlling	Total
		Capital	Premium	of Equity	Earnings	Interest	Equity
Balance at January 1, 2021	.	∀ 16,481,339,500 ₩	√ 1,793,273,489,872	₩ (1,097,350,149,548)	₩ 6,654,814,483,478	₩ 887,912,871,911	₩ 8,255,132,035,213
Total comprehensive income for the year	V	♥ 10,461,339,500 ₩	1,793,273,409,072	(1,097,350,149,546)	W 0,004,014,400,470	₩ 007,912,071,911	₩ 6,233,132,033,213
Profit for the year		-	-	-	16,489,849,771,129	(12,224,211,484)	16,477,625,559,645
Loss on valuation of debt instruments at fair value - other comprehensive income	6	-	-	(483,039,456)	-	-	(483,039,456)
Loss on valuation of equity instrument at fair value - other comprehensive income	6	-	-	(89,930,381,735)	-	(857,096,887)	(90,787,478,622)
Gain on disposal of equity instruments at fair value - other comprehensive income	6	-	-	-	20,113,624,459	1,488,785,167	21,602,409,626
Exchange differences		-	-	69,361,969,714	-	1,681,997,992	71,043,967,706
Share of other comprehensive income (loss) of associates and joint ventures		-	-	(252,386,900,150)	-	566,271,179	(251,820,628,971)
Remeasurements of net defined benefit liabilities		-	-	-	(3,137,808,086)	1,017,831,897	(2,119,976,189)
Transactions with owners							
Dividends	29	-	-	-	(59,278,532,070)	(531,574,395)	(59,810,106,465)
Share-based payment transactions		-	42,100,214,545	203,998,585,965	-	31,193,147,446	277,291,947,956
Retirement of treasury shares		-	-	15,492,077,217	(15,492,077,217)	-	-
Transaction of treasury shares		-	332,414,020,979	104,643,917,817	-	-	437,057,938,796
Disposal of subsidiaries		-	363,352,647,014	(215,252,060)	(6,461,636,715)	(503,245,404,163)	(146,569,645,924)
Transactions with non-controlling interests	_	<u> </u>	(1,040,926,004,642)	(4,596,665,108)	. <u>-</u>	84,736,035,710	(960,786,634,040)
Balance at December 31, 2021	4	∀ 16,481,339,500 ∀	1,490,214,367,768	₩ (1,051,465,837,344)	₩ 23,080,407,824,978	₩ 491,738,654,373	₩ 24,027,376,349,275

NAVER Corporation and Subsidiaries

Consolidated Statements of Cash Flows

Years Ended December 31, 2021 and 2020

(in Korean won)	Note		2021	2020
Cash flows from operating activities				
Cash generated from operations	30	₩	2,070,030,950,700	₩ 2,041,772,594,491
Interest received			26,262,580,497	20,014,015,757
Interest paid			(58,256,588,522)	(71,543,208,626)
Dividends received			54,754,937,073	30,187,486,156
Income taxes paid			(712,886,150,912)	(573,218,670,138)
Net cash inflow from operating activities			1,379,905,728,836	1,447,212,217,640
Cash flows from investing activities				
Net increase in short-term financial instruments			(348,046,243,066)	(25,654,808,271)
Increase in long-term financial instruments			-	(2,560,000,000)
Decrease in long-term financial instruments			-	21,200,000,000
Payments for financial assets at fair value - profit or loss			(6,449,235,633,165)	(5,243,104,789,547)
Proceeds from disposal of financial assets at fair value - profit or loss			6,505,643,614,364	3,894,138,692,719
Acquisition of property and equipment			(753,942,606,877)	(759,403,180,962)
Disposal of property and equipment			6,695,944,177	8,987,856,807
Collection of lease receivables			3,773,243,178	1,417,837,269
Acquisition of intangible assets			(51,876,515,767)	(106,290,121,972)
Disposal of intangible assets			167,684,511	3,304,588,760
Acquisition of financial assets at fair value				
- other comprehensive income			(509,090,098,200)	(50,971,937,342)
Disposal of financial assets at fair value			220 225 220 042	222 240 240 464
- other comprehensive income			229,335,330,042	232,310,319,161
Acquisition of investments in associates and joint ventures			(1,005,949,593,054)	(504,730,950,380)
Disposal of investments in associates			440,573,420,629	104 052 000 022
and joint ventures			(692,206,904,793)	104,952,900,033
Net increase (decrease) in cash due to business combination Net cash flow due to the transfer of subsidiaries to associates			(11,244,715,159,430)	2,260,617,141 (20,383,308,053)
Net increase in short-term loans			(115,777,475,728)	(35,244,144,863)
Net increase in long-term loans			(40,000,000)	(11,864,566,845)
Cash outflows from other investing activities			(14,113,737,895)	(11,567,279,691)
Net cash outflow from investing activities			(13,998,804,731,074)	(2,503,202,276,036)
Cash flows from financing activities			000 004 000 000	0.440.540.005.000
Proceeds from short-term borrowings			260,601,900,208	2,116,540,667,363
Repayment of short-term borrowings			(529,251,392,248)	(915,187,873,624)
Proceeds from long-term borrowings Proceeds from issuance of debentures			1,598,040,294,214	886,562,480,808
Repayment of debentures			9,403,866,052,933	5,960,669,395 (789,055,599,548)
Repayment of debendines Repayment of lease liabilities			(114,274,687,061)	(174,107,173,293)
Increase in financial liabilities at fair value - profit or loss			386,482,769,394	(174,107,173,293)
Acquisition of treasury shares			300,402,709,094	(15,516,003,480)
Disposal of treasury shares			176,145,173,981	(10,010,000,400)
Dividends paid			(59,784,555,522)	(54,949,639,640)
Share issuance of subsidiaries			-	1,023,167,174,015
Exercise of stock options			39,796,328,200	-
Cash inflows from transactions with non-controlling interest			114,530,208,868	46,060,159,984
Cash outflows from transactions with non-controlling interest			(350,963,263,102)	(945,751,987,650)
Cash inflows from other financing activities			1,070,216,109,602	23,806,129,662
Cash outflows from other financing activities			(353,078,515,065)	(15,395,325,014)
Net cash inflow from financing activities			11,642,326,424,402	1,192,133,678,978
Effects of exchange rate changes on cash and cash equivalents			(87,699,641,884)	(30,989,618,453)
Net increase (decrease) in cash and cash equivalents			(1,064,272,219,720)	105,154,002,129
Cash and cash equivalents at the beginning of the year			3,845,667,763,547	3,740,513,761,418
Cash and cash equivalents classified as assets held for sale				
at the beginning of the year			2,245,363,413,625	-
Cash and cash equivalents in the statements of financial position at the beginning of the year			1,600,304,349,922	3,740,513,761,418
Cash and cash equivalents at the end of the year			2,781,395,543,827	3,845,667,763,547
Cash and cash equivalents classified as held for sale			- , , , , , , , , , , , , , , , , , , ,	(2,245,363,413,625)
Cash and cash equivalents at the end of the year		₩	2,781,395,543,827	₩ 1,600,304,349,922

1. General Information

NAVER Corporation (the "Company") was established on June 2, 1999 under the Commercial Code of the Republic of Korea to provide internet portal services. The Company's headquarter is located at Buljeong-ro 6, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea.

On October 29, 2002, the Company listed its shares on the Korean Securities Dealers' Automated Quotations market. On November 28, 2008, the Company transferred its share listing to the Korea Composite Stock Price Index market. As at December 31, 2021, the major shareholders of the Company consist of National Pension Fund (8.94%) and others.

The Company and its subsidiaries (collectively the "Group") engage in providing online information via search portal services.

1.1 Consolidated Subsidiaries

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

				Ownership i		
Largest				December	December	Year
shareholder	Subsidiaries	Location	Primary business	31, 2021	31, 2020	end
NAVER	NAVER CLOUD CORP.	Korea	Cloud service	100.00	100.00	December
	NAVER I&S	Korea	Business support, workforce supply, and employee dispatch	100.00	100.00	December
	NAVER WEBTOON COMPANY Corporation	Korea	Webtoon service	100.00	100.00	December
	SNOW	Korea	Camera and communication application service	80.55	100.00	December
	Drama & Company ^{4,7}	Korea	Business card application service	10.55	81.18	December
	Audiensori	Korea	Audio contents production and distribution	100.00	100.00	December
	Company Al ²	Korea	Al development and research	-	100.00	December
	Search Solution ⁸	Korea	Searching solution development	=	100.00	December
	Works Mobile	Korea	Groupware development and service	89.41	100.00	December
	N-Visions	Korea	Exhibition and performance planning business	100.00	100.00	December
	NAVER Labs	Korea	New technology development and research	100.00	100.00	December
	NAVER Financial	Korea	Electronic financial business	89.21	81.16	December
	SB Next Media Innovation Fund	Korea	Investment	96.30	96.30	December
	TBT Global Growth Fund I	Korea	Investment	89.91	89.91	December
	NAVER-KTB Audio Contents Fund	Korea	Investment	99.00	99.00	December
	SpringCamp Early Stage Fund 1	Korea	Investment	100.00	100.00	December
	SpringCamp Early Stage Fund 2	Korea	Investment	99.22	97.00	December
	SVA Content Media ² SVA Content Media Private	Korea	Investment	-	99.31	December
	Equity Fund II	Korea	Investment	99.83	-	December
	Do Ventures Annex Fund LP	USA	Investment	99.01	99.01	December

				Ownership i		
Largest				December	December	Year
shareholder	Subsidiaries	Location	Primary business	31, 2021	31, 2020	end
			·	•	•	
	A-Holdings (formerly, LINE) ^{4,5,6}	Japan	Mobile service development	50.00	78.18	December
	NAVER J.Hub	Japan	Global business support	100.00	100.00	December
	NAVER China	China	Software development and distribution	100.00	100.00	December
	NAVER U.Hub (formerly, V Live)	USA	Online streaming service	100.00	100.00	December
	NAVER BAND	USA	North America community service and marketing	100.00	100.00	December
	NAVER France	France	Europe IT investment and research and development	100.00	100.00	December
	WEBTOON Entertainment	USA	Webtoon service	67.88	100.00	December
	NAVER VIETNAM	Vietnam	Online live broadcast service and local marketing	99.00	99.00	December
	Naver-Quantum Contents 1 Fund	Korea	Investment	98.81	98.81	December
	Smart Spring Fund 3	Korea	Investment	48.39	48.39	December
	NAVER Hands	Korea	Standard workplace for the disabled	100.00	100.00	December
	NAVER WP I, L.P	USA	Managing local business	100.00	-	December
	NAVER WP II, LLC	USA	Managing local business	100.00	-	December
	Wattpad Corp.	Canada	Global web novel platform	100.00	-	December
Wattpad Corp	Wattsub	Canada	Global web novel platform support	100.00	-	December
	Wattpad Studios	Canada	Global web novel platform support	100.00	-	December
	WP Technology (UK)	UK	Global web novel platform support	100.00	-	December
	WP Technology	USA	Global web novel platform support	100.00	-	December
	Wattpad Inc.	USA	Global web novel platform support	100.00	-	December
Wattpad Studios	Wattpad Studios (Cell Phone Swap)	Canada	Global web novel platform support	100.00	-	December
NAVER France	C-Fund	France	Investment	99.00	99.75	December
	C-Fund sub fund 2	France	Investment	99.00	-	December
	C-Fund sub fund 3	France	Investment	99.75	-	December
	C-Fund sub fund 4	France	Investment	99.00	-	December
NAVER CLOUD	NAVER Cloud Asia Pacific	Singapore	IT infrastructure operations	100.00	100.00	December
CORP.	NAVER Cloud America	USA	IT infrastructure operations	100.00	100.00	December
	NAVER Cloud Europe	Germany	IT infrastructure operations	100.00	100.00	December
	NAVER Cloud Japan	Japan	IT infrastructure operations	100.00	100.00	December
NAVER I&S	Incomms	Korea	Customer center operations	100.00	100.00	December
	Greenweb Service	Korea	Monitoring and advertisement operations	100.00	100.00	December
	N Tech Service	Korea	Software consulting, development and distribution	100.00	100.00	December
	NIT Service	Korea	Infrastructure operations and security services	100.00	100.00	December
	CommPartners	Korea	Customer center operations	100.00	100.00	December
WEBTOON	Naver Webtoon LLC	Korea	Webtoon service	100.00	100.00	December
Entertainment	LINE Digital Frontier	Japan	Webtoon service in Japan	100.00	100.00	December
Naver Webtoon	Lico	Korea	Contents production	100.00	100.00	December

				Ownership by the G		
Largest shareholder	Subsidiaries	Location	Primary business	December 31, 2021	December 31, 2020	Year end
LLC	Studio N Corporation V.DO	Korea Korea	Film production and distribution Video searching solution development	100.00 81.43	100.00 66.57	December December
	YLAB Japan	Japan	Contents production	100.00	100.00	December
LINE Digital Frontier	LINE Book Distribution ²	Japan	Cartoon and contents distribution	-	52.00	December
NAVER WEBTOON COMPANY Corporation	Watong Entertainment	Hong Kong	Webtoon service	100.00	100.00	December
Watong Entertainment	Broccoli Entertainment	China	Webtoon service	100.00	100.00	December
Broccoli Entertainment	Dongman Entertainment			100.00	100.00	December
Snow	Spring Camp	Korea	Investment	100.00	100.00	December
	Playlist	Korea	Web contents production and distribution	58.04	93.99	December
	Amuse	Korea	Cosmetics manufacturing, distribution and sales	100.00	100.00	December
	HEART IT ²	Korea	Online commerce platform operations	-	100.00	December
	Semicolon Studio	Korea	Video contents production and distribution	100.00	100.00	December
	NAVER Z Corporation	Korea	Mobile service development and operations	70.51	88.99	December
	SNOW China	Hong Kong	Mobile service operations	96.22	96.22	December
	SNOW Japan	Japan	Mobile service operations	100.00	100.00	December
	SNOW Inc.	USA	Mobile service operations	100.00	100.00	December
	SNOW Vietnam	Vietnam	Mobile service operations	99.00	99.00	December
	Cake	Korea	Language learning application service	75.00	100.00	December
	KREAM	Korea	Sneakers trading platform	53.13	-	December
NAVER Z	NAVER Z USA	USA	Mobile service development and operations	100.00	-	December
KREAM	NAMAIN	Korea	Sneakers trading platform	100.00	-	December
	SVA Soda	Korea	Investment	99.52	99.52	December
SNOW China	SNOW China (Beijing)	China	Mobile service operations	100.00	100.00	December
	Xiaying Entertainment ²	China	Mobile service operations	-	100.00	December
SNOW China (Beijing)	Yiruike Information Technology (Beijing)	China	Mobile service operations	100.00	100.00	December
Xiaying Entertainment	Shine Interactive ²	China	Mobile service operations	-	100.00	December
Drama & Company	myBridge ⁴	Japan	Business card application service operations	-	100.00	December
Works Mobile	Works Mobile Japan	Japan	Groupware service operations and distribution	100.00	100.00	December
	NF Insurance Services Corporation	Korea	Insurance brokerage	100.00	100.00	December
A-Holdings (formerly, LINE)	LINE SOUTHEAST ASIA4	Singapore	Mobile billing system planning and development	-	100.00	March

				Ownership i		
Largest				December	December	Year
shareholder	Subsidiaries	Location	Primary business	31, 2021	31, 2020	end
	LFG HOLDINGS ⁴	Hong Kong	Character and doll wholesale and retail	-	100.00	March
	LINE Ventures ⁴	Japan	Investment	-	100.00	March
	LINE Fukuoka ⁴	Japan	Mobile service operations	=	100.00	March
	Gatebox ⁴	Japan	IoT products planning and development	-	55.09	March
	LINE Growth Technology ⁴	Japan	Mobile service development	=	100.00	March
	LINE Conomi 4,6	Japan	Global restaurant review service	49.90	100.00	March
	LINE TICKET ⁴	Japan	E-Ticket service operations	-	51.00	March
	Next Library ⁴	Japan	Internet information services	-	100.00	March
	LINE Pay ⁴	Japan	Mobile billing system planning and development	-	100.00	March
	LINE Financial ⁴	Japan	Financial business	-	100.00	March
	LINE Ventures Global ⁴	Japan	Investment	-	100.00	March
	LINE Ventures Japan ⁴	Japan	Investment	=	100.00	March
	LVC ⁴	Japan	Financial business	-	90.00	March
	LINE Healthcare ⁴	Japan	Telemedicine services	-	51.00	March
	LINE Business Support ⁴	Japan	Business support and workforce supply	-	100.00	March
	HOP ⁴	Japan	Matching service operations	-	60.00	March
	LINE TECHNOLOGY VIETNAM4	Vietnam	Local service and marketing	-	100.00	March
	LINE Split Preparation ⁴	Japan	Strategic alliance and service integration	-	100.00	March
	DEMAE-CAN ⁴	Japan	Delivery application service	7.91	60.93	August
DEMAE-CAN	SATSUMAEBISUDO 4	Japan	Food processing	-	100.00	August
LINE Split Preparation	LINE Friends ^{4,6}	Korea	Character and doll wholesale and retail	30.00	100.00	March
	LINE Plus ⁴	Korea	Portal and internet information services	-	100.00	March
LINE Plus	LINE Up ⁴	Korea	Mobile game software development and distribution	-	100.00	March
	LINE Studio ⁴	Korea	Mobile game software development and distribution	-	100.00	March
	LINE Play⁴	Korea	Avatar development and service operation	-	100.00	March
	Nemustech ⁴	Korea	Software development	-	100.00	March
	Grayhash Co., Ltd.4	Korea	Software development	-	76.99	March
	LINE Euro-Americas ⁴	USA	Mobile service marketing	-	100.00	March
	LINE Digital Technology (Shanghai) ⁴	China	Mobile service marketing	-	100.00	March
	LINE Taiwan⁴	Taiwan	Mobile service operations	-	100.00	March
	LINE Company (Thailand) ⁴	Thailand	Mobile service operations	-	99.95	March
	PT.LINE PLUS INDONESIA4	Indonesia	Mobile service operations	-	99.99	March
LINE Digital Technology (Shanghai)	Beijing Wangzhongwenda Technology ⁴	China	Mobile service operations	-	100.00	March
LINE Taiwan	SHINEWANT TECHNOLOGY ⁴	Taiwan	Internet information services	_	100.00	March
	JDW ⁴	Taiwan	Internet information services	_	81.20	March
JDW	JDW Taxi⁴	Taiwan	Internet information services	_	62.50	March
LINE	LINE VIETNAM JOINT STOCK	Vietnam	Online information distribution	-	99.11	March

				Ownership i		
Largest shareholder	Subsidiaries	Location	Primary business	December 31, 2021	December 31, 2020	Year end
SOUTHEAST ASIA	COMPANY ⁴		business			
LINE Ventures	LINE Investment Technologies ⁴	Japan	Investment	-	100.00	March
LINE Friends	Markt ⁴	Korea	Software development and wholesale and retail	-	51.00	March
	LINE Friends Japan ⁴	Japan	Character and doll wholesale and retail	-	100.00	March
	LINE Friends ⁴	USA	Character and doll wholesale and retail	-	100.00	March
	LINE Friends Taiwan ⁴	Taiwan	Character and doll wholesale and retail	-	100.00	March
	LINE Friends(Shanghai) Commercial Trade ⁴	China	Character and doll wholesale and retail	-	100.00	March
LINE Pay	Line Biz Plus ⁴	Korea	Software development and distribution	-	100.00	March
	BALIE ⁴	Japan	Searching advertising service business	-	100.00	March
	Webpay Holdings ⁴	Japan	Mobile billing system planning and development	-	100.00	March
	LINE Pay hokkaido ⁴	Japan	Mobile billing system planning and development	-	70.00	March
	LINE Pay Taiwan ⁴	Taiwan	Mobile billing system planning and development	-	70.01	March
Webpay Holdings	s Webpay⁴	Japan	Mobile billing system planning and development	-	100.00	March
LINE Financial	LINE Financial Plus ⁴	Korea	Financial business	-	100.00	March
	LINE Credit ⁴	Japan	Financial business	-	51.00	March
	LINE Securities ⁴	Japan	Financial business	-	51.00	March
	LINE Bank Preparatory ⁴	Japan	Financial business	-	51.00	March
	LINE Financial Asia4	Hong Kong	Financial business	-	100.00	March
LINE Financial Asia	LINE Financial Taiwan ⁴	Taiwan	Financial business	-	100.00	March
LVC	Unblock ⁴	Korea	Software development and distribution	-	100.00	March
	Unchain Corporation⁴	Korea	Software development and distribution	-	50.98	March
	LVC USA ⁴	USA	Financial business	-	100.00	March
	LINE TECH PLUS⁴	Singapore	Financial business	-	100.00	March
	Unblock Ventures ⁴	Hong Kong	Financial business	-	100.00	March
NAVER J.Hub	Mirai Fund ^{4,6}	Japan	Investment	90.00	100.00	December
Mirai Fund LLP	Mission Worldwide Group Limited ⁴	Virgin Islands	Software development and distribution	-	68.28	December
Mission Worldwide Group Limited	CHOCO Media ⁴	Taiwan	Mobile service operations	-	100.00	December

¹ Ownership interest, with voting rights held by the Group, includes share held by subsidiaries (the entities classified as assets held for sale were included as at December 31, 2020).

² Its liquidation has been completed during the year ended December 31, 2021.

- ³ Although the Group owns less than 50% ownership of Smart Spring Fund as at December 31, 2021, the Group considers to have control over this entity because Spring Camp, a subsidiary, has significant influence over investment decision-makings as a general partner of the fund.
- ⁴ Classified as assets held for sale during the year ended December 31, 2020 as the result of the business integration of LINE and SoftBank Corp. They are excluded from the consolidation as governance restructuring was reorganized during the year ended December 31, 2021.
- ⁵ LINE, which was a subsidiary of the Group until December 31, 2020, changed its name to A-Holdings as the business integration completed during the year ended December 31, 2021. During the year ended December 31, 2021, the existing division and investment securities of LINE were transferred to LINE corp, a subsidiary of A-Holdings.
- ⁶ Classified from investments in subsidiaries to associates and joint ventures due to the decreased Group's ownership in these entities during the year ended December 31, 2021.
- ⁷ Classified from investments in subsidiaries to financial instruments due to the decreased Group's ownership in these entities during the year ended December 31, 2021.
- ⁸ Merged to the Group during the year ended December 31, 2021.

1.2 Summarized Financial Information

Summarized financial information for consolidated subsidiaries as at and for the years ended December 31, 2021 and 2020, is as follows:

2021

(in thousands of Korean
won)

wori)				2021				
Subsidiary	Assets	Liabilities		Equity	Operating revenues		Profit (loss)	Total comprehensive income (loss)
NAVER J.Hub NAVER Financial	₩2,252,827,963 2,747,564,484	₩ 1,316,034,618 1,815,785,795	₩	936,793,345 931,778,689	₩ 1,045,307,99	4	₩ (8,283,202) 54,277,962	₩ (31,125,681) 52,759,585
NAVER CLOUD CORP. WEBTOON Entertainment	1,149,708,939 806,224,727	879,856,125 31,923,504		269,852,814 774,301,224	860,259,15 86,497,77	59	1,654,576 (51,016,425)	4,680,186 1,738,559
Naver Webtoon LLC	699,088,160	166,070,582		533,017,578	355,326,02		58,543,524	63,501,645
(in thousands of Korean won)				2020	r			

Subsidiary	Assets	Liabilities	Equity	Operating revenues	Profit (loss) for the year	Total comprehensive income (loss)
NAVER Financial	₩2,293,220,293	₩ 1,414,633,126	₩ 878,587,167	₩ 704,391,480	₩ 54,893,061	₩ 55,519,488
NAVER J.Hub	1,147,740,381	293,986,683	853,753,698	6,823	(10,794,579)	(12,185,125)
NAVER CLOUD CORP.	939,082,507	672,406,197	266,676,310	622,121,155	2,579,608	217,953

1.3 Changes in Scope of Consolidation

Subsidiaries newly included in the consolidation for the year ended December 31, 2021, are as follows:

Reason Subsidiaries

Newly established NAVER WP I L.P, NAVER WP II LLC, C-fund sub fund2, C-Fund sub fund 3,

NAVER Z USA, C-Fund sub fund 4, SVA Content Media Private Equity Fund II

Established through

split-off

restructuring

KREAM

Newly acquired Wattpad Corp., Wattsub, Wattpad Studios, WP Technology (UK), WP

Technology, Wattpad Inc., Wattpad Studios (Cell Phone Swap), NAMAIN

Subsidiaries excluded from the consolidation for the year ended December 31, 2021, are as follows:

Reason Subsidiaries

Liquidation Company AI, HEART IT, SVD Content Media, LINE Book Distribution, Xiaying Entertainment, Shine Interactive

Merged Search Solution

Drama & Company, A-Holdings(formerly, LINE), myBridge, LINE Plus, LINE SOUTHEAST ASIA, LFG HOLDINGS, LINE Ventures, LINE Fukuoka, Gatebox, LINE Growth Technology, LINE Conomi, LINE TICKET, Next Library, LINE Pay, LINE Financial, LINE Ventures Global, LINE Ventures Japan, LVC, LINE Healthcare, LINE Business Support, HOP, LINE TECHNOLOGY VIETNAM, LINE Split Preparation, DEMAE-CAN, SATSUMAEBISUDO, LINE

Up, LINE Studio, LINE Play, Nemustech, Grayhash, LINE Euro-Americas, LINE Digital Technology (Shanghai), LINE Taiwan, LINE

Americas, LINE Digital Technology (Shanghai), LINE Taiwan, LINE Reorganization of governance Company (Thailand), PT. LINE PLUS INDONESIA, Beijing

Wangzhongwenda Technology, SHINEWANT TECHNOLOGY, JDW, JDW Taxi, LINE VIETNAM JOINT STOCK COMPANY, LINE

Investment Technologies, LINE Friends, Markt, LINE Friends

Japan, LINE Friends, LINE Friends Taiwan, LINE

Friends(Shanghai) Commercial Trade, Line Biz Plus, BALIE,

Webpay Holdings, LINE Pay hokkaido, LINE Pay Taiwan, Webpay, LINE Financial Plus, LINE Credit, LINE Securities, LINE Bank Preparatory, LINE Financial Asia, LINE Financial Taiwan, Unblock, Unchain, LVC USA, LINE TECH PLUS, Unblock Ventures, Mirai

Fund, Mission Worldwide Group, CHOCO Media

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 years presented, unless otherwise stated.

2.1 Basis of Preparation

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

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

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

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

- certain financial assets and liabilities (including derivative instruments)
- defined benefit pension plans plan assets measured at fair value, and
- assets held for sale measured at fair value less costs to sell

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

2.2 Changes in Accounting Policy and Disclosures

(a) New and amended standards adopted by the Group

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

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

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

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

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

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

The application of the practical expedient, a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification, is extended to lease payments originally due on or before June 30, 2022. A lessee shall apply the practical expedient consistently to eligible contracts with similar characteristics and in similar circumstances. The amendment should be applied for annual periods beginning on or after April 1, 2021, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the consolidated financial statements.

(b) New standards and interpretations not yet adopted by the Group

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

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

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

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

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the consolidated financial statements.

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

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

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

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

- New Standard: Korean IFRS 1117 Insurance Contract

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

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

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

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

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

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

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

- Annual improvements to Korean IFRS 2018-2020

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

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

2.3 Consolidation

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

(a) Subsidiaries

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

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.

Any difference between the amount of the adjustment to non-controlling interest and any consideration paid or received is recognized in a separate reserve within equity attributable to owners of the Parent Company.

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

(b) Associates

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

(c) Joint arrangements

A joint agreement, wherein two or more parties have joint control, is classified as either a joint operation or a joint venture. A joint operator holds direct rights and obligations to the assets, liabilities, revenues and expenses of joint operations and recognizes 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 in foreign currency and translation at period end

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

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

(c) Translation to the presentation currency

All of the subsidiaries' financial statements that have functional currencies different from the presentation currency of the Group are translated into the presentation currency as follows:

- assets and liabilities for each statement of financial position presented are translated at the closing rate at the end of the reporting period,
- income and expense for each statement of comprehensive income are translated at the average exchange rate.
- equity is translated at the historical exchange rate.
- all resulting exchange differences are recognized in other comprehensive income.
- and, goodwill and fair value adjustments to the carrying amounts of assets and liabilities arising
 on the acquisition of a foreign operation are treated as assets and liabilities of the foreign
 operation and translated at the closing rate at the end of the reporting period.

2.5 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
- 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. Changes in fair value of the investments in equity instruments that are not accounted for as other comprehensive income are recognized in profit or loss.

(b) Measurement

At initial recognition, the Group measures a financial asset, in the case of a financial asset not at fair value through profit or loss, at its fair value plus transaction costs that are directly attributable to the acquisition of the financial asset or the issuance of the financial liabilities. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss. Financial assets contracts 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 (and reversal of impairment loss), interest income and foreign exchange gains and losses which are recognized in profit or loss. When the financial asset is derecognized, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss. Interest income from these financial assets is included in 'finance income' using the effective interest rate method. Foreign exchange gains and losses are presented in 'finance income and finance costs' and impairment loss in 'finance costs'.
- Fair value through profit or loss:
 Assets that do not meet the criteria for amortized cost or fair value through other comprehensive income are measured at fair value through profit or loss. A gain or loss on a debt investment that is subsequently measured at fair value through profit or loss and is not part of a hedging relationship is recognized in profit or loss and presented net in the statement of profit or loss within 'finance income and finance costs' in the period 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 in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividend income from such investments continue to be recognized in profit or loss as 'finance income' when the Group's right to receive payments is established.

Changes in the fair value of financial assets at fair value through profit or loss are recognized in 'finance income and finance costs' in the consolidated statement of comprehensive income as applicable. Impairment loss (and 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, contract assets, and lease receivables, the Group applies the simplified approach, which requires expected lifetime losses to be recognized from initial recognition of the receivables.

(Note 4 provides more details of how the Group determines whether there has been a significant increase in credit risk.)

(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.

(e) Offsetting of financial instruments

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.

2.6 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)' or 'finance income (costs)' based on the nature of transactions.

2.7 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.

2.8 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the first-in, first-out (FIFO) method.

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

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

2.10 Property and Equipment

Property and equipment are stated at historical cost less accumulated depreciation and accumulated impairment losses. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Depreciation of all property and equipment, except for land, 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 life
Buildings	30 years
Structures	10 years
Vehicles	5 years
Equipment	3 – 5 years
Machinery	3 – 5 years
Others	4 – 6 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 Borrowing Costs

General and specific borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalized during the period of time that is required to complete and prepare the asset for its intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. Other borrowing costs are expensed in the period in which they are incurred.

2.12 Intangible Assets

Goodwill is measured as described in Note 2.3 (a), and carried at cost less accumulated impairment losses.

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

Brand usage rights, membership rights and brands 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:

	Useful lives
Industrial rights	5 years
Software	5 years
Customer relationship	3 – 14 years
Others	5 - 30 years

2.13 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 either 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.

2.14 Impairment of Non-financial Assets

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

2.15 Trade Payables and Other Payables

These amounts represent liabilities for goods and services provided to the Group prior to the end of reporting period which are unpaid. The amounts are unsecured and are usually paid within mutually agreed period of recognition. Trade and other payables are presented as current liabilities, unless payment is not due within 12 months after the reporting period. They are recognized initially at their fair value and subsequently measured at amortized cost using the effective interest method.

2.16 Financial Liabilities

(a) Classification and measurement

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

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

Borrowings are initially recognized at fair value, net of transaction costs incurred. Borrowings are subsequently measured at amortized cost. Any difference between the proceeds (net of transaction costs) and the redemption amount is recognized in profit or loss over the period of the borrowings using the effective interest method. Fees paid on the establishment of loan facilities are recognized as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalized as a prepayment for liquidity services and amortized over the period of the facility to which it relates.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting period.

(b) Derecognition

Financial liabilities are removed from the consolidated statement of financial position when they are extinguished, for example, when the obligation specified in the contract is discharged, 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.

2.17 Compound Financial Instruments

Compound financial instruments are convertible bonds and redeemable convertible preferred shares that can be converted into equity instruments at the option of the holder.

The liability component of a compound financial instrument is recognized initially at the fair value of a similar liability that does not have an equity conversion option. The equity component is recognized initially on the difference between the fair value of the compound financial instrument as a whole and the fair value of the liability component. Any directly attributable transaction costs are allocated to the liability and equity components in proportion to their initial carrying amounts.

In accordance with the Interpretation Statements No.00094 issued by the Financial Supervisory Service in Korea, the Company recognized conversion rights of preferred shares as equity. This accounting treatment is applicable within Korean.

In addition, a portion of redeemable convertible preferred shares issued by the Group is measured at fair value by classifying them as financial liabilities at fair value through profit or loss.

2.18 Provisions

Provision for litigation, loyalty programs, restoration, and greenhouse gas emission obligations are recognized when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. 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.

2.19 Current and Deferred Income Tax

The tax expense for the period consists of current and deferred tax. The Company is implementing a consolidated tax payment system to presume that the Parent Company and its subsidiaries in Korea are a single taxpayer. Domestic and overseas subsidiaries that are not included in the consolidated tax payment system measure and pay their tax returns by regarding each entity as a taxation unit. Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

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

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

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

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

The Group recognizes a deferred tax liability 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 Group has a legally enforceable right to offset and intends either to settle on a net basis.

2.20 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 have been paid. The contribution are recognized as employee benefit expense when they are due.

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

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

(b) Share-based payments

The Group has granted stock options to employees of the Group, which are settled in the shares of the Parent Company and some subsidiaries. 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 for issuance of shares of the Parent Company and recognized as other capital surplus for issuance of shares of subsidiaries.

Under cash-settled share-based payment plan, the Group compensates the difference of the fair value and exercise price of option as the consideration for employee services received. Total expense that will be recognized over the vesting period is determined by reference to the fair value of the option granted. Until the liability is settled, the Group is required to remeasure the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in value recognized in profit or loss for the year.

(c) Long-term employee benefits

The Group provides long-term employee benefits to employees who have worked for more than a certain period of time. Long-term employee benefits are calculated annually by independent actuaries using the projected unit credit method. The Group recognizes service cost, net interest on long-term employee benefits and remeasurements as profit or loss for the year.

2.21 Revenue Recognition

The Group engages in providing internet search portal services, and its operating revenues are mainly comprised of advertisement, contents providing services and sales commission.

The Group allocates transaction prices based on relative individual selling prices if several performance obligations are identified in a single contract.

(a) Advertisement

The Group has an obligation to provide advertisement services over the contract period. Accordingly, the Group recognizes the allocated transaction price for each performance obligation over the service period as revenue. However, the Group recognizes revenue when it performs its obligation to provide the advertisement service if the contract is to settle the advertisement services based on the total number of services provided, instead of the recognizing over the contract period. In addition, the Group provides the option to additionally select the goods or services when providing advertisement services to its customers, in which the Group identifies this as a separate performance obligation and allocates the transaction price to each performance obligation on the basis of the relative individual selling price. The individual selling price is the price at which the Group would sell a promised good or service separately to the customer. The best evidence of an individual selling price is the observable price of a good or service when the Group sells that good or service separately in similar circumstances and to similar customers.

(b) Contents services

The Group provides various digital contents to its customers. The transaction price of digital contents is immediately paid by customers when they purchase contents online. When the Group provides digital contents and there is no unsatisfied performance obligations which could cause the customers to affect on the usage of contents, the Group considers that the right of using of contents has transferred to the customers and recognize revenue when customers uses the contents. However, the Group recognizes revenue over the service period for those exposed to activities that could significantly affect the digital contents provided to customers during their usage period.

(c) Payment services

When the Group has an obligation to provide payment services, the allocated transaction price for the obligation is recognized as revenue when the service is delivered. The Group grants the customers rights to additionally select goods or services to be received in the course of using payment services and identifies this as a separate performance obligation and allocates it based on the relative stand-alone selling price. The stand-alone selling price is the price at which the Group would sell a promised good or service separately to its customers. The best evidence of a stand-alone selling price is the observable price of a good or service when the Group sells that good or service separately in similar circumstances and to similar customers.

(d) Sales commission

The Group provides brokerage service for the sale of goods and others on the online platforms and receives commissions. Although the Group receives the entire considerations from the transactions, only commissions are recognized as sales since the Group provides the service as an agent.

2.22 Leases

(a) Lessor

Lease income from operating leases where the Group is a lessor is recognized in income on a straightline 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 expense over the lease term on the same basis as lease income. The respective leased assets are included in the statement of financial position based on their nature.

(b) Lessee

The Group leases various properties, vehicles and others. Lease contracts are typically made for fixed periods, but may have extension options.

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

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

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

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date
- amounts expected to be payable by the Group (the lessee) under residual value guarantees
- exercise price of a purchase option if the Group (the lessee) is reasonably certain to exercise that option
- payments of penalties for terminating the lease, if the lease term reflects the Group (the lessee) exercising that option

Measurement of lease liability also includes payments to be made in optional periods if the lessee is reasonably certain to exercise an option to extend the lease.

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

To determine the incremental borrowing rate, the Group uses a build-up approach that starts with an interest rate that the Group can be practically financed adjusted for economic circumstances, lease period for leases, credit risk for leases and others, makes adjustments specific to the lease, for example, country, currency and others.

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:

- 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
- · 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 right-of-use asset is depreciated over the underlying asset's useful life.

Payments associated with short-term leases and leases of low-value assets are recognized on a straightline 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 office furniture.

2.23 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 (Note 34). The chief operating decision-maker, responsible for making strategic decisions by allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors.

2.24 Approval of Issuance of the Financial Statements

The consolidated financial statements for the year end December 31, 2021 were approved for issue by the Board of Directors on January 26, 2022 and are subject to change with the approval of shareholders at their Annual General Meeting.

3. Critical Accounting Estimates and Assumptions

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

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

(a) Goodwill impairment

The Group tests whether goodwill has suffered any impairment on an annual basis. The recoverable amount of a cash generating unit (CGU) is determined based on value-in-use calculations (Note 13).

(b) 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 (Note 27).

If certain portion of taxable income is not used for investments or increase in wages or dividends for certain periods, 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 systems. 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.

(c) 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 (Note 5).

(d) Impairment of financial assets

The provision 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 reporting period (Note 4).

(e) Net defined benefit liabilities

The present value of net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate and wage growth rate (Note 19).

(f) Provisions

As at December 31, 2021, the Group recognizes provisions for litigation, restoration and others. These provisions are estimated based on historical experience (Note 18).

(g) Share-based payments

The Group measures the cost of equity-settled share-based payment transaction by reference to the fair value of equity instruments granted at the grant date and the fair value is estimated using valuation models which considers the conditions upon which equity instruments are granted. Also, the Group measures the cost of cash-settled share-based payment transaction based on the fair value of the liability considering vesting conditions. Until the liability is settled, the Group is required to remeasure the fair value of the liability at the end of each reporting period and at the date of settlement (Note 22).

(h) Lease

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

For leases held by the Group, the following factors are normally the most relevant:

- If there are significant penalties to terminate (or not extend), the Group is typically reasonably certain to extend (or not terminate).
- If any leasehold improvements are expected to have a significant remaining value, the Group is typically reasonably certain to extend (or not terminate).

• Otherwise, the Group considers other factors including historical lease durations and the costs and business disruption required to replace the leased asset.

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.

(i) Fair value measurement of assets and liabilities of subsidiaries and associates

The fair value of identifiable assets and liabilities acquired through business combination is measured based on the management's assumptions such as selection of valuation techniques and inputs.

4. Financial Risk Management

4.1 Financial Risk Factors

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, price risk and interest rate risk), credit risk and liquidity risk. The Group's overall risk management policies focuses on the volatility of financial markets and seeks to minimize potential adverse effects on the Group's financial performance.

4.1.1 Market risk

(a) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk, primarily with respect to the US dollar, Japanese yen and Euro. Foreign exchange risk arises from recognized assets and liabilities.

The Group's financial assets and liabilities denominated in currencies other than the functional currency (i.e., US dollar, Japanese yen and Euro) and thus, exposed to foreign currency risk as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)			2021	2020			
			Korean won		Korean won		
Financial asset							
	USD	₩	211,529,424	₩	82,253,554		
Cash and cash equivalents	JPY		78,157,718		14,830,066		
	EUR		16,456,975		2,169,367		
Shor-term financial instruments	USD		118,550,000		-		
	USD		5,215,957		29,481,100		
Trade and other receivables	JPY		93,735,665		9,628,014		
	EUR		307		306,080		
Financial assets at fair value - other	USD		39,835,090		10,867,566		
comprehensive income	JPY		111,352,049		-		
·	EUR		111,228,239		-		
Einanaial acceta at fair value profit	USD		1,134,944,791		733,088,041		
Financial assets at fair value - profit or loss	JPY		79,735,266		21,982,914		
	EUR		120,341,053		69,245,127		
Financial liabilities							
	USD		12,711,592		6,752,626		
Trade and other payables	JPY		970,097		319,593		
	EUR		9,676		9,676		
Borrowings and debentures	USD		938,457,067		-		
Donowings and dependies	JPY		324,525,600		-		

The Group's financial assets and liabilities classified as held for sale denominated in US dollar and Japanese yen, other than the functional currency that are exposed to foreign currency risk as at the end of the reporting period are as follows:

(in thousands of Korean won)	2020			
		Ko	rean won	
Financial asset				
Cook and cook organizationto	USD	₩	48,166,536	
Cash and cash equivalents	JPY		2,207,662	
Trade and other receivables	USD		80,916,694	
	JPY		163,629	
Financial assets at fair value - other comprehensive income	USD		16,869,417	
Financial assets at fair value - profit or loss	USD		47,654,899	
Other current assets	USD		514,163	
Financial liabilities				
Trade and other payables	USD		24,300,517	
Trade and other payables	JPY		8,838,632	

The impact of weakened/strengthened Korean won by 5% against foreign currencies with all other variables held constant on the post-tax profit for the years ended and equity as at December 31, 2021 and 2020, is as follows:

(in tho	usands of Korean won)	Impact on post-tax profit		Impact of	on equity
		2021	2020	2021	2020
USD	Strengthened	₩ 19,240,687	₩ 37,475,316	₩ 20,696,026	₩ 38,439,646
	Weakened	(19,240,687)	(37,475,316)	(20,696,026)	(38,439,646)
JPY	Strengthened	(2,698,666)	1,876,448	1,369,481	2,786,375
	Weakened	2,698,666	(1,876,448)	(1,369,481)	(2,786,375)
EUR	Strengthened	4,994,154	2,624,260	9,055,097	2,624,260
	Weakened	(4,994,154)	(2,624,260)	(9,055,097)	(2,624,260)

(b) Price risk

The Group is exposed to equity securities price risk arises from investments held by the Group that are classified either as financial assets at fair value – other comprehensive income or financial assets at fair value – profit or loss in the consolidated statement of financial position.

The impact of increases/decreases of the stock index of each country by 5% with all other variables held constant on the Group's post-tax profit for the years ended and equity as at December 31, 2021 and 2020, is as follows:

(in thousan	ds of Korean won)		Impact on post-tax profit		Impact on equity			
			2021		2020 2021		2020	
l/araa	Increase	₩	813,308	₩	920,934	₩ 53,068,837	₩ 43,616,952	
Korea	Decrease		(813,308)		(920,934)	(53,068,837)	(43,616,952)	
USA	Increase		303,006		-	599,128	949,986	
USA	Decrease		(303,006)		-	(599,128)	(949,986)	
lonon	Increase		-		-	4,650,428	-	
Japan	Decrease		-		-	(4,650,428)	-	
Cormony	Increase		-		-	4,063,724	-	
Germany	Decrease		-		-	(4,063,724)	-	
l	Increase		-		-	8,039,957	-	
Indonesia	Decrease		-		-	(8,039,957)	-	

Gains and losses generated from financial assets at fair value - profit or loss have impacts on post-tax profit and equity, and financial assets at fair value - other comprehensive income have impacts on equity

The amounts recognized in current profit or loss and other comprehensive income in relation to the various financial instruments held by the Group are disclosed in Note 6.

(c) Interest rate risk

Interest rate risk is defined as the risk that the interest income or expenses arising from deposits and borrowings will fluctuate due to changes in future market interest rate. The interest rate risk mainly arises on floating rate deposits and borrowings. The Group's objective of interest rate risk management lies in maximizing corporate value by minimizing uncertainty from interest rates fluctuations and net interest expense.

As at December 31, 2021, the Group's floating rate borrowings which exceed floating rate deposits, which results in net interest expenses increase when interest rates increase. The Group adequately minimizes risks from interest rate fluctuations through various policies, such as monitoring fluctuations of domestic and foreign interest rates, establishing alternatives, and balancing floating rate short-term borrowings with floating rate deposits.

The impact of 10bp increase/decrease in interest rate with all other variables held constant on the Group's post-tax profit for the years ended and equity as at December 31, 2021 and 2020, is as follows:

(in thousands of Korean won)	Ir	Impact on post-tax profit				Impact on equity			
	2021		2020		2021		2020		
Increase	₩	238,082	₩	(517,774)	₩	238,082	₩	(517,774)	
Decrease		(238,082)		517,774		(238,082)		517,774	

4.1.2 Credit Risk

The Group has four types of financial assets that are subject to the expected credit loss model:

- · trade receivables, other receivables at amortized cost and contract assets
- other financial assets at amortized cost
- debt instruments at fair value through other comprehensive income
- lease receivables that is within the scope of Korean IFRS 1116

While lease receivables and cash equivalents are subject to the impairment requirement, the identified expected credit losses were not material.

(a) Trade receivables, other receivables and contract assets

To measure the expected credit losses which is inclusive of forward looking information, the Group has grouped its trade receivables, other receivables and contract assets based on shared credit risk characteristics and the days past due. On that basis, the loss allowance as at December 31, 2021 and 2020, was determined as follows for trade receivables, other receivables and contract assets:

(in thousands of Korean won)	2021								
	6 m	ess than onths past and within due		lore than onths past due		e than 1 year past due	Weighted average loss rate /Total		
Trade and other receivables									
Expected loss rate		0.16%		84.77%		99.80%		1.05%	
Gross carrying amount	₩ 1,	315,378,644	₩	1,206,483	₩	10,750,835	₩ 1	,327,335,962	
Loss allowance provision	₩	2,164,724	₩	1,022,776	₩	10,729,579	₩	13,917,079	
Contract assets									
Expected loss rate		-		-		-		-	
Gross carrying amount	₩	4,127,156	₩	-	₩	-	₩	4,127,156	
Loss allowance provision	₩	-	₩	-	₩	-	₩	-	

(in thousands of Korean won)	2020							
	Less than 6 months past More than due and within 6 months past due due		More than 1 year past due		Weighted average loss rate /Total			
Trade and other receivables								
Expected loss rate		0.10%		50.64%		99.75%		1.05 %
Gross carrying amount	₩	982,663,442	₩	1,687,299	₩	8,609,759	₩	992,960,500
Loss allowance provision	₩	937,604	₩	854,422	₩	8,587,946	₩	10,379,972

The loss allowance as at December 31, 2020 was determined as follows for trade receivables, other receivables, and contract assets classified as assets held for sale:

(in thousands of Korean won)	2020								
, , ,		Less than 6 months past due and within due		More than 6 months past due		More than 1 year past due		Weighted average loss rate /Total	
Trade and other receivables									
Expected loss rate		0.38%		20.96%		29.65%		1.57%	
Gross carrying amount	₩	615,283,542	₩	7,049,757	₩	21,150,524	₩	643,483,823	
Loss allowance provision	₩	2,328,249	₩	1,477,842	₩	6,271,949	₩	10,078,040	
Contract assets									
Expected loss rate		0.09%		0.00%		0.00%		0.09%	
Gross carrying amount	₩	2,325,787	₩	-	₩	-	₩	2,325,787	
Loss allowance provision	₩	1,994	₩	-	₩	-	₩	1,994	

Movements in the loss allowance provision for trade receivables and other receivables for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021	2020	
Beginning balance	₩	10,379,972	₩	16,104,061
Increase in loss allowance recognized in profit or loss during the year ¹		5,258,974		5,549,967
Receivables written off during the year as uncollectible		(292,755)		(1,300,176)
Other increases/decreases ²		(1,429,112)		104,160
Ending balance	₩	13,917,079	₩	20,458,012
Balance in the consolidated statement of financial position	₩	13,917,079	₩	10,379,972
Amount classified as assets held for sale		-		10,078,040

 $^{^{1}}$ Includes increase in loss allowance recognized in profit or loss in relation to discontinued operations amounting to \forall 1,468 million and \forall 4,013 million during the years ended December 31, 2021 and 2020.

The entire movement in loss allowance of contract assets for the year ended December 31, 2020, were recognized as profit or loss and related to discontinued operations.

The amounts recognized in profit or loss as 'operating expenses' in relation to impaired receivables for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021		2020
Impairment loss				
Movement in loss allowance ¹	₩	5,258,974	₩	5,549,967

¹ Includes amount recognized in profit or loss in relation to discontinued operations amounting to ₩ 1,468 million and ₩ 4,013 million during the years ended December 31, 2021 and 2020.

² Include increases/decreases due to changes in scope of consolidation.

(b) Other financial assets at amortized cost

Other financial assets at amortized cost include long and short-term financial instruments, such as time deposits, and other receivables.

Movements in loss allowance provision for other financial assets at amortized cost for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021	2020		
Beginning balance	₩	1,436,498	₩	1,786,984	
Increase in loss allowance recognized in profit or loss during the year ¹		1,584,573		20,095,031	
Other increases/decreases ²		(1,462,171)		(1,059,367)	
Ending balance	₩	1,558,900	₩	20,822,648	
Balance in the consolidated statement of financial position	₩	1,558,900	₩	1,436,498	
Amount classified as assets held for sale		-		19,386,150	

¹ Includes increase in loss allowance recognized in profit or loss in relation to discontinued operations amounting to ₩ 1,322 million and ₩ 19,680 million during the years ended December 31, 2021 and 2020.

All of these financial assets measured at amortized cost are considered to have low credit risk, and their loss allowance provision are recognized as 12 months expected losses during the year. The Group considers the credit risk to be low when they have a low risk of default and the issuer has a sufficient capability to meet contractual cash flow obligations in the near term.

² Include increases/decreases due to changes in scope of consolidation.

(c) Debt instruments at fair value - other comprehensive income

Debt instruments at fair value - other comprehensive income are corporate bonds. The loss allowance provision for debt instruments at fair value - other comprehensive income is recognized in profit or loss and reduces the fair value loss otherwise recognized in other comprehensive income.

Movements in loss allowance provision for debt instruments at fair value - other comprehensive income for years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021	2020		
Beginning balance	₩	-	₩	293,249	
Increase in loss allowance recognized in profit or loss during the year ¹		(50,659)		(177,977)	
Other increases/decreases ²		50,659		7,202	
Ending balance	₩	-	₩	122,474	
Balance in the consolidated statement of financial position	₩	-	₩	-	
Amount classified as assets held for sale		-		122,474	

¹ Includes reversal of loss allowance recognized in profit or loss in relation to discontinued operations during the years ended December 31, 2021 and 2020.

All of these financial assets are considered to have low credit risk, and thus the loss allowance provision recognized was limited to 12 months expected credit losses during the year. The Group considers the credit risk to be low when the risk of default is low and the issuer has sufficient capability to meet contractual cash flow obligations in the near term.

(d) Financial assets at fair value - through profit or loss

The Group is exposed to credit risk from financial assets at fair value – through profit or loss. The maximum exposure is the carrying amount of these assets as at December 31, 2021 and 2020.

² Include increases/decreases due to changes in scope of consolidation.

(e) Impairment loss

Impairment losses recognized in profit or loss in relation to impaired financial assets for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021	2020		
Trade receivables and other receivables Other financial assets at amortized cost Financial assets at fair value - other comprehensive income	₩	5,258,974 1,584,573 (50,659)	₩	5,549,967 20,095,031 (177,977)	
Net impairment loss	₩	6,792,888	₩	25,467,021	

Includes impairment losses in relation to impaired financial assets of discontinued operations amounting to \forall 2,739 million and \forall 23,515 million during the years ended December 31, 2021 and 2020.

4.1.3 Liquidity Risk

The Group monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times so that the Group does not breach borrowing limits or covenants (where applicable) on any of its borrowing facilities. Such forecasting takes into consideration the Group's debt financing plans, covenant compliance, and external regulatory or legal requirements on internal financial ratio targets and currency restrictions. As at December 31, 2021, the Group has borrowing agreements with a limit of \forall 1,679,998 million and JPY 151,679 million and \$ 2,400 thousand for managing liquidity risk (Note 31).

Details of the Group's liquidity risk analysis as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean

won)		2021									
	Book amount			Contractual cash flow		Less than 1 years	1	Between and 5 years			
Financial liabilities											
Trade and other payables ¹	₩	709,450,242	₩	709,450,242	₩	665,155,975	₩	44,294,267			
Borrowings		2,013,335,844		2,064,344,786		486,189,784		1,578,155,003			
Debentures		1,636,827,464		1,733,197,183		24,411,892		1,708,785,291			
Lease liabilities Financial liabilities at fair		311,277,707		324,155,740		106,975,078		217,180,662			
value - profit or loss		508,994,105		508,994,105		-		508,994,105			
Other current liabilities		1,334,975,436		1,334,975,436		1,334,975,436		-			
Financial guarantee contract		-		72,146,598		72,146,598					
	₩	6,514,860,798	₩	6,747,264,090	₩	2,689,854,763	₩	4,057,409,328			
Off-balance sheet account ²	₩	-	₩	50,205,600	₩	50,205,600	₩	-			

¹ Accrued expense related to labor costs are not included.

(in thousands of Korean won)

Korean won)						2020				
	D.	ook amount		Contractual cash flow		Less than 1 years	1	Between and 5 years	0	ver 5 years
	ъ,	ook allioulit		Casil llow		i years		and 5 years	Ū	ver o years
Trade and other payables ¹	₩	471,803,720	₩	471,803,720	₩	449,479,373	₩	22,324,347	₩	_
Borrowings		726,901,586		751,635,043		599,055,224		152,579,819		-
Lease liabilities Financial liabilities at fair value - profit or		145,516,458		152,486,364		54,177,371		97,592,483		716,510
loss Other current		25,099,906		25,099,906		17,137,641		7,962,265		-
liabilities Financial guarantee		1,056,295,290		1,056,295,290		1,056,295,290		-		-
contract		-		9,410,308		9,410,308		-		
	₩ :	2,425,616,960	₩	2,466,730,631	₩	2,185,555,207	₩	280,458,914	₩	716,510

¹ Accrued expense related to labor costs are not included.

² The Group entered in a loan agreement related to the deferred payment service, and the limit for the unused portion (off-balance sheet account) amount to \forall 50,206 million as at December 31, 2021. Off-balance sheet account was included in the 'less than 1 years' category, the earliest period in which payments can be made upon request (Note 31).

Details of the Group's liquidity risk analysis in relation with liabilities classified as held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)						2020				
,	Book amount			Contractual cash flow		Less than 1 years	Between 1 and 5 years		Over 5 years	
Trade and other payables ¹	₩	762,495,429	₩	762,495,429	₩	761,985,657	₩	509,772	₩	-
Borrowings		1,886,874,300		1,909,119,082		1,183,327,704		725,791,378		-
Debentures		5,690,291		5,690,291		-		-		-
Lease liabilities Financial liabilities at fair value - profit or		681,511,570		776,542,787		129,099,040		314,995,850		332,447,897
loss		999,955		999,955		999,955		-		-
Other current										
liabilities		113,846,507		113,846,507		113,846,507				
	₩	3,451,418,052	₩	3,568,694,051	₩	2,189,258,863	₩	1,041,297,000	₩	338,138,188

¹ Accrued expense related to labor costs are not included.

4.2 Capital Risk Management

The Group's objectives when managing capital are to safeguard to maintain a sound capital structure. The Group uses debt to equity ratio for capital management. This ratio is calculated as total debt divided by total equity as shown in the consolidated statements of financial position.

The Group's gearing ratio as at December 31, 2021 and 2020, is as follows:

(in thousands of Korean won)	:		2020	
Total debt	₩ 9,	663,630,408	₩	8,759,106,629
Total equity	24,	027,376,349		8,255,132,035
Gearing ratio		40.22%		106.10%

5. Fair Value

5.1 Financial Instruments Measured at Fair Value

Details of financial instruments measured at fair value as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	20	21	2020					
	Book amount	Fair value	Book amount	Fair value				
Financial assets								
Financial assets at fair value - profit or loss	₩ 2,869,657,798	₩ 2,869,657,798	₩ 2,724,323,336	₩ 2,724,323,336				
Financial assets at fair value - other comprehensive income	2,123,487,492	2,123,487,492	1,330,951,990	1,330,951,990				
	₩ 4,993,145,290	₩ 4,993,145,290	₩ 4,055,275,326	₩ 4,055,275,326				
Financial liabilities								
Financial liabilities at fair value - profit or loss	₩ 508,994,105	₩ 508,994,105	₩ 25,099,906	₩ 25,099,906				

The financial assets and liabilities whose book amounts are reasonable approximations of fair value are excluded from the fair value disclosures.

5.2 Fair Value Hierarchy

To provide an indication about the reliability of the inputs used in determining fair value, the Group classifies its financial instruments into the three levels prescribed under the accounting standards. Financial instruments that are measured at fair value are categorized by the fair value hierarchy, and the defined levels are as follows:

- Level 1: The fair value of financial instruments traded in active markets (e.g. publicly traded derivatives and equity securities) is based on quoted market prices at the end of the reporting period. The quoted marked price used for financial assets held by the Group is the current bid price. These instruments are included in level 1.
- Level 2: The fair value of financial instruments that are not traded in an active market (e.g. unlisted derivatives) is determined using valuation techniques which maximize the use of observable market data 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.
- Level 3: If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3.

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

(in thousands of Korean won)				20:	21	
		Level 1		Level 2	Level 3	Total
Financial assets						
Financial assets at fair value - profit or loss	₩	30,552,177	₩	436,996,770	₩ 2,402,108,851	₩ 2,869,657,798
Equity instruments at fair value - other comprehensive						
income	1	,896,968,892		-	226,518,601	2,123,487,492
Financial liabilities Financial liabilities at fair						
value - profit or loss		-		-	508,994,105	508,994,105
(in thousands of Korean won)				20:	20	
		Level 1		Level 2	Level 3	Total
Financial assets						
Financial assets at fair value - profit or loss	₩	24,117,384	₩	898,821,711	₩ 1,801,384,241	₩ 2,724,323,336
Equity instruments at fair value - other comprehensive						
income	1	,279,220,720		-	51,731,270	1,330,951,990
Financial liabilities Financial liabilities at fair						
value - profit or loss		-		-	25,099,906	25,099,906

The following table presents the Group's financial assets and financial liabilities classified as assets and liabilities held for sale as at December 31, 2020:

(in thousands of Korean won)	2020								
		Level 1			Level 2		Level 3		Total
Financial assets									
Financial assets at fair value - profit or loss	₩	-	٧	₩	35,106,733	₩	198,695,507	₩	233,802,240
Debt instruments at fair value - other comprehensive income		_			76,288,580		467.037		76,755,617
Equity instruments at fair value - other comprehensive income		1,078,048			70,200,000		29,142,772		30,220,820
Financial liabilities		1,070,040					23,142,112		30,220,020
Financial liabilities at fair value - profit or loss		999,955			-		-		999,955

5.3 Transfers between Fair Value Hierarchy Levels of Recurring Fair Value Measurements

The Group recognizes transfers between levels of the fair value at the end of the reporting period. There were no transfers between level 1 and level 2 for recurring fair value measurements during the year ended December 31, 2021.

Changes in level 3 for recurring fair value measurements for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of			2021						2020		
Korean won)	Financial assets at fair value - profit or loss	٧	Financial ssets at fair alue - other mprehensive income	ı	Derivatives liabilities	á	nancial assets at fair value - profit or loss	as va	Financial sets at fair alue - other nprehensive income		erivatives liabilities
Beginning balance	₩ 2,000,079,748	₩	81,341,079	₩	25,099,906	₩	1,207,100,494	₩	72,892,409	₩	8,339,735
Total profit or loss Amounts recognized in profit or loss ¹ Amounts recognized in other comprehensive income ²	476,832,601		- 82,341,611		97,411,430		372,698,556		11,966,199		2,748,532
Acquisitions, borrowings	701,400,834		90,960,148		386,482,769		461,762,517		13,178,955		16,998,065
Disposals, repayments	(489,933,831)		(18,000,226)		-		(28,429,066)		(5,494,295)		-
Others ³	(65,602,716)		23,063,767		_		(6,140,862)		(10,684,958)		_
Transfer into Level 1	(19,406,782)		(3,232,665)		-		-		-		-
Exchange differences	(880,199)		(179,527)		=		(6,911,891)		(517,231)		(2,986,426)
Sale of disposal group ⁴	(200,380,804)		(29,775,587)		-		-		-		-
Ending balance	₩ 2,402,108,852	₩	226,518,601	₩	508,994,105	₩	2,000,079,748	₩	81,341,079	₩	25,099,906
Balance in the consolidated statement of financial position Amount classified as assets and liabilities	₩ 2,402,108,852	₩	226,518,601	₩	508,994,105	₩	1,801,384,241	₩	51,731,270	₩	25,099,906
held for sale	-		-		-		198,695,507		29,609,809		-

¹ Includes amounts recognized in profit or loss in relation to discontinued operations amounting to \forall 402 million and \forall 4,371 million during the years ended December 31, 2021 and 2020.

 $^{^2}$ Includes amounts recognized in other comprehensive income in relation to discontinued operations amounting to \forall 344 million and \forall 4,091 million during the years ended December 31, 2021 and 2020.

³ Includes decrease in principal due to dividend distribution and reclassifications arising from changes in ownership of financial assets held at fair value.

⁴ Financial assets at fair value - profit or loss and financial assets at fair value - other comprehensive income classified as assets held for sale as at December 31, 2020, were included in the sale of disposal group and disposed during the year ended December 31, 2021.

5.4 Valuation Techniques and the Inputs

Valuation techniques and inputs used in the fair value measurements of major financial instruments that are categorized as levels 2 and level 3 of the fair value hierarchy as at December 31, 2021 and 2020, are as follows:

(in thousands of				2021		
Korean won)	Fair value	Level	Valuation techniques	Major inputs	Unobservable inputs	Range of unobservable inputs
Compound financial instruments	₩ 1,255,932,001	3	Option pricing model	Underlying asset price, volatility of underlying asset	Volatility of the underlying assets	12.30% ~ 68.16%
			Market approach and	PBR, EV/SALES, PSR,	EV/SALES	1.00 ~ 15.54
			others	recent transaction	PSR	0.57 ~ 21.03
				price, net asset value	PER	26.41
					PBR	1.72 ~ 21.54
			Present value method	Credit risk adjusted discount rate	Discount rate	13.44% ~21.67%
Beneficiary certificates and funds	19,908,636	2	Present value method	Credit risk adjusted discount rate	-	-
Beneficiary certificates and funds	1,146,176,850	3	Market approach and others	Underlying asset price	1	1
Debt securities	416,634,915	2	Present value method	Credit risk adjusted discount rate	-	-
Derivatives	453,219	2	Present value method, option pricing model	Forward exchange rate, contract exchange rate	-	-
Equity securities	226,518,601	3	Present value method,	EV/SALES, PSR, etc.	EV/SALES	2.63 ~ 13.69
			market approach		PSR	1.21 ~ 4.27
Derivatives	508,994,105	3	Option pricing model	Volatility of underlying asset	Volatility of underlying asset	32.68%~39.34%
					Discount rate	15.07% ~ 17.23%

¹ Various inputs are used in the measurements of underlying asset price and thus, further disclosure has not been provided.

(in thousands of				20	20		
Korean won)						Unobservable	Range of unobservable
	Fair v	/alue	Level	Valuation techniques	Major inputs	inputs	inputs
	Continuing operations	Discontinued operations					
Financial assets at fair	value - profit or lo	ess					
Compound financial instruments	₩ 1,093,394,279	₩ 93,395,569	3	Option pricing model	Underlying asset price, volatility of underlying asset	Volatility of the underlying assets	24.50% ~ 115.70%
				Market approach and	PBR, EV/SALES, PSR,	PBR	1.19 ~ 11.70
				others	recent transaction price,	EV/SALES	1.30 ~ 20.12
					net asset value	PSR	0.44 ~ 11.20
				Present value method	Credit risk adjusted discount rate	Discount rate	10.82% ~16.90%
Beneficiary certificates and funds	16,623,508	34,105,876	2	Present value method	Credit risk adjusted discount rate	-	-
Beneficiary certificates and funds	707,989,962	105,299,938	3	Market approach and others	Underlying asset price	1	1
Debt securities	882,198,203	1,000,000	2	Present value method	Credit risk adjusted discount rate	-	-
Derivatives	-	857	2	Present value method, option pricing model	Forward exchange rate, contract exchange rate	-	-
Debt instruments at fa	ir value – other cor	mprehensive inco	me				
Debt securities	-	76,288,580	2	Present value method	Credit risk adjusted discount rate, recent transaction price	-	-
Debt securities	-	467,037	3	Present value method	-	-	-
Equity instruments at	fair value – other c	omprehensive inc	ome				
Equity securities	51,731,270	29,142,772	3	Present value method,	EV/SALES, PSR, etc.	EV/SALES	1.93 ~ 11.10
				market approach		PSR	1.28 ~ 5.3
Financial liabilities at f	air value - profit or	loss					
Derivatives	25,099,906	-	3	Option pricing model	Volatility of underlying asset	Volatility of underlying asset	27.82%~32.17%

¹ Various inputs are used in the measurements of underlying asset price and thus, further disclosure has not been provided.

5.5 Valuation Processes for Fair Value Measurements Categorized Within Level 3

The Group's investment management team and treasury team performs the fair value measurements required for financial reporting purposes, including level 3 fair values. These teams report directly to the chief financial officer ("CFO"). Discussions of valuation processes and results are held between the CFO and these teams at least once every quarter, in line with the Group's quarterly reporting schedule.

5.6 Sensitivity Analysis for Recurring Fair Value Measurements Categorized Within Level 3

Sensitivity analysis of financial instruments is performed to measure 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 amounts represent the most favorable or most unfavorable.

The results of the sensitivity analysis for the effect on profit or loss from changes in inputs for each financial instrument, which is categorized within Level 3 and subject to sensitivity analysis, are as follows:

(in thousands of Korean won)	2021										
	Favorabl	e changes	Unfavorable changes								
	Profit or loss	Equity	Profit or loss	Equity							
Financial assets											
Unlisted equity securities ¹	₩ 31,572,356	32,654,199	₩ (31,137,829)	₩ (32,216,531)							
Financial liabilities											
Derivatives ²	2,451,075	2,451,075	(3,490,904)	(3,490,904)							
(in thousands of Korean won)		2	020								
	Favorabl	e changes	Unfavorab	le changes							
	Profit or loss	Equity	Profit or loss	Equity							
Financial assets											
Unlisted equity securities ¹	₩ 51,402,829	9 ₩ 38,928,074	₩ (47,316,421)	₩ (38,760,661)							
Financial liabilities											
Derivatives ²	1,293,722	1,293,722	(1,688,400)	(1,688,400)							

¹ For unlisted equity securities, changes in their fair value are calculated by increasing or decreasing the discount rate, which is significant unobservable inputs, by 1%, and by increasing or decreasing the volatility of underlying assets, PBR, EV/SALES, PSR and others, which are significant unobservable inputs, by 10%. For compound financial instruments, it is calculated by changing the price of underlying asset used for valuation (identical method for unlisted shares) and increasing or decreasing the volatility of the underlying asset price by 10%.

² It is calculated by increasing or decreasing the volatility of the underlying asset price of financial liabilities valuation by 10%.

6. Financial Instruments by Category

6.1 Carrying Amounts of Financial Instruments by Category

Categorizations of financial assets and liabilities as at December 31, 2021 and 2020, are as follows:

(a) Financial assets

(in thousands of Korean won) 2021 **Financial assets** at fair value -Financial assets other **Financial assets** at fair value comprehensive at amortized Other financial assets1 Total profit or loss income cost Cash and cash equivalents² - ₩ ₩ 2,781,395,544 ₩ ₩ 2,781,395,544 Long and short-term financial instruments3 687,811,461 687,811,461 Financial assets at fair value - profit or loss 2,869,657,798 2,869,657,798 Trade and other receivables 1,494,031,452 7,016,432 1,501,047,884 Financial assets at fair value - other comprehensive income 2,123,487,492 2,123,487,492 ₩ 2,869,657,798 ₩ 2,123,487,492 ₩ 4,963,238,457 ₩ 7,016,432 ₩ 9,963,400,179

¹ Other financial assets represent lease receivables, which are not subject to financial instruments categorization.

² Deposits amounting to ₩ 91,496 million are deposited in Shinhan Bank's trust and managed for the purpose of users on advance payments.

³ As at December 31, 2021, long and short-term financial instruments amounting to ₩ 13,760 million are restricted as deposits for shared corporate growth program, ₩ 500 million are pledged for restoration of leasehold facilities and ₩ 37,200 million are restricted for the borrowings for the Group's employees. In addition, long and short-term financial instruments amounting to ₩ 4,600 million are pledged to Shinhan bank for payment guarantees in relation to Naver Pay service and others, and ₩ 300 million are pledged to Nonghyup bank for the credit line with Nonghyup Card.

(in thousands of Korean won)			2020		
	Financial assets at fair value - profit or loss	Financial assets at fair value - other comprehensive income	Financial assets at amortized cost	Other financial assets ¹	Total
Cash and cash equivalents ² Long and short-term financial instruments ³ Financial assets at fair value - profit or loss	₩ - - 2,724,323,336	₩ -	₩ 1,600,304,350 305,547,865	₩ - -	₩ 1,600,304,350 305,547,865 2,724,323,336
Trade and other receivables Financial assets at fair value - other comprehensive	-	-	1,015,339,530	64,717	1,015,404,247
income	<u>-</u> ₩ 2,724,323,336	1,330,951,990 ₩ 1,330,951,990	—————————————————————————————————————	- ₩ 64,717	1,330,951,990 ₩ 6,976,531,788

¹ Other financial assets represent lease receivables, which are not subject to financial instruments categorization.

 $^{^2}$ Deposits amounting to \forall 57,614 million are deposited in Shinhan Bank's trust for the purpose of protecting users on advance payments.

³ As at December 31, 2020, long and short-term financial instruments amounting to ₩ 13,760 million are restricted as deposits for shared corporate growth program, ₩ 500 million are pledged for restoration of leasehold facilities and ₩ 4,000 million are restricted for the borrowings for the Group's employees. In addition, long and short-term financial instruments amounting to ₩ 3,100 million are pledged to Shinhan bank for payment guarantees in relation to Naver Pay service and others, and ₩ 300 million are pledged to Nonghyup bank for the credit line with Nonghyup Card.

(b) Financial liabilities

(in thousands of Korean won)	2021			
		l liabilities at fair - profit or loss		ncial liabilities mortized cost
Trade and other payables	₩	-	₩	709,450,242
Financial liabilities at fair value - profit or loss		508,994,105		-
Borrowings		-		2,013,335,844
Debentures		-	₩	1,636,827,464
Other current liabilities				1,334,975,436
	₩	508,994,105		5,694,588,986
(in thousands of Korean won)		2020		
				ncial liabilities mortized cost
Trade and other payables	₩	-	₩	471,803,720
Financial liabilities at fair value - profit or loss		25,099,906		-
Borrowings		-		726,901,586
Other current liabilities				1,056,295,290
	₩	25,099,906	₩	2,255,000,596

Financial instruments classified as assets and liabilities held for sale as at December 31, 2020, are as follows:

(a) Financial assets

(in thousands of Korean won)					2020				
	a	ancial assets t fair value - rofit or loss	а	nancial assets at fair value - other omprehensive income	Financial assets at amortized cost	0	ther financial assets¹		Total
Cash and cash equivalents ² Long and short-term financial	₩	-	₩	-	₩ 2,245,363,414	₩	-	₩	2,245,363,414
instruments ³ Financial assets at fair value		-		-	80,220,073		-		80,220,073
- profit or loss		233,802,240		-	-		-		233,802,240
Trade and other receivables Financial assets at fair value - other comprehensive		-		-	998,001,011		60,237		998,061,248
income		-		106,976,437	-		-		106,976,437
Other current assets		-		-	180,407,526				180,407,526
	₩	233,802,240	₩	106,976,437	₩ 3,503,992,024	₩	60,237	₩	3,844,830,938

¹ Other financial assets represent lease receivables, which are not subject to financial instruments categorization.

(b) Financial liabilities

(in thousands of Korean won)	2020						
	Financial liabilities at fair value - profit or loss						ncial liabilities mortized cost
Trade and other payables	₩	-	₩	762,495,429			
Financial liabilities at fair value - profit or loss		999,955		-			
Borrowings		-		1,886,874,300			
Debentures		-		5,690,291			
Other current liabilities				113,846,507			
	₩	999,955	₩	2,768,906,527			

² As at December 31, 2020, cash and cash equivalent amounting to ₩ 1,054 million are restricted for the payment guarantee related to LINE Securities.

³ As at December 31, 2020, long and short-term financial instruments amounting to \forall 2,100 million are restricted for the borrowings for the Group's employees and \forall 1,887 million are restricted for the payment guarantee related to Line Pay service. In addition, \forall 2,953 million of long and short-term financial instrument are pledged for the business of LINE, a subsidiary of the Group (Note 31).

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)		2021 ¹	2020 ¹		
Financial asset at fair value - profit or loss					
Interest income	₩	10,289,312	₩	11,990,341	
Foreign exchange loss		(59,974)		(4,016,783)	
Gain on valuation		469,615,391		369,247,803	
Gain on disposal		20,020,153		14,422,629	
Gain (loss) on derivative trading		661,669		(5,479,420)	
Dividend income		58,739,656		17,323,670	
Financial asset at fair value - other		23,: 33,333		,0_0,0.0	
comprehensive income					
Interest income		825,820		1,916,806	
Dividend income		11,527,395		12,380,491	
Foreign exchange gain		481,236		6,154,415	
Reversal of impairment loss		102,108		177,977	
Gain (loss) on valuation - other comprehensive		(04.070.540)		407 700 040	
income		(91,270,518)		167,720,018	
Loss on disposal - profit or loss		(331,868)		(38,569)	
Gain on disposal (adjustment for reclassification)		21,602,410		37,778,485	
Financial assets at amortized cost					
Interest income		9,017,624		4,725,195	
Impairment loss		(6,458,908)		(12,754,277)	
Other impairment loss		(2,714,256)		(12,890,721)	
Foreign exchange loss		(62,610,065)		(18,382,529)	
Financial liabilities at fair value - profit or loss					
Loss on valuation		(97,069,620)		(2,047,128)	
Foreign exchange loss		(37,132)		(6,519,380)	
Financial liabilities at amortized cost					
Interest expense		(43,505,183)		(27,441,459)	
Foreign exchange gain (loss)		40,244,201		(9,181,252)	

¹ Includes amount classified as discontinued operations amounting to ₩ 113 million profits and ₩ 28,810 million losses in relation to net profit or losses on each category of financial instruments during the years ended December 31, 2021 and 2020.

7. Financial Assets

7.1 Financial Assets at Fair Value - Profit or Loss

(a) Financial assets at fair value - profit or loss

The consolidated statement of financial position shows the following amounts relating to financial assets at fair value - profit or loss from continuing operations:

(in thousands of Korean won)		2021		2020
Non-current				
Compound financial instruments and equity securities	₩	1,261,240,507	₩	1,093,394,279
Beneficiary certificates and funds		1,146,176,850		707,989,962
Derivatives		307,663		<u>-</u>
		2,407,725,020		1,801,384,241
Current				
Compound financial instruments and equity securities		25,243,670		24,117,384
Beneficiary certificates and funds, and others		19,908,636		16,623,508
Debt securities		416,634,915		882,198,203
Derivatives		145,557		
		461,932,778		922,939,095
_	₩	2,869,657,798	₩	2,724,323,336

The consolidated statement of financial position shows following amounts as the assets held for sale relating to financial assets at fair value - profit or loss:

(in thousands of Korean won)	2020		
Non-current			
Compound financial instruments and equity securities	₩	93,395,569	
Beneficiary certificates and funds		139,405,814	
		232,801,383	
Current			
Debt securities		1,000,000	
Derivatives		857	
		1,000,857	
	₩	233,802,240	

(b) Amounts recognized in profit or loss

Amounts recognized in profit or loss for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021 ¹		2020 ¹
Compound financial instruments and equity securities	₩	186,311,996	₩	220,302,005
Beneficiary certificates and funds		297,879,735		148,831,589
Debt securities		3,795,132		6,741,002
Derivatives		909,389		25,181
Others		1,340,988		(1,725,548)
	₩	490,237,240	₩	374,174,229

¹ Includes amount classified as discontinued operations amounting to ₩ 1,828 million profits and ₩ 5,952 million losses in relation to financial assets at fair value - profit or loss during the years ended December 31, 2021 and 2020 and above profit or loss does not include Interest and dividend income.

7.2 Financial Assets at Fair Value - Other Comprehensive Income

(a) Equity instruments at fair value - other comprehensive income

Equity instruments at fair value – other comprehensive income as at December 31, 2021 and 2020, are comprised as follows:

(in thousands of Korean won)		2021		2020
Listed equity securities	₩	1,896,968,891	₩	1,279,220,720
Unlisted equity securities		226,518,600		51,731,270
	₩	2,123,487,491	₩	1,330,951,990

Equity instruments at fair value – other comprehensive income from discontinued operations are comprised as follows:

(in thousands of Korean won)		2020		
Listed equity securities	₩	1,078,048		
Unlisted equity securities	<u> </u>	29,142,772		
	₩	30,220,820		

Upon disposal of these equity instruments, any balance within the accumulated other comprehensive income for these equity instruments is reclassified to retained earnings, and is not reclassified to profit or loss.

(b) Debt instruments at fair value - other comprehensive income

There are no debt instruments at fair value – other comprehensive income from continuing operations as at December 31, 2021 and 2020, and debt instruments at fair value – other comprehensive income from discontinued operations as at December 31, 2020, are comprised as follows:

(in thousands of Korean won)		2020		
Corporate bonds	₩	76,878,091		
Less: provision for impairment		(122,474)		
	₩	76,755,617		

Upon disposal of these debt instruments, any balance within the accumulated other comprehensive income for these debt instruments is reclassified to profit or loss.

7.3 Trade Receivables and Other Financial Assets at Amortized Cost

(a) Trade and other receivables

The consolidated statement of financial position shows the following amounts relating to trade and other receivables as at December 31, 2021 and 2020:

(in thousands of Korean won)		2021		2020
Trade receivables	₩	423,682,585	₩	339,569,837
Other receivables		903,653,377		653,390,663
Less: provision for impairment		(13,917,079)		(10,379,972)
Trade and other receivables - net	₩	1,313,418,883	₩	982,580,528

The consolidated statement of financial position shows following amounts as the assets held for sale relating to trade and other receivables as at December 31, 2020:

(in thousands of Korean won)	2020		
Trade receivables	₩	423,568,093	
Other receivables		219,915,730	
Less: provision for impairment		(10,078,040)	
Trade and other receivables - net	₩	633,405,783	

(b) Other financial assets at amortized cost

The consolidated statement of financial position shows the following amounts relating to other financial assets at amortized cost from continuing operations:

(in thousands of Korean won)				2021		
		Current	No	on-current		Total
Cash equivalents	₩	2,781,395,544	₩	-	₩	2,781,395,544
Time deposits		673,648,409		14,260,000		687,908,409
Loans		126,751,627		560,000		127,311,627
Accrued income		1,317,907		-		1,317,907
Leasehold deposits		14,916,968		38,528,019		53,444,987
Other financial assets ¹		4,717,234		2,299,198		7,016,432
		3,602,747,689		55,647,217		3,658,394,906
Less: provision for impairment		(1,554,622)		(4,278)		(1,558,900)
	₩	3,601,193,067	₩	55,642,939	₩	3,656,836,006
(in thousands of Korean won)				2020		
(in thousands of Korean won)		Current	No	2020 on-current		Total
(in thousands of Korean won) Cash equivalents	₩	Current 1,600,304,350	No		₩	Total 1,600,304,350
,	₩				₩	
Cash equivalents	₩	1,600,304,350		on-current -	₩	1,600,304,350
Cash equivalents Time deposits	₩	1,600,304,350 291,324,363		- 14,260,000	₩	1,600,304,350 305,584,363
Cash equivalents Time deposits Loans	₩	1,600,304,350 291,324,363 1,700,000		- 14,260,000	₩	1,600,304,350 305,584,363 2,220,000
Cash equivalents Time deposits Loans Accrued income	₩	1,600,304,350 291,324,363 1,700,000 1,373,756		- 14,260,000 520,000	₩	1,600,304,350 305,584,363 2,220,000 1,373,756
Cash equivalents Time deposits Loans Accrued income Leasehold deposits	₩	1,600,304,350 291,324,363 1,700,000 1,373,756 2,546,799		- 14,260,000 520,000 - 28,018,447	₩	1,600,304,350 305,584,363 2,220,000 1,373,756 30,565,246
Cash equivalents Time deposits Loans Accrued income Leasehold deposits	₩	1,600,304,350 291,324,363 1,700,000 1,373,756 2,546,799 24,940		- 14,260,000 520,000 - 28,018,447 39,777	₩	1,600,304,350 305,584,363 2,220,000 1,373,756 30,565,246 64,717

¹ Lease receivables

The consolidated statement of financial position shows following amounts as the assets held for sale relating to other financial assets at amortized cost as at December 31, 2020:

(in thousands of Korean won)	2020							
		Current		Non-current		Total		
Cook og vivolente	₩	0.045.000.444	₩		₩	2 245 262 444		
Cash equivalents	۷V	2,245,363,414	VV	-	۷V	2,245,363,414		
Time deposits		77,898,702		106,343		78,005,045		
Government bonds		1,581,687		633,342		2,215,029		
Loans		206,254,571		368,110		206,622,681		
Accrued income		4,106,723		-		4,106,723		
Leasehold deposits		74,705,939		98,546,034		173,251,973		
Other current assets		180,407,526				180,407,526		
Other financial assets		60,237				60,237		
		2,790,378,799		99,653,829		2,890,032,628		
Less: provision for impairment		(19,386,150)				(19,386,150)		
	₩	2,770,992,649	₩	99,653,829	₩	2,870,646,478		

(c) Impairment

See Note 4 for the impairment of trade receivables and other financial assets at amortized cost and the Group's exposure to credit risk.

8. Contract Assets and Liabilities

(a) Contract assets and liabilities

The contract assets and liabilities that the Group recognizes as at December 31, 2021 and 2020, are as follows.

The Group changed the classification of operating information by service types during year ended December 31, 2020.

(in thousands of Korean won)		2021 ¹		2020 ¹
Contents	₩	4,127,156	₩	<u>-</u>
Total contract assets	₩	4,127,156	₩	
Customer loyalty programs	₩	30,310,467	₩	22,156,267
Contracts related to search platform service		136,535,793		107,601,934
Contracts related to commerce service		41,140,608		29,293,889
Contracts related to contents service		91,211,744		35,978,811
Contracts related to fin-tech service		27,790,410		25,576,039
Total contract liabilities	₩	326,989,021	₩	220,606,940

¹ Contract assets are included in other assets. Contract liabilities consist of advances from customers, unearned revenues and withholdings, and they are included in other liabilities.

The consolidated statement of financial position shows following amounts as the assets and liabilities held for sale relating to contract assets and liabilities as at December 31, 2020:

(in thousands of Korean won)		2020 ¹
Contract assets related LINE Sticker	₩	2,062,682
Contract assets related to advertisement service		261,111
Total contract assets	₩	2,323,793
Contracts related to LINE & other platform services	₩	279,444,653
Total contract liabilities	₩	279,444,653

¹ Contract liabilities consist of advances from customers, unearned revenues and withholdings, and they are included in other liabilities.

(b) Revenue recognized in relation to contract liabilities

The following table shows how much of the revenue recognized for the years ended December 31, 2021 and 2020, related to carried-forward contract liabilities.

(in thousands of Korean won)		2021		2020
Revenue recognized during the current year that was included in the contract liability balance at the beginning of the year				
Customer loyalty programs	₩	22,156,267	₩	11,328,753
Search Platform		107,601,934		87,659,432
Commerce		29,293,889		19,376,083
Contents		32,368,572		32,571,406
Fin-Tech		25,576,039		15,632,928
	₩	216,996,701	₩	166,568,602

(c) Assets recognized from costs to fulfil a contract

In addition to the contract balances disclosed above, the Group recognized assets in relation to costs to fulfil contracts.

(in thousands of Korean won)		2021		2020		
Assets recognized from costs to fulfill a contract as at						
December 31	₩	326,177	₩	245,789		

The asset is amortized on a straight-line basis over the term of the specific contract it relates to, consistent with the pattern of recognition of the associated revenue.

9. Inventories

(a) Details of inventories as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	2021			2020		
Merchandise	₩	5,413,486	₩	4,766,602		
Less: Valuation loss		(669,264)		(583,329)		
Finished goods		240,982		156,609		
Raw materials and others		1,154,701		5,060		
	₩	6,139,905	₩	4,344,942		

(b) Details of inventories classified as assets held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)		2020
Merchandise	₩	155,152,339
Less: Valuation loss		(12,119,958)
	₩	143,032,381

(c) Cost of inventories included in 'operating expenses' amounted to ₩ 40,255 million (2020: ₩ 29,019 million) and the Group recognized ₩ 37 million (2020: ₩ 137 million of reversal of inventory valuation loss) of inventory valuation loss as 'operating expenses' for the year ended December 31, 2021.

10. Other Assets

(a) Details of other assets as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	2021			2020				
		Current	No	on-current		Current	N	on-current
Prepayment	₩	43,848,600	₩	40,738,299	₩	25,537,734	₩	42,695,011
Prepaid expenses		69,057,532		32,177,435		44,671,106		24,479,017
Prepaid value added tax		5,491,996		-		5,261,408		-
Others		5,898,123		-		2,232,468		
	₩	124,296,251	₩	72,915,733	₩	77,702,716	₩	67,174,028

(b) Details of other assets classified as assets held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)	2020					
		Current	No	on-current		
Prepayment	₩	13,159,390	₩	845,605		
Prepaid expenses		62,616,956		8,398,746		
Prepaid value added tax		3,270,198		-		
Others		188,164,933		1,890,189		
	₩	267,211,477	₩	11,134,540		

11. Property and Equipment

(a) Details of property and equipment as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)				2021		
				ccumulated		
	Ac	quisition cost	d	epreciation ¹	В	ook amount
Land	₩	310,636,455	₩	-	₩	310,636,455
Buildings		529,244,561		(144,762,180)		384,482,381
Structures		113,972,506		(81,936,418)		32,036,088
Machinery		1,449,867,791		(876,051,656)		573,816,135
Vehicles		1,277,084		(858,119)		418,965
Equipment		182,003,102		(111,945,795)		70,057,307
Others		7,421,431		(6,190,428)		1,231,003
Construction in progress		738,583,325		-		738,583,325
	₩	3,333,006,255	₩	(1,221,744,596)	₩	2,111,261,659
(in thousands of Korean won)						
(in thousands of Korean won)				2020		
(in thousands of Korean won)				ccumulated		
(in thousands of Korean won)	Ac	quisition cost			В	ook amount
(in thousands of Korean won) Land	Ac	quisition cost 310,047,520		ccumulated	B ₩	ook amount 310,047,520
,		•	d	ccumulated		
Land		310,047,520	d	ccumulated epreciation ¹		310,047,520
Land Buildings		310,047,520 493,087,778	d	ccumulated epreciation ¹ - (127,853,514)		310,047,520 365,234,264
Land Buildings Structures		310,047,520 493,087,778 113,903,280	d	ccumulated epreciation ¹ - (127,853,514) (71,396,998)		310,047,520 365,234,264 42,506,282
Land Buildings Structures Machinery		310,047,520 493,087,778 113,903,280 1,144,775,750	d	ccumulated epreciation ¹ - (127,853,514) (71,396,998) (638,638,371)		310,047,520 365,234,264 42,506,282 506,137,379
Land Buildings Structures Machinery Vehicles		310,047,520 493,087,778 113,903,280 1,144,775,750 923,121	d	ccumulated epreciation ¹ - (127,853,514) (71,396,998) (638,638,371) (805,201)		310,047,520 365,234,264 42,506,282 506,137,379 117,920
Land Buildings Structures Machinery Vehicles Equipment		310,047,520 493,087,778 113,903,280 1,144,775,750 923,121 150,069,385	d	ccumulated epreciation ¹ - (127,853,514) (71,396,998) (638,638,371) (805,201) (87,735,738)		310,047,520 365,234,264 42,506,282 506,137,379 117,920 62,333,647

¹ Includes accumulated impairment losses and government grants.

(b) Details of property and equipment classified as assets held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)	2020											
	Acq	uisition cost	Accumulated uisition cost depreciation ¹			ook amount						
Machinery	₩	396,985,483	₩	(194,590,072)	₩	202,395,411						
Vehicles		73,419		(71,387)		2,032						
Equipment		226,353,455		(124,863,129)		101,490,326						
Others		49,752,015		(34,343,290)		15,408,725						
Construction in progress		5,225,690		-		5,225,690						
	₩	678,390,062	₩	(353,867,878)	₩	324,522,184						

¹ Includes accumulated impairment losses and government grants.

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

(in thousands of																		
Korean won)										2021								
		Land		Buildings	;	Structures		Machinery		Vehicles	ı	Equipment		Others	Co	onstruction in progress		Total
Beginning balance, net	₩	310,047,520	₩	365,234,264	₩	42,506,283	₩	506,137,379	₩	117,920	₩	62,333,646	₩	1,696,984	₩	396,489,345	₩	1,684,563,341
Acquisition/ capital expenditures		986,102		8,443,890		54,682		337,476,689		416,886		32,847,738		1,074,989		367,050,523		748,351,499
Increase due to business combination		-		-		14,263		-		-		300,636		-		-		314,899
Depreciation		-		(16,963,940)		(10,538,248)		(271,470,869)		(118,979)		(30,062,636)		(818,619)		-		(329,973,291)
Disposals		-		-		-		(189,366)		-		(655,718)		(722,352)		(350,312)		(1,917,748)
Disposal of a subsidiary		-		-		-		-		-		(1,268)		-		-		(1,268)
Reclassification		265,608		28,378,448		-		-		-		5,341,389		-		(33,985,445)		-
Others ¹		(662,775)		(610,281)		(892)		1,862,302		3,138		(46,480)		1		9,379,214		9,924,227
Ending balance, net	₩	310,636,455	₩	384,482,381	₩	32,036,088	₩	573,816,135	₩	418,965	₩	70,057,307	₩	1,231,003	₩	738,583,325	₩	2,111,261,659

¹ Others include effects of changes in foreign currency exchange rates.

(in thousands of																		
Korean won)										2020								
		Land		Buildings		Structures		Machinery		Vehicles		Equipment		Others	Co	progress		Total
Beginning balance, net Acquisition/	₩	309,262,220	₩	379,481,561	₩	53,177,254	₩	512,626,809	₩	291,681	₩	153,021,764	₩	22,700,999	₩	165,709,030	₩	1,596,271,318
capital expenditures		537,047		141,891		44,910		424,916,885		-		39,525,852		17,828		245,256,833		710,441,246
business combination		-		13,998		997		-		-		19,548		1,996,590		-		2,031,133
Depreciation ¹		-		(15,526,131)		(10,713,921)		(245,556,935)		(144,717)		(48,660,502)		(6,925,490)		-		(327,527,696)
Disposals		-		-		-		(2,355,616)		(29,336)		(3,321,077)		(122,548)		(790,196)		(6,618,773)
Impairment ²		-		-		-		-		-		(7,758,831)		-		-		(7,758,831)
Disposal of a subsidiary		-		-		-		-		-		(85,951)		-		(23,792)		(109,743)
Others ³		248,253		1,122,945		(2,957)		9,314,411		2,324		23,337,826		(65,153)		(7,438,722)		26,518,927
Reclassified to held for sale						_		(192,808,175)		(2,032)		(93,744,983)		(15,905,242)		(6,223,808)		(308,684,240)
Ending balance, net	₩	310,047,520	₩	365,234,264	₩	42,506,283	₩	506,137,379	₩	117,920	₩	62,333,646	₩	1,696,984	₩	396,489,345	₩	1,684,563,341

¹ Includes depreciation of property and equipment in relation to discontinued operations amounting to ₩ 70,226 million which was recognized before the classification as assets held for sales during the year ended December 31, 2020.

The amounts above include changes in property and equipment in relation to continuing operations for the year ended December 31, 2020 and changes in property and equipment before being classified to assets held for sales.

During the year ended December 31, 2021, the Group has capitalized borrowing costs amounting to $\forall 8,722$ million (2020: $\forall 1,710$ million) on property and equipment that are qualifying assets. The capitalization rate of borrowings used to determine the amount of borrowing costs to be capitalized is 1.75% (2020: 2.85%).

Depreciation expense is classified as 'operating expenses' in the consolidated financial statements.

² The entire impairment loss on property and equipment was incurred from discontinued operations.

³ Others include effects of changes in foreign currency exchange rates.

12. Leases

(a) Amounts recognized in the consolidated statement of financial position

Details of leases as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021		2020
Right-of-use assets				
Properties	₩	90,794,139	₩	84,121,347
Vehicles		1,534,468		1,055,010
IDC buildings		77,010,870		40,754,925
Machinery		115,036,533		-
Leased Internet line		6,086,933		3,605,917
	₩	290,462,943	₩	129,537,199
Lease receivables	₩	7,016,432	₩	64,717
(in thousands of Korean won)		2021		2020
Lease liabilities				
Current	₩	105,615,990	₩	53,345,709
Non-current		205,661,717		92,170,749
	₩	311,277,707	₩	145,516,458

The amounts of the assets and liabilities held for sale relating to leases are as follows:

(in thousands of Korean won)		2020
Right-of-use assets	₩	683,421,336
Lease receivables		60,237
Lease liabilities		
Current	₩	128,173,147
Non-current		553,338,423
	₩	681,511,570

Additions to the right-of-use assets during the year ended December 31, 2021 were \forall 278,302 million (from discontinued operations: \forall 70,044 million).

(b) Amounts recognized in the consolidated statement of comprehensive income

Details of amounts relating to leases from continuing operations are as follows:

(in thousands of Korean won)		2021		2020
Depreciation of right-of-use assets				
Properties	₩	43,285,159	₩	39,958,722
Vehicles		749,990		631,340
IDC buildings		29,802,010		11,711,013
Machinery		6,335,261		-
Leased internet line		2,117,681		1,663,806
	₩	82,290,101	₩	53,964,881
Interest expense relating to lease liabilities (included in 'finance costs') ¹	₩	6,073,226	₩	4,495,857
Expense relating to short-term leases and leases of low-value assets		7,197,294		2,377,174
Expense relating to variable lease payments not included in lease liabilities		5,886,496		27,172

¹ There is a difference between interest expenses recognized with regards to the leases and interest expenses in the consolidated statement of comprehensive income due to capitalization of borrowing costs.

Details of leases from discontinued operations are as follows:

(in thousands of Korean won)	2021		2020
Depreciation of right-of-use assets	₩	- ₩	83,825,535
Interest expense relating to lease liabilities (included in 'finance costs')	2,25	54,531	13,122,381
Expense relating to short-term leases and leases of low- value assets	57	75,373	4,547,949
Expense relating to variable lease payments not included in lease liabilities	8,16	3,436	49,712,339

The total cash outflows for leases was $\mbox{$W$}$ 109,524 million (from discontinued operations: $\mbox{$W$}$ 34,904 million) and the total cash inflow for leases was $\mbox{$W$}$ 3,999 million (from discontinued operations: $\mbox{$W$}$ 21 million) for the year ended December 31, 2021.

13. Intangible Assets

(a) Details of intangible assets as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	2021								
	Ac	quisition cost	ccumulated mortization ¹	Book amount					
Industrial rights	₩	10,840,756	₩	(9,110,209)	₩	1,730,547			
Brand		119,118,744		-		119,118,744			
Software		125,570,437		(72,303,233)		53,267,204			
Goodwill		621,323,134		-		621,323,134			
Customer relationship		67,011,573		(2,832,538)		64,179,035			
Others		134,244,063		(61,710,380)		72,533,683			
	₩	1,078,108,707	₩	(145,956,360)	₩	932,152,347			
(in thousands of Korean won)	2020								
	Ac	quisition cost		ccumulated mortization ¹	Во	ook amount			
Industrial rights	₩	10,010,217	₩	(8,130,140)	₩	1,880,077			
Software		73,405,000		(61,561,613)		11,843,387			
Goodwill		34,241,699		-		34,241,699			
Others		106,232,082		(49,061,058)		57,171,024			
	₩	223,888,998	₩	(118,752,811)	₩	105,136,187			

¹ Includes accumulated impairment losses and government grants.

(b) Details of intangible assets classified as assets held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)	2020											
	Acc	quisition cost		ccumulated nortization ¹	В	ook amount						
Industrial rights	₩	5,078,603	₩	(1,368,905)	₩	3,709,698						
Software		72,492,708		(19,512,886)		52,979,822						
Goodwill		369,171,196		(5,107,581)		364,063,615						
Others		105,182,974		(67,443,524)		37,739,450						
	₩	551,925,481	₩	(93,432,896)	₩	458,492,585						

¹ Includes accumulated impairment losses and government grants.

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

(in thousands of Korean won)							2021			
,		Industrial rights		Brand ³	Software Goodwill			Customer relationship	Others	Total
Beginning balance, net	₩	1,880,077	₩	-	₩ 11,843,387	₩	34,241,699	₩ -	₩ 57,171,024	₩ 105,136,187
Acquisition/ capital expenditures		459,012		-	9,424,939		-	-	29,359,180	39,243,131
Increase due to business combination		385,578		49,698,379	40,140,270		560,785,763	62,991,918	_	714,001,908
Depreciation		(1,017,681)		49,090,379	(8,254,902)		300,703,703	(2,614,570)	(9,294,242)	(21,181,395)
Disposals ¹		(13,012)		-	(95,668)		(2,347,716)	(2,014,070)	(575,779)	(3,032,175)
Impairment		-		-	-		(2,603,221)	-	(2,931,036)	(5,534,257)
Others ²		36,573		69,420,365	209,178		31,246,609	3,801,687	(1,195,464)	103,518,948
Ending balance, net	₩	1,730,547	₩	119,118,744	₩ 53,267,204	₩	621,323,134	₩ 64,179,035	₩ 72,533,683	₩ 932,152,347

¹ Disposals of goodwill are related to liquidated entity during the year ended December 31, 2021.

³ Brands are intangible assets with indefinite useful lives, and there is no impairment loss recognized as a result of assessment with recoverable amounts during the year ended December 31, 2021.

(in thousands of Korean won)						2020					
	Industrial rights Software					Goodwill		Others	Total		
Beginning balance, net Acquisition and capital	₩	5,711,547	₩	57,566,581	₩	212,137,008	₩	66,027,697	₩	341,442,833	
expenditures Increase due to business		3,654,760		26,761,218		-		58,823,983		89,239,961	
combination (Note 33)		-		11,758,469		203,878,006		-		215,636,475	
Amortization ¹		(1,079,968)		(12,916,209)		-		(15,963,914)		(29,960,091)	
Disposals		(10,377)		(507,408)		-		(1,644,476)		(2,162,261)	
Impairment ²		-		(16,478,027)		-		(20,965,453)		(37,443,480)	
Disposal of a subsidiary		-		(93,923)		-		(1,015,462)		(1,109,385)	
Others ³		(2,496,610)		477,167		7,254,012		(5,490,584)		(256,015)	
Reclassified to held for sale		(3,899,275)		(54,724,481)		(389,027,327)		(22,600,767)		(470,251,850)	
Ending balance, net	₩	1,880,077	₩	11,843,387	₩	34,241,699	₩	57,171,024	₩	105,136,187	

¹ Includes amortization of intangible assets in relation to discontinued operations amounting to ₩ 16,787 million which was recognized before the classification as assets held for sales during the year ended December 31, 2020.

² Others include changes in scope of consolidation and effects of changes in foreign currency exchange rates.

² Includes impairment loss on intangible assets in relation to discontinued operations amounting to

₩ 37,227 million during the year ended December 31, 2020.

The amount includes changes in intangible assets in relation to continuing operations for the year ended December 31, 2020 and changes in intangible assets before being classified to assets held for sales.

- (d) Amortization cost is classified as 'operating expenses' in the consolidated financial statements.
- (e) Total research and development costs recognized by the Group amount to ₩ 1,655,015 million (2020: ₩ 1,332,118 million), which are expensed as 'operating expenses.
- (f) Goodwill is allocated for each cash-generating unit (CGU) or a group of cash-generating units by which goodwill is monitored by management. The table below summarizes goodwill allocation for each cash-generating unit or a group of cash-generating units as at December 31, 2021 and 2020. The managing unit of goodwill has changed in accordance with disposal of LINE affiliates due to business integration during the year ended December 31, 2021.

(in thousands of Korean won)		2021
WATTPAD	₩	588,227,133
NAMAIN		7,843,132
NAVER France		20,740,903
Other ¹		4,511,966
	₩	621,323,134

¹ Other include impairment loss of goodwill during the year ended December 31, 2021.

(in thousands of Korean won)		2020
Naver service ¹	₩	35,791,934
LINE service ¹		359,999,775
Other		2,513,605
	₩	398,305,314

¹ Certain goodwill classified as Naver service and the entire amount of goodwill classified as LINE service are reclassified to assets held for sale.

³ Others include effects of changes in foreign currency exchange rates.

(g) The recoverable amount of CGUs including goodwill have been determined based on value-in-use or fair value less cost of disposal calculations as at December 31, 2021 and 2020. The major assumptions used in the calculation of impairment test of goodwill are as follows:

(in percentage)	2021	2020
Sales growth ¹	22.45	6.02
Perpetual growth rate	2.00	1.00
Discount rate	15.20	8.40

¹ The average annual sales growth over the estimation period.

(h) Emission permits

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

(in KAU)	2021	2020	2023	2024	2025	Total
Allocation with nil consideration	68,467	68,467	68,467	67,825	67,825	341,051

Changes in the allocated emission quantity and book amount during the years ended December 31, 2021 and 2020, are as follows:

_	20	21		2020			
(in thousands of Korean won and in KAU)	Quantity	A	Amount	Quantity	Amount		
At January 1	15,382	₩	512,321	2,852	₩ 77,004		
Allocation with nil consideration	63,350		-	58,964	-		
Purchase	-		-	25,100	905,900		
Surrendered to the government	(73,176)		(345,697)	(71,534)	(470,583)		
Disposal	(556)		(16,624)				
At December 31	5,000	₩	150,000	15,382	₩ 512,321		

14. Investments in Associates and Joint Ventures

(a) Details of investments in associates and joint ventures of the Group as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)					2021	2020
			Closing	Percentage of ownership		
Name of entity	Primary business	Location	month	(%)	Book amount	Book amount
Associates						
NetMania	Software development and distribution	Korea	December	27.17	₩ 1,024,479	₩ 995,211
Synapsoft	Software development and distribution	Korea	December	26.41	6,760,669	5,799,825
ARO In Tech	Software development and distribution	Korea	December	29.85	635,098	756,726
Silicon Cube ²	Applied software development and distribution	Korea	December	41.89	-	-
NSPACE	Space service business	Korea	December	49.04	1,421,943	1,060,944
One Store	E-Commerce business	Korea	December	25.10	48,048,257	41,840,201
BonAngels Pacemaker Fund	Investment	Korea	December	22.73	3,366,324	3,123,103
Korea Contents Mutual Aid Association ¹	Mutual Aid Association	Korea	December	53.75	9,486,620	9,361,132
Future Creation NAVER-Stonebridge Early Stage Start-up Fund	Investment	Korea	December	-	-	3,905,332
Future Creation NAVER-SB Startup Investment Fund	Investment	Korea	December	37.04	6,146,285	9,544,595
NAVER KIP Cheer up! Gamers Fund	Investment	Korea	December	50.00	2,991,762	2,077,009
NAVER-Suprema Youth Foundation No.5 Investment Fund	Investment	Korea	December	50.00	11,651,697	6,580,164
Mirae Asset-NAVER New Growth Fund 1	Investment	Korea	December	50.00	43,795,009	44,130,666
YG NAVER Contents & Lifestyle Fund ¹	Investment	Korea	December	90.91	49,716,578	48,348,016
Soran Media Venture Fund I ¹	Investment	Korea	December	66.67	708,971	818,946
MiraeAsset MAPS Private Placemen Real Estate 62	t Investment	Korea	December	45.08	422,050,705	208,270,708
MiraeAsset-Naver Asia Growth Fund ^{4,5}	Investment	Korea	December	16.67	113,919,783	59,177,234
MIRAE ASSET-NAVER ASIA GROWTH INVESTMENT⁵	Investment	Singapore	December	40.00	460,866,589	240,051,940
Digital Media Partners II	Investment	Cayman Islands	December	26.88	2,514,313	2,249,591
K-Fund I ^{1,10}	Investment	France	December	74.81	358,740,139	226,308,396
China Ventures Fund I, L.P. ^{1,5}	Investment	Canada	December	70.33	254,385,809	195,108,242
The Grim Ent.	Webtoon production	Korea	December	34.98	1,768,038	1,697,935
Studio Horang	Webtoon production	Korea	December	41.50	529,524	420,153
Bigpicture Comics	Webtoon production	Korea	December	35.00	1,523,761	1,358,322
Studio JHS	Webtoon production	Korea	December	35.00	1,148,699	491,363

(in thousands of Korean won)					2020	
			Closing	Percentage of ownership	_	
Name of entity	Primary business	Location	month	(%)	Book amount	Book amount
JQ COMICS	Webtoon production	Korea	December	35.06	136,582	205,450
ZK Studio	Webtoon production	Korea	December	40.00	265,554	364,841
Soo COMICS	Webtoon production	Korea	December	40.00	345,384	379,585
AXIS ³	Software development and distribution	Korea	December	28.21	-	-
Fast Cowell Private Equity Fund	Investment	Korea	December	21.13	1,210,651	1,243,933
Laiqu Technology (Shenzhen)	Software development and distribution	China	December	21.30	-	536,497
LINE Games ^{5,6}	Software development and distribution	Korea	March	-	-	65,277,244
Alliance Internet	Online company revenue support	Korea	December	23.53	2,022,731	1,148,343
CONG TY CO PHAN RBW VIETNAM	Contents production	Vietnam	December	35.36	161,156	328,609
Famous Studio	Clothes, accessories, news distribution	Korea	December	33.33	2,010,285	602,585
DHP private equity fund 3	Investment	Korea	December	25.16	171,274	171,603
AIRI, Inc. ⁴	Al technology research and investment	Korea	December	14.29	2,112,698	2,615,481
Studio Mul	Contents production	Korea	December	35.00	3,342,137	2,956,470
Do Ventures Fund I-A, L.P	Investment	Cayman Islands	December	22.70	5,453,206	5,026,657
Pala (formerly, PLACE A INC.)	Software development and distribution	Korea	December	48.78	452,921	2,430
YN Culture & Space	Record production and planning	Korea	December	23.04	7,714,374	1,873,943
SMEJ Plus	Global fanship related investment	Japan	December	30.07	13,361,774	36,838,066
Smart Korea Naver-Stonebridge Rising Investment Association	Investment	Korea	December	37.74	3,778,068	2,000,000
Carousell Pte ⁴	Platform investment	Singapore	December	8.39	61,229,525	66,408,113
A-Holdings (formerly, LINE) ^{5,7}	Mobile service development	Japan	March	50.00	17,055,166,387	-
LINE Friends ^{5,8}	Character and doll wholesale and retail	Korea	March	30.00	71,593,000	-
LINE Conomi ⁸	Global restaurant review service	Japan	March	49.90	2,547,781	-
HAVIT	Mobile service development	Korea	December	28.57	2,857	2,857
Seno	Contents production	China	December	45.00	102,596	-
AtoZ	Contents distribution	Korea	December	26.67	39,962,338	-
Sam studio	Contents production	Korea	December	35.00	951,798	-
Cinamon Games	Contents production	Korea	December	-	-	723,446
WEVERSE Company	Platform investment	Thailand	December	33.91	219,182,017	-
Sasom Company	Software development and distribution	Korea	December	20.10	741,884	-

(in thousands of Korean won)	Korean won) 2021		2020			
Name of antity	Primary business	Location	Closing month	Percentage of ownership	Book amount	Pook amount
Name of entity	Primary business	Location	month	(%)	BOOK amount	Book amount
Studio Ohohoee	Contents distribution	Korea	December	33.02	738,091	-
Geulbitneun lyakiggun	Contents distribution	Korea	December	28.57	170,815	-
389 Studio 389	Contents distribution	Korea	December	30.02	83,359	-
Only One Entertainment	Contents distribution	Korea	December	35.00	220,071	-
Cafe24 ^{4,5}	Hosting and related services	Korea	December	14.81	116,245,149	-
K-Fund II ¹	Investment	France	December	67.89	989,118	-
Makma	Contents distribution	France	December	22.00	754,336	-
YUMI studio	Contents distribution	Korea	December	35.00	1,660,472	-
JAYPLEMEDIA	Contents distribution	Korea	December	25.00	13,949,317	-
Munpia Inc. ⁵	Contents distribution	Korea	December	20.17	60,736,765	-
SODA	Sneakers trading platform	Japan	May	36.87	109,108,961	-
VerseWork	Contents distribution	Korea	December	40.00	745,482	-
FUTURE INNOVATION PRIVATE						-
EQUITY FUND III	Investment	Korea	December	25.38	45,652,076	
China Ventures Fund II, L.P.	Investment	Cayman Islands	December	30.00	75,450,379	-
Paramark KB Fund I	Investment	Korea	December	20.00	1,972,000	-
ICART GROUP 4,5	Online daily necessities and fresh food platform operation	Singapore	December	10.83	21,096,244	-
CINNAMON	Visual novel game development and service	Korea	December	20.00	1,348,953	-
A2Z-IP Fund	Investment	Korea	December	20.00	3,288,742	-
SHINE PARTNERS ⁴	Webtoon production	Japan	December	5.00	848,515	-
BIFROST	Webtoon and web novel production	Korea	December	14.15	1,961,819	-
Ebook Japan	E-book production	Japan	March	34.35	101,601,682	-
Gorilla NCORE Metaverse 1	Investment	Korea	December	47.77	22,017,790	-
ZEP	Meta verse service development	Korea	December	40.00	400,000	-
TAIL Start-up Fund I	Investment	Korea	December	40.00	391,703	-
LINE MAN ⁶	Applied software development and distribution	Singapore	December	-	-	210,083,387
Japan Food Delivery ⁶	Mobile service development	Japan	December	-	-	1,086,193
iPASS ⁶	Mobile billing system planning and development	Taiwan	December	-	-	10,488,306
Connection Labs ⁶	Software development and distribution	Taiwan	December	-	-	-
Epic Voyage ⁶	Mobile service development	Japan	December	-	-	26,340
LINE Music ⁶	Mobile service development	Japan	December	-	-	55,220

(in thousands of Korean won)					2020	
Name of entity	Primary business	Location	Closing month	Percentage of ownership (%)	Book amount	Book amount
Transcosmos Online Communication ⁶	Business customer	Japan	December	-	-	899,160
LENSA ⁶	support Mobile advertising service business	Japan	December	-	-	1,170,140
LINE Mobile ⁶	Telecommunications service	Japan	December	-	-	72,002,818
Venture Republic 5,6	Online information distribution business	Japan	December	-	-	5,596
PT. Bank KEB HANA Indonesia ⁶	Bank and financial business	Indonesia	December	-	-	159,229,649
FOLIO Holdings ^{5,6}	Financial business	Japan	December			13,062,312
				-	19,878,651,870	1,770,291,028
Joint ventures						
Mirai Fund ^{5,9}	Investment	Japan	December	90.00	191,172,090	-
China Lab	Database and online information service	Korea	December	49.00	746,262	558,452
JobsN	Online information service	Korea	December	49.00	2,362,096	2,128,476
YEOPEUL	Online information service and internet contents business	Korea	December	49.00	2,365,331	2,033,387
Cineplay	Online information service and online advertising	Korea	December	49.00	773,054	656,154
Designpress	Online information service and internet contents business	Korea	December	49.00	1,033,196	896,395
Interbiz (Dong-A JV)	Online information service and internet contents business	Korea	December	49.00	1,118,536	829,410
Artitian (Kyunghyang Daily News JV)	Online information service and internet contents business	Korea	December	49.00	346,223	279,564
Schooljam (EBS JV)	Online information service and internet contents business	Korea	December	49.00	638,940	501,444
Agroplus (Korea Business JV)	Online information service and internet contents business	Korea	December	49.00	980,539	704,929
Sumlab (Munhwa Ilbo JV)	Online information service and internet contents business	Korea	December	49.00	1,043,056	804,861
Techplus (Electronic Times JV)	Online information service and internet contents business	Korea	December	49.00	1,321,285	983,593
Animal and Human Story (Hankook Ilbo JV)	Online information service and internet contents business	Korea	December	49.00	346,534	368,339
Law and Media (Money Today JV)	Online information service and internet contents	Korea	December	49.00	207,297	201,055

(in thousands of Korean won)					2021	2020
Name of entity	Primary business	Location	Closing month	Percentage of ownership (%)	Book amount	Book amount
	business					
DANAA Data	Software development and distribution	Korea	December	49.00	4,998,957	4,961,445
Baecomm	Operation management services of academy and education	Korea	December	50.00	2,198,751	-
LINE Project ⁶	Investment	Japan	December	-	-	-
Lantu Games ⁶	Mobile service development	Hong Kong	December	-	-	-
RABBIT-LINE PAY COMPANY ⁶	Online payment service	Thailand	December	-	-	7,207,359
Collab+LINE ⁶	Investment	USA	December	-	-	1,661,831
Kasikorn LINE ⁶	Software development and distribution	Thailand	December	-	-	45,829,583
LINE Bank Taiwan Limited ⁶	Financial business	Taiwan	December	-		186,479,181
					211,652,147	257,085,458
					₩ 20,090,304,017	₩ 2,027,376,486
Assets held for sale					₩ -	₩ 827,950,799
Consolidated statement of financial position					20,090,304,017	1,199,425,687

¹ Although the Group has more than 50% ownership in the investees, the Group does not have controls over these entities by virtue of agreements and classifies them as associates.

² Recognized impairment loss before the previous period for the entities as book amounts exceeded their recoverable amounts.

³ Stopped applying equity method due to accumulated deficits.

⁴ Although the Group has less than 20% ownership in the investees, the Group has significant influence over the entities by virtue of agreements and classified as associates.

⁵ Applied based on their consolidated financial statements. The related subsidiaries of the associates and joint ventures are as follows:

Associates and joint ventures

Subsidiaries of the associates and joint ventures

MiraeAsset-Naver Asia Growth MIRAE ASSET-NAVER ASIA GROWTH INVESTMENT

Fund

China Ventures Fund I, L.P. China Ventures Fund I, PTE.LTD.

MIRAE ASSET-NAVER ASIA LogisValley BacNinh Joint Stock Company

GROWTH INVESTMENT

ICART GROUP PT Icart Group Indonesia, Icart Malaysia, HappyFresh (Thailand), Icart Venture

Philippines

One store

ROKMEDIA

A-Holdings (formerly, LINE) Z-Holdings

LINE Friends (Shanghai) Commercial Trade, LINE Friends, LINE Friends Japan,

LINE Friends Taiwan, Markt

Cafe24 Phillippines, YANJI SIMPLEX Scientific Technology, SIIC, CAFE24 JAPAN,

JCAPPAREL, FASTBOX, PIMZ, Feelway, FASTBOX JAPAN, CAFE24 VIETNAM, CAFE24, CAFE24 CHINA, CAFE24 INDIA, CAFE24 AMERICA,

Simplexi Hangzhou, LUXURY LOAN

Munpia M.Contents LABS, Munpia Webtoon Cultural Industry Specialized company

Mirai Fund Mission World Group

⁶ Classified to assets held for sale as at December 31, 2020 and disposed as the business integration was completed during the year ended December 31, 2021.

⁷ Interests in A-holdings, which were received in exchange for the sale of the disposal group during the year ended December 31, 2021, are classified as an investment in associate.

⁸ Classified to investments in associates as the Group lost control due to the decreased Group's ownership in the entity during the year ended December 31, 2021.

⁹ The Group lost control during the year ended December 31, 2021. Although the Group has more than 50% ownership in the investees. The Group has a joint control in accordance with the agreement and classifies them as an investment in joint venture.

¹⁰ The shares held by the subsidiaries included in the disposal group were disposed during the year ended December 31, 2021.

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

(in thousands of Korean								
won)	Beginning balance	Acquisition (Disposal and refund of investment)	Share of profit or loss	Share of other comprehensive income (loss)	Dividends	Impairment	Others	Ending balance
Associates								
NetMania	₩ 995,211	₩ -	₩ 29,268	₩ -	₩ -	₩ -	₩ -	₩ 1,024,479
Synapsoft	5,799,825	-	963,977	(1,166)	-	-	(1,967)	6,760,669
ARO In Tech	756,726	-	(99,628)	-	(22,000)	-	-	635,098
Silicon Cube	-	-	-	-	-	-	-	-
NSPACE	1,060,944	-	360,999	-	-	-	-	1,421,943
One Store	41,840,201	-	(1,826,145)	(69,535)	-	-	8,103,736	48,048,257
BonAngels Pacemaker Fund	3,123,103	(3,000,000)	3,243,221	-	-	-	-	3,366,324
Korea Contents Mutual Aid Association	9,361,132	-	96,264	-	-	-	29,224	9,486,620
Future Creation NAVER- Stonebridge Early Stage Start-up Fund	3,905,332	(1,200,000)	7,899,946	-	(10,364,499)	-	(240,780)	-
Future Creation NAVER-SB Startup Investment Fund NAVER KIP Cheer up!	9,544,595	(851,850)	(381,895)	(2,478,792)	314,226	-	-	6,146,285
Gamers Fund	2,077,009	(1,185,000)	8,621,732	2,028,718	(8,550,696)	-	-	2,991,762
NAVER-BSK Youth								
Foundation No.5 Investment Fund Mirae Asset-NAVER New	6,580,164	(2,158,361)	2,887,685	5,443,141	(1,100,932)	-	-	11,651,697
Growth Fund 1	44,130,666	-	(335,657)	-	-	-	-	43,795,009
YG NAVER Contents & Lifestyle Fund	48,348,016	-	1,365,457	3,105	-	-	-	49,716,578
Soran Media Venture Fund I	818,947	(252,827)	142,852	-	-	-	-	708,971
MiraeAsset MAPS Private Placement Real Estate 62	208,270,709	-	359,266,025	-	(145,486,028)	-	-	422,050,705
MiraeAsset-Naver Asia Growth Fund MIRAE ASSET-NAVER	59,177,234	25,134,506	22,511,302	7,096,742	-	-	-	113,919,783
ASIA GROWTH INVESTMENT	240,051,940	101,236,064	96,120,482	23,458,103	-	-	-	460,866,589
Digital Media Partners II	2,249,591	(49,734)	(22,598)	212,089	-	-	124,965	2,514,313
K-Fund I	172,921,916	24,331,507	162,086,350	(599,634)	-	-	-	358,740,139
China Ventures Fund I, L.P.	195,108,242	(44,267,584)	77,353,062	26,192,089	-	-	-	254,385,809
The Grim Ent.	1,697,935	-	70,103	-	-	-	-	1,768,038
Studio Horang ¹	420,153	1,000,000	(108,944)	-	-	(781,686)	-	529,524
Bigpicture Comics	1,358,322	-	165,439	-	-	-	-	1,523,761
Studio JHS	491,363	-	657,337	-	-	-	-	1,148,699
JQ COMICS	205,450	-	(68,868)	-	-	-	-	136,582
ZK Studio ¹	364,841	-	(17,557)	-	-	(81,730)		265,554
Soo COMICS ¹	379,585	-	(10,276)	-		(23,924)		345,384
AXIS	-	-	-	-	-	-	-	-
Fast Cowell Private Equity Fund	1,243,933	(31,433)	(1,849)	-	-	-	-	1,210,651
Laiqu Technology (Shenzhen) ¹	536,497	-	(291,668)	26,239	-	(477,239)	206,171	-

(in thousands of Korean			Valuation of equity method in 2021					
won)	Beginning balance	Acquisition (Disposal and refund of investment)	Share of profit or loss	Share of other comprehensive income (loss)	Dividends	Impairment	Others	Ending balance
Alliance Internet	1,148,343	-	874,388	-	-	-	-	2,022,731
CONG TY CO PHAN RBW VIETNAM	328,609	-	(170,132)	2,678	-	-	-	161,156
Famous Studio Corp.	602,585	-	1,407,700	-	-	-	-	2,010,285
DHP private equity fund 3	171,603	-	(329)	-	-	-	-	171,274
AIRI, Inc.	2,615,481	-	(502,782)	-	-	-	-	2,112,698
Studio Mul	2,956,470	-	385,667	-	-	-	-	3,342,137
Do Ventures Fund I-A	5,026,657	-	102,437	425,936	-	-	(101,823)	5,453,206
Pala (formerly, PLACE A INC.)	2,430	487,805	(37,314)	-	-	-	-	452,921
YN Culture & Space	1,873,943	5,871,205	(67,575)	(42,054)	-	-	78,855	7,714,374
SMEJ Plus ¹	36,838,066	-	(774,640)	(1,195,124)	-	(21,506,528)	-	13,361,774
Smart Korea Naver- Stonebridge Rising Investment Association	2,000,000	2,000,000	(221,932)	-	-	-	-	3,778,068
Carousell Pte	66,408,113	-	(10,739,025)	5,560,437	-	-	-	61,229,525
A-Holdings (formerly, LINE)	-	17,282,498,427	34,929,325	(166,187,734)	(96,073,631)			17,055,166,387
Drama & Company	-	(10,611,532)	(1,553,656)	(14,104)	-	-	12,179,292	-
LINE Friends Corporation ¹	-	85,000,048	(2,222,522)	288,190	-	(11,472,716)	-	71,593,000
LINE Conomi	-	5,856,115	(3,269,067)	(39,266)	-	-	-	2,547,781
HAVIT CORPORATION	2,857	-	-	-	-	-	-	2,857
Seno	-	97,038	(23)	5,581	-	-	-	102,596
AtoZ	-	40,000,000	(37,662)	-	-	-	-	39,962,338
Sam Studio	-	700,033	251,766	-	-	-	-	951,798
Cinamon Games	723,446	(88,219)	(635,227)	-	-	-	-	-
WEVERSE COMPANY Inc.	-	211,884,516	2,802,165	4,495,336				219,182,017
Sasom	-	1,012,861	(256,976)	(14,001)	-	-	-	741,884
Studio Ohohoee	-	400,000	338,091	-	-	-	-	738,091
Geulbitneun lyakiggun	-	200,000	(29,185)	-	-	-	-	170,815
Studio 389	-	100,000	(16,641)	-	-	-	-	83,359
Only One Entertainment	-	250,012	(29,941)	-	-	-	-	220,071
Cafe24 Corp.	-	116,603,359	(776,969)	57,467	-	-	361,293	116,245,149
K-Fund II	-	2,174,976	(952,755)	(233,103)	-	-	-	989,118
Makma	-	750,660	16,052	(12,375)	-	-	-	754,336
YUMI studio	-	1,000,005	660,467	-	-	-	-	1,660,472
JAYPLEMEDIA	-	13,805,000	144,317	-	-	-	-	13,949,317
munpia inc.	-	60,518,848	147,520	70,397	-	-	-	60,736,765
SODA2	-	89,973,169	19,318,241	(182,449)	-	-	-	109,108,961
VerseWork	-	799,992	(54,510)	-	-	-	-	745,482
FUTURE INNOVATION PRIVATE EQUITY FUND III	-	45,831,000	-	-	(178,924)	-	-	45,652,076
China Ventures Fund II, L.P.	-	75,450,379	-	-	-	-	-	75,450,379
Paramark KB Fund I	-	1,972,000	-	-	-	-	-	1,972,000
ICART GROUP	-	21,946,677	(859,720)	9,287	-	-	-	21,096,244
CINNAMON 1	-	1,761,554	(311,143)	-	-	(226,690)	125,232	1,348,953

(in thousands of Korean		Valuation of equity method in 2021								
won)	Beginning balance	Acquisition (Disposal and refund of investment)	Share of profit or loss	Share of other comprehensive income (loss)	Dividends	Impairment	Others	Ending balance		
A2Z-IP Fund	-	3,300,000	(11,258)	-	-	-	-	3,288,742		
SHINE PARTNERS	-	848,514	-	-	-	-	-	848,514		
BIFROST	-	1,999,620	(37,801)	-	-	-	-	1,961,819		
Ebook Japan	-	101,601,682	-	-	-	-	-	101,601,682		
Gorilla NCORE Metaverse 1	-	22,050,000	(32,210)	-	-	-	-	22,017,790		
ZEP	-	400,000	-	-	-	-	-	400,000		
TAIL Start-up Fund I		400,000	(8,298)					391,702		
	1,183,518,183	18,287,551,031	778,445,259	(95,693,805)	(261,462,482)	(34,570,513)	20,864,196	19,878,651,870		
Joint ventures										
Mirai Fund	-	573,687,781	(235,854,326)	(146,661,365)	-	-	-	191,172,090		
China Lab	558,452	-	187,811	-	-	-	-	746,262		
JobsN	2,128,476	-	233,621	-	-	-	-	2,362,096		
YEOPEUL	2,033,387	-	331,944	-	-	-	-	2,365,331		
Cineplay	656,154	-	116,900	-	-	-	-	773,054		
Designpress	896,395	-	136,801	-	-	-	-	1,033,196		
Interbiz (Dong-A JV)	829,410	-	289,126	-	-	-	-	1,118,536		
Artitian (Kyunghyang Daily News JV)	279,564	-	66,659	-	-	-	-	346,223		
Schooljam (EBS JV)	501,444	-	137,497	-	-	-	-	638,940		
Agroplus (Korea Business JV)	704,929	-	275,609	-	-	-	-	980,539		
Sumlab (Munhwa Ilbo JV)	804,861	-	238,195	-	-	-	-	1,043,056		
Techplus (Electronic Times JV)	983,593	-	337,692	-	-	-	-	1,321,285		
Animal and Human Story (Hankook Ilbo JV)	368,339	-	(21,806)	-	-	-	-	346,534		
Law and Media (Money Today JV)	201,055	-	6,242	-	-	-	-	207,297		
DANAA Data	4,961,445	-	37,513	-	-	-	-	4,998,958		
Baecomm		2,499,995	(263,579)	(37,664)				2,198,751		
	15,907,504	576,187,776	(233,744,103)	(146,699,030)				211,652,147		
	₩ 1,199,425,687	₩ 18,863,738,807	₩ 544,701,156	₩ (242,392,834)	₩ (261,462,482)	₩ (34,570,513)	₩ 20,864,196	₩ 20,090,304,017		

¹ An impairment loss is recognized as the carrying amount exceeded the recoverable amount due to continuous operating loss and others during the year. The recoverable amount is measured on the value in use or the fair value less the costs of disposal which were estimated using an income approach. An assumed discount rate used is 15.5% and perpetual growth rate used is 1.0%.

 $^{^2}$ Portion of shares owned by the Group was measured at fair value and classified as financial assets at fair value through profit or loss. The assessed amount is \forall 78,044 million as at December 31, 2021, and gain on valuation recognized during the year ended December 31, 2021 amount to \forall 24,380 million.

(in thousands of					Valuatio	n of equity metho	d in 2020			
Korean won)					Share of other	in or equity metric	G III 2020			
		Beginning	Acquisition	Share of profit	comprehensive				Reclassified to	
		balance	(Disposal)	or loss ¹	income (loss) ²	Dividends	Impairment	Others	held for sale	Ending balance
A										
Associates KG Allat										
	₩	3,106,638	₩ -	₩ -	₩ -	₩ -	₩ -	₩ (3,106,638)	₩ -	₩ -
NetMania		1,006,434	-	(11,223)	-	-	-	-	-	995,211
Synapsoft		4,954,775	-	686,991	159,411	-	-	(1,352)	-	5,799,825
ARO In Tech		642,003	-	135,923	-	(21,200)	-	-	-	756,726
Silicon Cube ³		2,448,616	-	(1,452,657)	-	-	(995,959)	-	-	-
NSPACE		450,563	-	610,381	-	-	-	-	-	1,060,944
One Store		41,732,881	-	129,496	88,563	-	-	(110,739)	-	41,840,201
BonAngels Pacemaker Fund		2 107 462		175 641	-	(250,000)				3,123,103
Korea Contents		3,197,462	-	175,641	-	(250,000)	-	-	-	3,123,103
Mutual Aid										
Association		9,048,019	-	290,075	-	-	-	23,038	-	9,361,132
Future Creation NAVER-Stonebridge										
Early Stage Start-up										
Fund		5,059,696	-	1,053,636	-	(2,208,000)	-	-	-	3,905,332
Future Creation NAVER-SB Startup										
Investment Fund		10,728,698	-	(493,862)	(38,565)	(651,676)	-		-	9,544,595
NAVER KIP Cheer up!										
Gamers Fund		4,186,612	-	(59,603)	-	(2,050,000)	-	-	-	2,077,009
NAVER-Suprema Youth Foundation										
No.5 Investment										
Fund		8,043,445	-	286,312	(588,516)	(1,161,077)	-	-	-	6,580,164
Mirae Asset-NAVER New Growth Fund 1		37,735,406	10,000,000	(3,604,740)	_	_	_	_	_	44,130,666
YG NAVER Contents		21,120,120	, ,	(0,000,000)						, ,
& Lifestyle Fund		47,949,009	-	653,773	(254,766)	-	-	-	-	48,348,016
Soran Media Venture Fund I		836,605	_	(17,659)	_	_	_	_	_	818,946
MiraeAsset MAPS		030,003		(17,059)						810,940
Private Placement										
Real Estate 62 MiraeAsset-Naver		187,936,912	-	23,611,123	-	(3,277,327)	-	-	-	208,270,708
Asia Growth Fund		50,924,712	14,166,162	517,873	(3,801,513)	(2,630,000)	-	-	-	59,177,234
MIRAE ASSET-										
NAVER ASIA GROWTH										
INVESTMENT		205,600,678	58,134,328	4,557,041	(16,515,673)	(11,724,434)	-	-	-	240,051,940
Digital Media Partners		, ,		, ,	, , , ,	, , ,				, ,
II		2,676,544	-	(238,832)	(149,901)	-	-	(38,220)	-	2,249,591
K-Fund I		187,786,461	16,108,250	15,272,069	8,634,906	-	-	-	(54,879,770)	172,921,916
China Ventures Fund I, L.P.		142,469,646	34,923,582	76,134,048	(14,929,044)	(33,471,156)		(10,018,834)	-	195,108,242
The Grim Ent.		1,003,722	-	694,213	(. 1,020,0 . 1)	, .,,	-		_	1,697,935
Studio Horang		337,964	_	82,189		_			_	420,153
Bigpicture Comics			-		-	-	-	-	-	
Studio JHS		1,143,373	-	214,949	-	-	-	-	-	1,358,322
JQ COMICS		503,209	-	(11,846)	-	-	-	-	-	491,363
		296,404	-	(90,954)	-	-	-	-	-	205,450
ZK Studio		395,573	-	(30,732)	-	-	-	-	-	364,841
Soo COMICS		395,039	-	(15,454)	-	-	-	-	-	379,585

(in thousands of				Valuation	of equity method	I in 2020			
Korean won)			-	Share of other					
	Beginning	Acquisition	Share of profit	comprehensive				Reclassified to	
	balance	(Disposal)	or loss ¹	income (loss) ²	Dividends	Impairment	Others	held for sale	Ending balance
YLAB Japan	274,626	-	(136,111)	124,418	-	-	(262,933)	_	_
Alchera	3,187,753	_	(653,698)		_	_	(2,534,055)	_	_
AXIS	3,107,733		(055,098)				(2,334,033)		
Fast Cowell Private	-	-	-	-	-	-	-	-	-
Equity Fund	1,417,999	-	(24,066)	-	(150,000)	-	-	-	1,243,933
Laiqu Technology									
(Shenzhen)	857,360	-	(385,887)	65,024	-	-	-	-	536,497
LINE Games ³	154,366,934	-	(14,387,525)	97,767	-	(77,339,103)	2,539,171	(65,277,244)	-
Epic Voyage	26,867	-	(313)	1,861	-	-	-	(28,415)	-
LINE Music	-	41,292	(41,292)	-	-	-	-	-	-
DEMAE-CAN									
(formerly, Yume no	00.004.004		(4.075.40.4)	000 755			(05.044.550)		
machi Souzou linkai) Transcosmos Online	36,821,281	-	(1,875,484)	898,755	-	-	(35,844,552)	-	-
Communication	1,174,358	-	(278,223)	73,865	-	-	-	(970,000)	-
LENSA, LTD.	1,160,065	_	20,866	81,398	-	-	-	(1,262,329)	-
LINE Mobile	85,600,720	50,831	(13,662,814)	5,643,391	_	_	_	(77,632,128)	_
Venture Republic ³						(0.426.047)	20.542	(17,002,120)	
PT. Bank KEB HANA	8,901,244	-	(383,992)	(109,978)	-	(8,436,817)	29,543	-	-
Indonesia	167,427,011	-	2,849,053	(2,406,046)	-	-	-	(167,870,018)	-
FOLIO Holdings ³	42,654,911	-	(5,520,637)	1,194,878	-	(24,237,724)	-	(14,091,428)	-
iPASS	11,773,661	_	(1,406,656)	595,928	_	· · · · · · · · · · · · · · · · · · ·	_	(10,962,933)	_
Connection Labs Ltd ³	2,982,980	_				(2.427.111)	188,240	(10,002,000)	
Alliance Internet			(773,113)	29,004	•	(2,427,111)	100,240	-	-
CONG TY CO PHAN	793,090	-	355,253	-	-	-	-	-	1,148,343
RBW VIETNAM	-	575,300	(231,197)	(15,494)	-	-	-	-	328,609
Famous Studio Corp.	_	1,000,000	(397,415)	_	-	-	_	_	602,585
VRex Lab Co.,Ltd ³ .	_	613,925	(61,762)	_	_	(552,163)	_	_	_
DHP private equity		010,323	(01,702)			(552,165)			
fund 3	-	200,000	(28,397)	-	-	-	-	-	171,603
Japan Food Delivery		4 000 400						(4.000.400)	
Co.,Ltd	-	1,086,193	-	-	-	-	-	(1,086,193)	-
AIRI, Inc.	-	3,000,000	(384,519)	-	-	-	-	-	2,615,481
Studio Mul	-	3,000,140	(43,670)	-	-	-	-	-	2,956,470
Do Ventures Fund I-A, L.P	_	5,926,500	(416,356)	(483,487)	_	_	_	_	5,026,657
PLACE A INC.		3,320,300	(410,330)	(403,407)					3,020,037
(formerly, Lano									
Co.,Ltd.)	-	200,000	(197,570)	-	-	-	-	-	2,430
Cinamon Games	-	1,180,638	(473,197)	1	-	-	16,004	-	723,446
YN Culture & Space	-	1,974,950	(35,210)	(65,797)	-	-	-	-	1,873,943
SMEJ Plus	-	38,366,926	72,977	(1,601,837)	-	-	-	-	36,838,066
Smart Korea Naver-									
Stonebridge Rising									
Investment Association	_	2,000,000	_	_	-	_	_	_	2,000,000
Carousell Pte			(3.300.000)	(E 254 600)					
HAVIT	-	74,862,910	(2,200,098)	(6,254,699)	-	-	-	-	66,408,113
CORPORATION		2,857					-		2,857
	1,482,017,959	267,414,784	78,377,118	(29,526,146)	(57,594,870)	(113,988,877)	(49,121,327)	(394,060,458)	1,183,518,183
	, - ,,	. , , ,		, -,,/	, , , /	, .,,	, , ,/	, , , , , , , , , , , , , , , , , , , ,	, ,

(in thousands of				Valuatio					
Korean won)				Share of other					
	Beginning	Acquisition	Share of profit	comprehensive				Reclassified to	
	balance	(Disposal)	or loss ¹	income (loss) ²	Dividends	Impairment	Others	held for sale	Ending balance
China Lab	318,303	-	240,149	-	-	-	-	-	558,452
JobsN	1,735,840	-	392,636	-	-	-	-	-	2,128,476
YEOPEUL	1,777,646	-	255,741	-	-	-	-	-	2,033,387
Cineplay	601,901	-	54,253	-	-	-	-	-	656,154
Designpress	730,586	-	165,809	-	-	-	-	-	896,395
Interbiz (Dong-A JV)	614,424	-	214,986	-	-	-	-	-	829,410
Artitian (Kyunghyang									
Daily News JV)	211,327	-	68,237	-	-	-	-	-	279,564
Schooljam (EBS JV) Agroplus (Korea	390,201	-	111,243	-	-	-	-	-	501,444
Business JV)	538,696	-	166,233	-	-	-	-	-	704,929
Sumlab (Munhwa Ilbo									
JV) Techplus (Electronic	623,586	-	181,275	-	-	-	-	-	804,861
Times JV)	692,285	-	291,308	-	-	-	-	-	983,593
Animal and Human									
Story (Hankook Ilbo	224.422		07.000						222.222
JV) Law and Media	301,103	-	67,236	-	-	-	-	-	368,339
(Money Today JV)	184,048	_	17,007	_	_	_	_	_	201,055
DANAA Data	4,893,200	_	68,245	_	_			_	4,961,445
Cinamon Games	1,979	_	-	_	_		(1,979)	_	, ,
LINE Project	-	_	_	_	_	_	-	_	_
Lantu Games	_	_	_	_	_	_	_	_	_
RABBIT-LINE PAY ³									
COMPANY	19,081,211	-	(1,079,016)	(103,736)	-	(10,361,870)	-	(7,536,589)	-
Collab+LINE	1,693,966	-	76,343	49,457	-	-	-	(1,819,766)	-
Kasikorn LINE	41,859,924	-	(3,003,587)	(699,243)	-	-	-	(38,157,094)	-
LINE Bank Taiwan									
Limited		201,463,737	(7,085,680)	1,464,365				(195,842,422)	
	76,250,226	201,463,737	(8,797,582)	710,843		(10,361,870)	(1,979)	(243,355,871)	15,907,504
	₩ 1,558,268,185	₩ 468,878,521	₩ 69,579,536	₩ (28,815,303)	₩ (57,594,870)	₩ (124,350,747)	₩ (49,123,306)	₩ (637,416,329)	₩ 1,199,425,687

¹ Includes share of loss of associates and joint ventures in relation to discontinued operations amounting to ₩ 45,975 million during the year ended December 31, 2020.

² Includes share of other comprehensive income of associates and joint ventures in relation to discontinued operations amounting to ₩ 11,254 million during the year ended December 31, 2020 and does not include the decrease related discontinued operations amounting ₩ 30,346 million occurred after the classification of assets as held for sales.

³ An impairment loss is recognized as the carrying amount exceeded the recoverable amount due to continuous operating loss and others during the year. The recoverable amount is measured on the value in use or the fair value less the costs of disposal which were estimated using an income approach. An assumed discount rate used is 10.37%.

(in thousands of Korean won)

(c) The tables below provide summarized financial information for those associates and joint ventures that are material to the Group and received dividends from the associates and joint ventures.

·	_	Current		Non-curi	ent			N	lon-current			
		assets		assets	5	Current	liabilities		liabilities			Equity
Associates												
China Ventures Fund I, L.P. ¹	¥	∀ 8,956	5,453	₩ 353,1	64,007	₩	423,224	₩	-	₩		361,697,236
K-Fund I		5,678	3,637	473,9	47,494		110,145		-			479,515,986
MiraeAsset MAPS Private												
Placement Real Estate 62		30,226	5,222	1,727,8	35,677		11,957,006		815,176,514			930,928,379
MIRAE ASSET-NAVER ASIA	4											
GROWTH INVESTMENT ¹		205,736	-	·	29,240		4,878,583		27,246,682			,150,717,686
A-Holdings (formerly, LINE) ¹		24,808,499	9,085	53,494,6	25,169	28,7	52,484,811		15,153,613,819		26	,311,526,659
Joint ventures												
Mirai Fund ¹		19,228	3,303	178,5	35,712		3,259,587		6,765,204			183,605,710
DANAA Data		10,173	3,433		31,973		3,452		-			10,201,955
<i>"</i> "												
(in thousands of Korean won)						202						
							Other		Total comprehens	i		Dividend
		Revenue	Oner	rating income	Not	income	comprehe		income (los			received
	•	revenue	Opei	ating income	Not	income	ilicolli		income (ios	3)		received
Associates												
China Ventures Fund I, L.P. ¹	₩	1,144	₩	(9,103,064)	₩ 10	04,925,448	₩		₩ 104,925	448	₩	113,028,413
K-Fund I		-		(21,103)	(5,773,982)			(5,773,9	982)		307,033
MiraeAsset MAPS Private												
Placement Real Estate 62		801,565,820		792,385,305	79	2,385,305		-	792,385	305		145,486,028
MIRAE ASSET-NAVER ASIA												
GROWTH INVESTMENT ¹		215,599,303		209,412,484	20	9,149,410		-	209,149	410		-
A-Holdings (formerly, LINE) ¹	13	,518,180,762		1,504,936,365	6	89,858,650	165,45	50,406	235,309	056		96,073,631
Joint ventures												
Mirai Fund ¹		10,641,389		(5,224,234)	(2,138,643)		-	(2,138,6	643)		-
DANAA Data		-		(8,749)		76,557		-	76	557		-

¹ Based on the consolidated financial statements and equity and profit for the year only includes profit attributable to the controlling shareholders.

(in thousands of Korean won)								2020				
		Curr	ent	I	Non-c	urrent		Current	N	on-cı	urrent	
		ass	ets		ass	sets	I	iabilities		liabil	ities	Equity
Associates												
MIRAE ASSET-NAVER ASIA												
GROWTH INVESTMENT ¹	₩	17,	354,65	50 ₩	614	1,370,348	₩	4,213,205	₩	28,	876,087 ₩	598,681,064
K-Fund I		231,	244,32	22		-		105,361			-	231,138,961
MiraeAsset MAPS Private												
Placement Real Estate 62			435,78),324,520		245,057,463			-	456,702,846
Carousell Pte			147,99		342	2,440,313		23,925,141		39,	679,792	374,983,378
China Ventures Fund I, L.P. ¹		311,	658,51	13		-		34,244,800			-	277,413,713
Joint ventures												
DANAA Data		10,	094,22	22		32,916		1,741			-	10,125,397
JobsN		4,	424,07	79		324,392		404,643			-	4,343,828
(in thousands of Korean won)								2020				
								Other			Total	
			Op	eratin	g			comprehe	nsive	COI	mprehensive	Dividend
	Reven	ue	ir	ncome		Net inc	come	incom	е	in	come (loss)	received
Associates												
MIRAE ASSET-NAVER ASIA												
GROWTH INVESTMENT ¹	₩ 16,91	6,509	₩	3,974,	197	₩ 12,7	15,071	₩	-	₩	12,715,071	₩ (11,724,434
K-Fund I	26	4,651		237,	551	19,6	27,530)	-		19,627,530	
MiraeAsset MAPS Private												
Placement Real Estate 62	63,74	8,748	6	60,311,	293	60,3	11,293	3	-		60,311,293	(3,277,327
China Ventures Fund I, L.P. ¹		9,444	(1	1,591,7	776)	107,3	32,838	3	-		107,332,838	(33,471,156
Carousell Pte	47,96	9,604	(4	9,521,7	775)	(55,86	51,111)	-		(55,861,111)	
Joint ventures												
DANAA Data		-		(18,2	238)	1	39,274	1	-		139,274	
JobsN	3,76	3,120		971,	846	8	07,675	5	-		807,675	

¹ Based on the consolidated financial statements and equity and profit for the year only includes profit attributable to the controlling shareholders.

(d) Details of adjustments from financial information of associates and joint ventures to the book amount of investments in associates and joint ventures as at December 31, 2021 and 2020, are as follows:

(in thousands of	2021											
Korean won)			Group's		oup's share in				_			
		Net asset (a)	ownership in % (b)		net asset (a x b)		Goodwill	Others ³	Book amount			
Associates												
NetMania	₩	3,770,070	27.17%	₩	1,024,479	₩	-	₩ -	₩ 1,024,479			
Synapsoft		23,697,923	26.41%		6,259,181		501,488	-	6,760,669			
ARO In Tech		1,878,918	29.85%		560,871		74,227	-	635,098			
Silicon Cube		503,154	41.89%		210,772		=	(210,772)	-			
NSPACE		1,566,717	49.04%		768,390		1,082,057	(428,503)	1,421,943			
One Store ²		182,540,384	25.10%		45,811,348		2,236,909	-	48,048,257			
BonAngels Pacemaker Fund		14,683,938	22.73%		3,337,259		29,066	-	3,366,324			
Korea Contents Mutual Aid Association		16,542,865	53.75%		8,892,101		594,519	-	9,486,620			
Future Creation NAVER-SB Startup Investment Fund		15,995,692	37.04%		5,924,330		221,955	-	6,146,285			
NAVER KIP Cheer up! Gamers Fund		5,983,524	50.00%		2,991,762		-	-	2,991,762			
NAVER-BSK Youth Foundation No.5 Investment Fund		23,303,394	50.00%		11,651,697		-	-	11,651,697			
Mirae Asset-NAVER New Growth Fund 1		87,579,352	50.00%		43,789,676		5,333	-	43,795,009			
YG NAVER Contents & Lifestyle Fund		54,688,236	90.91%		49,716,578		-	-	49,716,578			
Soran Media Venture Fund I		1,063,456	66.67%		708,971		-	-	708,971			
MiraeAsset MAPS Private Placement Real Estate 62		930,928,379	45.08%		419,660,799		2,389,907	-	422,050,705			
MiraeAsset-Naver Asia Growth Fund ² MIRAE ASSET-NAVER		683,518,700	16.67%		113,919,783		-	-	113,919,783			
ASIA GROWTH INVESTMENT ²		1,150,717,686	40.00%		460,287,073		579,516	-	460,866,589			
Digital Media Partners II		9,353,662	26.88%		2,514,313		-	-	2,514,313			
K-Fund I		479,515,986	74.81%		358,740,139		-	-	358,740,139			
China Ventures Fund I, L.P. ²		361,697,236	70.33%		254,385,809		=	-	254,385,809			
The Grim Ent.		3,102,522	34.98%		1,085,278		682,760	-	1,768,038			
Studio Horang		1,275,857	41.50%		529,524		-	-	529,524			
Bigpicture Comics		3,125,805	35.00%		1,094,083		429,678	-	1,523,761			
Studio JHS		1,857,633	35.00%		650,202		498,498	-	1,148,699			
JQ COMICS		(283,559)	35.06%		(99,416)		235,998	-	136,582			
ZK Studio		267,857	40.00%		107,143		158,411	-	265,554			
Soo COMICS		320,932	40.00%		128,373		217,011	-	345,384			
AXIS ³		(3,822,629)	28.21%		(1,078,316)		-	1,078,316	-			
Fast Cowell Private Equity Fund		5,709,848	21.13%		1,206,306		4,345	-	1,210,651			
Laiqu Technology (Shenzhen)		1,291,280	21.30%		275,024		-	(275,024)	-			
Alliance Internet		8,303,570	23.53%		1,953,781		68,950	-	2,022,731			
CONG TY CO PHAN RBW VIETNAM		(220,098)	35.36%		(77,820)		238,976	-	161,156			
Famous Studio Corp.		4,030,856	33.33%		1,343,619		401,723	264,944	2,010,285			

(in thousands of		2021									
Korean won)		Group's	Group's share in								
	Net asset	ownership	net asset								
	(a)	in % (b)	(a x b)	Goodwill	Others ³	Book amount					
DHP private equity fund 3	680,815	25.16%	171,274	-	-	171,274					
AIRI, Inc.	8,254,162	14.29%	1,179,166	933,532	-	2,112,698					
Studio Mul	3,867,199	35.00%	1,353,582	1,988,555	-	3,342,137					
Do Ventures Fund I-A	24,024,127	22.70%	5,453,206	-	-	5,453,206					
Pala (formerly, PLACE A INC.)	928,489	48.78%	452,921	-	-	452,921					
YN Culture & Space	33,478,134	23.04%	7,714,374	-	-	7,714,374					
SMEJ Plus	35,996,461	30.07%	10,824,111	2,537,663	-	13,361,774					
Smart Korea Naver- Stonebridge Rising Investment Association	10,011,881	37.74%	3,778,068	-	-	3,778,068					
Carousell Pte	503,857,459	8.39%	42,274,075	39,230,155	(20,274,704)	61,229,525					
A-Holdings (formerly, LINE) ^{2,4}	26,311,526,659	50.00%	13,155,763,329	3,899,403,058	-	17,055,166,387					
LINE Friends Corporation ²	97,648,140	30.00%	29,294,442	42,298,558	-	71,593,000					
LINE Conomi	(5,079,149)	49.90%	(2,534,495)	5,082,276	-	2,547,781					
HAVIT CORPORATION	10,000	28.57%	2,857	-	-	2,857					
Seno	114,584	45.00%	51,563	51,033	-	102,596					
AtoZ	39,865,954	26.67%	10,630,921	29,331,417	-	39,962,338					
Sam Studio	2,057,678	35.00%	720,221	231,578	-	951,798					
WEVERSE COMPANY Inc.	190,044,814	33.91%	64,437,113	154,744,904	-	219,182,017					
Sasom	627,201	20.10%	126,080	346,329	269,476	741,884					
Studio Ohohoee	2,235,233	33.02%	738,091	-	-	738,091					
Geulbitneun lyakiggun	89,038	28.57%	25,439	145,376	-	170,815					
Studio 389	90,435	30.02%	27,149	56,209	-	83,359					
Only One Entertainment	128,249	35.00%	44,889	175,181	-	220,071					
Cafe24 Corp. ¹	115,366,636	14.81%	17,087,983	99,157,166	-	116,245,149					
K-Fund II	1,458,348	67.89%	989,118	-	-	989,118					
Makma	891,900	22.00%	196,244	558,091	-	754,336					
YUMI studio	4,743,986	35.00%	1,660,472	-	-	1,660,472					
JAYPLEMEDIA	12,767,031	25.00%	3,191,758	10,757,560	-	13,949,317					
munpia inc. ²	37,243,651	20.17%	7,513,240	53,223,524	-	60,736,765					
SODA	41,399,813	36.87%	15,263,931	14,069,049	79,775,981	109,108,961					
VerseWork	670,248	40.00%	268,098	477,384	-	745,482					
PRIVATE EQUITY FUND III	182,556,347	25.38%	45,652,076	-	-	45,652,076					
China Ventures Fund II, L.P. ²	151,170,218	30.00%	75,450,379	-	-	75,450,379					
Paramark KB Fund I	8,939,745	20.00%	1,972,000	-	-	1,972,000					
ICART GROUP ²	24,411,560	10.83%	2,642,952	18,123,595	329,697	21,096,244					
CINNAMON	6,744,759	20.00%	1,348,953	-	-	1,348,953					
A2Z-IP Fund	16,443,712	20.00%	3,288,742	-	-	3,288,742					
SHINE PARTNERS	2,507,525	5.00%	848,514	-	-	848,514					
BIFROST ²	1,453,092	14.15%	205,577	1,756,242	-	1,961,819					
Ebook Japan	51,369,566	34.35%	17,714,800	83,886,882	-	101,601,682					
Gorilla NCORE Metaverse 1	46,095,565	47.77%	22,017,790	-	-	22,017,790					

(in thousands of	2021									
Korean won)	Net asset (a)	Group's ownership in % (b)	Group's share in net asset (a x b)	Goodwill	Others ³	Book amount				
ZEP	1,000,000	40.00%	400,000	-	-	400,000				
TAIL Start-up Fund I	979,256	40.00%	391,702	-	-	391,702				
Joint ventures										
Mirai Fund ²	183,605,710	90.00%	165,245,139	25,926,950	-	191,172,090				
China Lab	1,522,984	49.00%	746,262	-	-	746,262				
JobsN	4,820,605	49.00%	2,362,096	-	-	2,362,096				
YEOPEUL	4,827,205	49.00%	2,365,331	-	-	2,365,331				
Cineplay	1,577,661	49.00%	773,054	-	-	773,054				
Designpress	2,108,563	49.00%	1,033,196	-	-	1,033,196				
Interbiz (Dong-A JV)	2,282,726	49.00%	1,118,536	-	-	1,118,536				
Artitian (Kyunghyang Daily News JV)	706,577	49.00%	346,223	-	-	346,223				
Schooljam (EBS JV)	1,303,960	49.00%	638,940	-	-	638,940				
Agroplus (Korea Business JV)	2,001,099	49.00%	980,539	-	-	980,539				
Sumlab (Munhwa Ilbo JV)	2,128,686	49.00%	1,043,056	-	-	1,043,056				
Techplus (Electronic Times JV)	2,696,500	49.00%	1,321,285	-	-	1,321,285				
Animal and Human Story (Hankook Ilbo JV)	707,211	49.00%	346,534	-	-	346,534				
Law and Media (Money Today JV)	423,055	49.00%	207,297	-	-	207,297				
DANAA Data	10,201,955	49.00%	4,998,958	-	-	4,998,958				
Baecomm	4,397,512	50.00%	2,198,751	-	-	2,198,751				

¹ The Group is in process of assessing the value of some identifiable intangible assets of associates and joint ventures including Cafe24 Corp. As at December 31, 2021, the assessment is in progress and the result of valuation in equity method may be adjusted in accordance with the final assessment.

⁴ The Group recognized fair value of identifiable intangible assets of associates amounting to ₩ 3,588 billion for equity method procedure on investments in associates upon acquisition, and the balance of intangible assets included in net assets is ₩ 3,332 billion as at December 31, 2021.

(in millions of		2020												
Korean won)		Net asset (a)	Group's ownership in % (b)		oup's share n net asset (a x b)		Goodwill	Others	S ³		ssified to for sale	Во	ok amount	
Associates														
NetMania	₩	3,662,363	27.17%	₩	995,211	₩	-	₩	-	₩	-	₩	995,211	
Synapsoft		20,043,827	26.43%		5,297,966		501,859		-		-		5,799,825	

² Based on the consolidated financial statements and therefore, the net asset represents amount attributable to the controlling shareholders.

³ Others include recognized amounts for preferred shares, recognition of impairment loss and others.

(in millions of				2020			
Korean won)	Net asset	Group's ownership	Group's share in net asset			Reclassified to	
	(a)	in % (b)	(a x b)	Goodwill	Others ³	held for sale	Book amount
ARO In Tech	2,286,373	29.85%	682,499	74,227	-	-	756,726
Silicon Cube	109,967	41.89%	46,065	1,006,541	(1,052,606)		-
NSPACE	1,060,944	49.04%	520,336	1,082,057	(541,449)	-	1,060,944
One Store	143,080,771	27.53%	39,386,613	2,453,588	-	-	41,840,201
BonAngels Pacemaker Fund Korea Contents	13,613,766	22.73%	3,094,038	29,065	-	-	3,123,103
Mutual Aid Association Future Creation NAVER- Stonebridge Early	15,104,399	57.76%	8,724,311	636,821	-	-	9,361,132
Stage Start-up Fund Future Creation	9,161,381	40.00%	3,664,552	240,780	-	-	3,905,332
NAVER-SB Startup Investment Fund NAVER KIP Cheer	25,171,130	37.04%	9,322,641	221,954	-	-	9,544,595
up! Gamers Fund NAVER-Suprema Youth Foundation	4,154,017	50.00%	2,077,009	-	-	-	2,077,009
No.5 Investment Fund Mirae Asset-NAVER New Growth Fund	13,160,328	50.00%	6,580,164	-	-	-	6,580,164
1 YG NAVER	88,250,666	50.00%	44,125,333	5,333	-	-	44,130,666
Contents & Lifestyle Fund Soran Media	53,182,818	90.91%	48,348,016	-	-	-	48,348,016
Venture Fund I MiraeAsset MAPS	1,228,420	66.67%	818,946	-	-	-	818,946
Private Placement Real Estate 62 MiraeAsset-Naver	456,702,846	45.08%	205,880,802	2,389,906	-	-	208,270,708
Asia Growth Fund ¹ MIRAE ASSET- NAVER ASIA GROWTH	355,063,403	16.67%	59,177,234	-	-	-	59,177,234
INVESTMENT ¹ Digital Media	598,681,064	40.00%	239,472,426	579,514	-	-	240,051,940
Partners II	8,623,433	26.09%	2,249,591	-	-	-	2,249,591
K-Fund I China Ventures	231,138,961	99.75%	230,562,555	-	(2,760,869)	(54,879,770)	172,921,916
Fund I, L.P. ¹	277,413,713	70.33%	195,108,242	-	-	-	195,108,242
The Grim Ent.	2,902,116	34.98%	1,015,175	682,760	-	-	1,697,935
Studio Horang	551,398	35.00%	192,998	227,155	-	-	420,153
Bigpicture Comics	2,653,144	35.00%	928,644	429,678	-	-	1,358,322
Studio JHS	(20,384)	35.00%	(7,135)	498,498	-	-	491,363
JQ COMICS	(87,130)	35.06%	(30,548)	235,998	-	-	205,450
ZK Studio	311,751	40.00%	124,700	240,141	-	-	364,841
Soo COMICS	346,623	40.00%	138,649	240,936	-	-	379,585
AXIS ³	(3,088,118)	28.29%	(873,629)	1,964,611	(1,090,982)	-	-
Fast Cowell Private Equity Fund Laiqu Technology	5,867,385	21.13%	1,239,588	4,345	-	-	1,243,933
(Shenzhen)	1,299,981	23.85%	310,053	226,444	-	-	536,497
LINE Games ^{1,3}	134,896,934	48.39%	65,277,244	-	-	(65,277,244)	-

(in millions of				2020			
Korean won)		Group's	Group's share				
	Net asset	ownership	in net asset			Reclassified to	
	(a)	in % (b)	(a x b)	Goodwill	Others ³	held for sale	Book amount
Epic Voyage3	87,800	30.00%	26,340	-	2,075	(28,415)	-
LINE Music ³	(20,017,566)	36.72%	(7,350,450)	-	7,350,450	-	-
Transcosmos Online Communication ³	2,426,409	37.06%	899,160	-	70,840	(970,000)	-
LENSA, LTD.3	2,388,041	49.00%	1,170,140	-	92,189	(1,262,329)	-
LINE Mobile ³	60,726,999	40.05%	24,319,742	47,608,992	5,703,394	(77,632,128)	-
Venture Republic ^{1,3}	(3,993,437)	33.98%	(1,356,791)	9,764,065	(8,407,274)	-	-
PT. Bank KEB HANA Indonesia ³	746,644,911	20.00%	149,328,982	9,900,667	8,640,369	(167,870,018)	-
FOLIO Holdings ^{1,3}	31,553,944	41.40%	13,062,312	-	1,029,116	(14,091,428)	-
iPASS ³	30,769,651	29.82%	9,176,913	1,311,393	474,627	(10,962,933)	-
Connection Labs	570,162	31.10%	177,344	2,249,767		, , ,	
Ltd ³ Alliance Internet		23.53%	1,079,393		(2,427,111)	-	1 1 1 0 2 1 2
CONG TY CO PHAN RBW	4,587,421	23.33%	1,079,393	68,950	-	-	1,148,343
VIETNAM	253,507	35.36%	89,633	238,976	-	-	328,609
Famous Studio Corp. DHP private equity	602,585	33.33%	200,862	-	401,723	-	602,585
fund 3	682,122	25.16%	171,603	-	-	-	171,603
Studio Mul	2,765,344	35.00%	967,915	1,988,555	-	-	2,956,470
Do Ventures Fund I- A, L.P	14,710,536	34.17%	5,026,657	-	-	_	5,026,657
PLACE A INC.	,,.	0 /0	3,023,00.				0,020,001
(formerly, Lano Co.,Ltd.)	4,982	48.78%	2,430	-	-	_	2,430
AIRI, Inc.	11,773,638	14.29%	1,681,949	933,532	=	_	2,615,481
SMEJ Plus	38,040,677	30.07%	11,438,805	25,399,261	=	_	36,838,066
YN Culture & Space	3,795,423	49.37%	1,873,943	, , , -	=	_	1,873,943
Smart Korea Naver- Stonebridge Rising Investment	, ,		, ,				, ,
Association	5,300,000	37.74%	2,000,000	-	-	-	2,000,000
Carousell Pte	374,983,378	8.13%	30,486,149	36,003,718	(81,754)	-	66,408,113
Cinamon Games	3,617,228	20.00%	723,446	-	-	-	723,446
Japan Food Delivery Co.,Ltd ³ HAVIT	3,469,157	31.31%	1,086,193	-	-	(1,086,193)	-
CORPORATION	10,000	28.57%	2,857	-	-	-	2,857
Joint ventures							
China Lab	1,139,697	49.00%	558,452	-	=	-	558,452
JobsN	4,343,828	49.00%	2,128,476	-	-	-	2,128,476
YEOPEUL	4,149,769	49.00%	2,033,387	-	-	-	2,033,387
Cineplay	1,339,090	49.00%	656,154	-	-	-	656,154
Designpress	1,829,378	49.00%	896,395	-	-	-	896,395
Interbiz (Dong-A JV)	1,692,674	49.00%	829,410	-	-	-	829,410
Artitian (Kyunghyang Daily	570,539	49.00%	279,564				279,564
News JV) Schooljam (EBS JV)	1,023,355	49.00%	501,444	-	-	-	501,444
Agroplus (Korea Business JV)	1,438,631	49.00%	704,929	- -	-	-	704,929
,	•						•

(in millions of				2020			
Korean won)	Net asset (a)	Group's ownership in % (b)	Group's share in net asset (a x b)	Goodwill	Others ³	Reclassified to held for sale	Book amount
Sumlab (Munhwa Ilbo JV) Techplus (Electronic	1,642,574	49.00%	804,861	-	-	-	804,861
Times JV) Animal and Human Story (Hankook	2,007,332	49.00%	983,593	-	-	-	983,593
Ilbo JV) Law and Media	751,713	49.00%	368,339	-	-	-	368,339
(Money Today JV)	410,317	49.00%	201,055	-	-	-	201,055
DANAA Data RABBIT-LINE PAY	10,125,397	49.00%	4,961,445	-	-	-	4,961,445
COMPANY ³	21,622,076	33.33%	7,207,359	-	329,230	(7,536,589)	-
Collab+LINE3	3,323,663	50.00%	1,661,832	-	157,934	(1,819,766)	-
Kasikorn LINE ³ LINE Bank Taiwan	72,877,627	49.99%	36,431,526	53,768	1,671,800	(38,157,094)	-
Limited ³	363,549,415	49.90%	181,411,158	5,048,736	9,382,528	(195,842,422)	-

¹ Based on the consolidated financial statements and therefore, the net asset represents amount attributable to the controlling shareholders.

- (e) The Group has stopped recognizing its share of losses in AXIS using the equity method as its book amount is less than nil (0) due to accumulated losses. The unrecognized accumulated losses amount to ₩ 2,035 million as at December 31, 2021.
- (f) Financial assets at fair value through profit or loss of the Group include the investment where the Group has significant influence over the investee. The investment amounts to ₩ 147,065 million as at December 31, 2021 and net gain on valuation amounts to ₩ 22,359 million during the year ended December 31, 2021.

² Others include recognized amounts for preferred shares, recognition of impairment loss and others.

³ Reclassified to assets held for sale during the year ended December 31, 2020 and net asset represents the amount at the time when the Group discontinued the use of equity method.

15. Trade and Other Payables

(a) Trade and other payables as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021				2020			
		Current	N	on-current	Current		Non-current		
Financial liabilities									
Non-trade payables	₩	630,991,575	₩	42,047,412	₩	433,541,655	₩	22,188,402	
Accrued expenses		30,779,690		-		13,375,718		-	
Deposits received		3,384,710		2,246,855		2,562,000		135,945	
		665,155,975		44,294,267		449,479,373		22,324,347	
Non-financial liabilities									
Accrued expenses		327,519,153		73,785,658		239,800,813		46,123,980	
	₩	992,675,128	₩	118,079,925	₩	689,280,186	₩	68,448,327	

(b) Trade and other payables classified as liabilities held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)	2020					
		Current	No	n-current		
Financial liabilities						
Non-trade payables	₩	614,261,572	₩	499,934		
Accrued expenses		146,346,767		1,956		
Deposits received		1,377,318		7,882		
		761,985,657		509,772		
Non-financial liabilities						
Accrued expenses		92,514,784		1,341,718		
	₩	854,500,441	₩	1,851,490		

16. Other Liabilities

(a) Other liabilities as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	n)20			21		2020			
	Current		Current Non-current			Current	Non-current		
Advances from customers	₩	374,307,203	₩	-	₩	281,501,377	₩	-	
Unearned revenues		77,137,675		411,971		36,719,885		295,624	
Withholdings	•	1,275,309,990		-		1,079,342,932		-	
VAT withholdings		115,047,718		-		86,910,136			
	₩ ′	1,841,802,586	₩	411,971	₩	1,484,474,330	₩	295,624	

(b) Other liabilities classified as liabilities held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)	2020					
		Current	Non-current			
Advances from customers	₩	153,315,506	₩ -			
Unearned revenues		146,041,403	477,537			
Withholdings		386,813,461	-			
VAT withholdings		37,835,009	-			
Others		126,167,356				
	₩	850,172,735	₩ 477,537			

17. Borrowings and Debentures

(a) Borrowings as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won, in thousands of Japanese yen, in thousands of Hong Kong dollar, in thousands of US dollar and in thousands of Taiwan dollar)

thousands of Ta	iwan dollar)		Annual			
	Lender	Maturity date	interest rate (%)	2021		2020
Short-term borro	owings					
Foreign currency	Sumitomo Mitsui Banking Corporation ²	-	-	₩ -	₩ (JPY	21,085,200 2,000,000)
	Mizuho Corporate Bank, Ltd. ²	-	-	-	(JPY	105,426,000 10,000,000)
	Resona Bank Co. Ltd ²	-	-	-	(JPY	10,542,600 1,000,000)
	DAG Ventures VI, L.P. ¹	-	10.00	2,381,838 (HKD 15,667)		2,198,849 15,667)
	Goodwater Capital II, L.P. ¹	-	10.00	1,189,753 (HKD 7,825)	(HKD	1,098,348 7,825)
	Mistletoe Singapore Pte. Ltd. ¹	-	10.00	2,381,878 (HKD 15,667)	(HKD	2,198,886 15,667)
	SCC Growth IV Holdco A, Ltd. ¹	-	10.00	35,510,672 (HKD 233,577)	(HKD	32,782,495 233,577)
	SenseView Investment Limited ¹	-	10.00	5,954,977 (HKD 39,170)	(HKD	5,497,475 39,170)
	SNOW Limited Liability Partnership ¹	-	10.00	23,709,647 (HKD 155,954)		21,888,107 155,954)
Local currency	Woori Bank	2022.07.11	2.22	199,998,000		299,998,167
Foreign currency	Citibank	2022.04.15	0.40	51,512,000 (JPY 5,000,000)		52,713,000 5,000,000)
	Citibank	-	-	-	(USD	3,264,000 3,000)
	Citibank	-	-	-	(USD	17,408,000 16,000)
	Citibank	-	-	-	(USD	2,176,000 2,000)
	Mizuho Corporate Bank, Ltd. ²	-	-	-	(JPY	52,713,000 5,000,000)
	Mizuho Corporate Bank, Ltd. ²	-	-	-	(JPY	52,713,000 5,000,000)
	Mizuho Corporate Bank, Ltd. ^{2,3}	-	-	-	(JPY	780,971,268 74,077,672)
	Mizuho Corporate Bank, Ltd. ^{2,3}	-	-	-	(JPY	59,528,453 5,646,468)
	Shinsei Bank, Limited ²	-	-	-	(JPY	10,542,600 1,000,000)
	Mizuho Corporate Bank, Ltd. ²	-	-	-	(JPY	26,356,500 2,500,000)
	Mizuho Corporate Bank, Ltd. ²	-	-	-	(JPY	26,356,500 2,500,000)
	Mizuho Corporate Bank, Ltd. ²	-	-	-	(JPY	26,356,500 2,500,000)
Local currency	Shinhan Bank	-	-	-		30,000,000
	Hana Bank Hana Bank	- 2022.02.25	2.66	20,000,000		10,000,000
Current portion	of long-term borrowings	2022.02.20	2.00	20,000,000		-
Local currency	Shinhan Bank	-	-	-		45,000,000
Foreign currency	Mizuho Corporate Bank, Ltd.	2022.09.30	0.86	61,814,400		-

(in thousands of Korean won, in thousands of Japanese yen, in thousands of Hong Kong dollar, in thousands of US dollar and in thousands of Taiwan dollar)

thousands of Ta	iwan dollar)				
	Lender	Maturity date	Annual interest rate (%)	2021	2020
			(,	-	
				(JPY 6,000,000)	
	SMBC Corporation	2022.09.30	0.88	56,868,653	-
	Sunny Solution 3 rd	_	_	(JPY 5,519,942)	50,000,000
	•				15,814
	Dai Ichi Kangyo Credit Cooperative ²	-	-	-	(JPY 1,500)
				461,321,818	1,748,830,762
				(JPY 16,519,942)	(JPY 116,225,640)
				(HKD 467,860)	(USD 21,000) (HKD 467,860)
					(1110 407,000)
Long-term borro	owings				
Foreign currency	Dai Ichi Kangyo Credit Cooperative ²	_	_	_	23,721
r oreign currency	Dai Ichi Kangyo Credit Cooperative	-	-	<u>-</u>	(JPY 2,250)
	Mizuho Corporate Bank, Ltd.	2023.09.25	0.74	73,622,621	75,339,129
				(JPY 7,146,162) 73,622,621	(JPY 7,146,162) 75,339,130
	SMBC	2023.09.25	0.78	(JPY 7,146,162)	(JPY 7,146,162)
	D: 2			(01 1 7,110,102)	759,067
	Diverse Inc. ²	-	-	-	(JPY 72,000)
	Mizuho Corporate Bank, Ltd. ^{2,3}	_	_	_	707,130,617
	imzune corporate barin, Eta.				(JPY 67,073,646)
	Resona Bank Co. Ltd. ²	-	-	-	5,383,541 (JPY 510,646)
					969,919
	Amuse, Inc. ²	-	-	-	(JPY 92,000)
Local currency	S-Force No.2	2023.02.01	2.28	50,000,000	-
Foreign currency	Mizuho Corporate Bank, Ltd.	2023.09.25	0.76	286,961,379	-
,	Mizuha Carparata Pank Ltd			(JPY 27,853,838)	
	Mizuho Corporate Bank, Ltd.	2025.09.23	0.86	110,155,096 (JPY 10,692,178)	
	Mizuho Corporate Bank, Ltd.	0005.00.00	0.00	50,559,370	
	·	2025.09.23	0.86	(JPY 4,907,533)	-
	SMBC Corporation	2023.09.25	0.77	286,961,379	<u>-</u>
	OMPO Ocean and in a	_0_0.000	· · · ·	(JPY 27,853,838)	
	SMBC Corporation	2025.09.23	0.88	120,046,590 (JPY 11,652,294)	-
	SMBC Corporation			50,559,370	
		2025.09.23	0.88	(JPY 4,907,533)	-
	BNP Paribas	2024.12.26	0.61	154,536,000	_
	DIVI Talibas	2024.12.20	0.01	(JPY 15,000,000)	
	Mizuho Bank Ltd.	2023.11.15	0.54	169,989,600	-
Local currency	Kookmin Bank	2023.10.01	2.50	(JPY 16,500,000) 10,000,000	_
Local currency	Shinhan Bank	2025.10.01	2.99	15,000,000	- -
	Woori Bank	2023.07.10	2.49	100,000,000	-
				1,552,014,026	864,945,124
				(JPY 133,659,538)	(JPY 82,042,866)
				₩ 2,013,335,844	₩ 2,613,775,886
				(JPY 150,179,480)	(JPY 198,268,506)
				(HKD 467,860)	(USD 21,000) (HKD 467,860)
				-	(HKD 467,860)

¹ SNOW China, a subsidiary of the Group, issued Redeemable Convertible Preferred Stock ("RCPS"). If an event that cannot be controlled by the Group, such as changes in the regulatory environment, occurs,

the holder of RCPS can request a repayment to the Group at an amount that is calculated by applying a compounded annual interest rate of 10% to the issue amount. Accordingly, the Group classified this RCPS as borrowings.

(b) Debentures as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won, in thousands of US dollar and in thousands of Taiwan dollar)

		Annual					
Issuer	Maturity date	interest rate (%)	2021		2020		
CHOCO Media	-	-	₩	-	₩ (TWD	5,690,291 147,150)	
	2024-02-25	1.24		250,000,000	,	-	
Naver Corporation	2026-02-25	1.60		450,000,000			
Naver Corporation	2026-03-29	1.50		948,400,000		-	
	2020-03-29	1.50	(USD	800,000)		_	
Less: Discount on bond	s navable			(11,572,536)		(11,572,536)	
Less. Discount on bond	s payable		(USD	(8,387))			
			•	1,636,827,464	₩	5,690,291	
			(USD	791,613)	(TWD	147,150)	

The details of conditions of issuance of debentures as at December 31, 2021, are as follows:

	Payment of principal and interest	Financial ratios maintenance	Limitation on settlement of security rights	Limit on the sale of assets	Limitation on changes in governance
Debentures in won (4 th -1, 4 th -2)	Interest paid quarterly and lump-sum repayment at maturity for principal	Debt ratio below 300%	Equity capital below 500%	Within 100% of total assets	Change in largest shareholder
Unsubordinated unsecured bonds in foreign currency	Interest paid semiannually and lump-sum repayment at maturity for principal	-	Restrictions on the settlement of security rights over a certain amount under contractual terms	Restrictions on the sale of important property in the contract.	Restriction on the merger and others under contractual terms

¹ The above financial ratio maintenance, restrictions on the settlement of security rights, and limits on the sale of assets are applied based on the consolidated financial statements.

² Borrowings classified as liabilities held for sale as at December 31, 2020 were included in the sales of disposal group and disposed during the year ended December 31, 2021.

³ A syndicated loan agreement in which Mizuho Bank participates as an agent and lender and 22 financial institutions are participating as lenders as at December 31, 2020. The borrowings have been transferred to A-Holdings, an associate of the Group, upon completion of business integration.

18. Provisions

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

(in thousands of Korean won)	2021							
		vision for tigation		ovision for estoration		Others		Total
Beginning balance Charged / (credited) to the consolidated statement of comprehensive income	₩	927,938	₩	11,471,737	₩	28,494,885	₩	40,894,560
Additional provisions		250,943		202,045		1,020,761		1,473,749
Unused amounts reversed		-		(804,684)		(1,155,982)		(1,960,666)
Charged during the year		-		2,996,055		-		2,996,055
Used during the year		-		(211,846)		(27,974,496)		(28,186,342)
Others ¹		(1,938)		151,481		208,533		358,076
Ending balance	₩	1,176,943	₩	13,804,788	₩	593,701	₩	15,575,432
Current portion	₩	1,176,943	₩	4,954,920	₩	525,469	₩	6,657,332
Non-current portion		-		8,849,868		68,232		8,918,100

¹ Others include effects of changes in foreign currency exchange rates.

(in thousands of Korean won)	2020							
	Provision for litigation		Provision for restoration		Others ⁴		Total	
Beginning balance Charged / (credited) to the consolidated statement of comprehensive income	₩	1,210,878	₩	59,996,662	₩	1,661,695	₩	62,869,235
Additional provisions ¹		184,467		326,637		31,599,190		32,110,294
Unused amounts reversed ¹		(112,306)		(1,010,499)		(317,931)		(1,440,736)
Charged during the year		-		6,301,710		3,391,743		9,693,453
Used during the year		(156,801)		(497,460)		(764,195)		(1,418,456)
Others ²		12,684		1,239,058		168,697		1,420,439
Reclassified to held for sale		(210,984)		(54,884,371)		(7,244,314)		(62,339,669)
Ending balance	₩	927,938	₩	11,471,737	₩	28,494,885	₩	40,894,560
Current portion	₩	927,938	₩	2,323,373	₩	28,457,073	₩	31,708,384
Non-current portion		-		9,148,364		37,812		9,186,176

¹ Includes additional provisions and unused amounts reversed in relation to discontinued operations amounting to ₩ 7,198 million and ₩ 318 million, respectively, during the year ended December 31, 2020.

² Others include effects of changes in foreign currency exchange rates.

³ Includes changes in provisions in relation to continuing operations for the year ended December 31, 2020 and changes in provisions that had been classified to liabilities held for sale up to the point of reclassification. The balance of provisions classified as liabilities held for sale is ₩ 64,627 million (provision for litigation: ₩ 231 million, provision for restoration: ₩ 63,855 million, other provisions: ₩ 541 million) as at December 31, 2020 (Note 35).

⁴ In relation to certain services provided by the Company, a penalty amounting to ₩ 27,732 million, which had been imposed by the Fair Trade Commission, is recognized as provision at December 31, 2020.

19. Post-employment Benefits

19.1 Defined benefit pension plans

The Group operates defined benefit pension plans in various countries. The majority of the plans are final salary pension plans, which provide benefit to employees in the form of a guaranteed level of pension payable for life. The level of benefits provided depends on employees' length of service and their salary in the final years leading up to retirement. The majority of benefit payments are funded by an external institution.

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

(in thousands of Korean won)		2021		2020
Present value of funded defined benefit obligations	₩	19,636,222	₩	16,230,725
Present value of unfunded defined benefit obligations		547,796,286		459,546,712
Sub total		567,432,508		475,777,437
Fair value of plan assets		(13,167,880)		(13,683,192)
Net defined benefit liabilities	₩	554,264,628	₩	462,094,245

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

(in thousands of Korean won)	2021			2020 ¹
Beginning balance	₩	475,777,437	₩	490,129,266
Current service cost		101,967,606		113,098,944
Interest expense		14,327,163		13,250,733
Remeasurements				
Actuarial loss from change in demographic				
assumptions		2,431,451		40,890,019
Actuarial gain from change in financial assumptions		(3,671,664)		(35,475,075)
Actuarial loss (gain) from experience adjustments		3,825,246		(3,015,073)
Payments from plans				
Benefit payments		(29,189,904)		(28,394,833)
Others		1,965,173		(4,717,821)
Ending balance	₩	567,432,508	₩	585,766,160
Balance in the consolidated statement of financial				_
position	₩	567,432,508	₩	475,777,437
Amount classified as assets held for sale		-		109,988,723

¹ Expenses incurred from discontinued operations are included in changes for the year ended December 31, 2020.

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

(in thousands of Korean won)	2021		2020 ¹	
Beginning balance	₩	13,683,192	₩	16,691,311
Interest income		400,528		295,527
Remeasurements:				
Return on plan assets (excluding amounts				
included in interest income)		(304,088)		(323,216)
Contribution:				-
Employee		-		600,000
Transfer in and out		-		(33,935)
Payments from plans:				
Benefit payments		(611,752)		(2,181,521)
Ending balance	₩	13,167,880	₩	15,048,166
Balance in the consolidated statement of financial				
position	₩	13,167,880	₩	13,683,192
Amount classified as assets held for sale		-		1,364,974

¹ Expenses incurred from discontinued operations are included in changes for the year ended December 31, 2020.

(d) Plan assets as at December 31, 2021 and 2020, consist of:

(in thousands of Korean won)	2021		2020			
		Amount	Ratio (%)		Amount	Ratio (%)
Cash and cash equivalents, etc.	₩	1,888,274	14.34	₩	1,067,289	7.80
Securities, etc.		10,995,180	83.50		12,535,172	91.61
Others		284,426	2.16		80,731	0.59
	₩	13,167,880	100.00	₩	13,683,192	100.00

Plan assets classified as assets held for sale as at December 31, 2020, consist of:

(in thousands of Korean won)		2020		
	1	Amount	Ratio (%)	
Cash and cash equivalents, etc.	₩	1,364,974	100.00	

(e) The significant actuarial assumptions as at December 31, 2021 and 2020, are as follows:

	2021	2020 ¹	
Discount rate	3.37%~3.74%	2.78%~3.28%	
Salary growth rate	5.75%~10.54%	3.83%~15.41%	

¹ includes assumption in relation with discontinued operations.

(f) The sensitivity analysis of the defined benefit obligation to changes in the principal assumptions is:

(in thousands of Korean won)	Impact on defined benefit obligation				
	Changes in assumption	Increase in assumption			ecrease in ssumption
Discount rate	1% increase / decrease	₩	(64,131,596)	₩	77,035,403
Salary growth rate	1% increase / decrease		73,464,635		(62,702,166)

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. The sensitivity of the defined benefit obligation to changes in principal actuarial assumptions is calculated using the projected unit credit method, the same method applied when calculating the defined benefit obligations recognized on the consolidated statement of financial position. The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the prior year.

(g) Effects of defined benefit plans on future cash flows

There are no expected contributions to plan assets for the year ending December 31, 2022, and the weighted average duration of the defined benefit obligation is 9.95 – 17.46 years.

19.2 Defined contribution pension plans

The operating expense recognized in the current period in relation to defined contribution plan was \forall 112 million (2020: \forall 147 million) and there is no expense recognized from discontinued operations during the year ended December 31, 2021 (2020: \forall 1,157 million).

19.3 Other Long-term and Short-term Employee Benefits

The short-term employee benefits represent the amount recognized for paid absences in respect of service rendered by employees in the current period and other long-term employee benefits represent the amount recognized for long-term paid absences for which the employees render the related services.

(in thousands of Korean won)		2021		2020
Short-term employee benefits	₩	64,986,954	₩	50,504,039
Other long-term employee benefits		33,342,148		26,054,963
	₩	98,329,102	₩	76,559,002

(a) The short-term and long-tern employee benefits classified as assets held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)		2020
Short-term employee benefits	₩	15,008,740 4,252,890
Other long-term employee benefits	₩	19,261,630

20. Issuance and Acquisition of Shares

The Group's total number of authorized shares is 300,000,000 shares. As at December 31, 2021, the Group has issued 164,049,085 ordinary shares (\forall 100 per share) and 14,750,130 treasury shares (excludes retired shares). The Group's share capital and share premium as at December 31, 2021, amount to \forall 16,481,340 thousand and \forall 132,920,605 thousand, respectively. The par value of outstanding shares amounting to \forall 16,404,909 thousand differs from the share capital (\forall 16,481,340 thousand) due to the retirement of shares.

The Group disposed of 1,839,920 treasury shares through treasury shares exchange transaction and exercise of stock options, and recognized gain on disposal of treasury shares amounting to ₩ 374,507 million.

21. Other Components of Equity

(a) Other components of equity as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021	2020
Treasury shares	₩	(1,066,259,871)	₩ (1,214,756,394)
Stock options		214,760,267	39,122,209
Loss on valuation of financial assets at fair value -			
other comprehensive income		(17,781,121)	72,596,848
Share of other comprehensive income of associates			
and joint ventures		(293,255,303)	(5,909,351)
Exchange differences		139,142,106	77,539,095
Others		(28,071,915)	(28,071,916)
	₩	(1,051,465,837)	₩ (1,059,479,509)
			·

(b) Other components of equity related to assets held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)		2020
Loss on valuation of financial assets at fair value -		
other comprehensive income	₩	(5,844,985)
Share of other comprehensive income of associates and joint ventures		(38,186,574)
Exchange differences		6,160,976
Others		(58)
	₩	(37,870,641)

(c) The Group retired 214,310 treasury shares and disposed of 1,447,594 shares (acquisition cost: ₩ 104,644 million) through treasury shares exchange transaction with E-MART Inc., SHINSEGAE Inc., Cafe24 Corp. and Wattpad, and recognized gain on disposal of treasury shares amounting to ₩ 333,847 million. In addition, the Group disposed of 392,326 treasury shares (acquisition cost: ₩ 28,361 million) through exercise of stock options and payment of stock grants to employees, and recognized gain on disposal of treasury shares amounting to ₩ 40,660 million.

(d) Changes in treasury shares for the years ended December 31, 2021 and 2020, are as follows:

(in shares)	2021	2020
Beginning balance	16,804,360	19,365,600
Acquisition	-	83,000
Disposal ¹	(1,839,920)	(2,094,240)
Retirement	(214,310)	(550,000)
Ending balance	14,750,130	16,804,360

¹ Include 392,326 treasury shares issued by the Group through exercise of stock options and stock grants.

22. Share-based Payment

As at December 31, 2021, the Group entered into share-based payment agreements for the employees and directors of the Group upon the resolution of several shareholders' meetings and the Board of Directors.

22.1 Stock option

- (1) Equity-settled stock option
- (a) Details of the equity-settled stock options granted are as the follows:

	Granted on February 27, 2019	Granted on March 22, 2019	Granted on February 26, 2020	Granted on February 26, 2020	Granted on March 27, 2020
Shares granted	NAVER	NAVER	NAVER	NAVER	NAVER
Vesting condition	More than two years' service from the grant date	More than three years' service from the grant date	More than two years' service from the grant date	More than three years' service from the grant date	More than three years' service from the grant date
Exercisable period and condition	Five years from the exercisable date	- Five years from the exercisable date - If daily closing price for ten consecutive days immediately preceding the exercising date or during the exercisable period are ₩ 192,000 or greater	Five years from the exercisable date	- Five years from the exercisable date - If daily closing price for ten consecutive days immediately preceding the exercising date or during the exercisable period are ₩ 192,000 or greater	- Five years from the exercisable date - If daily closing price for ten consecutive days immediately preceding the exercising date or during the exercisable period are ₩ 192,000 or greater
Authorized shares	Registered ordinary sh	•		groator	giodioi
Granting method		res or distribution of trea	asury shares		

	Granted on February 23, 2021	Granted on February 23, 2021	Granted on March 24, 2021	Granted on November 23, 2020	Granted on October 7, 2021
Shares granted	NAVER	NAVER	NAVER	Webtoon Entertainment Inc	Webtoon Entertainment Inc
Vesting condition	More than two years' service from the grant date	More than three years' service from the grant date	More than three years' service from the grant date	More than three years' service from the grant date	More than three years' service from the grant date
Exercisable period and condition	Five years from the exercisable date	Five years from the exercisable date	Five years from the exercisable date	Initial public openingWithin 8 years from the grant date	Initial public openingWithin 8 years from the grant date
Authorized shares	Registered ordinary sl	nares		and grams accept	g
Granting method	Either issuance of sha	ares or distribution of tre	asury shares		

⁽b) The changes in the number of equity-settled stock options and weighted average exercise prices for the years ended December 31, 2021 and 2020, are as follows:

(in number of shares, in Korean won and in Japanese yen)

						2021				
Grant date	une	ginning kercised alance	Gı	ranted	Exc	ercised	Ex	pired	unex	nding ercised lance
NAVER										
2019.02.27		393,024		-		(308,738)		(585)		83,701
2019.03.22		787,000		-		-		(37,000)		750,000
2020.02.26		153,753		-		-		(9,116)		144,637
2020.02.26		881,500		-		-		(31,000)		850,500
2020.03.27		670,000		-		-		(60,000)		610,000
2021.02.23		-		86,643		-		(5,319)		81,324
2021.02.23		-		1,027,500		-		(39,000)		988,500
2021.03.24				806,000	-	_		(41,000)		765,000
Total number of stock option		2,885,277		1,920,143		(308,738)		(223,020)		4,273,662
Weighted average exercise price	₩	163,220	₩	371,735	₩	128,900	₩	248,292	₩	254,945
Webtoon Entertainment Inc										
2020.11.23		254,648		-		-		(1,086)		253,562
2021.10.07		_		33,329		_		(278)		33,051
Total number of stock option		254,648		33,329		-		(1,364)		286,613
Weighted average exercise price	USD	331	USD	391	USD	-	USD	343	USD	338

¹ There are no stock options related to shares of LINE since LINE was excluded from the scope of consolidation during the year ended December 31, 2021.

(in number of shares, in Korean won and in Japanese yen)

						2020				
Grant date	une	ginning xercised alance	G	ranted	E	ercised	Ex	pired	unex	nding ercised lance
NAVER										
2020.02.27		407,112		-		-		(14,088)		393,024
2020.03.22		812,000		-		-		(25,000)		787,000
2021.02.26		-		162,869		-		(9,116)		153,753
2021.02.26		-		907,000		-		(25,500)		881,500
2021.03.27				682,000				(12,000)		670,000
Total number of stock option		1,219,112		1,751,869		-		(85,704)		2,885,277
Weighted average exercise price	₩	130,299	₩	186,000	₩	-	₩	160,570	₩	163,220
Webtoon Entertainment Inc										
2021.11.23		<u>-</u>		254,648						254,648
Total number of stock option		-		254,648		-		-		254,648
Weighted average exercise price	USD	-	USD	331	USD	-	USD	-	USD	331
LINE										
2013.12.01		309,000		-		(308,500)		(500)		-
2014.02.01		502,500		-		(502,500)		-		-
2014.08.01		116,000		-		(116,000)		-		-
2014.10.01		109,000		-		(109,000)		-		-
2015.02.01		708,500		-		(704,500)		(4,000)		-
2017.07.18		1,262,100		-		(946,400)		-		315,700
2019.07.29		4,673,200		-		-		(86,700)		4,586,500
2020.04.28		-		4,822,600		-		(212,400)		4,610,200
2020.11.05				3,048,000						3,048,000
Total number of stock option		7,680,300		7,870,600		(2,686,900)		(303,600)		12,560,400
Weighted average exercise price	JPY	3,081	JPY	3,500	JPY	2,224	JPY	3,466	JPY	3,518

(c) The Group calculated the compensation costs using binomial model and Least Square Monte-Carlo ("LSMC"), and the assumptions and inputs used for calculation of the compensation costs are as follows:

(in number of shares, in Korean won and in Japanese yen)

	NAVER									toon ment Inc
	2019.02.27	2019.03.22	2020.02.26	2020.02.26	2020.03.27	2021.02.23	2021.02.23	2021.03.24	2020.11.23	2021.10.07
Risk-free interest										
rate (%)	1.98	1.92	1.40	1.40	1.48	1.02	1.19	1.44	0.45	1.11
Expected maturity	7 years	8 years	7 years	8 years	8 years	3 years	4 years	4 years	5.5 years	5.5 years
Expected price volatility (%)	24.30	24.00	20.40	20.40	24.00	26.10	25.10	25.10	61.00	57.40
Expected dividend										
yield (%)	0.20	0.20	0.16	0.16	0.20	0.20	0.20	0.20	-	-
Weighted average share price at										
grant date	₩129,500	₩127,000	₩190,500	₩190,500	₩152,500	₩386,500	₩386,500	₩386,000	USD 331	USD 391
Weighted average										
fair value of stock options granted at										
grant date	39,906	19,365	48,526	37,580	18,219	81,253	89,003	79,368	USD 175.91	USD 200.99
Exercise price	128,900	131,000	186,000	186,000	186,000	362,500	362,500	384,500	USD 331	USD 391

In addition to the stock options mentioned above, the Group granted equity-settled stock options in regard to the shares of SNOW, Playlist, NAVER Z, Cake and KREAM, its subsidiaries.

- (d) The amount of operating expenses recognized in relation to equity-settled stock options is ₩ 87,773 million (2020: ₩ 31,050 million) and expenses from discontinued operations amount to ₩ 10,770 million (2020: ₩ 35,591 million) for the year ended December 31, 2021.
- (2) Cash-settled stock options
- (a) Details of the cash-settled stock options granted are as the follows:

	Granted on	Granted on	Granted on	Granted on	Granted on
	February 27, 2019	March 22, 2019	February 26, 2020	February 26, 2020	March 27, 2020
Granted by		Certain s	ubsidiaries of NAVER C	Corporation	
Vesting condition	More than two years service from the grant date	More than three years service from the grant date	More than two years service from the grant date	More than three years service from the grant date	More than three years service from the grant date
Exercisable period and condition	Five years from the exercisable date	- Five years from the exercisable date - If daily closing price for ten consecutive days immediately preceding the exercising date or during the exercisable period are \text{W} 192,000 or greater	Five years from the exercisable date	- Five years from the exercisable date - If daily closing price for ten consecutive days immediately preceding the exercising date or during the exercisable period are W 192,000 or greater	- Five years from the exercisable date - If daily closing price for ten consecutive days immediately preceding the exercising date or during the exercisable period are W 192,000 or greater

	Granted on April 30, 2020	Granted on April 30, 2020	Granted on February 23, 2021	Granted on February 23, 2021	Granted on March 24, 2021
Granted by		Certain s	ubsidiaries of NAVER C	Corporation	
Vesting condition	More than two years service from the grant date	More than three years service from the grant date	More than two years service from the grant date	More than three years service from the grant date	More than three years service from the grant date
Exercisable period and condition	Five years from the exercisable date	 Five years from the exercisable date If daily closing price for ten consecutive days immediately preceding the exercising date or during the exercisable period are ₩ 192,000 or greater 	-Five years from the exercisable date	-Five years from the exercisable date	 Five years from the exercisable date If daily closing price for ten consecutive days immediately preceding the exercising date or during the exercisable period are ₩ 192,000 or greater

⁽b) The changes in the number of cash-settled stock options and weighted average exercise prices for the year ended December 31, 2021, are as follows:

(in number of shares and in Korean won)

2021 **Beginning Ending** unexercised unexercised **Grant date** balance Granted **Exercised Expired** balance 2019.02.27 139,578 (62,653)76,508 (417)2019.03.22 161,500 (6,500)155,000 2020.02.26 47,327 (2,014)45,313 2020.02.26 212,750 (10,500)202,250 2020.03.27 122,000 (4,000)118,000 2020.04.30 8,480 (424)8,056 2020.04.30 108,134 102,922 (5,212)2021.02.23 34,452 (1,404)33,048 2021.02.23 377,321 (6,270)371,051 2021.03.24 252,000 (4,000)248,000 Total number of stock option 663,773 799,769 (62,653)(40,741)1,360,148 Weighted average exercise price 164,928 370,852 128,900 229,375 265,152

(in number of shares and in Korean won)

_	^	^	
7	u	1	u

unexercised unex	nding kercised ilance
2019.02.27 143,959 (4,381)	
2019.03.22 180,500 - (19,000)	161,500
2020.02.26 - 48,758 - (1,431)	47,327
2020.02.26 - 213,750 - (1,000)	212,750
2020.03.27 - 124,000 - (2,000)	122,000
2020.04.30 - 8,692 - (212)	8,480
2020.04.30 - 108,187 - (53)	108,134
Total number of stock option 324,459 503,387 - (28,077)	799,769
Weighted average exercise price $\mbox{$\forall$}$ 130,068 $\mbox{$\forall$}$ 186,000 $\mbox{$\forall$}$ - $\mbox{$\forall$}$ 139,871 $\mbox{$\forall$}$	164,923

(c) The Group calculated the compensation costs using the binomial model and Monte-Carlo Simulation, and the assumptions and inputs used for calculation of the compensation costs are as follows:

(in percentage, in years and in Korean won)

	2019.03.22	2020.02.26	2020.02.26	2020.03.27	2020.04.30	2020.04.30	2020.04.30	2021.02.23	2021.02.23	2021.03.24
Risk-free interest rate (%) Expected maturity	1.44 1.22	1.42 1.16	1.70 2.16	1.71 2.24	1.49 1.33	1.72 2.33	1.72 2.33	1.70 2.15	1.82 3.15	1.83 3.23
Expected price volatility (%)	25.59	25.07	25.59	25.59	25.07	25.59	25.59	25.07	25.59	25.59
Expected dividend yield (%) Share price at the end of	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
period Fair value of stock options granted at the end of	₩ 378,500	₩ 378,500	₩ 378,500	₩ 378,500	₩ 378,500	₩ 378,500	₩ 378,500	₩ 378,500	₩ 378,500	₩ 378,500
period	247,472	193,243	194,273	194,293	193,466	194,234	194,234	65,940	80,033	71,554
Exercise price	131,000	186,000	186,000	186,000	186,000	186,000	186,000	362,500	362,500	384,500

The amount of expenses recognized in relation to cash-settled stock options is \forall 84,945 million (2020: \forall 50,569 million) for the year ended December 31, 2021.

22.2 Payment of treasury shares (Stock grants)

The Group distributed treasury shares amounting to \W 64,415 million without consideration to employees during the year ended December 31, 2021.

(in number of shares and in Korean won)		ued on [,] 1, 2021	Issued on January 3, 2022		
Disposal value per share	₩	413,000	₩	376,000	
Total number of shares disposed		74,768		89,191	

23. Retained Earnings

Retained earnings as at December 31, 2021 and 2020, consist of:

(in thousands of Korean won)	2021			2020		
Legal reserves ¹	₩	8,240,670	₩	8,240,670		
Other reserves		13,909,234		13,909,234		
Retained earnings before appropriation		23,058,257,921		6,632,664,579		
	₩	23,080,407,825	₩	6,654,814,483		

¹ The Commercial Code of the Republic of Korea requires the Company to appropriate for each financial period, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its issued share capital. The reserve is not available for cash dividends payment but may be transferred to share capital or used to reduce accumulated deficit. When the accumulated legal reserves (the sum of capital reserves and earned profit reserves) are greater than 1.5 times the paid-in capital amount, the excess legal reserves may be distributed in accordance with a resolution of the shareholders' meeting.

24. Operating Expenses

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

(in thousands of Korean won)		2021		2020
Salaries and wages ¹	₩	1,195,875,688	₩	903,529,582
Share-based payment expenses		172,717,678		81,404,402
Employee benefits		176,595,367		138,910,152
Travel		3,936,521		4,221,196
Depreciation		329,973,292		257,301,335
Depreciation of right-of-use assets		82,290,101		53,964,881
Amortization		21,181,395		13,173,494
Communication		174,324,777		145,136,705
Utility		18,689,670		19,162,394
Taxes and dues		14,990,868		16,065,458
Rental		10,836,894		5,763,679
Commission		2,131,273,298		1,620,893,489
Advertising		1,071,730,155		762,604,197
Insurance		1,377,477		1,123,317
Freight		9,860,481		4,825,895
Supplies		16,032,396		16,564,435
Training		9,553,785		6,771,265
Others		50,881,693		37,387,567
	₩	5,492,121,536	₩	4,088,803,443

 $^{^{1}}$ Include expenses related to stock grants amounting to orall 65,440 million.

Operating expenses classified as loss from discontinued operations amount to \forall 403,526 million (2020: \forall 2,718,887 million) for the year ended December 31, 2021 (Note 35).

25. Other Income and Other Expenses

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

(in thousands of Korean won)		2021		2020
Rental income	₩	334,645	₩	1,883,040
Foreign currency exchange gain		19,251,404		9,080,772
Gain on disposal of property and equipment		2,677,953		2,583,834
Gain on disposal of investments in subsidiaries and				
associates		21,492,457		22,621,392
Others		8,965,980		7,187,648
	₩	52,722,439	₩	43,356,686

 $^{^{1}}$ Other income classified from discontinued operations amounts to \forall 16,182,471 million (2020: \forall 308,705 million) for the year ended December 31, 2021 (Note 35).

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

(in thousands of Korean won)	2021			2020
Foreign currency exchange loss	₩	63,341,222	₩	17,256,191
Social contribution expenses		84,522,206		52,614,926
Miscellaneous loss		20,458,357		32,190,722
Non-operating commission		19,310,913		8,013,364
Impairment loss on investments in associates and				
joint ventures		34,570,513		1,548,122
Others		10,663,036		7,199,489
	₩	232,866,247	₩	118,822,814

 $^{^1}$ Other expenses classified from discontinued operations amount to $\mbox{$W$}$ 15,257 million (2020: $\mbox{$W$}$ 321,272 million) for the year ended December 31, 2021 (Note 35).

26. Finance Income and Finance Costs

(a) Details of finance income for the years ended December 31, 2021 and 2020, are as follows:

	2021		2020
₩	68,736,438	₩	23,770,750
	29,563,155		4,510,940
	635,846,393		460,000,178
	883,288		-
	30,664,680		20,281,980
₩	765,693,954	₩	508,563,848
		₩ 68,736,438 29,563,155 635,846,393 883,288 30,664,680	 ₩ 68,736,438 ₩ 29,563,155 635,846,393 883,288 30,664,680

¹ Finance income classified from discontinued operations amount to ₩ 7,651 million (2020: ₩ 48,366 million) for the year ended December 31, 2021 (Note 35).

(b) Details of finance costs for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021		2020	
Interest expenses Foreign currency exchange loss	₩	45,165,688 11,586,409	₩	21,666,282 8,489,251	
Loss on valuation of financial assets at fair value - profit or loss		164,163,059		100,435,134	
Loss on valuation of financial liabilities at fair value - profit or loss		98,294,717		2,748,533	
Loss on disposal of financial assets at fair value - profit or loss		13,881,563		2,313,075	
Others		16,242,655		10,780,525	
	₩	349,334,091	₩	146,432,800	

 $^{^{1}}$ Finance costs classified from discontinued operations amount to \forall 13,310 million (2020: \forall 84,221 million) for the year ended December 31, 2021 (Note 35).

27. Income Tax Expense

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

(in thousands of Korean won)		2021		2020
Current tax				
Current tax on profits for the year	₩	700,291,647	₩	584,977,038
Adjustments for current tax attributable to prior				
years		(11,720,265)		(22,275)
Deferred tax				
Origination and reversal of temporary differences		1,193,791,479		57,712,966
Impact of changes in corporate tax rate		(3,003,540)		1,029,410
Income tax expense	₩	1,879,359,321	₩	643,697,139
Continuing operations	₩	648,668,890	₩	492,534,782
Discontinued operations		1,230,690,431		151,162,357

(b) The tax on the Group's profit before tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of the consolidated entities as follows:

(in thousands of Korean won)		2021		2020
Profit before income tax expense				
Continuing operations profit before income tax expense	₩	18,356,984,881	₩	1,488,694,116
Discontinued operations loss before income tax expense		2,126,399,872		1,633,558,911
		16,230,585,009		(144,864,795)
Tax at domestic tax rates applicable to profits in the respective				
countries		1,785,863,207		465,691,067
Adjustments				
Income not subject to tax		(51,031,383)		(82,035,931)
Expenses not deductible for tax purposes		77,587,875		66,790,236
Tax credits		(4,030,364)		(7,619,994)
Changes in non-recoverable deferred tax asset		95,443,609		189,707,818
Adjustments for current tax attributable to prior				
years		(11,720,265)		(22,275)
Change in deferred tax attributable to the corporate tax rate		(3,003,540)		1,029,410
Tax effects on recirculation of corporate income		54,056		9,741,204
Tax effects on consolidated tax return		(11,125,615)		(7,028,858)
Others		1,321,741		7,444,462
Income tax expense	₩	1,879,359,321	₩	643,697,139
Continuing operations	₩	648,668,890	₩	492,534,782
Discontinued operations		1,230,690,431		151,162,357

The weighted average applicable tax rate of the Group was 30.51% (2020: 30.15%).

(c) Income tax effect relating to components of other comprehensive income (loss) in relation to continuing operations for the years ended December 31, 2021 and 2020, is as follows:

(in thousands of Korean won)	2021					
		Before tax		Tax effect		After tax
Gain (loss) on valuation of financial assets at fair value - other						
comprehensive income	₩	(118,733,387)	₩	27,508,215	₩	(91,225,172)
Remeasurements of the net defined						
benefit liabilities		(2,280,945)		160,969		(2,119,976)
Exchange difference ¹		65,910,677		-		65,910,677
Shares of other comprehensive income of associates and joint						
ventures ¹		(262,953,755)		3,155,253		(259,798,502)
	₩	(318,057,410)	₩	30,824,437	₩	(287,232,973)

¹ The Group did not recognize deferred tax assets and liabilities for the exchange differences and share of other comprehensive income of subsidiaries and associates and joint ventures from the investment in subsidiaries and associates as at December 31, 2021, considering the Group has no plan for disposal of those investments.

(in thousands of Korean won)	2020					
	i	Before tax	Tax effect			After tax
Gain (loss) on valuation of financial assets at fair value - other						
comprehensive income Remeasurements of the net defined	₩	223,251,675	₩	(40,337,193)	₩	182,914,482
benefit liabilities		(11,994,003)		2,781,806		(9,212,197)
Exchange difference		69,902,451		-		69,902,451
Shares of other comprehensive income of associates and joint						
ventures		(40,068,854)				(40,068,854)
	₩	241,091,269	₩	(37,555,387)	₩	203,535,882

(d) Income tax effect relating to components of other comprehensive income (loss) in relation to discontinued operations for the years ended December 31, 2021 and 2020, is as follows:

(in thousands of Korean won)	2021					
	i	Before tax		Tax effect		After tax
Gain (loss) on valuation of financial assets at fair value - other comprehensive income Remeasurements of the net defined	₩	176,560	₩	(221,906)	₩	(45,346)
benefit liabilities		-		-		-
Exchange difference Shares of other comprehensive income of associates and joint		5,133,291		-		5,133,291
ventures		7,977,873		_		7,977,873
	₩	13,287,724	₩	(221,906)	₩	13,065,818
(in thousands of Korean won)				2020		
	İ	Before tax		Tax effect		After tax
Gain (loss) on valuation of financial assets at fair value - other						
comprehensive income Remeasurements of the net defined	₩	32,302,971	₩	(9,718,950)	₩	22,584,021
benefit liabilities		9,270,917		(1,443,260)		7,827,657
Exchange difference Shares of other comprehensive income of associates and joint		6,345,948		-		6,345,948
-						
ventures		(19,092,660)				(19,092,660)

(e) Income tax effect that are charged or credited directly to equity for the years ended December 31, 2021 and 2020, are as follows.

(in thousands of Korean won)	2021							
	ı	Before tax		Tax effect	After tax			
Gain (loss) on disposal of treasury shares Gain (loss) on disposal of financial	₩	513,957,587	₩	(139,450,734)	₩	374,506,853		
assets at fair value through other comprehensive income		29,412,486		(7,810,076)		21,602,410		
Stock options		126,496,421		88,263,846		214,760,267		
	₩	669,866,494	₩	(58,996,964)	₩	610,869,530		
(in thousands of Korean won)				2020				
		Before tax		Tax effect		After tax		
Gain (loss) on disposal of treasury shares	₩	448,610,988	₩	(120,125,747)	₩	328,485,241		
Gain (loss) on disposal of financial assets at fair value through other				,				
comprehensive income		2,781,557		(747,126)		2,034,431		
Stock options		39,122,209				39,122,209		
	₩	490,514,754	₩	(120,872,873)	₩	369,641,881		

(f) The analysis of deferred tax assets and liabilities related to continuing operations as at December 31, 2021 and 2020, is as follows:

(in thousands of Korean won)	2021	2020
Deferred tax assets		
Deferred tax asset to be recovered within 12 months	₩ 102,333,835	₩ 48,702,727
Deferred tax asset to be recovered after more than		
12 months	277,752,870	187,103,202
	380,086,705	235,805,929
Deferred tax liabilities		
Deferred tax liability to be within 12 months	(17,344,304)	(2,044,771)
Deferred tax liability to be recovered after more than		
12 months	(1,419,451,041)	(181,707,803)
	(1,436,795,345)	(183,752,574)
Deferred tax assets (liabilities), net	₩ (1,056,708,640)	₩ 52,053,355
	•	

(g) The analysis of deferred tax assets and liabilities related to discontinued operations as at December 31, 2020, is as follows:

(in thousands of Korean won)	2020			
Deferred tax assets				
Deferred tax asset to be recovered within 12 months	₩	89,763,143		
Deferred tax asset to be recovered after more than 12 months		174,898,860		
		264,662,003		
Deferred tax liabilities				
Deferred tax liability to be within 12 months		(13,692,694)		
Deferred tax liability to be recovered after more than 12 months		(106,056,085)		
		(119,748,779)		
Deferred tax assets, net	₩	144,913,224		

(h) The movement in deferred tax assets and liabilities for the years ended December 31, 2021 and 2020, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

(in thousands o							
f Korean won)	Beginning balanc	Statement of e profit or loss ¹	Other comprehensive income (loss) ²	Equity	Business combination and disposal	Exchange difference	Ending balance
Financial assets at fair							
value - profit or loss	₩ (176,696,30	3) \(\psi\) (21,064,063)	₩ -	₩ -	₩ 8,199,071	₩ 46,864	₩ (189,514,431)
Investments in subsidiaries and							
associates	(125,708,89	1) (1,239,750,329)	3,155,254	-	119,381,280	(115,599)	(1,243,038,285)
Financial assets at fair	, , ,	, , , , , , ,	, ,		, ,	, ,	, , , , ,
value - other							
comprehensive income	(1,096,15	9) -	1,096,159	-	-	-	-
Others		- (4,242,629)					(4,242,629)
Deferred income tax	(000 504 05	0) (4.005.057.004)	1.054.440		407 500 054	(00.705)	(4, 400, 705, 0.45)
liabilities Financial assets at fair	(303,501,35	3) (1,265,057,021)	4,251,413		127,580,351	(68,735)	(1,436,795,345)
value - other							
comprehensive income		- (105,790)	26,190,150	-	1,083,218	(57,363)	27,110,215
Provision for impairment	8,528,35	53 (2,409,591)	-	-	(4,630,983)	(80,872)	1,406,907
Intangible assets	5,892,34	11 26,748	-	-	(838,756)	(581)	5,079,752
Accrued expenses	79,553,76	55 14,451,412	-	-	(12,262,055)	(94,697)	81,648,425
Unearned revenues	125,200,64	13 6,855,559	-	-	(105,330,756)	(1,224,981)	25,500,465
Net defined benefit							
liabilities	127,571,01	13 23,453,377	160,969	-	(18,166,486)	284	133,019,157
Tax losses and tax credit carryforward	10,201,17	78 (1,620,252)			(8,237,583)	401,186	744,529
Stock options	10,201,17	* * * * *	-	- -	(6,237,363)	401,100	
·		- 17,313,410	-	88,263,845	-	-	105,577,255
Others	143,520,63	16,304,209			(158,190,655)	(1,634,193)	
Deferred income tax	500 407 00	74,000,000	00.054.440	00 000 045	(000 574 050)	(0.004.047)	000 000 705
assets Deferred income tax	500,467,93	32 74,269,082	26,351,119	88,263,845	(306,574,056)	(2,691,217)	380,086,705
assets (liabilities), net	₩ 196,966,57	79 ₩ (1,190,787,939)	₩ 30,602,532	₩ 88,263,845	₩ (178,993,705)	₩ (2,759,952)	₩ (1,056,708,640)

² Among items reflected in other comprehensive income, the amount related to discounted operations is ₩ (222) million.

(in thousands					2020				
of Korean won)			Other					Balance in the consolidated	
	Beginning balance	Statement of profit or loss ¹	comprehensive income (loss) ²	Equity ³	Business combination	Exchange difference	Ending balance	financial statement	Reclassified to held for sale
Financial assets at fair									
value - profit or loss	₩ (90,933,152)	₩ (86,158,302)	₩ -	₩ -	₩ -	₩ 395,151	₩ (176,696,303)	₩ (167,347,523)	₩ (9,348,780)
Convertible									
bond Investments in subsidiaries and	(7,429,847)	2,310,068		4,407,971		711,808	-	-	-
associates Financial assets at fair value - other comprehensiv	(57,811,588)	(69,302,114)	-	-	-	1,404,811	(125,708,891)	(16,159,492)	(109,549,399)
e income		22,039,592	(22,691,603)			(444,148)	(1,096,159)	(245,559)	(850,600)
Deferred									
income tax			,						
liabilities Financial	(156,174,587)	(131,110,756)	(22,691,603)	4,407,971		2,067,622	(303,501,353)	(183,752,574)	(119,748,779)
assets at fair									
value - other									
comprehensiv									
e income	27,364,540	-	(27,364,540)	-	-	-	-	-	-
Provision for									
impairment	7,953,692	694,834	-	-	-	(120,173)	8,528,353	984,988	7,543,365
Intangible	0.000.000	(000 007)				0	5,000,044	5.044.000	0.47.440
assets Accrued	6,829,300	(936,967)	-	-	-	8	5,892,341	5,044,892	847,449
expenses	65,353,328	14,265,269	_	_	_	(64,832)	79,553,765	59,645,407	19,908,358
Unearned	00,000,020	. 1,200,200				(0.,002)	. 0,000,100	00,010,101	10,000,000
revenues	94,806,911	31,951,107	-	-	-	(1,557,375)	125,200,643	16,949,126	108,251,517
Net defined									
benefit									
liabilities	108,152,102	18,080,419	1,338,546	-	-	(54)	127,571,013	109,283,723	18,287,290
Tax losses and									
tax credit	C EEE 01E	2 700 659				(EE 20E)	10 201 179	735,258	0.465.020
carryforward	6,555,815	3,700,658	-	-	-	(55,295)	10,201,178		9,465,920
Others	139,984,566	4,613,060			626,065	(1,703,052)	143,520,639	43,162,534	100,358,104
Deferred									
income tax assets	457 000 254	72 260 200	(26.025.004)		626.065	(2 500 772)	E00 467 022	225 905 020	264 662 002
Deferred	457,000,254	72,368,380	(26,025,994)		626,065	(3,500,773)	500,467,932	235,805,929	264,662,003
income tax									
assets									
(liabilities),									
net	₩ 300,825,667	₩ (58,742,376)	₩ (48,717,597)	₩ 4,407,971	₩ 626,065	₩ (1,433,151)	₩ 196,966,579	₩ 52,053,355	₩ 144,913,224

¹ Among items reflected in the statement of profit or loss, the amount related to discounted operations is income tax benefit amounting to ₩ 11,909 million.

¹ Among items reflected in the statement of profit or loss, the amount related to discounted operations is income tax benefit amounting to \forall (1,187,303) million.

(i) The Group did not recognize deferred tax assets and liabilities for the deductible temporary differences amounting to ₩ 1,602,683 million (2020: ₩ 2,253,417 million) and taxable temporary differences amounting to ₩ 319,814 million (2020: ₩ 646,479 million) from the investments in subsidiaries and associates which are not subject to disposal, respectively, and tax losses amounting to ₩ 1,047,084 million which are not recoverable because of the uncertainty of future taxable income of the subsidiaries.

28. Earnings per Share

(a) Basic earnings per share for operating profit for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won and in number of shares)		2021		2020
Profit from continuing operations attributable to the				
controlling shareholders of the Group	₩	1,493,472,247	₩	1,144,888,651
Less: dividend on preferred shares		(10,349,773)		
		1,483,122,474		1,144,888,651
Weighted average number of ordinary shares outstanding		148,659,354		145,724,906
Basic earnings per share from continuing operations				
(in Korean won)	₩	9,977	₩	7,857

(b) Basic loss per share for operating loss from discontinued operations for the years ended December 31, 2021 and 2020, are as follows:

Profit (loss) from discontinued operation attributable to the	
controlling ordinary shareholders of the Group $\mbox{$\forall$}$ 14,996,377,524 $\mbox{$\forall$}$ (142,80)1,885)
Weighted average number of ordinary shares outstanding 148,659,354 145,7	24,906
Basic earnings (loss) per share from discontinued	
operations (in Korean won) ₩ 100,877 ₩	(980)

² Among items reflected in other comprehensive income, the amount related to discounted operations is ₩ 11,162 million.

³ Among items reflected in equity, the amount related to discounted operations is ₩ 4,408 million.

(c) Weighted average number of ordinary shares outstanding for the years ended December 31, 2021 and 2020, are calculated as follows:

(in number of shares)	2021	
	Number of ordinary shares outstanding	Cumulative shares
Beginning balance	147,459,035	53,822,547,775
Treasury shares disposal	1,839,920	438,116,562
		54,260,664,337

Weighted average number of ordinary shares outstanding: $54,260,664,337 \div 365$ days = 148,659,354 shares

2020				
Number of ordinary shares outstanding	Cumulative shares			
145,447,795	53,233,892,970			
(83,000)	(26,325,964)			
2,094,240	127,748,640			
	53,335,315,646			
	Number of ordinary shares outstanding 145,447,795 (83,000)			

Weighted average number of ordinary shares outstanding: $53,335,315,646 \div 366$ days = 145,724,906 shares

(d) Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. The Group has stock options granted by the Company as dilutive potential ordinary shares. For the stock options, a calculation is done to determine the number of shares that could have been acquired at fair value (determined as the average annual market share price of the Group's shares) based on the monetary value of the subscription rights attached to outstanding stock options. The number of shares calculated as above is compared with the number of shares that would have been issued assuming the share options are exercised.

(in thousands of Korean won and in number of shares)		2021		2020
Profit from continuing operation attributable to the				
controlling ordinary shareholders of the Group	₩	1,483,122,474	₩	1,144,888,651
Profit (loss) from discontinued operations attributable to				
the controlling ordinary shareholders of the Group		14,996,377,524		(142,801,885)
Total		16,479,499,998		1,002,086,766
Weighted average number of ordinary shares outstanding		148,659,355		145,724,906
Adjustments:				
Stock option		1,344,737		805,705
Weighted average number of ordinary shares				
outstanding for calculating diluted earnings (loss) per				
share		150,004,092		146,530,611
Diluted earnings per share		109,860		6,839
Diluted earnings per share from continuing operations				
(in Korean won)		9,887		7,813
Diluted earnings (loss) per share from discontinued				
operations (in Korean won)	₩	99,973	₩	(980)

29. Dividends

Dividends in respect of the year ended December 31, 2020, amounting to \forall 59,278 million, was paid in April 2021. Details of the dividends are as follows:

		2021		2020
Shares eligible for dividends (in number of shares)		147,459,035		145,447,795
Dividend rate per share (in Korean won)		402		376
Cash dividends (in thousands of Korean won)	₩	59,278,532	₩	54,688,371

30. Cash Generated from Operations

(a) Details of cash generated from operations and changes in assets and liabilities due to operations for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021	2020	
Profit for the year	₩	16,477,625,560	₩ 844,996,9	977
Adjustments		-, ,,	- ,,-	
Impairment loss		6,458,908	12,754,2	277
Depreciation		329,973,292	327,527,6	
Depreciation of right-of-use assets		82,290,101	137,790,4	
Amortization		21,181,395	29,960,0	
Gain on foreign currency translation		(38,823,177)	(17,855,5	
Loss on foreign currency translation		68,954,454	38,077,7	,
Loss on disposal of trade receivables		1,307,581	3,777,4	
Gain on disposal of property and equipment		(2,679,680)	(3,298,5	
Loss on disposal of property and equipment		3,217,160	375,5	
Impairment loss on property and equipment		0,217,100	7,758,8	
Impairment loss on right-of-use assets		13,578	47,212,2	
Gain on disposal of intangible assets		2,040,012	(9,890,8	
Loss on disposal of intangible assets		250,923	(9,890,8	
Impairment loss on intangible assets		5,534,257	37,443,4	
Gain on valuation of financial assets and liabilities at		5,554,257	37,443,4	+00
fair value - profit or loss		(636,711,905)	(475,693,3	44)
Loss on valuation of financial assets and liabilities at		(030,711,303)	(470,000,0	77)
fair value - profit or loss		264,166,134	108,492,6	369
Gain on disposal of financial assets at fair value -			.00,.0=,0	
profit or loss		(33,901,716)	(39,709,0	11)
Loss on disposal of financial assets at fair value -		, , ,	, , ,	,
profit or loss		13,881,563	30,765,8	302
Gain on disposal of financial assets at fair value -				
other comprehensive income – debt instruments		(56,050)	(154,0	05)
Loss on disposal of financial assets at fair value -				
other comprehensive income – debt instruments		387,919	192,5	574
Impairment loss on financial assets at fair value -		(400,400)	/	\
other comprehensive income		(102,108)	(177,9	<i>((</i>)
Gain on disposal of investments in associates and		(40 474 044 440)	(070 500 0	C4\
joint ventures		(16,171,611,149)	(276,568,3	61)
Loss on disposal of investments in associates and ioint ventures		2,610,342	5,796,4	110
Impairment loss on investments in associates and		2,010,342	3,790,2	+10
joint ventures		34,570,513	124,350,7	747
Share of profit of associates and joint ventures		(810,996,862)	(130,774,5	
Share of loss of associates and joint ventures		266,295,706	61,195,0	•
Share-based payment expenses		247,902,431	155,638,0	
Post-employment benefits		121,289,435	120,343,0	
Interest income		(20,381,983)	(18,638,2	
		51,716,490	43,446,2	
Interest expenses Dividends income		(70,267,052)	(29,704,1	
Income tax expenses		1,869,345,256	643,697,1	
Income tax expenses Income with no other cash inflows		(5,377,131)	34,694,6	
income with no other cash lilliows		(5,377,131)	34,094,0	JUZ

(in thousands of Korean won)		2021		2020
Change in operating assets and liabilities, net				
Increase in trade receivables		(39,572,914)		(110,445,233)
Increase in other receivables		(240,148,990)		(328,618,928)
Increase in other current assets		(185,748,719)		(57,417,344)
Increase in other non-current assets		(33,653,633)		(52,464,881)
Increase in other payables		68,007,853		210,023,182
Increase in long-term other payables		7,555,427		4,314,423
Increase in accrued expenses		34,910,652		19,174,503
Increase (decrease) in long-term accrued expenses		(32,867,827)		8,381,371
Increase in other current liabilities		483,656,027		737,487,232
Decrease in provisions		(2,968,783)		(8,363,156)
Decrease in net defined benefit liabilities		(30,068,789)		(28,137,253)
Others		(39,173,550)		(166,800,927)
	₩	2,070,030,951	₩	2,041,772,594

¹ Includes ₩ (223,228) million (2020: ₩ 92,062 million) of cash generated from operations and changes in assets and liabilities due to operations from discontinued operations for the year ended December 31, 2021.

(b) Significant transactions not affecting cash flows for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021		2020
Reclassification of construction in progress	₩	33,985,445	₩	9,493,811
Other payables arising from acquisitions of property				
and equipment		(17,355,014)		241,430
Increase in right-of-use assets		348,346,045		303,791,484
Other payables arising from acquisitions of property				
and equipment		(1,117,982)		1,036,789
Reclassification of current portion of long-term				
financial instruments		-		55,164,117
Reclassification of current portion of long-term				
borrowings and debentures		139,053,823		845,816,645
Other receivables arising from disposals of				
subsidiaries and associates.		-		27,303,478

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

(in thousands of Korean won)	2021									
		Liabilities from financing activities								
		Short-term borrowings	Long-term borrowings		Debenture		Lease liabilities			Total
Beginning balance	₩	1,748,830,761	₩	864,945,124	₩	5,690,291	₩	827,028,028	₩	3,446,494,204
Cash flows - proceeds		260,601,900		1,598,040,294		9,403,866,053		-		11,262,508,247
Cash flows - repayment		(529,251,392)		-		-		(114,274,687)		(643,526,079)
Recognized for the year		-		-		-		343,945,599		343,945,599
Current portion reclassification		139,053,823		(139,053,823)		-		-		-
Disposal		-		-		-		(7,210,001)		(7,210,001)
Changes in scope of consolidation ¹		(1,149,818,767)		(735,261,676)		(7,721,245,572)		(734,085,003)		(10,340,411,018)
Amortization		-		-		(3,951,362)		-		(3,951,362)
Others ²		(8,094,508)		(36,655,893)		(47,531,946)		(4,126,230)		(96,408,577)
Ending balance	₩	461,321,817	₩	1,552,014,026	₩	1,636,827,464	₩	311,277,707	₩	3,961,441,014

¹ Excluded from scope of consolidation due to discontinued operations during the year ended December 31, 2021.

² Includes effects of changes in foreign currency exchange rate and interest payments which are presented as operating activities in the statement of cash flows when paid.

(in thousands of Korean won)	2020								
		Liabilities from financing activities							
	Short-term borrowings	Long-term borrowings	Debenture	Lease liabilities	Total				
Beginning balance	₩ 559,584,776	50,039,880	₩ 752,270,185	₩ 724,225,269	₩ 2,086,120,110				
Cash flows - proceeds	2,116,540,668	886,562,481	5,960,669	-	3,009,063,818				
Cash flows - repayment	(915,187,874)	-	(789,055,600)	(191,725,411)	(1,895,968,885)				
Recognized for the year	-		-	291,190,995	291,190,995				
Current portion reclassification	50,016,577	7 (50,016,577)	-	-	-				
Disposal	-		-	(9,661,778)	(9,661,778)				
Amortization ¹	-		5,515,160	17,618,238	23,133,398				
Others ²	(62,123,385)	(21,640,660)	30,999,877	(4,619,285)	(57,383,453)				
Ending balance	₩ 1,748,830,762	2 ₩ 864,945,124	₩ 5,690,291	₩ 827,028,028	₩ 3,446,494,206				
Balance in the consolidated statement of financial position Amount classified as assets	₩ 576,223,327	7 ₩ 150,678,259	₩ -	₩ 145,516,458	₩ 872,418,045				
held for sale	1,172,607,435	714,266,865	5,690,291	681,511,570	2,574,076,161				

¹ Includes amortization recognized in profit or loss in relation to discontinued operations amounting to ₩ 18,638 million during the year ended December 31, 2020.

² Includes effects of changes in foreign currency exchange rate and interest payments which are presented as operating activities in the statement of cash flows when paid.

31. Commitments and Contingencies

- (a) As at December 31, 2021, the Group has borrowing agreements with eight Korean financial institutions, including KB Kookmin bank, and S-Force No.2, with an aggregated credit limit up to ₩ 1,679,998 million and an agreement on leased assets with KB Kookmin Card Co., Ltd. up to ₩ 307,367 million. Also, the Group has borrowing agreements with Sumitomo Mitsui Banking Corporation, Mizuho Corporate Bank and three others with an aggregated credit limit up to JPY 151,679 million and USD 240 million.
- (b) As at December 31, 2021, the Group is provided with guarantees of ₩ 185,794 million from Seoul Guarantee Insurance, Korea Software Financial Cooperative and others in relation to the performance guarantee, and of ₩ 36,212 million (available up to ₩ 41,800 million) from Shinhan bank in relation to the payment guarantee. Also, the Group provides investments of ₩ 3,225 million as collaterals for payment guarantee from Korea Software Financial Cooperative.
- (c) As at December 31, 2021, customers' advance payments of ₩ 91,496 million, classified as cash and cash equivalents, are trusted to Shinhan Bank in accordance with the 'Guidelines for electronic financial service provider to protect user funds'.
- (d) As at December 31, 2021, the Group has entered into an agreement to compensate for some of the losses due to uncollected loans in relation to MIRAE ASSET CAPITAL's loans to small business owners (2021: ₩ 72,147 million).
- (e) As at December 31, 2021, the Group entered in a loan agreement related to the deferred payment service, and the limit for the unused portion (off-balance sheet account) amounts to ₩ 50,206 million.
- (f) As at December 31, 2021, the Group has entered a construction contract amounting to ₩ 424,437 million (outstanding amount: ₩ 21,222 million) with Samsung C&T Corporation in relation to a construction of a new building for the Group. Also, the Group has entered a construction supply contract amounting to ₩ 224,174 million (outstanding amount: ₩ 158,551 million) for construction of cloud data and others. As at December 31, 2021, the Group has entered contracts to acquire land amounting to ₩ 51,000 million (outstanding amount: ₩ 100 million).
- (g) As at December 31, 2021, the Group is a defendant in 21 lawsuit cases filed with regard to patent infringement and compensation for damages (aggregate amounts of cases: ₩ 3,461 million), and the Group is a plaintiff in nine lawsuit cases filed with regard to compensation for damages (aggregate amount of the cases: ₩ 2,542 million). The outcome of these cases is uncertain as at the reporting date and the Group's management recognizes the provision in relation to the potential loss if these cases meet the condition for the recognition of the provision.

(h) Details of significant capital commitments contracted in relation to funds owned by the Group as at December 31, 2021, are as follows:

(in thousands of Korean won)	Total commitment to invest			cumulated evestment	_	nexecuted amount
General Atlantic LLC	₩	177,825,000	₩	30,521,167	₩	147,303,833
K-Fund II		107,387,200		2,174,976		105,212,224
MIRAE ASSET-NAVER ASIA GROWTH						
INVESTMENT ¹		500,000,000		452,041,262		47,958,738
CHINA VENTURES FUND II, L.P.		116,179,000		75,450,379		40,728,621
Sequoia Capital Global Growth Fund III		160,042,500		132,602,242		27,440,258

¹ Contract amount in relation with investment in associate MIRAE ASSET-NAVER ASIA GROWTH INVESTMENT and MIRAE ASSET-NAVER ASIA GROWTH FUND.

- (i) As at December 31, 2021, the Group has entered executives and employees' group injury insurance with KB insurance.
- (j) As at December 31, 2021, the Group holds shares of CJ Logistics Corporation, CJ ENM CO., Ltd., and Studio Dragon Corporation to reinforce and maintain strategic partnership with CJ corporate group affiliates. The shares acquired by the Group are restricted on disposal for a certain period and the Group has preferential purchase right and sale claim right in accordance with the mutual share exchange agreement.
- (k) With the resolution of the Board of Directors on March 16, 2021, the Group conducted an exchange of treasury shares (SHINSEGAE INTERNATIONAL Inc. and E-MART Inc.) to reinforce and maintain strategic partnership with SHINSEGAE corporate group affiliates. In connection with this exchange, the Group entered into a mutual agreement for preferential purchase right and sale claim right. The shares acquired by the Group are restricted on disposal for a certain period.
- (I) With the resolution of the Board of Directors on August 10, 2021, the Group entered into a contract for contribution in kind using treasury shares to reinforce and maintain strategic partnership with Cafe24 Corp. In connection with this contract, the Group entered into an agreement for preferential purchase right and right to nominate directors. The shares acquired by the Group are restricted on disposal for a certain period.
- (m) As at December 31, 2021, the Group provides time deposits of ₩ 37,200 million as collaterals for the employees' loans from financial institutions. In addition, long and short-term financial instruments amounting to ₩ 13,760 million is deposited for shared corporate growth program and ₩ 4,600 million are pledged to Shinhan bank for payment guarantees in relation to Naver Pay service and others, ₩ 500 million are pledged for restoration of leasehold facilities and ₩ 300 million are pledged to Nonghyup bank for the credit line with Nonghyup Card.

- (n) As at December 31, 2021, the Group entered into a mutual agreement for preferential purchase right and sale claim right in relation to investments in MIRAE ASSET SECURITIES CO.,LTD. (exchange of treasury shares) held by the Group. The shares held by the Group are restricted on disposal for a certain period.
- (o) In relation to the investments in Tving Co., Ltd. held by the Group, as at December 31, 2021, the Group has drag-along rights that are exercisable in accordance with the contract terms. The investments are restricted on disposal for a certain period.
- (p) In relation to the acquisition of shares of WEVERSE COMPANY Inc., an associate, the Group plans to complete the acquisition of the final cumulative 49% shares on March 2, 2022 according to the shareholders' agreement. For the shares completely acquired, the contracting parties have entered into a mutual agreement for preferential purchase right and sale claim right. When certain conditions are met, contracting parties can request for sales of shares. The shares acquired by the Group are restricted on disposal for a certain period.
- (q) Investments of JAYPLEMDIA, an associate, and two other entities held by the Group are restricted on disposal for a certain period.
- (r) The Group grants put options that give investors the right to sell all or part of their shares to the Group in the event of a significant negative impact on the Group due to significant breach of contract or law in relation to certain Redeemable Convertible Preferred Stock (issue price: W 150,302 million) issued by the Group.
- (s) Other than as described in Note 31, as at December 31, 2021, the Group may exercise preferential purchase right and drag-along right in relation to investments in associates and joint ventures, such as Carousell Pte Ltd, JAYPLEMDIA, AtoZ and SMEJ.
- (t) The Group provided a loan amounting to ₩ 109,249 million to another entity in connection with the acquisition of Munpia Inc., an associate. In accordance with the terms of the contract, the loan will be repaid as part of the shares of Munpia Inc. acquired by other corporations.
- (u) In relation to acquisition of eBOOK Initiative Japan, an associate, the Group plans to acquire entire remaining shares in accordance with transaction agreement by the first quarter of 2022 which will result in 100% ownership of eBOOK Initiative Japan.
- (v) The Group plans to acquire shares for business partnership with LOCUS Corporation (acquisition amount: ₩ 23,485 million) on March 31, 2022 in accordance with the resolution of Board of Directors on December 21, 2021.

32. Related Party Transactions

- (a) Details of subsidiaries and associates and joint ventures as at December 31, 2021 and 2020, are described in Notes 1.1 and 14, respectively.
- (b) Details of other related parties that have sales and other transactions or outstanding receivables/ payables balances with the Group as at December 31, 2021 and 2020, are as follows:

Туре	2021	2020
Others ¹	Espreso Media, LunaSoft, Jakga Company, Bravepops, Mystic story, Studio Pot, HD junction, Contents First, Studioswingbat, DOHANDS, YLAB CORPORATION, LINE Games ¹ , PIG ¹ , Happybean foundation ¹ , Naver Cultural foundation ¹ , Naver Connect ¹	Fandom, Orpeo Sound Works, Bravepops, Studio Pot, ITSB, Espreso Media Co., Ltd., LunaSoft Inc., ICART GROUP, Meshkorea, Mystic story, Jakga Company Inc., Happybean foundation ¹ , Naver Cultural foundation ¹ , Naver Connect ¹

¹ Although these entities are not related parties of the Group in accordance with Korean IFRS 1024, they belong to the same large enterprise group according to the Monopoly Regulation and Fair Trade Act.

(c) Transactions with related parties including operating revenues and operating expenses for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	2021							
	Operating	revenues and	Operating expenses and others					
	c	others						
Associates								
LINE Corp⁵	₩	110,785,904	₩	10,446,475				
LINE Plus ⁵		7,054,162		547,900				
LINE Music ²		2,957,614		17,490				
Line Biz Plus ⁵		2,769,458		-				
Transcosmos Online Communication ²		2,193,193		67,133				
LINE Pay⁵		1,281,851		320,897				
LINE Friends ⁵		1,265,418		3,599,498				
LINE Financial Plus ⁵		817,702		-				
Markt ⁵		751,439		29,964,705				
LINE Conomi ⁵		506,913		-				
LINE PLAY ⁵		327,546		-				
Feelway Co., Ltd.		303,677		-				
LINE Games ^{2,4}		268,557		-				
Drama & Company⁵		236,205		52,070				
Cafe24		222,312		10,951,186				
LINE Company (Thailand) ⁵		208,086		427,173				
LINE Studio ⁵		170,605		909,040				
LINE Man (THAILAND)2		163,795		14,446				
LINE MAN ²		131,145		-				

(in thousands of Korean won)	2021					
	Operating revenues and others	Operating expenses and others				
AXIS	128,976	_				
LINE Up	115,561	_				
Famous Studio	58,915	23,468,432				
Munpia, Inc.	-	6,146,430				
LINE Fukuoka ⁵	455	5,048,075				
Studio Mul	=	1,990,874				
ROKMEDIA	-	1,702,793				
LINE VIETNAM JOINT STOCK		, ,				
COMPANY ⁵	568	1,618,183				
JAYPLEMEDIA	-	1,551,419				
YUMI studio	-	1,319,358				
Sam Studio	-	1,246,781				
Synapsoft	-	850,000				
Studio Ohohoee	-	666,770				
LINE Taiwan ⁵	64,135	621,833				
Pala (formerly, PLACE A INC.)	419	590,921				
Makma	-	498,441				
A-Holdings (formerly, LINE)	-	473,664				
Studio 389	-	394,996				
ARO In Tech	240	198,626				
Others	443,853	232,632				
Joint ventures						
JobsN	1,222,918	2,341,213				
Cineplay	884,000	1,891,560				
YEOPEUL	686,307	1,780,715				
KASIKORN LINE ³	665,366	-				
Interbiz (Dong-A JV)	398,286	1,780,824				
Sumlab (Munhwa Ilbo JV)	382,286	1,518,465				
RABBIT-LINE PAY COMPANY ³	365,442	65,953				
Animal and Human Story (Hankook						
Ilbo JV)	324,429	1,695,019				
Agroplus (Korea Business JV)	241,079	1,391,737				
Designpress	191,186	1,454,175				
China Lab	85,294	1,374,871				
Law and Media (Money Today JV)	43,071	952,546				
Schooljam (EBS JV)	13,516	714,196				
Techplus (Electronic Times JV)	1	1,573,718				
Artitian (Kyunghyang Daily News JV)	-	1,178,346				
Others	10,455	2,366				
Others	2 222 227	10 170 000				
Naver Connect (formerly, Connect) ¹	6,833,387	13,172,393				
Happybean foundation ¹	1,755,514	10,033,658				
LINE Games ^{1,4}	324,243	-				

(in thousands of Korean won)	2021					
	Operating revenues and	Operating expenses and				
	others	others				
Contents First	92,968	-				
NAVER Cultural foundation ¹	82,028	3				
LunaSoft	8,858	67,464				
DOHANDS	2,304	12				
Bravepops	449	-				
PIG ^{1,4}	178	-				
Jakga Company	-	8,035,391				
Espreso Media	-	490,792				
Mystic story	-	20,219				
Studio Pot	-	1,133				

¹ Although these entities are not related parties of the Group in accordance with Korean IFRS 1024, they belong to the same large enterprise group according to the Monopoly Regulation and Fair Trade Act.

² Entity was excluded from associates due to the sale of disposal group during the year ended December 31, 2021. The amount represents transactions prior to the exclusion from associates.

³ Entity was excluded from joint ventures due to the sale of disposal group during the year ended December 31, 2021. The amount represents transactions prior to the exclusion from joint ventures.

⁴ Entity was excluded from associates due to the sale of disposal group during the year ended December 31, 2021. After the sale, they were included in the same large enterprise group with the Group and classified as other related parties.

⁵ They are subsidiaries of associates.

 $^{^6}$ The amount above does not include payments and receipts on behalf of either party amounting to $\ensuremath{\,\uplus\,}$ 6,286 million

(in thousands of Korean won)	2020						
	Operating re	evenues and	Operati	ing and other			
	other i	income	е	xpense			
Associates							
KG Allat ²	₩	_	₩	107,132			
Synapsoft	••	-	••	850,000			
ARO In Tech		120		1,307,806			
Alchera ⁴		-		400,378			
Bigpicture Comics		-		582,674			
Studio JHS		_		1,518,218			
YLAB Japan ³		_		195,642			
LINE Music ⁵		17,127,543		11,344,867			
DEMAE-CAN ^{3,5}		1,059,718		1,473,499			
Transcosmos Online Communication ⁵		10,357,142		173,589			
LINE Mobile ⁵		17,140,485		3,245,704			
Venture republic ⁵		1,895,180		1,725			
LINE Games ⁵		1,862,856		5,031			
iPASS⁵		1,103,062		59,944			
The Grim Ent.		-		2,912,615			
LINE Man (THAILAND) Company ⁵		943,765		219,336			
LINE MAN ⁵		251,319		136,077			
AXIS		-		469,052			
Others		164,485		2,270			
Joint ventures		•		,			
JobsN		1,151,209		2,330,862			
RABBIT-LINE PAY COMPANY5		2,327,016		697,187			
YEOPEUL		456,643		1,744,649			
Techplus (Electronic Times JV)		-		1,782,217			
Cineplay		24,400		1,289,200			
Interbiz (Dong-A JV)		383,271		1,736,390			
Schooljam (EBS JV)		-		1,090,539			
Sumlab (Munhwa Ilbo JV)		133,714		1,444,181			
China Lab		27,214		1,382,810			
Designpress		216,527		1,420,045			
Agroplus (Korea Business JV)		287,445		1,310,331			
Artitian (Kyunghyang Daily News JV)		-		1,155,575			
Animal and Human Story (Hankook Ilbo JV)		32,071		1,347,268			
Law and Media (Money Today JV)		39,929		1,163,686			
Lantu Games⁵		54,221		1,177,833			
Others		10,947		43,000			
Others							
Happybean foundation ¹		1,734,411		8,137,874			
NAVER Cultural foundation ^{1,5}		32,587		6,000,256			
Naver Connect (formerly, Connect							
foundation)1,5		662,600		7,003,728			
Espresso Media Co., Ltd.		-		358,208			

(in thousands of Korean won)	2020					
	Operating revenues and other income	Operating and other expense				
Meshkorea	-	76				
LunaSoft Inc.	-	83,467				
Bravepops	588	-				
Jakga Company Inc.	-	1,013,332				
Mystic Story	-	7,500				

¹ Although these entities are not related parties of the Group in accordance with Korean IFRS 1024, they belong to the same large enterprise group according to the Monopoly Regulation and Fair Trade Act.

² Entity was excluded from associates due to the disposal of shares during the year ended December 31, 2020. The amount represents transactions prior to the exclusion from associates.

³ Entities were excluded from associates due to the additional acquisition of shares during the year ended December 31, 2020. The amount represents transactions prior to the exclusion from associates.

⁴ Entity was excluded from associates as the Group lost significant influence over the entity during the year ended December 31, 2020. The amount represents transactions prior to the exclusion from related parties.

⁵ Includes transactions from discontinued operations classified as held for sale.

(d) Outstanding balances of receivables due from and payables due to related parties as at December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	2021								
		Receiva	ables		Payables				
				Other			Ad	crued	
				ceivables		Other	expenses		
	Trad	e receivables	ar	nd others ³	ı	payables	and	others4	
Associates									
LINE Corp	₩	63,407,178	₩	27,618,927	₩	39,965,844	₩	266,613	
LINE Plus		1,104,964		883,345		102,323		241,909	
Line Biz Plus		343,179		1,918,789		-		29,200	
LINE Friends		174,099		31,654		931,107		-	
LINE Pay		128,937		41,918		264,071		11,505	
LINE Financial Plus		126,839		4,260,930		-		-	
LINE Company (Thailand)		50,932		-		117,939		-	
LINE Studio		26,624		12,675		999,944		-	
Line Fukuoka		13,845		-		415,119		435,596	
LINE Up		12,348		102,150		-		-	
Feelway Co., Ltd.		9,999		-		417,921		-	
Markt		6,369		12,729,125		1,423,212		-	
Cafe24		560		-		2,544,373		12,397	
LINE VIETNAM JOINT STOCK									
COMPANY		62		-		113,571		-	
Famous Studio		-		6,058,915		1,576,975		-	
LINE Conomi		-		3,606,630		-		-	
JAYPLEMEDIA		-		702,531		587,123		-	
HAVIT CORPORATION		-		500,000		485,391		-	
Studio 389		-		107,597		33,560		-	
ROKMEDIA		-		50,900		208,387		-	
Pala (formerly, PLACE A INC.)		-		40,482		295,500		-	
Munpia, Inc.		-		2,071		1,602,830		-	
Synapsoft		-		-		220,000		-	
YUMI studio		-		-		194,172		-	
Studio Mul		-		-		189,346		-	
LINE Taiwan		-		-		139,982		-	
Makma		-		-		137,239		-	
AXIS ²		-		-		-		-	
Others		39,846		48,818		290,841		10,861	
Joint ventures									
Cineplay		70,400		-		158,117		-	
Sumlab (Munhwa Ilbo JV)		36,300		-		141,389		-	
Animal and Human Story (Hankook Ilbo									
JV)		30,250		-		140,442		-	
China Lab		26,400		-		217,900		-	
Agroplus (Korea Business JV)		15,800		200		327,101		-	
Techplus (Electronic Times JV)		-		-		385,876		-	
Others		177,473		-		175,863		-	
Others									
Naver Connect (formerly, Connect) ¹		1,862,481		14,179		5,286		-	

(in thousands of Korean won)	2021						
	Receiva	bles	Payal	oles			
	Trade receivables	Other receivables and others ³	Other payables	Accrued expenses and others ⁴			
Happybean foundation ¹	142,209	61,444	1,719,319	-			
LINE Games ¹	19,980	73	-	-			
NAVER Cultural foundation ¹	12,410	750	-	-			
PIG ¹	19	-	-	-			
Studio Pot	-	298,834	15	-			
Jakga Company	-	120,451	917,780	-			
Espreso Media	-	-	349,400	-			

¹ Although these entities are not related parties of the Group in accordance with Korean IFRS 1024, they belong to the same large enterprise group according to the Monopoly Regulation and Fair-Trade Act.

⁴ Includes lease liabilities.

(in thousands of Korean won)	2020						
	Receiva	ables	Paya	bles			
	Other receivables		Other	Accrued expenses			
	Trade receivables	and others	payables	and others			
Associates							
LINE Man (THAILAND) Company⁵	₩ 208,444	₩ 125,607,863	₩ 796,881	₩ -			
LINE Man ⁵	610,077	157,861	-	65,824,401			
LINE Music ^{2,5}	3,129,630	475,576	5,769,437	-			
Transcosmos Online Communication ⁵	2,642,474	3,472	-	111,772			
LINE Mobile ⁵	2,286,839	532,751	294,094	45,441			
Venture republic ⁵	77,530	46,483	-	26,915			
LINE Games ⁵	50,720	33,576,518	-	-			
K-Fund I⁵	-	407,993	-	-			
China Ventures Fund I,L.P.	-	27,303,478	-	-			
iPASS⁵	2,909,554	136,345	83,146	-			
AXIS ³	-	-	-	-			
Have It Co., Ltd.	-	813,649	485,391	-			
Others	36,241	-	435,970	-			
Joint ventures							
China Lab	-	-	256,453	-			
JobsN	110,128	-	25,683	-			
Designpress	19,800	-	49,431	-			
Artitian (Kyunghyang Daily News JV)	-	-	29,361	-			
Interbiz (Dong-A JV)	3,850	-	81,235	-			
Agroplus (Korea Business JV)	22,000	200	36,412	-			

 $^{^2}$ The outstanding balance of other receivables and others of AXIS does not include the allowance of \forall 1,400 million.

³ Includes lease receivables.

(in thousands of Korean won)	2020						
	Receiva	bles	Payables				
	Trade receivables	Other receivables and others	Other payables	Accrued expenses and others			
Sumlab (Munhwa Ilbo JV)	23,100	-	212,193	-			
Techplus (Electronic Times JV)	-	-	274,444	-			
Lantu Games Limited ^{4,5}	-	141,020	-	-			
RABBIT-LINE PAY COMPANY ⁵	223,922	9,537	171,651	543,391			
Others	145,750	-	237,908	912			
Others							
Happybean foundation ¹	120,932	27,574	1,630,449	-			
NAVER Cultural foundation ¹	6,928	522	-	-			
Naver Connect							
(formerly, Connect foundation) ^{1,5}	-	-	165	-			
Espresso Media Co., Ltd.	-	-	349,400	-			
Jakga Company Inc.	-	-	491,819	-			
LunaSoft Inc.	-	-	17,561	-			
Bravepops	54	-	-	-			

¹ Although these entities are not related parties of the Group in accordance with Korean IFRS 1024, they belong to the same large enterprise group according to the Monopoly Regulation and Fair Trade Act.

² The outstanding balance of other receivables and others of LINE Music does not include the allowance of ₩ 11,121 million.

³ The outstanding balance of other receivables and others of AXIS does not include the allowance of ₩ 1,400 million.

⁴ The outstanding balance of other receivables and others of Lantu Games are presented net of loss allowance of ₩ 1,148 million.

⁵ Includes transactions with the entities that were reclassified to assets held for sale.

(e) Fund transactions with related parties for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021					
			Dividends				
		Contributions	received and				
		in cash	others	Loans	Repayments ²	Collections ²	
Associates	WEVERSE COMPANY	₩ 211,884,516	₩ - ₩	∀ -	₩ -	₩ -	
	Cafe24 ³	137,164,280		, _	_	_	
	A-Holdings (formerly, LINE)	103,055,033	96,073,631	_	_	_	
	Ebook Japan	101,601,682	-	_	_	_	
	MIRAE ASSET-NAVER ASIA	101,001,002					
	GROWTH INVESTMENT	101,236,064	_	-	-	-	
	China Ventures Fund I, L.P.	75,450,379	_	-	-	-	
	Munpia Inc.	60,518,848	_	-	-	-	
	FUTURE INNOVATION						
	PRIVATE EQUITY FUND III	45,831,000	178,924	-	-	-	
	China Ventures Fund I, L.P.	41,457,351	113,028,413	-	_	-	
	AtoZ	40,000,000	-	-	-	-	
	Soda Inc.	36,309,421	-	-	-	-	
	LINE Bank Preparatory ¹	33,547,704	-	-	-	=	
	K-Fund I	27,332,895	307,033	-	-	-	
	MiraeAsset-Naver Asia Growth						
	Fund	25,134,506	-	-	-	-	
	Gorilla NCORE Metaverse 1	22,050,000	-	-	-	-	
	JAYPLEMEDIA	13,805,000	-	-	-	-	
	ICART GROUP	9,219,861	-	-	-	-	
	YN Culture & Space	5,871,205	-	-	-	-	
	BIFROST	4,191,120	-	-	-	-	
	A2Z-IP Fund	3,300,000	-	-	-	-	
	SHINE PARTNERS	2,545,543	-	-	-	-	
	Baecomm	2,499,995	-	-	-	-	
	K-Fund II	2,174,976	-	-	-	-	
	Smart Korea Naver- Stonebridge Rising						
	Investment Association	2,000,000	-	-	-	-	
	Paramark KB Fund I	1,972,000	-	-	-	-	
	CINNAMON	1,673,335	-	-	-	-	
	Sasom Company	1,012,861	-	-	-	-	
	YUMI studio	1,000,005	-	-	-	-	
	Studio Horang	1,000,000	-	-	-	-	
	VerseWork	799,992	-	-	-	-	
	Makma	750,660	-	-	-	-	
	Sam Studio	700,033	-	-	-	-	
	Pala (formerly, PLACE A INC.)	487,805	-	-	-	25,179	
	TAIL Start-up Fund I	400,000	-	-	-	-	
	ZEP	400,000	-	-	-	-	

	Studio Ohohoee	400,000	-	-	-	-
	Only One Entertainment	250,012	-	-	-	-
	Geulbitneun lyakiggun	200,000	-	_	-	-
	Studio 389	100,000	-	_	-	-
	Seno	97,038	-	_	-	-
	MiraeAsset MAPS Private	,,,,,,				
	Placement Real Estate 62	-	145,486,028	_	-	-
	Future Creation NAVER-					
	Stonebridge Early Stage					
	Start-up Fund	-	11,564,499	-	-	-
	NAVER KIP Cheer up! Gamers					
	Fund	-	9,735,696	-	-	-
	NAVER-BSK Youth Foundation					
	No.5 Investment Fund	-	3,259,293	-	-	-
	BonAngels Pacemaker Fund	-	3,000,000	-	-	-
	Future Creation Naver-SB					
	Startup Investment Fund	-	537,623	-	-	-
	Soran Media Venture Fund	-	252,827	-	-	-
	DIGITAL MEDIA PARTNERS II	-	49,734	-	-	-
	Fast Cowell Private Equity					
	Fund	-	31,433	-	-	-
	ARO In Tech	-	22,000	-	-	-
	Famous Studio Corp.	-	-	6,000,000	-	-
	LINE Conomi	-	-	3,664,640	-	-
	LINE Corp	-	-	-	647,277	-
	LINE Financial Plus	-	-	-	-	2,224,719
	Line Biz Plus	-	-	-	-	998,029
	LINE Plus	-	-	-	-	455,671
	HAVIT	-	-	-	-	300,000
	LINE Up	-	-	-	-	256,115
Joint venture	es Kasikorn LINE¹	27,577,283	-	-	-	-
Others	Contents First	33,422,061	-	-	-	-
	Jakga Company	5,000,000	-	-	-	-
	HD junction	2,900,005	-	-	-	-
	DOHANDS	2,699,998	-	-	-	_
	YLAB	411,626	-	-	-	-
	Studioswingbat	180,000	-	-	-	-
		•				

¹ Entity was excluded from associates and joint ventures as they were included in the sale of disposal group during the year ended December 31, 2021. The amount represents transactions prior to the exclusion from associates and joint ventures.

² Collections includes collection from loans and transaction resulting from leases, and repayments include transaction resulting from leases.

³ Made contribution in kind with its treasury shares.

Contributions in cash Dividends received and others Loans
Associates K-Fund I
MiraeAsset-Naver Asia Growth Fund 14,166,162 2,630,000 - MIRAE ASSET-NAVER ASIA GROWTH INVESTMENT 58,134,328 11,724,434 - China Ventures Fund I, L.P. 62,227,060 33,471,156 - PLACE A INC. (formerly, Lano 200,000 - - Co.,Ltd.) 200,000 - - Famous Studio Corp. 1,000,000 - - VRex Lab Co., Ltd. 613,925 - - Studio Mul 3,000,140 - - Do Ventures Fund I-A 5,926,500 - - DHP private equity fund 3 200,000 - - CONG TY CO PHAN RBW 575,300 - - VIETNAM 575,300 - - LINE Games - - 31,627,800 LINE Music - - 10,542,600 NAVER-Suprema Youth Foundation - - - -
MiraeAsset-Naver Asia Growth Fund 14,166,162 2,630,000 - MIRAE ASSET-NAVER ASIA GROWTH INVESTMENT 58,134,328 11,724,434 - China Ventures Fund I, L.P. 62,227,060 33,471,156 - PLACE A INC. (formerly, Lano - - - Co.,Ltd.) 200,000 - - - Famous Studio Corp. 1,000,000 - - - VRex Lab Co., Ltd. 613,925 - - - Studio Mul 3,000,140 - - - Do Ventures Fund I-A 5,926,500 - - - DHP private equity fund 3 200,000 - - - CONG TY CO PHAN RBW 575,300 - - - LINE Games - - 31,627,800 LINE Music - - 10,542,600 NAVER-Suprema Youth Foundation - - -
MIRAE ASSET-NAVER ASIA GROWTH INVESTMENT 58,134,328 11,724,434 - China Ventures Fund I, L.P. 62,227,060 33,471,156 - PLACE A INC. (formerly, Lano Co.,Ltd.) 200,000 - Famous Studio Corp. 1,000,000 - VRex Lab Co., Ltd. 613,925 - Studio Mul 3,000,140 - Do Ventures Fund I-A 5,926,500 - DHP private equity fund 3 200,000 - CONG TY CO PHAN RBW VIETNAM 575,300 LINE Games - LINE Games - 31,627,800 LINE Music - 10,542,600 NAVER-Suprema Youth Foundation
GROWTH INVESTMENT 58,134,328 11,724,434 - China Ventures Fund I, L.P. 62,227,060 33,471,156 - PLACE A INC. (formerly, Lano Co.,Ltd.) 200,000 - Famous Studio Corp. 1,000,000 - VRex Lab Co., Ltd. 613,925 - Studio Mul 3,000,140 - Do Ventures Fund I-A 5,926,500 - DHP private equity fund 3 200,000 - CONG TY CO PHAN RBW VIETNAM 575,300 - LINE Games - 31,627,800 LINE Music - 10,542,600 NAVER-Suprema Youth Foundation
China Ventures Fund I, L.P. 62,227,060 33,471,156 - PLACE A INC. (formerly, Lano 200,000 - - Co.,Ltd.) 200,000 - - Famous Studio Corp. 1,000,000 - - VRex Lab Co., Ltd. 613,925 - - Studio Mul 3,000,140 - - Do Ventures Fund I-A 5,926,500 - - DHP private equity fund 3 200,000 - - CONG TY CO PHAN RBW VIETNAM 575,300 - - LINE Games - - 31,627,800 LINE Music - - 10,542,600 NAVER-Suprema Youth Foundation - - 10,542,600
PLACE A INC. (formerly, Lano Co.,Ltd.) 200,000 - Famous Studio Corp. 1,000,000 - VRex Lab Co., Ltd. 613,925 - Studio Mul 3,000,140 - Do Ventures Fund I-A 5,926,500 - DHP private equity fund 3 200,000 - CONG TY CO PHAN RBW VIETNAM 575,300 - LINE Games - S1,627,800 LINE Music - NAVER-Suprema Youth Foundation
Co.,Ltd.) 200,000
Famous Studio Corp. 1,000,000
VRex Lab Co., Ltd. 613,925 - - Studio Mul 3,000,140 - - Do Ventures Fund I-A 5,926,500 - - DHP private equity fund 3 200,000 - - CONG TY CO PHAN RBW VIETNAM 575,300 - - LINE Games - - 31,627,800 LINE Music - - 10,542,600 NAVER-Suprema Youth Foundation - - 10,542,600
Studio Mul 3,000,140 - - Do Ventures Fund I-A 5,926,500 - - DHP private equity fund 3 200,000 - - CONG TY CO PHAN RBW VIETNAM 575,300 - - LINE Games - - 31,627,800 LINE Music - - 10,542,600 NAVER-Suprema Youth Foundation - - 10,542,600
Do Ventures Fund I-A 5,926,500 - - - DHP private equity fund 3 200,000 - - - CONG TY CO PHAN RBW VIETNAM 575,300 - - - LINE Games - - 31,627,800 LINE Music - - 10,542,600 NAVER-Suprema Youth Foundation - - -
DHP private equity fund 3 200,000 CONG TY CO PHAN RBW VIETNAM 575,300 LINE Games 31,627,800 LINE Music - 10,542,600 NAVER-Suprema Youth Foundation
CONG TY CO PHAN RBW VIETNAM 575,300 LINE Games 31,627,800 LINE Music - 10,542,600 NAVER-Suprema Youth Foundation
VIETNAM 575,300 - - LINE Games - - 31,627,800 LINE Music - - 10,542,600 NAVER-Suprema Youth Foundation - - 10,542,600
LINE Games - - 31,627,800 LINE Music - - 10,542,600 NAVER-Suprema Youth Foundation - - - 10,542,600
LINE Music - 10,542,600 NAVER-Suprema Youth Foundation
NAVER-Suprema Youth Foundation
No 5 Investment Fund
NAVER KIP Cheer up! Gamers Fund - 2,050,000 -
Future Creation NAVER-SB Startup
Investment Fund - 651,676 -
Future Creation NAVER-Stonebridge
Early Stage Start-up Fund - 2,208,000 -
BonAngels Pacemaker Fund - 250,000 -
ARO In Tech - 21,200 -
Fast Cowell Private Equity Fund - 150,000 -
YN Culture & Space 1,974,950
Cinamon Games 1,180,638
SMEJ Plus 38,366,926
Smart Korea Naver-Stonebridge
Rising Investment Association 2,000,000
Mirae Asset-NAVER New Growth
Fund 1 10,000,000
Have It Co., Ltd. 2,857 - 300,000
Japan Food Delivery 1,086,193 -
Carousell Pte 74,862,910
MiraeAsset MAPS Private Placement
Real Estate 62 - 3,277,327 -
Joint ventures Lantu Games - 1,088,000
LINE Bank Taiwan Limited 201,446,300
Kasikom LINE 9,337,004
Others Studio Pot 400,000
ITSB 1,000,000

(in thousands of Korean won)		2020					
	Contributions in cash	Dividends received and others	Loans	5			
Espreo Media Co., Ltd.	958,257	-		_			
ICART GROUP	1,750,150	-		-			
Luna Soft	810,720	-	-	-			
Mystic Story	12,000,055	-	-	-			
Fandom	174,084	-	-	-			
Jakga Company	933.850	_	_	-			

- (f) There is no payment guarantees provided by the Group to the related parties as at December 31, 2021.
- (g) The compensation paid or payable to key management (executive directors) for their services for the years ended December 31, 2021 and 2020, consists of:

(in thousands of Korean won)		2021	2020		
Short-term employee benefits	₩	5,459,519 ₩	4,564,872		
Post-employment benefits		449,672	536,712		
Other long-term benefits		420,078	5,720		
Share-based payment expenses		1,423,922	472,703		

33. Business Combination

(a) In May 2021, the Group acquired 100% shares of Wattpad Corp. Details of the purchase consideration, the assets and liabilities recognized as a result of the acquisition, and fair value of the non-controlling interest at the acquisition date are as follows:

(in thousands of Korean won)	Amount		
Purchase consideration			
Cash and cash equivalent	₩	698,168,630	
		698,168,630	
Recognized amounts of identifiable assets acquired and liabilities assumed Assets			
Cash and cash equivalents		13,904,291	
Short-term financial instruments		21,320,055	
Trade and other receivables		11,568,592	
Other assets		2,845,106	
Inventories		224,112	
Property and equipment		296,906	
Intangible assets	-	153,216,145	
		203,375,207	
Liabilities			
Trade and other payables		7,670,300	
Income taxes payable		7,258,788	
Other liabilities		2,617,842	
Deferred tax liabilities	-	40,602,278	
	-	58,149,208	
Total identifiable net assets		145,225,999	
Goodwill	₩	552,942,631	

The operating revenue included in the consolidated statement of comprehensive income since the acquisition date, contributed by Wattpad Corp. was \forall 42,303 million. Wattpad Corp. and subsidiaries also contributed loss of \forall 3,184 million over the same period. Had Wattpad Corp. been consolidated from January 1, 2021, the consolidated statement of comprehensive income would have shown an operating revenue of \forall 6,828,371 million and profit of \forall 1,450,201 million.

In September 2021, the Group acquired 100% shares of NAMAIN Corporation. Details of the purchase consideration, the assets and liabilities recognized as a result of the acquisition, and fair value of the non-controlling interest at the acquisition date are as follows:

(in thousands of Korean won)	Amount		
Purchase consideration			
Cash and cash equivalent	₩	8,000,000	
		8,000,000	
Recognized amounts of identifiable assets acquired and liabilities assumed			
Assets			
Cash and cash equivalents		5,938	
Trade and other receivables		137,268	
Property and equipment		17,993	
Other assets		3,611	
		164,810	
Liabilities			
Trade and other payables		591	
Other liabilities		7,351	
		7,942	
Total identifiable net assets		156,868	
Goodwill	₩	7,843,132	

The operating revenue and net loss included in the consolidated statement of comprehensive income since the acquisition date, contributed by NAMAIN Corporation was \forall 77 million and \forall 28 million, respectively. Had NAMAIN Corporation been consolidated from January 1, 2021, the consolidated statement of comprehensive income would have shown an operating revenue of \forall 6,817,801 million and profit of \forall 1,477,757 million.

34. Operating Segment Information

- (a) The chief operating decision-maker of the Group is the Board of Directors who makes resource allocation decisions and assesses performance based on financial information presented on a consolidated basis. Accordingly, the Group have determined that they have a single reportable segment and operating segment structure. Operating information by service types is reported to the chief operating decision-maker and such reported segment information does not differ from the amount reported in the consolidated statements of comprehensive income.
- (b) Operating revenues by service types for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of	2021			2020			
Korean won)	Ope	rating revenues	Ratio (%)	Ope	rating revenues	Ratio (%)	
Search Platform ¹	₩	3,290,488,797	48.30	₩	2,803,129,520	52.80	
Commerce ²		1,475,113,113	21.60		1,089,658,062	20.50	
FinTech ³		979,045,519	14.40		677,463,631	12.80	
Contents ⁴		692,928,502	10.20		460,206,687	8.70	
Cloud⁵		380,023,776	5.50		273,688,000	5.20	
Continued operations		6,817,599,707	100.00		5,304,145,900	100.00	
Discontinued operations		472,178,882			2,665,777,895		
	₩	7,289,778,589		₩	7,969,923,795		

¹ Search and Display

The Group changed the classification of operating information by service types during the year ended December 31, 2020.

² Shopping Search & Display, brokerage fees and others

³ Pay Services and Digital Finance

⁴ Webtoon, Music, V, SNOW and others

⁵ Cloud, Works and others

(c) Revenue from external customers by region for the years ended December 31, 2021 and 2020 and non-current assets as at December 31, 2021 and 2020, are as follows:

(in thousands of	Revenue from external of			customers	Non-current assets ¹			
Korean won)		2021		2020		2021		2020
Domestic	₩	6,484,787,087	₩	5,141,302,105	₩	2,630,607,286	₩	1,838,775,695
Japan		166,688,754		126,429,646		75,667,968		72,396,600
Others		166,123,866		36,414,149		694,168,445		75,238,460
Continuing operations		6,817,599,707		5,304,145,900		3,400,443,699		1,986,410,755
Discontinued operations								
/assets held for sale		472,178,882		2,665,777,895				1,477,570,644
_	₩	7,289,778,589	₩	7,969,923,795	₩	3,400,443,699	₩	3,463,981,399

¹ Excludes financial instruments and deferred tax assets.

(d) The revenue from contracts with customers by category for the years ended December 31, 2020 and 2018, is as follows:

(in thousands of Korean won)	2021	2020
By timing of revenue recognition		
Recognized at a point in time	₩ 4,883,587,767	₩ 3,841,382,232
Recognized over time	1,934,011,940	1,462,763,668
Continuing operations	6,817,599,707	5,304,145,900
Discontinued operations	472,178,882	2,665,777,895
	₩ 7,289,778,589	₩ 7,969,923,795

35. Assets Held for Sale and Discontinued Operations

(in thousands of Korean won)

On December 23, 2019, the Group entered into a transaction agreement, a joint venture agreement and a capital alliance agreement with SoftBank Corp., under which the Group and SoftBank Corp., agreed for a business integration of LINE, a subsidiary of the Group, and Z-Holdings Corp., a subsidiary of SoftBank Corp. As at August 4, 2020, all registration, licensing and other clearances and permits required by laws and regulations, including the competition laws and the investment control regulations, of the applicable countries, including Japan and the United States, are completed. As at December 31, 2020, the assets and liabilities related to LINE are presented as assets and liabilities held for sale, and the profit and loss on the related operations are presented as discontinued operations in the consolidated statement of comprehensive income for the years ended December 31, 2021 and 2020. The transaction has been completed on March 1, 2021.

(a) The Group acquired ordinary shares amounting to ₩ 1,054,541 million (2020: ₩ 934,405 million) issued by LINE, a subsidiary of the Group, from non-controlling shareholders as part of business integration.

2020

Details of assets and liabilities classified as held for sale as at December 31, 2020, are as follows:

Assets held for sale		
Current assets	₩	3,674,580,150
Cash and cash equivalents		2,245,363,414
Short-term financial instruments		79,480,389
Financial assets at fair value through profit or loss		1,000,857
Trade and other receivables		899,169,025
Financial assets at fair value through other comprehensive income		31,693,758
Inventories		143,032,381
Current tax assets		7,628,849
Other current assets		267,211,477
Non-current assets		2,985,673,308
Property and equipment		324,522,184
Right-of-use assets		683,421,336
Intangible assets		458,492,585
Long-term financial instruments		739,684
Financial assets at fair value through profit or loss		232,801,383
Trade and other receivables		98,892,223
Financial assets at fair value through other comprehensive income		75,282,679
Investments in associates and joint ventures		827,950,799
Deferred tax assets		272,435,895
Other non-current assets		11,134,540
	₩	6,660,253,458

(in thousands of Korean won)		2020
Liabilities held for sale		
Current liabilities	₩	3,128,344,220
Trade and other payables		854,500,441
Financial liabilities at fair value through profit or loss		999,955
Short-term borrowings		1,172,607,435
Current tax liabilities		92,389,346
Provisions		29,501,161
Lease liabilities		128,173,147
Other current liabilities		850,172,735
Non-current liabilities		1,546,897,061
Trade and other payables		1,851,490
Long-term borrowings		714,266,865
Debentures		5,690,291
Net defined benefit liabilities		108,623,749
Provisions		35,126,035
Lease liabilities		553,338,423
Deferred tax liabilities		127,522,671
Other non-current liabilities		477,537
	₩	4,675,241,281

In accordance with Korean IFRS 1105, the assets and liabilities held for sale were measured at the lower of net fair value or book amount, and there is no impairment loss or reversal of impairment loss recognized due to reclassification to held for sale.

(b) Cumulative income or loss recognized as other comprehensive income relates to the assets and liabilities classified as held for sale as at December 31, 2020, are as follows:

(in thousands of Korean won)	2020		
Loss on valuation of financial assets at fair value through other comprehensive income	₩	(5,844,985)	
Share of other comprehensive loss of associates and joint ventures		(38,186,574)	
Exchange differences		6,160,976	
Others		(58)	
	₩	(37,870,641)	

(c) Loss from discontinued operations for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	2021			2020	
Operating revenues	₩	472,178,882	₩	2,665,777,895	
Operating expenses		(403,526,388)		(2,718,886,955)	
Operating loss		68,652,494		(53,109,060)	
Other income		16,182,471,289	9 308,705,3		
Other expenses		(15,257,468)		(321,271,891)	
Interest income	377,493			2,641,070	
Finance income		7,651,595		48,365,921	
Finance costs		(13,310,394)		(84,221,357)	
Share of net loss of associates and joint ventures accounted					
for using the equity method				(45,974,803)	
Loss before income tax		16,230,585,009		(144,864,795)	
Income tax expense (benefit)		(1,230,690,431)		(151,162,357)	
Loss for the period of discontinued operations	₩	14,999,894,578	₩	(296,027,152)	

(d) Summarized cash flows from discontinued operations for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)	2021			2020
Cash flows from operating activities	₩	(179,631,570)	₩	(57,651,277)
Cash flows from investing activities		38,542,477		(330,877,636)
Cash flows from financing activities		9,245,652,989		450,589,006
Effects of foreign currency translation on				
cash and cash equivalents		(124,151,562)		(30,721,091)
Net cash inflow (outflow) from discontinued operations		8,980,412,334		31,339,002
Cash and cash equivalents at the beginning of the year		2,245,363,414		2,214,024,412
Cash and cash equivalents at the end of the year ¹	₩	11,225,775,748	₩	2,245,363,414

¹ For the years ended December 31, 2021 and 2020, the balances related to discontinued operation are balances as at February 28, 2021 and December 31, 2020, respectively.

(e) Details of gain or loss on disposal of subsidiaries

(in thousands of Korean won)	A	Amounts
I. Total disposal consideration	₩	17,993,953,976
Investments in associates		17,993,953,976
II. Carrying amount of net assets sold		1,906,782,175
Disposal assets		15,946,954,397
Current assets		12,864,446,457
Cash and cash equivalents		11,225,775,748
Short-term financial instruments		68,186,184
Financial assets at fair value through profit or loss		1,115,400
Trade and other receivables		960,153,083
Financial assets at fair value through other comprehensive income		40,000
Inventories		290,580,619
Current tax assets		7,636,040
Other current assets		310,959,383
Non-current assets		3,082,507,940
Property and equipment		335,178,154
Right-of-use assets		748,104,905
Intangible assets		464,778,744
Long-term financial instruments		735,934
Financial assets at fair value through profit or loss		204,883,480
Trade and other receivables		89,749,708
Financial assets at fair value through other comprehensive income		43,431,516
Investments in associates and joint ventures		918,503,212
Deferred tax assets		265,699,025
Other non-current assets		11,443,262
Disposal liabilities		14,040,172,222
Current liabilities		12,392,455,566
Trade and other payables		2,259,554,716
Financial liabilities at fair value through profit or loss		644,197
Short-term borrowings		1,150,686,936
Current portion of debentures		7,717,696,576
Current tax liabilities		80,475,517
Provisions		75,497,411
Lease liabilities		117,932,509
Other current liabilities		989,967,704
Non-current liabilities		1,647,716,656
Trade and other payables		4,049,356
Financial liabilities at fair value through profit or loss		392,374
Long-term borrowings		736,078,077

Debentures		5,819,234
Net defined benefit liabilities		112,881,071
Provisions		43,886,823
Lease liabilities		599,832,907
Deferred tax liabilities		144,776,814
III. Non-controlling interest ¹		491,812,457
IV. Accumulated other comprehensive income		6,741,118
V. Changes in controlling interest ¹		363,352,647
VI. Cash paid		102,228,700
VII. Gain on disposal (I - II + III + IV - V - VI)		16,120,144,029
VIII. Income tax expense		1,185,549,417
X. Post-tax gain on disposal classified as profit from discontinued operations	₩	14,934,594,612

¹ Includes the amount in relation with the increase in the non-controlling interest rate of subsidiaries that maintain control after the disposal of discontinued operations.

36. Information for Non-controlling Interests

(a) The profit or loss allocated to non-controlling interests and accumulated non-controlling interests of subsidiaries that are material to the Group for the years ended December 31, 2021 and 2020:

(in thousands of				2021		
Korean won)	Non- controlling interest rate (%)	Accumulated non-controlling interests at the beginning of the year	Loss allocated to non- controlling interests	Other comprehensive income allocated to non-controlling interests	Changes in non- controlling interests by share issuance of subsidiaries	Accumulated non-controlling interests at the end of the year
LINE	10.79	₩ 268,630,408	₩ 26,043,761	₩ (470,696)	₩ 8,701,040	₩ 302,904,513
(in thousands of				2020		
Korean won)	Non- controlling interest rate (%)	Accumulated non-controlling interests at the beginning of the year	Loss allocated to non-controlling interests	Other comprehensive income allocated to non-controlling interests	Changes in non- controlling interests by share issuance of subsidiaries	Accumulated non-controlling interests at the end of the year
LINE	18.84	₩ -	₩ 20,365,271	₩ 187,928	₩ 248,077,209	₩ 268,630,408

(b) Effects of transactions with non-controlling interests on the equity attributable to owners of the Parent Company for the years ended December 31, 2021 and 2020, are as follows:

(in thousands of Korean won)		2021		2020
Acquisition of shares of subsidiaries ¹	₩	(776,081,695)	₩	(755,434,980)
Disposal of share of subsidiaries without loss of control ²		_		670.864.106

¹ As a result of the business integration agreement entered into with SoftBank Corp. on December 23, 2019, the Group acquired non-controlling interests in LINE, which led a decrease Parent Company's percentage of ownership for the years ended December 31, 2021 and 2020.

(c) Set out below is summarized financial information for each subsidiary that has non-controlling interests that are material to the Group. The amounts disclosed for each subsidiary are before intercompany eliminations.

Summarized consolidated statements of financial position

(in thousands of Korean won)	NAVER Financial			
	2021		2020	
Current assets	₩	2,637,141,209	₩	2,265,387,584
Non-current assets		110,423,275		27,832,709
Current liabilities		1,779,650,986		1,394,975,842
Non-current liabilities		36,134,809		19,657,284
Equity	₩	931,778,689	₩	878,587,167

Summarized consolidated statements of comprehensive income

(in thousands of Korean won)	NAVER Financial			cial
	2021			2020
Revenue	₩	1,045,307,997	₩	704,391,480
Profit for the year		54,277,962		54,893,060
Other comprehensive income (loss)		(1,518,377)		626,428
Total comprehensive income	₩	52,759,585	₩	55,519,488

² The Parent Company's percentage of ownership has increased because NAVER Financial, a subsidiary of the Group, executed a capital increase in which Mirae Asset Daewoo Co., Ltd. and three other financial institutions participated in for the year ended December 31, 2020.

Summarized consolidated statements of cash flows

(in thousands of Korean won)		NAVER F	inancial
		2021	2020
Cash flows from operating activities	₩	199,824,884	₩ 355,052,874
Cash flows from investing activities		202,221,712	(1,068,748,724)
Cash flows from financing activities Effects of exchange rate changes on cash and cash		(2,443,107)	798,126,386
equivalents		(1,964,205)	(2,091,317)
Net increase in cash and cash equivalents		397,639,284	82,339,219
Cash and cash equivalents at beginning of year		542,606,892	460,267,673
Cash and cash equivalents at end of year	₩	940,246,176	₩ 542,606,892