



KT&G CORPORATION AND SUBSIDIARIES

**Consolidated Financial Statements
December 31, 2019 and 2018**

(With Independent Auditor's Report Thereon)

KT&G CORPORATION

[This page is intentionally left blank]

CONTENTS

	Page
Independent auditor's report	1
Consolidated financial statements	
Consolidated statements of financial position	11
Consolidated statements of comprehensive income	13
Consolidated statements of changes in equity	15
Consolidated statements of cash flows	17
Notes to the consolidated financial statements	19

[This page is intentionally left blank]

KT&G CORPORATION AND SUBSIDIARIES

Independent auditor's report

English Translation of Independent Auditors' Report Originally Issued in Korean on March 30, 2020

To the Shareholders and the Board of Directors of KT&G CORPORATION

Report on the Audited Consolidated Financial Statements

Audit Opinion

We have audited the consolidated financial statements of KT&G Corporation and its subsidiaries (the "Group"), which comprise the consolidated statements of financial position as of December 31, 2019 and 2018, and the consolidated statements of profit or loss, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of the Group as of December 31, 2019 and 2018, and its financial performance and its cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("K-IFRSs").

Basis for Audit Opinion

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

[This page is intentionally left blank]

Key Audit Matters

The 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 year. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon, and we do not provide a separate opinion on these matters.

Measuring impairment of asset in the cash generating unit (“CGU”) of the Indonesian tobacco business

The Group reviews if there is any indication of impairment for Indonesian tobacco business CGUs at the end of each reporting period. If indication of impairment is found, the Group estimates the value in use for the basis of determining recoverable amount, when estimated value in use is less than carrying amount, impairment loss is recognized. In the estimates of expected future cash flows that have a significant impact on determining the value in use, uncertainty exists due to the increased volatility in sales caused by increase of the Indonesian tobacco consumption tax expected from 2020, and significant assumptions by management are involved. Since the impact on the consolidated financial statements is significant in the event of an error in management's estimate of expected future cash flows, we decided impairment test of CGUs of the Indonesian tobacco business as a key audit matter.

The main audit procedures performed by the auditor to respond to the key audit matters include the following.

- ① Confirming whether the expected future cash flows used to measure the value in use have been approved by the board of directors and are consistent with basic financial information.
- ② A retrospective review of the expected future cash flows of management used to measure value in use, and comparative analysis with past operating performance.
- ③ Inquiring the questions about key assumptions used by management to estimate future cash flows and comparing and analyzing the information independently obtained from outside by auditors about the feasibility of the assumptions.
- ④ Verifying the methodology of evaluating the value in use, discount rate and calculation accuracy, etc., by using the auditor's internal valuation expert.
- ⑤ Sensitivity analysis of key items used in measuring value in use such as expected future cash flows and discount rates.
- ⑥ Comparative analysis of value in use presented by management and relative value independently estimated by the auditors.
- ⑦ Evaluating the objectivity and competence of external experts used by the company to measure the value in use.

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

Management is responsible for the preparation of the accompanying consolidated financial statements in accordance with K-IFRSs, and for such internal control as they determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

[This page is intentionally left blank]

In preparing the consolidated financial statements, management of the Group is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

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

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

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs 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 KSAs, 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, 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 audits 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 Group'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 the 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 are solely responsible for our audit opinion.

[This page is intentionally left blank]

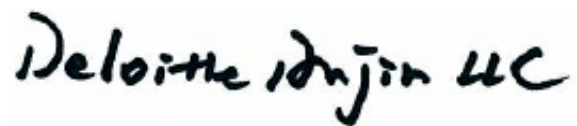
We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the audit committee of the Group with a statement that we have complied with relevant ethical requirements, including those related to independence, and to communicate with them all 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 that those matters were of most significance in the audit of the consolidated financial statements of the current year and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about a matter or when, in extremely rare circumstances, we determine that the 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 audits resulting in this independent auditor's report is, Kim, Dong Hwan.

10, Gukjegeumyung-ro, Yeongdeungpo-gu, Seoul
Hong Jong Sung, CEO of Anjin Deloitte LLC



March 30, 2020

Notice to Readers

This report is effective as of March 30, 2020, the auditors' report date. Certain subsequent events or circumstances may have occurred between the auditors' report date and the time the auditors' report is read. Such events or circumstances could significantly affect the consolidated financial statements and may result in modifications to the auditors' report.

[This page is intentionally left blank]

KT&G CORPORATION AND SUBSIDIARIES
Consolidated financial statements

Full year of the 33rd
from January 1, 2019, to December 31, 2019

Full year of the 32nd
from January 1, 2018, to December 31, 2018

"The consolidated financial statements attached have been prepared by our company."
CEO of KT&G Corporation, Baek Bok In

Address of headquarters: (Road name address) 71, Beotkkot-gil, Daedeok-gu, Daejeon
(Telephone) 080-931-0399

[This page is intentionally left blank]

KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of financial position

As of December 31, 2019 and 2018

<i>in Korean won</i>	<i>Notes</i>	2019	2018
Assets:			
Current assets:			
Cash and cash equivalents	5,31,32	₩891,306,145,983	₩932,969,110,015
Current other financial assets	5,31,32,33	397,949,201,546	584,579,918,180
Current fair value through profit or loss	6,31,32	1,239,263,067,528	1,139,704,589,088
Trade and other receivables	7,30,31	1,023,385,660,122	975,921,202,909
Derivative assets	31,33	2,276,640,206	1,238,664,783
Inventories	8,33	2,447,214,219,082	2,461,289,914,829
Refund assets and others	19	3,027,268,752	2,356,432,726
Accrued tobacco excise and other taxes		291,481,567,634	232,237,330,421
Advance payments		83,696,244,207	54,207,755,371
Prepaid expenses		33,345,254,566	24,622,742,813
Assets held for sale	4,14	4,246,922,005	4,246,922,005
Total current assets		₩6,417,192,191,631	₩6,413,374,583,140
Non-current assets:			
Long-term other financial assets	5,31,33	₩4,480,027,000	₩8,565,762,000
Long-term deposits in MSA escrow fund	31,33	751,437,124,245	615,527,896,771
Long-term fair value through profit or loss	6,31	251,895,325,773	210,655,373,106
Long-term trade and other receivables	7,30,31	77,062,030,242	62,902,608,445
Fair value through other comprehensive income or loss	9,31	257,639,840,085	249,575,289,383
Investments in associates and joint ventures	4,10,30	49,393,336,819	83,988,748,090
Property, plant and equipment	11,33	1,753,357,780,790	1,818,787,823,851
Intangible assets	12	89,693,691,059	71,954,007,994
Investment properties	13,33	885,325,430,794	495,048,833,035
Right-of-use assets	15	45,483,777,486	-
Refund assets and others	19	-	223,771,427
Long-term advance payments		72,519,228,473	71,394,217,095
Long-term prepaid expenses		7,464,781,189	7,872,994,328
Deferred income tax assets	28	49,153,499,355	45,229,659,539
Total non-current assets		₩4,294,905,873,310	₩3,741,726,985,064
Total assets		₩10,712,098,064,941	₩10,155,101,568,204

KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of financial position, continued

As of December 31, 2019 and 2018

<i>in Korean won</i>	<i>Notes</i>	2019	2018
Liabilities and equity:			
Liabilities:			
Current liabilities:			
Short-term borrowings	16,31	₩27,066,108,741	₩129,924,101,195
Current portion of long-term borrowings	16,31	5,284,509,248	4,999,760,000
Trade and other payables	17,31	656,582,586,262	560,507,008,935
Current lease liabilities	31,35	18,909,138,677	-
Derivative liabilities	31,33	-	460,667,312
Advance receipts		77,028,657,918	171,501,108,963
Current refund liabilities and provisions	19,33	26,666,515,900	15,100,885,431
Current income tax liabilities	28,35	212,538,102,130	200,796,906,309
Tobacco excise and other taxes payables		576,018,441,937	557,417,508,777
Total current liabilities		₩1,600,094,060,813	₩1,640,707,946,922
Non-current liabilities:			
Long-term borrowings	16,31	₩90,954,077,109	₩93,475,333,856
Long-term trade and other payables	17,30,31	59,638,008,450	53,239,976,056
Long-term lease liabilities	31,35	24,396,626,259	-
Long-term advance receipts		4,154,633,329	5,580,108,204
Net defined benefit liabilities	18	91,082,736,864	96,214,830,976
Long-term refund liabilities and provisions	19,33	3,090,174,123	3,844,558,820
Deferred income tax liabilities	28	129,918,339,005	125,558,940,716
Non-controlling interests liabilities	36	2,835,710,820	3,399,647,673
Total non-current liabilities		₩406,070,305,959	₩381,313,396,301
Total liabilities		₩2,006,164,366,772	₩2,022,021,343,223
Equity:			
Ordinary shares	20	₩954,959,485,000	₩954,959,485,000
Other capital surplus(deficit)	20	(29,556,277,161)	(29,719,795,353)
Treasury shares	21	(318,789,449,459)	(328,157,286,128)
Gain on sale of treasury shares	21	528,894,053,906	513,775,933,891
Reserves	22	5,671,479,866,186	5,355,627,500,098
Retained earnings	23	1,843,577,322,126	1,612,794,013,734
Equity attributable to owners of the Parent Company		₩8,650,565,000,598	₩8,079,279,851,242
Non-controlling interests	36	55,368,697,571	53,800,373,739
Total equity		₩8,705,933,698,169	₩8,133,080,224,981
Total liabilities and equity		₩10,712,098,064,941	₩10,155,101,568,204

"The accompanying notes are a part of the consolidated financial statements."

KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of comprehensive income

For the years ended December 31, 2019 and 2018

<i>in Korean won</i>	<i>Notes</i>	2019	2018
Sales	4	₩4,963,202,297,002	₩4,471,515,592,060
Cost of sales	25	(2,088,576,007,282)	(1,836,031,136,556)
Gross profit		2,874,626,289,720	2,635,484,455,504
Selling, general and administrative expenses	25	(1,492,608,253,568)	(1,380,377,762,894)
Operating profit		1,382,018,036,152	1,255,106,692,610
Other income	26	105,871,084,349	110,050,164,763
Other expenses	26	(109,668,237,441)	(140,369,846,928)
Finance income	27,30,31	96,704,640,503	91,584,864,758
Finance costs	27,30,31	(13,795,983,837)	(6,956,841,784)
Share of net profit of associates and joint ventures	10	1,541,273,173	9,254,907,175
Profit before income tax		1,462,670,812,899	1,318,669,940,594
Income tax expense	28,35	(424,000,387,005)	(420,010,600,187)
Profit for the year		₩1,038,670,425,894	₩898,659,340,407
Other comprehensive income (loss) after income tax:			
Items that will not be reclassified to profit or loss			
Re-measurements of net defined benefit liabilities	18	₩ (10,425,083,892)	₩ (24,807,327,456)
Gain or loss on valuation of fair value through other comprehensive income or loss	9	6,922,877,280	(27,707,366,228)
Capital changes in equity method	10	(100,070,393)	16,538,462
Items that are or may be reclassified subsequently to profit or loss			
Exchange differences on translating foreign operations		23,065,897,911	7,773,974,169
Other comprehensive income after income tax		19,463,620,906	(44,724,181,053)
Total comprehensive income for the year		₩1,058,134,046,800	₩853,935,159,354
Profit attributable to:			
Owners of the Parent Company		₩1,036,474,982,130	₩901,650,436,116
Non-controlling interests		2,195,443,764	(2,991,095,709)
Total		₩1,038,670,425,894	₩898,659,340,407
Other comprehensive income for the year attributable to:			
Owners of the Parent Company		₩1,056,366,319,774	₩857,857,695,749
Non-controlling interests		1,767,727,026	(3,922,536,395)
Total		₩1,058,134,046,800	₩853,935,159,354
Earnings per share:			
Basic and diluted	29	8,208	7,141

"The accompanying notes are a part of the consolidated financial statements."

[This page is intentionally left blank]

KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of changes in equity

For the year ended December 31, 2018

<i>in Korean won</i>	Ordinary shares	Other capital surplus (deficit)	Treasury shares	Gains on sale of treasury shares	Reserve	Retained earnings	Owners of the parent	Non-controlling interests	Total equity
Balance at January 1, 2018 (before revision)	₩954,959,485,000	₩ (29,719,795,353)	₩ (328,157,286,128)	₩513,775,933,891	₩4,927,331,928,515	₩1,733,863,414,006	₩7,772,053,679,931	₩57,706,687,886	₩7,829,760,367,817
Effect of changes in accounting policy	-	-	-	-	(36,765,729,396)	(8,805,287,042)	(45,571,016,438)	-	(45,571,016,438)
Balance at January 1, 2018 (after revision)	954,959,485,000	(29,719,795,353)	(328,157,286,128)	513,775,933,891	4,890,566,199,119	1,725,058,126,964	7,726,482,663,493	57,706,687,886	7,784,189,351,379
Total comprehensive income (loss) for the year:									
Profit for the year	-	-	-	-	-	901,650,436,116	901,650,436,116	(2,991,095,709)	898,659,340,407
Other comprehensive income (loss) for the year:									
Re-measurements of net defined benefit liability	-	-	-	-	-	(23,878,758,402)	(23,878,758,402)	(928,569,054)	(24,807,327,456)
Gain or loss on valuation of fair value through other comprehensive income or loss	-	-	-	-	(27,707,366,228)	-	(27,707,366,228)	-	(27,707,366,228)
Reclassification to Retained Earnings from loss on disposal of Fair value through other comprehensive income	-	-	-	-	147,755,932	(147,755,932)	-	-	-
Exchange differences on translating foreign operations	-	-	-	-	7,776,845,801	-	7,776,845,801	(2,871,632)	7,773,974,169
Capital changes in equity method	-	-	-	-	16,538,462	-	16,538,462	-	16,538,462
Sum of other comprehensive income (loss) for the year	-	-	-	-	(19,766,226,033)	(24,026,514,334)	(43,792,740,367)	(931,440,686)	(44,724,181,053)
Total comprehensive income (loss) for the year	-	-	-	-	(19,766,226,033)	877,623,921,782	857,857,695,749	(3,922,536,395)	853,935,159,354
Transactions with owners:									
Dividends	-	-	-	-	-	(505,060,508,000)	(505,060,508,000)	-	(505,060,508,000)
Transfer from reserve for research and human resource development	-	-	-	-	(10,000,000,000)	10,000,000,000	-	-	-
Transfer to other reserve	-	-	-	-	495,035,507,256	(495,035,507,256)	-	-	-
Changes in non-controlling interests, etc	-	-	-	-	(207,980,244)	207,980,244	-	16,222,248	16,222,248
Total transactions with owners	-	-	-	-	484,827,527,012	(989,888,035,012)	(505,060,508,000)	16,222,248	(505,044,285,752)
Balance at December 31, 2018	₩954,959,485,000	₩ (29,719,795,353)	₩ (328,157,286,128)	₩513,775,933,891	₩5,355,627,500,098	₩1,612,794,013,734	₩8,079,279,851,242	₩53,800,373,739	₩8,133,080,224,981

“The accompanying notes are a part of the consolidated financial statements.”

KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of changes in equity, continued

For the year ended December 31, 2019

<i>in Korean won</i>	Ordinary shares	Other capital surplus (deficit)	Treasury shares	Gains on sale of treasury shares	Reserve	Retained earnings	Owners of the parent	Non-controlling interests	Total equity
Balance at January 1, 2019 (before revision)	₩954,959,485,000	₩ (29,719,795,353)	₩ (328,157,286,128)	₩513,775,933,891	₩5,355,627,500,098	₩1,612,794,013,734	₩8,079,279,851,242	₩53,800,373,739	₩8,133,080,224,981
Effect of changes in accounting policy	-	-	-	-	-	(4,670,137,294)	(4,670,137,294)	-	(4,670,137,294)
Balance at January 1, 2019 (after revision)	954,959,485,000	(29,719,795,353)	(328,157,286,128)	513,775,933,891	5,355,627,500,098	1,608,123,876,440	8,074,609,713,948	53,800,373,739	8,128,410,087,687
Total comprehensive income (loss) for the year:									
Profit for the year	-	-	-	-	-	1,036,474,982,130	1,036,474,982,130	2,195,443,764	1,038,670,425,894
Other comprehensive income (loss) for the year:									
Re-measurements of net defined benefit liability	-	-	-	-	-	(9,994,827,322)	(9,994,827,322)	(430,256,570)	(10,425,083,892)
Gain or loss on valuation of fair value through other comprehensive income or loss	-	-	-	-	6,922,877,280	-	6,922,877,280	-	6,922,877,280
Exchange differences on translating foreign operations	-	-	-	-	23,063,358,079	-	23,063,358,079	2,539,832	23,065,897,911
Capital changes in equity method	-	-	-	-	(100,070,393)	-	(100,070,393)	-	(100,070,393)
Sum of other comprehensive income (loss) for the year	-	-	-	-	29,886,164,966	(9,994,827,322)	19,891,337,644	(427,716,738)	19,463,620,906
Total comprehensive income (loss) for the year	-	-	-	-	29,886,164,966	1,026,480,154,808	1,056,366,319,774	1,767,727,026	1,058,134,046,800
Transactions with owners:									
Dividends	-	-	-	-	-	(505,060,508,000)	(505,060,508,000)	-	(505,060,508,000)
Transfer to other reserve	-	-	-	-	285,966,201,122	(285,966,201,122)	-	-	-
Donation of treasury shares	-	-	9,367,836,669	15,118,120,015	-	-	24,485,956,684	-	24,485,956,684
Changes in non-controlling interests, etc.	-	163,518,192	-	-	-	-	163,518,192	(199,403,194)	(35,885,002)
Total transactions with owners	-	163,518,192	9,367,836,669	15,118,120,015	285,966,201,122	(791,026,709,122)	(480,411,033,124)	(199,403,194)	(480,610,436,318)
Balance at December 31, 2019	₩954,959,485,000	₩ (29,556,277,161)	₩ (318,789,449,459)	₩528,894,053,906	₩5,671,479,866,186	₩1,843,577,322,126	₩8,650,565,000,598	₩55,368,697,571	₩8,705,933,698,169

“The accompanying notes are a part of the consolidated financial statements.”

KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of cash flows

For the years ended December 31, 2019 and 2018

<i>in Korean won</i>	<i>Notes</i>	2019	2018
Cash flows from operating activities		₩1,042,489,387,291	₩821,653,704,046
Cash generated from operations	34	1,464,082,565,855	1,161,900,597,804
Income taxes paid		(421,593,178,564)	(340,246,893,758)
Cash flows from investing activities		(459,190,546,007)	(46,256,069,305)
Interest received		19,146,302,725	15,799,778,784
Dividends received		24,693,247,030	21,665,150,035
Decrease in other financial assets		534,003,000,000	-
Decrease in long-term fair value through profit or loss		15,891,652,285	43,058,307,778
Decrease in current fair value through profit or loss		-	813,268,420,117
Decrease in fair value through other comprehensive income or loss		-	1,152,690,000
Proceeds from disposal of property, plant and equipment		3,737,771,098	27,335,395,493
Proceeds from disposal of intangible assets		1,100,235,184	832,595,327
Proceeds from disposal of investments in associates and joint ventures		34,150,929,551	5,024,535,939
Collection of loans		12,320,759,758	14,740,189,324
Withdrawal of guarantee deposits		1,212,076,715	3,710,343,548
Receipt of government subsidies		-	62,700,000
Collection of finance lease receivables		75,372,723	-
Acquisition of property, plant and equipment		(222,247,997,603)	(353,313,197,888)
Acquisition of intangible assets		(34,947,578,247)	(6,292,425,402)
Acquisition of investment properties		(256,285,401,637)	(40,556,716,047)
Acquisition of investments in associates and joint ventures		-	(30,500,000,000)
Increase in loans		(19,004,079,477)	(5,934,754,849)
Increase in guarantee deposits		(3,132,539,988)	(6,678,756,032)
Increase in long-term deposits in MSA escrow fund		(114,411,590,516)	(72,399,032,390)
Increase in current fair value through profit or loss		(57,593,331,877)	-
Increase in long-term current fair value through profit or loss		(54,676,729,731)	(93,500,000,000)
Acquisition of fair value through other comprehensive income or loss		-	(1,350,000,000)
Increase in other financial assets		(343,222,644,000)	(382,381,293,042)
Cash flows from financing activities		(632,146,267,814)	(549,375,779,400)
Repayment of lease liabilities		(18,604,269,893)	-
Dividends paid	23	(505,060,508,000)	(505,060,508,000)
Increase in borrowings		202,160,215,132	641,712,342,225
Increase of non-controlling interests		-	3,430,000,000
Interest paid		(3,581,102,372)	(2,463,659,866)
Repayment of borrowings		(307,060,602,681)	(686,993,953,759)
Net increase in cash and cash equivalents		(48,847,426,530)	226,021,855,341
Cash and cash equivalents at January 1		932,969,110,015	715,116,842,650
Effect of exchange rate fluctuation on cash and cash equivalents		7,184,462,498	(8,169,587,976)
Cash and cash equivalents at December 31		₩891,306,145,983	₩932,969,110,015

"The accompanying notes are a part of the consolidated financial statements."

[This page is intentionally left blank]

KT&G CORPORATION AND SUBSIDIARIES

Notes to consolidated financial statements

For the years ended December 31, 2019 and 2018

1. Reporting Entity

(1) Overview of the Parent Company

KT&G Corporation (the “Parent Company”) is engaged in manufacturing and selling tobaccos. As of December 31, 2019, the Parent Company has three manufacturing plants, including Shintanjin plant, and 14 local headquarters and 123 branches for the sale of tobacco throughout the country. Also, the Parent Company has the Gimcheon plant for fabrication of leaf tobacco and the Cheonan printing plant for manufacturing of packaging material. The headquarters of the Parent Company is located at 71, Beotkkot-gil, Daedeok-gu, Daejeon.

The Parent Company was established as a government-owned enterprise pursuant to the Korea Monopoly Corporation Act on April 1, 1987. On April 1, 1989, the Parent Company changed its name to Korea Tobacco and Ginseng Corporation pursuant to the Korea Tobacco and Ginseng Corporation Act. The Parent Company was excluded from the application of the Act for the Management of Government-Invested Enterprises, and became an entity existing and operating under the Commercial Act of Korea, pursuant to the Act on Management Reform and Privatization of Public Enterprises, proclaimed on August 28, 1997, and enforced on October 1, 1997, in order to secure financing and to promote and develop, through efficient management, the monopoly business of red ginseng and tobacco. The shareholders approved a plan to separate the Parent Company into two companies by setting up a subsidiary for its red ginseng business segment effective from January 1, 1999, pursuant to the Korean government’s privatization program and management reorganization plan. The separation into a wholly owned subsidiary, Korea Ginseng Corporation, was accomplished by the Parent Company’s contribution of the assets and liabilities in the red ginseng business segment. On December 27, 2002, the Parent Company changed its name again to KT&G Corporation from Korea Tobacco and Ginseng Corporation.

The Korean government sold 28,650,000 shares of the Parent Company to the public during 1999, and the Parent Company listed its shares on the Korea Exchange on October 8, 1999. On October 17, 2002, and October 31, 2001, the Parent Company listed 35,816,658 and 45,400,000 Global Depositary Receipts (“GDRs”), respectively, (each GDR representing the right to receive one-half share of an ordinary share of the Parent Company) on the Luxembourg Stock Exchange pursuant to the Korean government’s privatization program.

Also, on June 25, 2009, the listing market of the Parent Company’s GDR was changed from the BdL market to the Euro MTF in the Luxembourg Stock Exchange.

The Parent Company’s major shareholders as of December 31, 2019, are as follows:

	Number of shares	Percentage of ownership (%)
National Pension Service	15,464,406	11.26
Industrial Bank of Korea	9,510,485	6.93
Employee Share Ownership Association	2,933,116	2.14
Treasury shares	10,712,574	7.80
Others	98,671,916	71.87
Total	137,292,497	100.00

(2) Consolidated Subsidiaries

Controlling company	Subsidiary	Principal operation	Percentage of ownership(%) ¹⁾	Reporting date	Location
The Parent Company	Korea Ginseng Corporation	Manufacturing and selling ginseng	100.00	Dec.31.2019	Korea
	Yungjin Pharm. Co., Ltd.	Manufacturing and selling pharmaceuticals	52.45	Dec.31.2019	Korea
	Tae-a Industry Co., Ltd.	Manufacturing tobacco materials	100.00	Dec.31.2019	Korea
	KT&G Tutun Mamulleri Sanayi ve Ticaret A.S.	Manufacturing and selling tobaccos	99.99	Dec.31.2019	Turkey
	Korea Tabacos do Brasil Ltda.	Assistance with purchasing tobacco leaf	99.99	Dec.31.2019	Brazil
	KT&G Pars	Manufacturing and selling tobaccos	99.99	Dec.31.2019	Iran
	KT&G Rus L.L.C.	Manufacturing and selling tobaccos	100.00	Dec.31.2019	Russia
	KT&G USA Corporation	Selling tobaccos	100.00	Dec.31.2019	USA
	Cosmococ Co., Ltd.	Manufacturing and selling cosmetics	98.56	Dec.31.2019	Korea
	Renzoluc Pte., Ltd. ²⁾	Holding company	100.00	Dec.31.2019	Singapore
	PT KT&G Indonesia	Selling tobaccos	99.99	Dec.31.2019	Indonesia
	SangSang Stay Inc.	Hotel	100.00	Dec.31.2019	Korea
	KT&G Global Rus L.L.C.	Selling tobaccos	100.00	Dec.31.2019	Russia
	Gwacheon SangSang PFV	Developing and selling real estate	51.00	Dec.31.2019	Korea
Korea Ginseng Corporation	KGC Life & Gin Co., Ltd.	Selling ginseng	100.00	Dec.31.2019	Korea
	Cheong Kwan Jang Taiwan Corporation	Selling ginseng	100.00	Dec.31.2019	Taiwan
	Korean Red Ginseng Corp., Inc.	Selling ginseng	100.00	Dec.31.2019	USA
	Korea Ginseng (China) Corp.	Selling ginseng	100.00	Dec.31.2019	China
	Korea Ginseng Corporation Japan	Selling ginseng	100.00	Dec.31.2019	Japan
	Jilin Hanzheng Ginseng Co., Ltd.	Manufacturing and selling ginseng	100.00	Dec.31.2019	China
	KGC Yebon Corporation	Manufacturing and selling medical herbs	100.00	Dec.31.2019	Korea
Cosmococ Co., Ltd.	K&I HK Co., Ltd.	Selling cosmetics	98.56	Dec.31.2019	HongKong
	K&I China Co., Ltd.	Selling cosmetics	98.56	Dec.31.2019	China
Renzoluc Pte., Ltd.	PT Trisakti Purwosari Makmur	Manufacturing and selling tobaccos	99.99	Dec.31.2019	Indonesia
PT Trisakti Purwosari Makmur	PT Nusantara Indag Makmur	Selling tobaccos	99.99	Dec.31.2019	Indonesia

¹⁾ The percentage of ownership, shown above, is on a consolidated basis.

²⁾ The Parent Company's percentage of ownership, shown above, excludes redeemable convertible preferred shares. As of December 31, 2019, the Parent Company's percentage of ownership would be 88.60% if preferred shares are included.

During the year ended December 31, 2018, the Parent Company had made an acquisition of 51% (714,000 shares, ₩3,570 million) shares of Gwacheon SangSang PFV.

The Parent Company made a contribution in kind of its 100% ownership in KGC Yebon Corporation to Korea Ginseng Corporation during the year ended December 31, 2019.

(3) Summarized Financial Information

Summarized Financial information¹⁾ for consolidated subsidiaries as of and for the year ended December 31, 2019, is as follows:

<i>In millions of Korean won</i>	Total assets	Total liabilities	Revenue	Net profit(loss)	Total comprehensive income(loss)
Korea Ginseng Corporation	₩2,127,670	₩229,308	₩1,403,681	₩147,711	₩141,540
Yungjin Pharm. Co., Ltd.	200,446	84,695	220,516	5,030	4,145
Tae-a Industry Co., Ltd.	54,946	6,035	19,091	651	228
KT&G Tutun Mamulleri Sanayi ve Ticaret A.S.	32,788	46,647	12,780	(6,397)	(5,415)
Korea Tabacos do Brasil Ltda.	2,434	132	-	(186)	(182)
KT&G Pars	619	57,863	-	(14,929)	(8,120)
KT&G Rus L.L.C.	166,998	81,047	44,790	3,999	15,490
KT&G USA Corporation	63,072	39,228	155,543	3,257	3,941
Cosmococ Co., Ltd.	50,424	36,512	71,363	(14,259)	(14,928)
Renzoluc Pte., Ltd.	136,006	32,706	-	(1,864)	6,094
PT KT&G Indonesia	104,970	108,505	147,010	10,257	8,718
SangSang Stay, Inc.	52,457	51,266	22,659	(2,309)	(2,391)
KT&G Global Rus L.L.C.	51,228	60,536	34,631	(924)	(2,115)
Gwacheon SangSang PFV	6,269	482	-	(1,151)	(1,151)
PT Trisakti Purwosari Makmur ²⁾	213,266	68,414	65,872	8,092	18,218
PT Trisakti Purwosari Makmur (Previously, PT Mandiri Maha Mulia) ²⁾	-	-	25,159	2,017	4,240
PT Trisakti Purwosari Makmur (Previously, PT Sentosa Ababi Purwosari) ²⁾	-	-	17,635	2,911	(2,792)
PT Trisakti Purwosari Makmur (Previously, PT Purindo Ilufa) ²⁾	-	-	5,263	1,860	112
PT Nusantara Indag Makmur	80	-	-	(42)	(33)
KGC Life & Gin Co., Ltd.	32,708	12,065	37,360	616	435
Cheong Kwan Jang Taiwan Corporation	23,054	20,356	31,779	547	663
Korean Red Ginseng Corp., Inc.	19,974	11,375	21,441	(2,657)	(2,698)
Korea Ginseng (China) Corp.	33,823	23,066	52,099	(148)	51
Korea Ginseng Corporation Japan	7,311	5,960	11,018	17	87
Jilin Hanzheng Ginseng Co., Ltd.	49,774	758	15,837	(1,163)	(263)
KGC Yebon Corporation	53,912	8,366	12,759	(311)	(457)
K&I HK Co., Ltd.	671	1,933	340	(1,709)	(1,690)
K&I China Co., Ltd.	₩1,450	₩3,838	₩913	₩ (3,313)	₩ (3,242)

¹⁾ The above financial information is according to each company's separate financial statements.

²⁾ PT Sentosa Ababi Purwosari, PT Purindo Ilufa and PT Mandiri Maha Mulia were merged into PT Trisakti Purwosari Makmur during the year ended December 31, 2019.

Summarized Financial information¹⁾ for consolidated subsidiaries as of and for the year ended December 31, 2018, is as follows:

<i>In millions of Korean won</i>	Total assets	Total liabilities	Revenue	Net profit(loss)	Total comprehensive income(loss)
Korea Ginseng Corporation	₩2,007,076	₩296,256	₩1,328,251	₩142,010	₩138,211
Yungjin Pharm. Co., Ltd.	196,114	84,508	186,409	(6,101)	(8,044)
Tae-a Industry Co., Ltd.	50,246	1,563	13,336	242	174
KT&G Tutun Mamulleri Sanayi ve Ticaret A.S.	28,240	36,683	7,890	(11,564)	(10,537)
Korea Tabacos do Brasil Ltda.	2,601	117	-	168	(125)
KT&G Pars	4,050	53,175	2,121	(52,079)	(13,322)
KT&G Rus L.L.C.	154,515	84,054	52,018	2,093	(8,829)
KT&G USA Corporation	61,789	41,887	102,983	1,132	1,933
Cosmococ Co., Ltd.	63,849	35,008	74,147	(12,266)	(12,594)
Renzoluc Pte., Ltd.	125,258	28,052	-	(1,040)	(3,846)
PT KT&G Indonesia	54,373	66,626	104,346	3,756	3,982
SangSang Stay, Inc. ²⁾	63,097	59,514	20,229	(5,881)	(5,895)
KT&G Global Rus L.L.C.	75,366	82,558	34,813	4,740	3,094
Gwacheon SangSang PFV	6,955	17	-	(62)	(62)
PT Trisakti Purwosari Makmur	118,101	5,915	7,336	4,961	2,383
PT Mandiri Maha Mulia	52,379	35,266	48,441	3,572	3,224
PT Sentosa Ababi Purwosari	54,967	54,438	33,993	(754)	(411)
PT Purindo Ilufa	10,327	14,506	9,253	(715)	(536)
PT Nusantara Indag Makmur	113	-	-	(391)	(402)
KGC Life & Gin Co., Ltd.	28,097	7,889	37,707	437	303
Cheong Kwan Jang Taiwan Corporation	19,272	17,237	27,190	(122)	(83)
Korean Red Ginseng Corp., Inc.	19,579	18,791	24,728	(2,999)	(2,646)
Korea Ginseng (China) Corp.	23,121	12,414	41,071	(1,196)	(1,235)
Korea Ginseng Corporation Japan	6,706	5,445	10,121	(99)	(51)
Jilin Hanzheng Ginseng Co., Ltd.	49,722	464	10,070	(7,138)	(7,337)
KGC Yebon Corporation	56,965	10,963	13,428	(1,172)	(1,168)
K&I HK Co., Ltd.	2,600	2,173	2,673	113	128
K&I China Co., Ltd.	₩3,174	₩2,320	₩4,249	₩ (282)	₩ (282)

¹⁾ The above financial information is according to each company's separate financial statements.

²⁾ This amount has been retrospectively restated in accordance with the transitional provisions for K-IFRS No. 1116.

(4) Changes in Scope for Consolidation

PT Sentosa Ababi Purwosari, PT Purindo Ilufa and PT Mandiri Maha Mulia have been merged into PT Trisakti Purwosari Makmur during the year ended December 31, 2019, and therefore have been excluded from the scope for consolidation as of December 31, 2019.

2. Significant Accounting Policies

2.1. Basis of Preparation

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

The consolidated financial statements have been prepared based on historical cost except for the following:

- Certain financial assets and financial liabilities (including derivatives)
- Assets held for sale measured at fair value less cost to sell
- Defined contribution plans and plan assets measured at fair value

The preparation of the consolidated 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.

The consolidated financial statements of the Group were authorized by the Board of Directors on the Board of Directors’ meeting held on March 16, 2020. It is expected to be finally authorized at the stakeholders’ meeting on March 31, 2020.

2.2. Changes in Accounting Policies and Disclosures

(1) New and amended standards and interpretations adopted by the Group

The Group has applied the following standards and amendments for the first time for its annual reporting period commencing January 1, 2019.

- Enactment to K-IFRS No. 1116 Leases

K-IFRS No. 1116 Leases replaces K-IFRS No. 1017 Leases. Under the new standard, with implementation of a single lease model, a lessee is required to recognize assets and liabilities for all leases whose lease term is more than 12 months and underlying assets are not low value assets. The lessee is required to recognize a right-of-use asset and a lease liability representing its obligation to make lease payments.

The Group had changed the accounting policies as a result of application of K-IFRS No. 1116. The changed accounting policies were applied retrospectively in accordance with the transition provisions of K-IFRS No. 1116 and the cumulative effect of initial application was reflected on January 1, 2019, the date of initial application. The comparative consolidated financial statements of the previous term are not restated. The impact of introducing the lease standard and the new accounting policy is described in Note 35.

- Enactment to Interpretation of K-IFRS No. 2123 Uncertainty over Income Tax Treatments

The interpretation explains how to recognize and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment, and includes guidance on how to determine whether each uncertain tax treatment is considered separately or together. It also presents examples of circumstances where a judgement or estimate is required to be reassessed. The effects of introducing the interpretation on uncertainty over income tax treatments is described in Note 35.

- Amendments to K-IFRS No. 1109 Financial Instruments

The narrow-scope amendments made to K-IFRS No. 1109 Financial Instruments enable entities to measure certain prepayable financial assets with negative compensation at amortized cost. When a modification of a financial liability measured at amortized cost does not result in derecognition, a modification gain or loss shall be recognized in profit or loss.

- Amendments to K-IFRS No. 1019 Employee Benefits

The amendments require that an entity shall calculate current service cost and net interest for the remainder of the reporting period after a plan amendment, curtailment or settlement based on updated actuarial assumptions from the date of the change. The amendments also require that a reduction in a surplus must be recognized in profit or loss even if that surplus was not previously recognized because of the impact of the asset ceiling.

- Amendments to K-IFRS No. 1028 Investments in Associates and Joint Ventures

The amendments clarify that an entity shall apply K-IFRS No. 1109 to financial instruments in an associate or a joint venture to which the equity method is not applied. The amendments also state that an entity should apply K-IFRS No. 1109 for impairment of long-term interests that form part of an entity's net investment in the associate or joint venture.

- Amendments to K-IFRS No. 1115 Revenue from Contracts with Customers

These amendments focus on 'additional disclosure of contracts to apply the cost-based input method' by amending the meaning of 'contracts' referred to in paragraph Han129.1 to 'individual contracts' so that the scope of the disclosure cannot be reduced even if K-IFRS No. 1115 is applied. Furthermore, because K-IFRS No. 1115 does not distinguish between types of contracts, it is clarified that service contracts that were not subject to the application of paragraph Han 45.1 of K-IFRS No. 1011 may also be subject to the application of paragraph Han 129.1 of K-IFRS No. 1115 and therefore may broaden the scope of public contracts in accordance with paragraph Han 129.1 of K-IFRS No. 1115 compared to previous revenue standards.

- Annual Improvements to 2015 – 2017 Cycle:

① K-IFRS No. 1103 Business Combination

The amendments clarify that when a party to a joint arrangement obtains control of a business that is a joint operation, and had rights to the assets and obligations for the liabilities relating to that joint operation immediately before the acquisition date, the transaction is a business combination achieved in stages. In such cases, the acquirer shall remeasure its entire previously held interest in the joint operation.

② K-IFRS No. 1111 Joint Agreements

The amendments clarify that when a party that participates in, but does not have joint control of, a joint operation might obtain joint control of the joint operation in which the activity of the joint operation constitutes a business. In such cases, previously held interests in the joint operation are not remeasured.

③ K-IFRS No. 1012 Income Tax

K-IFRS No. 1012 paragraph 57A (which stipulates items to be recognized and the period of recognition regarding tax effects of dividends) applies to all income tax effects of dividends and requires an entity to recognize the income tax effects of dividends in either profit or loss, other comprehensive income or equity according to where the entity originally recognized those past transactions or events.

④ K-IFRS No. 1023 Borrowing Costs

The amendments clarify that if a specific borrowing remains outstanding after the related qualifying asset is ready for its intended use (or sale), it becomes part of general borrowings.

There are no material effects of the above mentioned amendments made to K-IFRSs on the consolidated financial statements, except for the amendments made to K-IFRS No. 1116 Leases and the enactment of K-IFRS No. 2123 Uncertainty over Income Tax Treatments.

(2) New and amended standards not yet adopted by the Group

- Amendment to K-IFRS No. 1001 'Presentation of Financial Statements' and K-IFRS No. 1008 'Accounting Policies, Changes in Accounting Estimates and Errors' – Definition of materiality

The Group has clarified the “definition of materiality” and has made amendments to K-IFRS No. 1001 and K-IFRS No. 1008 in accordance with the clarified definition. The Group has taken into consideration the following for the determination of materiality: the possibility of omission of material information; the risk of material misstatement; and the effects of immaterial information. The Group has also taken into consideration the nature of information users when making decisions on what information is disclosed. These amendments will be applied for annual periods beginning on or after January 1, 2020, with early adoption permitted.

- Amendment to K-IFRS No. 1103 'Business Combination' – Definition of business

Under the amended definition of business, in order for acquired assets and activities to be defined as a business, they must include inputs and practical processes which have the ability to significantly contribute towards the creation of output. The economic benefits of cost reduction have also been omitted under the amended definition of business.

In addition, a new selective focused testing method has been adopted whereby if a majority of the fair value of the total assets acquired are concentrated in either a single identifiable asset or a group of assets, the acquired group of assets and activities can be determined as an asset or a group of assets, rather than as a business. These amendments will be applied for annual periods beginning on or after January 1, 2020, with early adoption permitted.

- Amendments to K-IFRS No. 1109 Financial Instruments and K-IFRS No. 1107 Financial Instruments : Disclosures

The amendment focuses on adding an exception rule so that risk hedge accounting can be applied even when uncertainty exists due to interest rate indicator reform. The amendment assumes that the interest rate indicator based on cash flows will not be changed to reform when reviewing the likelihood of an expected transaction. When performing a forward assessment, the interest rate indicator based on the hedged items, measures and risks to be avoided, assumes that interest rate index reform will not change. It also applies the requirement that risk components should be separately identifiable for hedges of non-contractually specified interest rate risk components only at the beginning of the hedging relationship. In the meantime, the application of the exceptions under this amendment ends when the uncertainty due to the interest rate indicator reform no longer appears with respect to the timing and amount of cash flows based on the interest rate index, or when the risk aversion relationship ceases. These amendments will be applied for annual periods beginning on or after January 1, 2020, with early adoption permitted.

The Group is reviewing the effect of this amendment on the consolidated financial statements of the Group.

2.3. Accounting Policies

The significant accounting policies and calculation methods applied in preparation of the consolidated financial statements for the year ended December 31, 2019 are identical to those applied in preparation of the consolidated financial statements for the year ended December 31, 2018, except for the amendments and enactments described in Note 2.2 as well as the descriptions of the paragraphs below.

(1) Business Sectors

To make decisions about the resources to be allocated to the sector and to evaluate performance in the sector, the Group divides segments based on internal reporting data periodically reviewed by the top operating decision maker. As described in Note 4, there are four reportable segments in the Group, each of which is the strategic units of the Group. The segment information reported to the management includes items directly attributable to the segment and items that can be reasonably allocated.

(2) Consolidation

The Group has prepared the consolidated financial statements in accordance with K-IFRS No. 1110 Consolidated Financial Statements.

① 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 recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the business acquired, the difference is recognized directly in the profit or loss as a bargain purchase.

Intercompany transactions, balances and unrealized gains on transactions between group companies are eliminated. 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.

For transactions with non-controlling interests that do not result in a loss of control, any difference between the amount of the adjustment to non-controlling interests and the fair value of 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 changes in carrying amount recognized in profit or loss.

② 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.

The Group stops applying the equity method in cases where the proportion of the associate's loss attributable to the Group is either equal to or greater than the Group's investment holdings (including non-current investment holdings which form a part of the net investment) in the associate.

However, in cases where the Group has either legal-constructive obligations or needs to make payments on behalf of the associate for any additional losses after the Group's holdings in the associate has been reduced to zero (0), the Group recognizes losses and liabilities only up to those additional losses.

If there is an objective evidence of impairment for the investment in the associate, the Group recognizes the difference between the recoverable amount of the associate and its book amount as impairment loss.

When using the financial statements of the associates in order to apply the equity method, the Group reviews whether associates have used the same accounting policies the Group would apply for transactions or events that have occurred under similar circumstances.

③ Business Combination of Entities under a Common Control

The Group applies the book amount method to account for business combinations of entities under a common control. Identifiable assets acquired and liabilities assumed in a business combination are measured at their book amounts on the consolidated financial statements of the ultimate Parent Company. The Group has adjusted the difference between the transfer consideration and the book value of the net assets from the capital surplus.

(3) Joint Arrangements

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

(4) Property, Plant and Equipment

All property, plant and equipment are stated at historical cost, less depreciation and accumulated impairment loss. Historical cost includes expenditures directly attributable to the acquisition of items.

Subsequent costs are included in an asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow into the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to the consolidated statements of comprehensive income during the financial period in which they are incurred.

Property, plant and equipment, except for land and certain tangible fixed assets (such as trees and paintings etc.), are depreciated on a straight-line basis over estimated useful lives that appropriately reflect the pattern in which an asset's future economic benefits are expected to be consumed.

The estimated useful lives of the Group's assets are as follows:

Type	Useful lives(years)
Land	Indefinite
Buildings	10-60
Structures	4-40
Machinery	2-20
Vehicles	3-10
Tools	4-5
Equipment	2-5
Other tangible assets	1-5 or indefinite

The assets' residual values and useful lives are reviewed and adjusted, if appropriate, at the end of each reporting period. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized in other income and expense in the consolidated statements of comprehensive income.

(5) Borrowing Costs

The Group capitalizes borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset. Other borrowing costs are recognized in expense as incurred. A qualifying asset is an asset that requires a substantial period to get ready for its intended use or sale. Financial assets and inventories that are manufactured or otherwise produced over a short period of time are not qualifying assets. Assets that are ready for their intended use or sale when acquired are not qualifying assets.

To the extent that the Group borrows funds specifically for obtaining a qualifying asset, the Group determines the amount of borrowing costs eligible for capitalization as the actual borrowing costs incurred on those borrowings during the period less any investment income on the temporary investment of those borrowings. The Group immediately recognizes other borrowing costs as an expense. To the extent that the Group borrows funds generally and uses them for obtaining a qualifying asset, the Group determines the amount of borrowing costs eligible for capitalization by applying a capitalization rate to the expenditures on that asset. The capitalization rate is the weighted average of the borrowing costs applicable to the borrowings of the Group that are outstanding during the period, other than borrowings made specifically for obtaining a qualifying asset. The amount of borrowing costs that the Group capitalizes during a period does not exceed the amount of borrowing costs incurred during that period.

(6) Government Subsidies

Government subsidies are not recognized, unless there is a reasonable assurance that the Group will comply with the subsidies grant conditions and that the subsidies will be granted.

Asset related government subsidies are presented as deductions during the calculation of book value. Subsidies related to revenue are deferred and are presented as deductions from expenses related to the purpose of the government subsidies being granted.

Government subsidies that are intended to compensate the Group for expenses incurred are recognized as other income in profit or loss over the periods in which the Group recognizes the related costs as expenses.

(7) Intangible assets

Intangible assets are measured initially at cost and subsequently are carried at cost less accumulated amortization and accumulated impairment losses. Intangible assets are amortized on a straight-line basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value of intangible assets is assumed to be zero. However, as there are no foreseeable limits to the periods over which some of industrial property rights and facility usage rights are expected to be available for use, these intangible assets are regarded as having indefinite useful lives and not amortized.

Type	Useful lives(years)
Industrial property rights	5–20 or indefinite
Facility usage rights	Indefinite
Intangible assets under development	Indefinite
Other intangible assets	1–14 or indefinite

Amortization periods and amortization methods for intangible assets with finite useful lives are reviewed at the end of each reporting period. The useful lives of intangible assets that are not being amortized are reviewed at the end of each reporting period to determine whether events and circumstances continue to support indefinite useful life assessment for those assets. The change is accounted for as a change in an accounting estimate.

(8) Investment Property

Property held for earning rentals or benefiting from capital appreciation is classified as investment property. Investment property is initially measured at its cost. Transaction costs are included in the initial measurement. Subsequently, investment property is carried at depreciated cost less any accumulated impairment losses.

Subsequent costs are recognized in the carrying amount of investment property at cost or, if appropriate, as separate items if it is probable that future economic benefits associated with an item will flow into the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing are recognized in profit or loss as incurred.

Investment property, except for land, is depreciated on a straight-line basis over 10–60 years as estimated useful lives.

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting date and adjusted, if appropriate. The change is accounted for as a change in an accounting estimate.

(9) Assets Held for Sale

Non-current assets, or disposal groups comprising assets and liabilities, that are expected to be recovered primarily through sale, rather than through continuous use, are classified as held for sale. In order to be classified as held for sale, an asset (or a disposal group) must be available for immediate sale in its present condition and its sale must be highly probable. The assets or disposal groups that are classified as non-current assets held for sale are measured at the lower of their carrying amount or fair value less cost to sell. For the asset that had been impaired on the initial reclassification, the impairment loss is recognized immediately in profit or loss if the fair value of the asset decreases, when the fair value increases the impairment loss will be reversed into profit or loss with the limit of accumulated impairment loss recognized so far. However, deferred tax assets, assets generated from employee benefits, and financial instruments which are subject to 'K-IFRS No. 1039 Financial Instruments: Recognition and Measurement' are measured in accordance with relative standards.

If the non-current asset is classified as held for sale or is part of a disposal group classified as held for sale, the asset is not amortized.

(10) Inventories

Inventories are measured at the lower of cost or net realizable value. The cost of inventories comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

The cost of inventories is determined as follows:

Type	Determination method of unit cost price
Merchandise, finished goods, work in progress, raw materials, supplies and by-products	Weighted-average method or moving-average method
Buildings under construction, completed buildings, sites for construction of real estate and goods in transit	Specific identification method

When inventories are sold, the carrying amount of those inventories is recognized as an expense in the period in which the related revenue is recognized. The amount of any valuation of inventories to net realizable value and all losses of inventories are recognized as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realizable value, is recognized as a reduction in the amount of inventories and recognized as an expense in the period in which the reversal occurs.

(11) Impairment of Non-Financial Assets

The carrying amounts of the Group's non-financial assets, other than inventories, deferred tax assets, assets arising from employee benefits and non-current assets held for sale, are reviewed at the end of the reporting period to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Intangible assets that have indefinite useful lives or that are not yet available for use, irrespective of whether there is any indication of impairment, are tested for impairment annually by comparing their recoverable amount to their carrying amount.

If it is impossible to measure the recoverable amounts of individual assets, the recoverable amount of an asset is determined as the higher value between: the value-in-use or the fair value less costs to sell for each CGU that the asset belongs to. An impairment loss is recognized if the carrying amount of an asset or a CGU exceeds its recoverable amount. Impairment losses are recognized immediately in profit or loss. At the end of each reporting period, the Group tests for signs which show that any impairment loss recognized in the past either no longer exists or there has been a reduction in the amount. An impairment loss is reversed only if there has been a change in the estimates used to determine the recoverable amount after the last time an impairment loss has been recognized.

(12) Financial Assets (Other than Derivative Instruments)

① Classification

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

- Those to be measured at fair value through profit or loss
- Those to be measured at fair value through other comprehensive income, and
- Those to be measured at amortized cost.

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

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

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

② Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

- 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:

A. 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.

B. Fair value through other comprehensive income

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

C. 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 consolidated statements of comprehensive income within 'finance income or cost' in the year in which it arises.

- 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 (held for long-term investment or strategic purposes), in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following derecognition of the investment. Gains and losses related to the disposal of such investments are recognized in retained earnings. Dividend income from such investments continue to be recognized in profit or loss as 'finance income' when the right to receive payments is established.

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

③ Impairment

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

④ Recognition and Derecognition

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

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

⑤ 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.

(13) Financial Liabilities

① Classification and measurement

Financial liabilities of the Group measured at fair value through profit or loss are financial instruments held for trading. Financial liabilities assumed usually for repurchase in the short term are classified as financial liabilities held for trading. Derivative instruments which are not designated as a means of hedge accounting as well as embedded derivative instruments which are separate from financial instruments are also classified as financial instruments held for trading.

All non-derivative financial liabilities are classified as financial liabilities measured at amortized cost and are presented as ‘trade and other payables’, ‘borrowings’ or ‘lease liabilities’ in the consolidated statements of financial position. Exceptions to this are financial liabilities measured at fair value through profit or loss, financial guarantee contracts and cases where the transfer of financial assets do not satisfy conditions for derecognition.

② Derecognition

Financial liabilities are derecognized from the consolidated statements of financial position when either: the contractual obligations have been satisfied, cancelled or expired; or there has been a substantial change to the conditions of the existing financial liabilities. The difference between financial liabilities that have been expired or transferred to a third party, and the consideration paid (including non-cash assets transferred or liabilities assumed) are recognized through profit or loss.

(14) Derivative Instruments

Derivatives are initially recognized at the date the derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss arising from the changes in fair value of derivatives is recognized as current term's profit or loss.

(15) Cash and Cash Equivalents

Cash and cash equivalents comprise cash balances and call deposits with maturities of three months or less from the acquisition date that are subject to an insignificant risk of changes in their fair value and are used by the Group in the management of its short-term commitments. Equity investments are excluded from cash equivalents, unless they are, in substance, cash equivalents, for example, in the case of preferred shares when they have a short maturity with a specified redemption date.

(16) Employee Benefits

① Short-term employee benefits

Short-term employee benefits are employee benefits that are due to be settled within 12 months after the end of the period in which the employees render the related service. When an employee has rendered service to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service.

② Other long-term employee benefits

As for other long-term employee benefits that are not due to be settled within 12 months after the end of the period in which the employees rendered the related service, the future benefits acquired in return for the services provided in the current term and the past period are discounted as current value. Changes following remeasurements are recognized as current term's profit or loss that have incurred in the period.

③ Share based compensation

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.

④ Retirement benefits: Defined contribution plans

When an employee has rendered service to the Group during a period, the Group recognizes the contribution payable to a defined contribution plan in exchange for that service as a liability (accrued expense) after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, the Group recognizes that excess as an asset (prepaid expense) to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

⑤ Retirement benefits: Defined benefit plans

The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any applicable minimum funding requirements. Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income. The Group determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset), considering any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments.

Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss. When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognized immediately in profit or loss. The Group recognizes gains and losses on the settlement of a defined benefit plan when the settlement occurs.

⑥ Termination benefits

Termination benefits are expensed at the earlier of when the Group can no longer withdraw the offer of those benefits or when the Group recognizes costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the end of the reporting period, then they are discounted.

(17) Provisions

Provisions are recognized when the Group has a present legal or constructive obligation; as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The risks and uncertainties that inevitably surround many events and circumstances are considered in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows. Where some or all of the expenditures required to settle a provision are expected to be reimbursed by another party, the reimbursement shall be recognized when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement shall be treated as a separate asset.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimates. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

(18) Equity Capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of ordinary shares and share options are recognized as a deduction from equity, net of any tax effects.

When the Group repurchases its share capital, the amount of the consideration paid is recognized as a deduction from equity and classified as treasury shares. The profits or losses from the purchase, disposal, reissue or retirement of treasury shares are not recognized as current profits or losses. If the Group acquires and retains treasury shares, the consideration paid or received is directly recognized in equity.

(19) Revenue Recognition

The Group's revenue categories consist of revenue from goods sold, services and other income.

① Sales of goods

Revenue from sale of goods is measured at the fair value of the consideration received or receivable. Revenue from the sale of goods is recognized when the Group has transferred to the buyer the significant risks and rewards of ownership of the goods, the Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold, the amount of revenue can be measured reliably, it is probable that the economic benefits associated with the transaction will flow into the Group and the costs incurred or to be incurred with respect to the transaction can be measured reliably.

The Group allows returns under the contract that supplies goods to customers, so the revenue from customers may change. The Group recognizes revenue when it can reasonably anticipate a return allowed to customers and only to the extent it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not subsequently occur. If reasonable estimates are not possible, it shall be offset as refund liability.

② Rendering of services

Revenue from rendering of services is recognized by reference to the stage of completion of the transaction at the end of the reporting period when the amount of revenue can be measured reliably, it is probable that the economic benefits associated with the transaction will flow into the Group, the stage of completion of the transaction at the end of the reporting period can be measured reliably and the costs incurred for the transaction and the costs to complete the transaction can be measured reliably. When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognized only to the extent of the expenses recognized that are recoverable.

The Group provides logistics services according to the contract signed with customers. The Group controls the logistics service before transferring to the customer so that it belongs to 'oneself' and revenue is recognized as total amount.

③ Sale of real estate

The Group sells residential real estate according to long-term contracts with customers. Such contracts are signed before construction of the residential real estate begins. According to the contract conditions, transferring the real estate to another customer is restricted and the Group has the right to claim for enforceable payment with regard to work performed up to that point. Therefore, revenue incurred from residential real estate is recognized based on the percentage-of-completion method (in other words, actual cost to date as a proportion of the estimated total cost). Management has deemed the percentage-of-completion method to be an appropriate method for measuring the progress rate until performance obligations are satisfied in accordance with K-IFRS No. 1115.

The Group pays sales commission in relation to the sales contract of residential real estate. When the Group estimates that such incremental cost would be recovered, the incremental cost is capitalized and amortized over the period in which the residential real estate is transferred to the customer.

④ Lease of real estate, etc.

The profit from lease of investment property and others is recognized on a straight-line basis over the period of lease.

(20) Finance Income and Finance Cost

Finance income includes interest income, dividend income etc. from investments in financial assets. Interest income, as it accrues, is recognized through profit or loss using the effective interest method. Dividend income is recognized through profit or loss on the date the Group's right to receive the dividend as a shareholder is established. Finance cost includes interest expense on borrowings and lease liabilities, amortization on trade and other payables etc. Interest expense, as it accrues, is recognized through profit or loss using the effective interest method.

(21) Income Tax Expense

Income tax expense consists of current tax and deferred tax. Income tax is usually recognized through profit or loss. Exceptions are income tax related to items which are recognized directly in other comprehensive income or in equity. In such cases, income tax is also recognized directly in other comprehensive income or in equity.

Income tax expense is measured based on tax laws that have either 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. The Group recognizes current income tax on the basis of amounts expected to be paid to the tax authorities.

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

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

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

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

(22) Functional and Presentation Currency

Items included in the consolidated 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.

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. They are deferred in other comprehensive income if they relate to qualifying cash flow hedges and qualifying effective portion of net investment hedges, or are attributable to monetary part of the net investment in a foreign operation.

Foreign exchange gains and losses are presented in the consolidated statements of comprehensive income within 'other income or other expenses'.

Foreign exchange gains or losses arising from non-monetary financial assets and liabilities are considered a part of changes in fair value through profit or loss. Therefore, foreign exchange gains or losses arising from equity instruments measured at fair value through profit or loss are recognized through profit or loss. Foreign exchange gains or losses arising from equity instruments measured at fair value through other comprehensive income are recognized through other comprehensive income.

(23) Earnings per Share

The Group presents basic and diluted earnings per share ("EPS") data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Parent Company by the weighted-average number of ordinary shares outstanding during the period, adjusted for own shares held. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted-average number of ordinary shares outstanding, adjusted for own shares held, for the effects of all dilutive potential ordinary shares.

(24) Lease

As explained in Note 2.2 above, the Group has adopted the accounting policy K-IFRS No. 1116 Leases during the current reporting period. Information on the effects of adopting this new accounting policy is provided in Note 35.

Lease income from operating leases where the Group is a lessor is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognized as expense over the lease term on the same basis as lease income. The respective leased assets are included in the consolidated statement of financial position based on their nature. The Group did not need to make any adjustments to the accounting for assets held as lessor as a result of adopting the new leasing standard.

The Group leases various offices, accommodation for employees and vehicles etc. The terms of lease are negotiated individually and include various contractual conditions. There are no restrictions from lease contracts other than that the leased assets cannot be used as collateral for borrowings.

Until the fiscal year 2018, property, plant and equipment were classified as operating leases. Lease payments in accordance with the operating lease (net amount excluding incentives received from the leasing provider) are recognized in profit or loss over a lease term.

From January 1, 2019, 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. Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

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

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

Lease liability measurements include payments to be made in option periods if the lessee is reasonably certain to exercise an option to extend (or terminate) the lease. For variable lease payment terms that are linked to indexes or rates, the Group is exposed to the potential future risks of the variable lease payments not included in the lease liabilities whilst the indexes or rates are still valid. In such cases, the Group re-evaluates the lease liabilities whilst the changes in lease payments (due to indexes or rates) are still valid and make adjustments to the right-of-use asset.

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

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

- The amount of the initial measurement of lease liability
- Any lease payments made at or before the commencement date less any lease incentives received
- Any initial direct costs, and
- Restoration costs

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

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

The accounting policies adopted by the Group as a lessor are not different from the policies of K-IFRS No. 1017. However, in cases where the Group is an intermediary lessor, the classification of subleases is based on the right-of-use assets derived from upper level leases, rather than from the underlying assets of subleases.

(25) Emission Rights

Pursuant to the Act on Allocation and Trading of Greenhouse Gas Emission that became effective in 2015, the Group has an emission liability, which is a present obligation of submitting emission rights to the government with regard to emission of greenhouse gases. Emission liability is recognized when it is probable that outflows of resources will be required to settle the obligation and the costs required to perform the obligation are reliably estimable. The Group reviews the financial effects of the transaction every quarter, and has judged that the effects of the transaction is immaterial as at the end of the current reporting period.

(26) Going Concern

Following the resolution to liquidate KT&G Pars during 2019, the Group has prepared its consolidated financial statements by using the consolidated statements of financial position, comprehensive income, changes in equity and cash flows and the notes to consolidated financial statements under the assumption that KT&G Pars will be liquidated.

3. Critical Accounting Estimates and Assumptions

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

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

(1) Impairment test

The recoverable amount of a cash-generating unit to review for impairment is determined based on the calculation of value in use or net fair value, and this calculation is estimated based on future estimates.

In the case of the cash-generating unit of the Indonesian tobacco business, there is uncertainty about the feasibility of estimating future cash flows and business plans due to the increase in the tobacco consumption tax predicted by the Indonesian government, the competitive structure of the local domestic market that is expected to intensify generated by the tax increase, and the company restructuring due to the merger of subsidiaries, etc.

The value in use was assessed as recoverable amount when carrying out impairment test of the Indonesian tobacco business cash-generating unit, and the estimate of recoverable amount reflects the management's assessment of the future trend of the relevant industry, and is based on internal and external historical data.

In this regard, the fair value of the asset cannot be reliably estimated and the recoverable amount is measured as the value in use. Future cash flows to measure value in use are estimated in the next five years based on the company's past operating performance and future business plans, and subsequent cash flows are estimated by applying a 1% permanent growth rate.

The discount rate for measuring value in use is the weighted average capital cost adjusted to reflect the specific risk of the asset, and the discount rate applied for measuring value in use during the current and prior terms is as follows:

<i>Unit : %</i>	2019	2018
Cash-generating unit of the Indonesian tobacco business	13.24	14.69

(2) Total construction revenues and total construction costs

① Uncertainty in gross contract revenue estimates

The total contract profit is measured based on the amount of the contract initially agreed upon, but the measurement of the contract return is affected by various uncertainties related to the outcome of the future event, as it may increase or decrease depending on additional contracts, termination of the contract, etc. in the course of performing the contract. When the additional contract or contract termination is confirmed and the amount can be reliably measured, the Group includes it in contract revenue (see Note 24).

② Estimated total construction cost

The amount of construction revenues is affected by progress based on the cumulative incurred contract costs, and the total contract cost is estimated based on future estimates such as material cost, labor cost and construction period(see Note 24).

4. Operating Segments

(1) The Group's operating segments are summarized as follows:

Operating Segments	Principal operation
Tobacco	Manufacturing and selling tobaccos
Ginseng	Manufacturing and selling red ginseng, etc.
Real estate	Selling and renting real estate
Others	Manufacturing and selling pharmaceuticals, cosmetics and others

(2) Segment information on sales and operating profit for the years ended December 31, 2019 and 2018, is as follows:

① For the year ended December 31, 2019

<i>In millions of Korean won</i>	Tobacco	Ginseng	Real estate	Others	Segment total	Adjustments	Consolidated
Total segment sales	₩3,050,844	₩1,583,680	₩421,444	₩316,190	₩5,372,158	₩ (408,956)	₩4,963,202
Intersegment sales	(268,493)	(118,670)	(14,148)	(7,645)	(408,956)	408,956	-
External sales	2,782,351	1,465,010	407,296	308,545	4,963,202	-	4,963,202
Operating profit	974,843	205,455	194,818	(3,093)	1,372,023	9,995	1,382,018

② For the year ended December 31, 2018

<i>In millions of Korean won</i>	Tobacco	Ginseng	Real estate	Others	Segment total	Adjustments	Consolidated
Total segment sales	₩2,865,067	₩1,498,783	₩177,872	₩289,959	₩4,831,681	₩ (360,165)	₩4,471,516
Intersegment sales	(223,850)	(116,484)	(13,706)	(6,125)	(360,165)	360,165	-
External sales	2,641,217	1,382,299	164,166	283,834	4,471,516	-	4,471,516
Operating profit	958,383	197,214	75,399	(12,934)	1,218,062	37,045	1,255,107

(3) The Group obtains revenue by transferring goods and services over a period or at a point in time in the major business lines. The categories of major business lines are consistent with the revenue disclosure information per reporting segment in accordance with K-IFRS No. 1108.

<i>In millions of Korean won</i>		2019	2018
Revenue recognized at a point:			
Tobacco	Wholesale, retail	₩2,772,806	₩2,631,869
	Direct sales	9,545	9,348
Ginseng	Wholesale, retail	831,001	778,360
	Direct sales	634,009	603,939
Others	Wholesale, retail	279,864	256,166
	Direct sales	27,820	26,056
	Subtotal	4,555,045	4,305,738
Revenue recognized over a period:			
Real estate	Sales and rental	407,296	164,166
Others	Technology service	861	1,612
	Subtotal	408,157	165,778
	Total	₩4,963,202	₩4,471,516

(4) Segment information on assets and liabilities as of December 31, 2019 and 2018, is as follows:

① As of December 31, 2019

<i>In millions of Korean won</i>	Tobacco	Ginseng	Real estate	Others	Segment total	Adjustments	Consolidated
Assets:							
Segment assets	₩5,080,404	₩2,159,594	₩1,035,730	₩289,638	₩8,565,366	₩ (1,891,314)	₩6,674,052
Investments in associates and joint ventures	-	-	46,110	3,283	49,393	-	49,393
Assets held for sale	4,680	-	-	-	4,680	(433)	4,247
Subtotal	5,085,084	2,159,594	1,081,840	292,921	8,619,439	(1,891,747)	6,727,692
Unallocated assets							3,984,406
Total assets							₩10,712,098
Acquisition of non-current assets	490,850	43,748	-	11,149	545,747	(32,266)	513,481
Liabilities:							
Segment liabilities	1,549,804	211,156	482	159,500	1,920,942	(419,887)	1,501,055
Unallocated liabilities							505,109
Total liabilities							₩2,006,164

② As of December 31, 2018

<i>In millions of Korean won</i>	Tobacco	Ginseng	Real estate	Others	Segment total	Adjustments	Consolidated
Assets:							
Segment assets	₩4,999,373	₩2,082,712	₩627,966	₩251,980	₩7,962,031	₩ (1,813,961)	₩6,148,070
Investments in associates and joint ventures	-	-	80,951	3,038	83,989	-	83,989
Assets held for sale	27,794	-	-	-	27,794	(23,547)	4,247
Subtotal	5,027,167	2,082,712	708,917	255,018	8,073,814	(1,837,508)	6,236,306
Unallocated assets							3,918,796
Total assets							₩10,155,102
Acquisition of non-current assets	367,199	32,361	-	5,158	404,718	(4,556)	400,162
Liabilities:							
Segment liabilities	1,528,104	165,072	17	108,232	1,801,425	(369,809)	1,431,616
Unallocated liabilities							590,405
Total liabilities							₩2,022,021

Cash and cash equivalents, financial assets at fair value through profit or loss, financial assets at fair value through other comprehensive income or loss, deferred tax assets and others are included in the unallocated assets and borrowings and deferred tax liabilities and others are included in the unallocated liabilities.

(5) Geographical information determined by customer's location for the years ended December 31, 2019 and 2018, is as follows:

<i>In millions of Korean won</i>	2019			2018		
	Korea	Overseas	Total	Korea	Overseas	Total
Sales	₩4,460,151	₩503,051	₩4,963,202	₩4,070,105	₩401,411	₩4,471,516
Non-current assets	4,155,287	139,619	4,294,906	3,613,114	128,613	3,741,727

Sales and non-current assets for overseas were not separately marked by the country, as they were not important.

(6) Revenues from single major customers, which are more than 10% of the details of the Group's consolidated total revenues, do not exist.

5. Cash and Cash Equivalents and Other Financial Assets

(1) Details of cash and cash equivalents as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Cash on hand	₩330	₩506
Demand deposits	400,577	337,497
Money market trust	455,396	501,562
Others	35,003	93,404
Total	₩891,306	₩932,969

(2) Details of other financial assets as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	Current	Non-current	Current	Non-current
Time deposits	₩381,903	₩2,797	₩572,522	₩6,937
Money Market Trust	16,000	-	12,000	-
Security deposits for checking accounts	46	1,683	58	1,629
Total	₩397,949	₩4,480	₩584,580	₩8,566

6. Financial Assets at Fair Value through Profit or Loss

Details of financial assets at fair value through profit or loss as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	Current	Non-current	Current	Non-current
Money Market Trust	₩1,239,263	₩ -	₩1,139,705	₩ -
Beneficiary certificate	-	251,895	-	210,655
Total	₩1,239,263	₩251,895	₩1,139,705	₩210,655

7. Trade and Other Receivables

(1) Details of trade and other receivables as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	Current	Non-current	Current	Non-current
Trade receivables	₩941,104	₩ -	₩896,219	₩ -
Loans	11,302	38,110	17,060	28,845
Other receivables	24,617	1,486	13,570	290
Guarantee deposits	40,185	37,118	43,388	33,768
Accrued income	5,734	24	5,684	-
Finance lease receivables	444	324	-	-
Total	₩1,023,386	₩77,062	₩975,921	₩62,903

(2) Details of allowances for doubtful accounts in relation to trade and other receivables (as a gross amount before deduction of allowances for doubtful accounts) as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	Current	Non-current	Current	Non-current
Total carrying amount	₩1,144,497	₩77,142	₩1,058,004	₩62,903
Allowances:				
Trade receivables	(120,385)	-	(81,731)	-
Other receivables	(726)	(80)	(352)	-
Total allowances	(121,111)	(80)	(82,083)	-
Net trade and other receivables	₩1,023,386	₩77,062	₩975,921	₩62,903

(3) Changes in allowance for doubtful accounts in relation to trade and other receivables for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩82,083	₩27,789
Change in accounting policy	-	69,258
Impairment loss (reversal)	37,372	(5,867)
Write off	(425)	(5,974)
Net exchange difference, etc.	2,161	(3,123)
Ending balance	₩121,191	₩82,083

Impairment loss (reversal of impairment loss) for trade receivables is included as part of selling, general and administrative expenses while impairment loss (reversal of impairment loss) for other receivables is included as part of other expenses (income) in the consolidated statements of comprehensive income.

(4) Details of other receivables measured at amortized cost using the effective interest method as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019			2018		
	Effective interest rate (%)	Current	Non-current	Effective interest rate (%)	Current	Non-current
Other receivables	10.00	₩2,931	₩1,589	-	₩ -	₩ -
Loans	1.49~5.68	11,302	38,110	1.49~5.68	17,060	28,845
Guarantee deposits	0.43~5.68	40,185	37,118	1.49~5.68	43,388	33,768
Finance lease receivables	6.28	444	324	-	-	-
Total		₩54,862	₩77,141		₩60,448	₩62,613

8. Inventories

(1) Details of inventories as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019			2018		
	Acquisition cost	Valuation loss allowance	Carrying amount	Acquisition cost	Valuation loss allowance	Carrying amount
Merchandise	₩66,241	₩ (14,366)	₩51,875	₩89,686	₩ (1,524)	₩88,162
Finished goods	823,865	(8,798)	815,067	785,749	(4,048)	781,701
Work in progress	644,692	(647)	644,045	677,990	(2,987)	675,003
Raw materials	836,871	(2,577)	834,294	817,422	(2,314)	815,108
Supplies	33,257	-	33,257	26,128	-	26,128
By-products	7,131	-	7,131	7,107	-	7,107
Buildings under construction	6,378	-	6,378	279	-	279
Completed buildings	2,215	-	2,215	3,069	-	3,069
Sites for construction of real estate	10,274	-	10,274	8,990	-	8,990
Goods in transit	42,678	-	42,678	55,743	-	55,743
Total	₩2,473,602	₩ (26,388)	₩2,447,214	₩2,472,163	₩ (10,873)	₩2,461,290

(2) The amount of loss on valuation and disposals of inventories recognized as an expense for the years ended December 31, 2019 and 2018, is as follows:

<i>In millions of Korean won</i>	2019	2018
Cost of sales:		
Loss on valuation of inventories	₩15,515	₩6,393
Loss on disposal of inventories	17,780	7,612
Other expenses:		
Loss on disposal of inventories	796	134
Total	₩34,091	₩14,139

9. Financial Assets at Fair Value through Other Comprehensive Income

(1) Details of financial assets at fair value through other comprehensive income as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Listed		
YTN Co. Ltd.	₩17,179	₩17,598
Oscotech Inc.	12,725	11,933
Shinhan Financial Group Co., Ltd.	173,762	158,731
Rexahn Pharmaceuticals, Inc	118	664
U&I Corporation	5,324	9,278
Listed total	209,108	198,204
Unlisted	48,532	51,371
Total	₩257,640	₩249,575

When assessing the fair value of financial assets at fair value through other comprehensive income, the Group used market prices traded in the active trading market for listed equity instruments and measured unlisted equity instruments in the discounted cash flow model.

At the disposal of the above equity instruments, the related accumulated other comprehensive income or expense is reclassified to retained earnings and is not reclassified to profit or loss.

(2) Changes in financial assets at fair value through other comprehensive income for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩249,575	₩471,763
Change in accounting policy	-	(184,169)
Acquisition	-	1,350
Change in fair value	9,492	(38,369)
Disposal, etc.	(1,427)	(1,000)
Ending balance	₩257,640	₩249,575

10. Investments in Associates and Joint Ventures

(1) Details of investments in associates and joint ventures as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	Location	Principal operation	Date of financial statements used	2019		2018	
				Percentage of ownership (%)	Carrying amount	Percentage of ownership (%)	Carrying amount
LSK Global Pharma Services Co., Ltd.	Korea	Researching and developing medicine	December 31	23.15	₩ -	23.15	₩ -
Lite Pharm Tech, Inc. ¹⁾	Korea	Manufacturing medical supplies	December 31	16.75	3,283	20.24	3,037
JR REIT 5 Co., Ltd. ²⁾	Korea	Renting of real estate	December 31	-	-	34.63	7,883
JR REIT 8 Co., Ltd. ²⁾	Korea	Renting of real estate	December 31	-	-	21.74	13,552
JR REIT 10 Co., Ltd. ²⁾	Korea	Renting of real estate	December 31	-	-	28.79	9,500
Yong In Jung Sim Co., Ltd.	Korea	Developing real estate	December 31	22.22	1,000	22.22	1,000
KB Gimpo Logistics CRREIT Co., Ltd. ³⁾	Korea	Renting of real estate	December 31	12.00	2,637	12.00	2,984
KORAMCO Private REIT 50 Fund ⁴⁾	Korea	Renting of real estate	December 31	84.21	14,023	84.21	15,906
KORAMCO Europe Private REIT 3-2 Fund ⁴⁾	Germany	Renting of real estate	December 31	51.35	16,510	51.35	18,152
Starfield Suwon	Korea	Real estate development and rental business	December 31	50.00	11,940	50.00	11,975
Total					₩49,393		₩83,989

¹⁾ It is classified as an investments in associates even though the Group's holdings in the invested company is less than 20%. Since it has the right to participate in the invested company's board of directors meeting according to the shareholder's agreement, the Group has judged that it has significant influence over the invested company.

²⁾ For the year ended December 31, 2019, JR REIT 5 Co., Ltd., JR REIT 8 Co., Ltd. and JR REIT 10 Co., Ltd. were settled.

³⁾ It is classified as a joint venture since decisions about the significant financial and operating policies of the investee cannot be made without unanimous consent of the parties, holding 12% shares each, as the voting power of 76% shares held by the collective investment business entity is not entitled to have an impact on a resolution of the investee by the Financial Investment Services and Capital Markets Act.

⁴⁾ It is classified as a joint venture since decisions about the significant financial and operating policies of the investee cannot be made without unanimous consent of the parties that control the arrangement collectively.

(2) Financial information of associates and joint ventures are as follows:

① For the year ended December 31, 2019

A. Summarized financial information

<i>In millions of Korean won</i>	Total assets	Total liabilities	Revenue	Total comprehensive income(loss)
LSK Global Pharma Services Co., Ltd.	₩15,730	₩24,184	₩26,823	₩ (4,946)
Lite Pharm Tech, Inc.	26,223	6,622	22,047	570
JR REIT 5 Co., Ltd.	-	-	-	194
JR REIT 8 Co., Ltd.	-	-	13	406
JR REIT 10 Co., Ltd.	-	-	8,478	4,799
Yong In Jung Sim Co., Ltd.	7,317	3,937	-	(769)
KB Gimpo Logistics CR REIT Co., Ltd.	59,837	37,864	3,457	(2,028)
KORAMCO Private REIT 50 Fund	19,630	2,978	-	(35)
KORAMCO Europe Private REIT 3-2 Fund	115,804	80,270	5,221	(849)
Starfield Suwon	24,237	358	-	(71)

B. Additional financial information on joint ventures

<i>In millions of Korean won</i>	Cash and cash equivalents	Current financial liabilities	Non-current financial liabilities	Depreciation cost	Interest income	Interest cost	Income tax expense
KB Gimpo Logistics CR REIT Co., Ltd.	₩1,245	₩36,184	₩1,679	₩922	₩30	₩1,385	₩ -
KORAMCO Private REIT 50 Fund	1	57	-	-	-	-	-
KORAMCO Europe Private REIT 3-2 Fund	1,683	1,226	79,044	3,445	10	1,555	16
Starfield Suwon	5,438	330	29	-	36	-	-

② For the year ended December 31, 2018

A. Summarized financial information

<i>In millions of Korean won</i>	Total assets	Total liabilities	Revenue	Total comprehensive income(loss)
LSK Global Pharma Services Co., Ltd.	₩15,788	₩22,392	₩25,099	₩ (3,422)
Lite Pharm Tech, Inc.	19,919	4,911	15,005	(789)
JR REIT 5 Co., Ltd.	30,792	3,689	17,009	12,650
JR REIT 8 Co., Ltd.	71,100	8,765	31,667	21,491
JR REIT 10 Co., Ltd.	84,469	55,826	4,346	926
JR REIT 13 Co., Ltd.	-	-	909	1,215
Yong In Jung Sim Co., Ltd.	6,725	2,522	-	(141)
KB Gimpo Logistics CR REIT Co., Ltd.	62,782	37,912	3,782	289
KORAMCO Private REIT 50 Fund	19,862	973	518	483
KORAMCO Europe Private REIT 3-2 Fund	35,338	17	352	(710)
Starfield Suwon	23,954	4	-	(50)

B. Additional financial information on joint ventures

<i>In millions of Korean won</i>	Cash and cash equivalents	Current financial liabilities	Non-current financial liabilities	Depreciation cost	Interest income	Interest cost
KB Gimpo Logistics CR REIT Co., Ltd.	₩531	₩36,427	₩1,485	₩922	₩19	₩1,450
KORAMCO Private REIT 50 Fund	1	875	-	-	-	-
KORAMCO Europe Private REIT 3-2 Fund	746	17	-	-	151	-
Starfield Suwon	7,654	4	-	-	10	-

(3) Changes in investments in associates and joint ventures for the years ended December 31, 2019 and 2018, are as follows:

① For the year ended December 31, 2019

<i>In millions of Korean won</i>	Beginning balance	Disposal	Share of gain(loss)	Dividends	Capital changes	Others ¹⁾	Ending balance
LSK Global Pharma Services Co., Ltd.	₩ -	₩ -	₩ -	₩ -	₩ -	₩ -	₩ -
Lite Pharm Tech, Inc.	3,037	-	81	-	31	134	3,283
JR REIT 5 Co., Ltd.	7,883	(11,125)	3,372	(130)	-	-	-
JR REIT 8 Co., Ltd.	13,551	(13,526)	83	(108)	-	-	-
JR REIT 10 Co., Ltd.	9,500	(9,500)	559	(559)	-	-	-
Yong In Jung Sim Co., Ltd.	1,000	-	-	-	-	-	1,000
KB Gimpo Logistics CR REIT Co., Ltd.	2,985	-	(348)	-	-	-	2,637
KORAMCO Private REIT 50 Fund	15,906	-	(1,883)	-	-	-	14,023
KORAMCO Europe Private REIT 3-2 Fund	18,152	-	(288)	(1,191)	(163)	-	16,510
Starfield Suwon	11,975	-	(35)	-	-	-	11,940
Total	₩83,989	₩ (34,151)	₩1,541	₩ (1,988)	₩ (132)	₩134	₩49,393

¹⁾ This is an increase in investment assets of Lite Pharm Tech, Inc. under the equity method due to an uneven increase in capital.

② For the year ended December 31, 2018

<i>In millions of Korean won</i>	Beginning balance	Acquisition	Disposal	Share of gain(loss)	Dividends	Capital changes	Ending balance
LSK Global Pharma Services Co., Ltd.	₩ -	₩ -	₩ -	₩ -	₩ -	₩ -	₩ -
Lite Pharm Tech, Inc.	3,166	-	-	(145)	-	16	3,037
JR REIT 5 Co., Ltd.	5,202	-	-	2,785	(104)	-	7,883
JR REIT 8 Co., Ltd.	9,187	-	-	4,672	(308)	-	13,551
JR REIT 10 Co., Ltd.	8,471	-	-	1,608	(579)	-	9,500
JR REIT 13 Co., Ltd.	4,805	-	(5,000)	220	(25)	-	-
Yong In Jung Sim Co., Ltd.	1,000	-	-	-	-	-	1,000
KB Gimpo Logistics CR REIT Co., Ltd.	3,032	-	-	35	(82)	-	2,985
KORAMCO Private REIT 50 Fund	16,168	-	-	454	(716)	-	15,906
KORAMCO Europe Private REIT 3-2 Fund	-	18,500	-	(348)	-	-	18,152
Starfield Suwon	-	12,000	-	(25)	-	-	11,975
Total	₩51,031	₩30,500	₩ (5,000)	₩9,256	₩ (1,814)	₩16	₩83,989

(4) Reconciliation of the summarized financial information presented to the carrying amount of the Group's investments in associates and joint ventures as of December 31, 2019 and 2018, is as follows:

① As of December 31, 2019

<i>In millions of Korean won</i>	Net assets	Percentage of ownership	Share of net assets ¹⁾	Preferred stock effect	Equity method gain(loss) not recognized	Carrying amount
LSK Global Pharma Services Co., Ltd.	₩ (8,454)	23.15	₩ (1,957)	₩ -	₩1,957	₩ -
Lite Pharm Tech, Inc.	19,601	16.75	3,283	-	-	3,283
Yong In Jung Sim Co., Ltd.	3,380	22.22	751	249	-	1,000
KB Gimpo Logistics CR REIT Co., Ltd.	21,973	12.00	2,637	-	-	2,637
KORAMCO Private REIT 50 Fund	16,652	84.21	14,023	-	-	14,023
KORAMCO Europe Private REIT 3-2 Fund	35,534	51.35	16,510	-	-	16,510
Starfield Suwon	23,879	50.00	11,940	-	-	11,940
Total						₩49,393

¹⁾ It is the share of net assets in associates and joint ventures corresponding to the Parent Company's ownership.

② As of December 31, 2018

<i>In millions of Korean won</i>	Net assets	Percentage of ownership	Share of net assets ¹⁾	Preferred stock effect	Equity method gain(loss) not recognized	Carrying amount
LSK Global Pharma Services Co., Ltd.	₩ (6,604)	23.15	₩ (1,529)	₩ -	₩1,529	₩ -
Lite Pharm Tech, Inc.	15,008	20.24	3,037	-	-	3,037
JR REIT 5 Co., Ltd.	27,103	34.63	9,386	(1,503)	-	7,883
JR REIT 8 Co., Ltd.	62,335	21.74	13,552	-	-	13,552
JR REIT 10 Co., Ltd.	28,643	28.79	8,246	1,254	-	9,500
Yong In Jung Sim Co., Ltd.	4,203	22.22	934	66	-	1,000
KB Gimpo Logistics CR REIT Co., Ltd.	24,870	12.00	2,984	-	-	2,984
KORAMCO Private REIT 50 Fund	18,889	84.21	15,906	-	-	15,906
KORAMCO Europe Private REIT 3-2 Fund	35,321	51.35	18,152	-	-	18,152
Starfield Suwon	23,950	50.00	11,975	-	-	11,975
Total						₩83,989

11. Property, Plant and Equipment

(1) Details of property, plant and equipment as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019			2018		
	Acquisition cost and impairment	Accumulated depreciation	Carrying amount	Acquisition cost and impairment	Accumulated depreciation	Carrying amount
Land	₩566,053	₩ -	₩566,053	₩660,573	₩ (91)	₩660,482
Buildings	1,093,077	(532,269)	560,808	1,094,179	(504,819)	589,360
Structures	76,464	(49,850)	26,614	76,199	(47,631)	28,568
Machinery	1,499,682	(1,103,692)	395,990	1,365,048	(1,038,926)	326,122
Vehicles	9,387	(7,207)	2,180	9,233	(6,897)	2,336
Tools	69,106	(55,080)	14,026	68,763	(58,106)	10,657
Equipment	186,916	(138,261)	48,655	252,527	(185,470)	67,057
Others	4,914	(503)	4,411	4,040	(56)	3,984
Construction in progress	134,621	-	134,621	137,567	(7,345)	130,222
Total	₩3,640,220	₩ (1,886,862)	₩1,753,358	₩3,668,129	₩ (1,849,341)	₩1,818,788

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

<i>In millions of Korean won</i>	Beginning balance	Acquisition	Disposal	Depreciation	Impairment	Reclassification, etc. ¹⁾	Ending balance
Land	₩660,482	₩603	₩ (622)	₩ -	₩ -	₩ (94,410)	₩566,053
Buildings	589,360	7,223	(1,048)	(38,296)	-	3,569	560,808
Structures	28,568	1,028	(230)	(3,240)	-	488	26,614
Machinery	326,122	13,165	(247)	(67,046)	(2,327)	126,323	395,990
Vehicles	2,336	302	(91)	(651)	-	284	2,180
Tools	10,657	8,496	(1)	(5,620)	(17)	511	14,026
Equipment	67,057	21,235	(3,168)	(27,598)	(541)	(8,330)	48,655
Others	3,984	858	(6)	(451)	-	26	4,411
Construction in progress	130,222	181,577	(446)	-	-	(176,732)	134,621
Total	₩1,818,788	₩234,487	₩ (5,859)	₩ (142,902)	₩ (2,885)	₩ (148,271)	₩1,753,358

¹⁾ Consists of ₩154,728 million which was reclassified to investment property and ₩10,138 million, which was reclassified to intangible assets (see Notes 12 and 13).

(3) Changes in property, plant and equipment for the year ended December 31, 2018, are as follows:

<i>In millions of Korean won</i>	Beginning balance	Acquisition	Disposal	Depreciation	Impairment	Reclassification, etc. ¹⁾	Ending balance
Land	₩635,857	₩31,904	₩ (345)	₩ -	₩ (91)	₩ (6,843)	₩660,482
Buildings	605,694	4,099	(658)	(35,068)	13	15,280	589,360
Structures	28,910	885	(240)	(3,413)	-	2,426	28,568
Machinery	312,402	25,943	(359)	(60,271)	(1,326)	49,733	326,122
Vehicles	2,842	899	(588)	(747)	-	(70)	2,336
Tools	11,816	3,977	(167)	(5,492)	-	523	10,657
Equipment	66,256	28,215	(1,773)	(29,870)	-	4,229	67,057
Others	1,829	1,431	-	(56)	-	780	3,984
Construction in progress	109,736	268,610	(14)	-	(7,345)	(240,765)	130,222
Total	₩1,775,342	₩365,963	₩ (4,144)	₩ (134,917)	₩ (8,749)	₩ (174,707)	₩1,818,788

¹⁾ Consists of ₩151,030 million which was reclassified to investment property, and ₩4,247 million which was reclassified to assets held for sale (see Notes 13 and 14).

12. Intangible Assets

(1) Details of carrying value of intangible assets as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019			2018		
	Acquisition cost	Accumulated amortization and impairment	Carrying amount	Acquisition cost	Accumulated amortization and impairment	Carrying amount
Industrial property rights	₩46,998	₩ (37,945)	₩9,053	₩50,566	₩ (41,043)	₩9,523
Facility usage rights	36,238	(1,966)	34,272	36,862	(786)	36,076
Intangible assets under development	27,133	(2,058)	25,075	5,201	(2,057)	3,144
Other intangible assets	126,180	(104,886)	21,294	116,202	(92,991)	23,211
Total	₩236,549	₩ (146,855)	₩89,694	₩208,831	₩ (136,877)	₩71,954

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

<i>In millions of Korean won</i>	Beginning balance	Acquisition	Disposal	Amortization	Impairment	Reclassification, etc. ¹⁾	Ending balance
Industrial property rights	₩9,523	₩529	₩ (149)	₩ (222)	₩ (2,293)	₩1,665	₩9,053
Facility usage rights	36,076	672	(1,096)	-	(1,380)	-	34,272
Intangible assets under development	3,144	28,190	-	-	(98)	(6,161)	25,075
Other intangible assets	23,211	5,557	-	(4,753)	-	(2,721)	21,294
Total	₩71,954	₩34,948	₩ (1,245)	₩ (4,975)	₩ (3,771)	₩ (7,217)	₩89,694

¹⁾ Consists of ₩10,145 million which was reclassified to property, plant and equipment (see Note 11).

(3) Changes in intangible assets for the year ended December 31, 2018, are as follows:

<i>In millions of Korean won</i>	Beginning balance	Acquisition	Disposal	Amortization	Impairment	Reclassification, etc. ¹⁾	Ending balance
Goodwill	₩5,717	₩ -	₩ -	₩ -	₩ (5,717)	₩ -	₩ -
Industrial property rights	12,313	588	(12)	(670)	(4,420)	1,724	9,523
Facility usage rights	34,393	3,029	(558)	-	(786)	(2)	36,076
Intangible assets under development	846	2,195	(72)	-	(148)	323	3,144
Other intangible assets	31,479	480	(100)	(3,118)	(5,462)	(68)	23,211
Total	₩84,748	₩6,292	₩ (742)	₩ (3,788)	₩ (16,533)	₩1,977	₩71,954

(4) Research and development expenditures recognized as expenses for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Cost of sales	₩1,222	₩529
Selling, general and administrative expenses	49,673	43,148
Total	₩50,895	₩43,677

13. Investment Properties

(1) Details of investment properties as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019			2018		
	Acquisition cost	Accumulated depreciation and impairment	Carrying amount	Acquisition cost	Accumulated depreciation and impairment	Carrying amount
Land	₩536,003	₩ -	₩536,003	₩245,842	₩ -	₩245,842
Buildings and structures	361,819	(94,334)	267,485	301,629	(75,068)	226,561
Construction in progress	81,837	-	81,837	22,646	-	22,646
Total	₩979,659	₩ (94,334)	₩885,325	₩570,117	₩ (75,068)	₩495,049

(2) Changes in investment properties for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019				2018			
	Land	Buildings and structures	Construction in progress	Total	Land	Buildings and structures	Construction in progress	Total
Beginning balance	₩245,842	₩226,561	₩22,646	₩495,049	₩160,540	₩131,321	₩25,923	₩317,784
Acquisition	-	5,228	251,057	256,285	11,668	28,889	-	40,557
Depreciation	-	(12,797)	-	(12,797)	-	(11,475)	-	(11,475)
Reclassification ¹⁾	290,161	48,493	(191,866)	146,788	73,634	77,826	(3,277)	148,183
Ending balance	₩536,003	₩267,485	₩81,837	₩885,325	₩245,842	₩226,561	₩22,646	₩495,049

¹⁾ Consists of ₩154,728 million(₩151,030 million for the year ended December 31, 2018) which was reclassified from property, plant and equipment, and ₩7,940 million(₩2,731million for the year ended December 31, 2018) which was reclassified to inventories(see Note 11).

(3) Details of profit or loss recognized related to the investment properties for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Rental income	₩56,056	₩45,469
Operating expenses	(13,830)	(7,451)
Total	₩42,226	₩38,018

(4) The fair value and carrying amount of investment properties as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	Fair value	Carrying amount	Fair value	Carrying amount
Land	₩1,088,865	₩437,095	₩679,393	₩170,567
Buildings	357,676	267,485	236,983	145,098
Total	₩1,446,541	₩704,580	₩916,376	₩315,665

The fair value of the major investment property is determined by the value measured by an independent valuation agency using the return-value method, etc., and is classified as Level 3 based on the inputs used in the valuation technique in the fair value hierarchy.

If fair value cannot be measured reliably, the details of investment properties that are deemed to be fair value are as follows:

<i>In millions of Korean won</i>	Type	Carrying amount		The reason why fair value cannot be measured reliably
		2019	2018	
Sejong 1-5, P3	Land	₩ -	₩41,747	The site market is not active. No recent transactions
	Buildings	-	81,463	
Sejong 1-5, P2	Land	33,528	33,528	Asset under construction in progress
	Construction in progress	70,764	21,335	
Ssangmun-dong new development site	Land	1,495	-	
	Construction in progress	2,640	-	
Sangbong-dong new development site	Land	50,747	-	
	Construction in progress	1,668	-	
Suwon Hwaseo Prugio shopping mall	Construction in progress	-	1,311	
Youth Start-up Supporting Center	Land	13,138	-	
	Construction in progress	6,765	-	
Total		₩180,745	₩179,384	

(5) Details of operating lease

Investment properties were leased to lessees as an operating lease with contractual terms of monthly lease payments. For the year ended December 31, 2019, variable lease payment that is based on an index or a rate was ₩ 600 million. Even though the Group is exposed to the risk of changes in residual value at the end of the lease term, it would not realize the residual value immediately at the end of the lease term because it generally commits to a new operating lease contract. Expectations of future residual value will be reflected on the fair value of the investment property.

Details of minimum lease payments that the Group expects to receive from operating lease contracts for the investment properties described above as of December 31, 2019, are as follows:

<i>In millions of Korean won</i>	Less than 1 year	1 year~5 years	Longer than 5 years	Total
Minimum lease payment	₩27,519	₩19,007	₩1,601	₩48,127

14. Assets Held for Sale

Changes in assets held for sale for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩4,247	₩ -
Transfer from property, plant and equipment	-	4,247
Ending balance	₩4,247	₩4,247

For the year ended December 31, 2018, the Group had made a land contract with Starfield Suwon and had received the down payment of ₩16,020 million from the total of ₩160,200 million. The ownership of this land will be transferred upon the payment of the balance, which will be on the date of the commencement of the construction work.

15. Right-of-Use Assets

(1) Details of carrying value of right-of-use asset as of December 31, 2019, are as follows:

<i>In millions of Korean won</i>	2019		
	Acquisition cost	Accumulated depreciation and impairment	Carrying value
Land	₩6,121	₩ (1,037)	₩5,084
Buildings	40,110	(13,813)	26,297
Vehicles	20,215	(6,112)	14,103
Total	₩66,446	₩ (20,962)	₩45,484

(2) Changes in right-of-use assets for year ended December 31, 2019, are as follows:

<i>In millions of Korean won</i>	Beginning balance	Change in accounting policy	Acquisition	Disposal	Depreciation	Impairments	Others	Ending balance
Land	₩ -	₩6,011	₩ -	₩ -	₩ (146)	₩ (908)	₩127	₩5,084
Buildings	-	33,980	11,996	(3,933)	(15,862)	-	116	26,297
Vehicles	-	12,676	7,423	(42)	(6,112)	-	158	14,103
Total	₩ -	₩52,667	₩19,419	₩ (3,975)	₩ (22,120)	₩ (908)	₩401	₩45,484

(3) The amount recognized on the consolidated statements of comprehensive income related to lease during the year ended December 31, 2019, is as follows:

<i>In millions of Korean won</i>	2019
Depreciation expense	₩22,120
Interest expense	1,573
Short-term lease expense	2,515
Lease payment for low-value assets	1,089
Variable lease expense	81,085
Impairment loss on right-of-use assets	908
Loss (Gain) on lease contract adjustments	(24)
Total	₩109,266

For the year ended December 31, 2019, total cash outflows related to lease is ₩104,866 million.

(4) For the year ended December 31, 2019, the Group subleased a building located in Myeong-dong. Following the K-IFRS No.1116, the Group has recognized lease receivables after reclassifying the sublease to the finance lease and derecognized the right-of-use asset from the head lease.

As of and for the year ended December 31, 2019, the Group has recognized, because of sublease, ₩768 million of finance lease receivables, ₩3,016 million of loss on disposal of right-of-use assets and ₩9 million of interest revenue.

16. Borrowings

(1) Details of short-term borrowings as of December 31, 2019 and 2018, are summarized as follows:

<i>In millions of Korean won</i>	Lender	Annual interest rate (%)	2019	2018
Borrowings	KEB Hana Bank	2.75 ~ 3.99	₩17,200	₩14,000
	KEB Hana Bank Bahrain branch	3M Libor+1.1	6,359	6,144
	KDB Industrial Bank	2.73	2,500	75,412
	Korea Agro-Fisheries & Food Trade	-	-	15,000
	Subtotal		26,059	110,556
Customer credit contracts ¹⁾	NH Nonghyup Bank, etc.	4.14~6.21	1,007	19,368
Total			₩27,066	₩129,924

¹⁾ The Group provides payment guarantees to financial institutions in accordance with the consumer financial agreement in connection with retail sales receivables, and receives related bonds from financial institutions and recognizes them as short-term borrowings.

(2) Details of current portion of long-term borrowings and long-term borrowings as of December 31, 2019 and 2018, are summarized as follows:

<i>In millions of Korean won</i>	Lender	Maturity	Annual interest rate (%)	2019	2018
Other financial loan for working capital	NH Nonghyup Bank	2020.06.10~ 2024.08.06	-	₩47,015	₩44,252
	Kookmin Bank	2023.09.11	2.44~2.99	8,125	10,292
Borrowings	KDB Industrial Bank	2020.02.10~ 2022.11.10	2.33~3.44	5,759	8,591
Redeemable convertible preferred shares ¹⁾				35,340	35,340
Total				96,239	98,475
Consolidated statements of financial position:					
Current				5,285	5,000
Non-current				90,954	93,475
Total				₩96,239	₩98,475

¹⁾ Details of redeemable convertible preferred shares as of December 31, 2019 are summarized as follows(see Note 36):

Issuing company	Renzoluc Pte, Ltd.
Issue date	September 14, 2012
Issued value	₩35,340 million
Carrying amount	₩35,340 million
Maturity	The convertible instrument will mature 10 years from the date of establishment of QCP 2011 Corporate Partnership Private Equipment Fund (“PEF”).
Convertible rights to ordinary share	The instrument can be converted into 6,978,948 ordinary shares at any time after five years from the issue date.
Repayment claim right	The right to request for liquidation or claim for a stake purchase 270 days prior to the expiration of the PEF.

(3) As discussed in Note 33 to the consolidated financial statements, the Group is providing collateral for the above borrowings.

17. Trade and Other Payables

Details of trade and other payables as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	Current	Non-current	Current	Non-current
Leasehold deposits received	₩21,944	₩17,960	₩23,399	₩12,859
Trade payables	62,140	-	72,573	-
Withholdings	15,401	-	8,277	-
Value-added deposit	169,102	-	158,861	-
Accrued expenses	229,781	28,113	213,711	24,490
Other payables	158,215	13,565	83,686	15,891
Total	₩656,583	₩59,638	₩560,507	₩53,240

18. Employee Benefits

(1) Details of profit or loss recognized related to employee benefits for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Defined benefit plans:		
Current service cost	₩48,674	₩44,447
Net interest on net defined benefit liabilities	2,954	2,255
Past service cost and any gain(loss) on settlement	(202)	99
Subtotal	51,426	46,801
Defined contribution plan:		
Contributions recognized as expense	7,177	7,560
Other long-term employee benefits:		
Current service cost, etc.	4,725	9,116
Termination benefits:		
Voluntary retirements	4,251	2,085
Total	₩67,579	₩65,562

(2) Changes in net defined benefit liabilities for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩96,215	₩75,783
Current service cost	48,674	44,447
Net interest on net defined benefit liabilities	2,954	2,255
Past service cost and any gain(loss) on settlement	(202)	99
Re-measurement element of net defined benefit liabilities(before tax)	13,481	33,683
Payment amount (including related company in-outs)	(4,043)	(4,558)
Payment of plan assets	(66,519)	(55,269)
Net exchange differences	523	(225)
Ending balance	91,083	96,215
Consolidated statements of financial position:		
Present value of defined benefit obligations	₩542,699	₩491,466
Fair value of plan assets	(451,616)	(395,251)
Total	₩91,083	₩96,215

(3) Changes in the present value of the defined benefit obligation for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩491,466	₩427,161
Current service cost	48,674	44,447
Interest expenses	11,207	11,999
Past service cost and any gain(loss) on settlement	(202)	99
Re-measurement element (before tax)	13,148	30,108
Payment amount (including related company in-outs)	(22,117)	(22,123)
Net exchange differences	523	(225)
Ending balance	₩542,699	₩491,466

(4) Changes in the fair value of plan assets for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩395,251	₩351,378
Interest income	8,253	9,744
Re-measurement element (before tax)	(333)	(3,575)
Payment amount (including related company in-outs)	(18,074)	(17,565)
Payment of plan assets	66,519	55,269
Ending balance	₩451,616	₩395,251

The actual interest income from plan assets for the years ended December 31, 2019 and 2018, are ₩7,920 million, ₩6,169 million, respectively.

(5) Changes in the present value of other long-term employee benefits for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩25,056	₩17,532
Current service cost	3,030	2,962
Interest cost	545	484
Past service cost	1,430	-
Re-measurement element (before tax)	(280)	5,670
Payment amount	(1,669)	(1,593)
Net exchange differences	1	1
Ending balance	₩28,113	₩25,056

(6) Re-measurements recognized in other comprehensive income for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Actuarial gains and losses on defined benefit obligations:		
Changes in demographic assumptions	₩3,358	₩ (9,845)
Changes in financial assumptions	3,030	(20,734)
Experience adjustments	(19,536)	471
Subtotal	(13,148)	(30,108)
Revenue from plan assets, excluding amounts included in net interest	(333)	(3,575)
Re-measurement element of net defined benefit liabilities (before tax)	(13,481)	(33,683)
Tax effect	3,056	8,876
Re-measurement element of net defined benefit liabilities (after tax)	₩ (10,425)	₩ (24,807)

(7) The fair value of each of the major types included in the fair value of plan assets as of December 31, 2019 and 2018, is as follows:

<i>In millions of Korean won</i>	2019	2018
Regular deposits and cash equivalents	₩88,607	₩100,409
Principal and interest guarantee financial assets	363,009	294,842
Total	₩451,616	₩395,251

(8) The major assumptions used for actuarial evaluation as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Discount rate (%)	1.66~8.00	2.20~9.00
Expected wage increase rate (%)	3.00~10.00	3.00~12.00

To calculate the present value of the defined benefit obligation, the Group decided the discount rate by referring to the market rate of return on high-quality corporate bonds consistent with the currency and the expected payment period of the defined benefit obligation as of December 31, 2019.

The weighted average maturities of the defined benefit obligation as of December 31, 2019 and 2018, are 9.98 years and 10.55 years, respectively.

(9) The results of the analysis of the sensitivity of the defined benefit obligations to the major actuarial assumptions as of December 31, 2019, are as follows:

<i>In millions of Korean won</i>	Increase by 1%	Decrease by 1%
Changes in discount rate	₩ (44,944)	₩58,938
Changes in expected wage increase rate	57,735	(44,901)

The increase (decrease) of the defined benefit obligations was calculated based on the present value of the defined benefit obligations as of December 31, 2019.

19. Refund Liabilities and Provisions

(1) Details of refund liabilities and provisions as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	Current	Non-current	Current	Non-current
Provision for refund	₩11,790	₩1,584	₩8,378	₩1,570
Provision for product warrantee	3,694	-	3,497	-
Provision for site restoration	9,680	1,013	2,812	1,575
Provision for financial guarantee	-	492	-	700
Provision for others	1,503	1	414	-
Total	₩26,667	₩3,090	₩15,101	₩3,845

(2) Changes in refund liabilities and provisions for the year ended December 31, 2019 are as follows:

<i>In millions of Korean won</i>	Beginning balance	Increase	Decrease	Ending balance
Provision for refund	₩9,948	₩12,827	₩ (9,401)	₩13,374
Provision for product warrantee	3,497	13,850	(13,653)	3,694
Provision for site restoration	4,387	6,798	(492)	10,693
Provision for financial guarantee	700	-	(208)	492
Provision for others	414	1,467	(377)	1,504
Total	₩18,946	₩34,942	₩ (24,131)	₩29,757

Changes in refund liabilities and provisions for the year ended December 31, 2018 are as follows:

<i>In millions of Korean won</i>	Beginning balance	Change in accounting policy	Increase	Decrease	Ending balance
Provision for refund	₩8,473	₩1,333	₩1,047	₩ (905)	₩9,948
Provision for product warrantee	43	-	5,508	(2,054)	3,497
Provision for site restoration	3,363	-	1,027	(3)	4,387
Provision for financial guarantee	-	-	755	(55)	700
Provision for others	4,454	-	32	(4,072)	414
Total	₩16,333	₩1,333	₩8,369	₩ (7,089)	₩18,946

(3) For returnable sales, the Group sets up refund liabilities and refund assets by estimating the expected returnable amount at the time of sales, deducting the sales and cost of sales of the parts expected to be returned.

The refund assets as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Refund assets	₩643	₩2,158

(4) The Group sets up provision for product warranties by estimating the expected warranty amount at the time of sales and sets up the rights to be reimbursed by the manufacturer in the future due to the manufacturer's fault as warranty reimbursement assets. The value of warranty reimbursement assets as of December 31, 2019, is ₩2,384 million (₩422 million as of December 31, 2018)

(5) The Group's provision for site restoration is the best estimate of the expected future recovery cost of the leased assets and land as of December 31, 2019. The Group reflects the recovery cost to the acquisition cost of the property, plant and equipment and will be spent at the end of the lease term. Also, the Group reflects the recovery cost related to land pollution as a commissions at the timing of estimation, will be spent at the timing of purification completeness.

(6) The Group's provision for financial guarantee is the best estimation of joint guarantees for mid-payment loan provided to the buyer related to the real estate sales contract of Suwon hwaseo park prugio (Apartment and Efficiency apartment).

(7) The Group has signed an agreement with Iran Tobacco Company to manufacture more than a certain quantity of cigarettes each year, and under the contract, as the Group assumes that the actual production will be less than the agreed quantity level in the future, ₩1,502 million of penalty payment was set to (current) other provision.

20. Share Capital and Other Capital Surplus

(1) Details of share capital and other capital surplus as of December 31, 2019 and 2018, are as follows:

Type	Details of paid-in capital	
	2019	2018
Number of Authorized shares	800,000,000shares	800,000,000shares
Amount per share	₩5,000	₩5,000
Issued	137,292,497shares	137,292,497shares
Share capital	₩954,959 million	₩954,959 million
Other capital surplus	₩(29,556) million	₩(29,720) million

As 53,699,400 shares of the Parent Company have been written off in profit, there is a difference of ₩268,497 million between the total face value of the equity and the issued shares.

21. Treasury Shares and Gain on disposal of Treasury Shares

(1) Details of treasury shares and gain on disposal of treasury shares as of December 31, 2019 and 2018, are as follows:

Type	2019	2018
Number of treasury shares	10,712,574shares	11,027,370shares
Treasury shares	₩(318,789) million	₩(328,157) million
Gain on disposal of treasury shares	₩528,894 million	₩513,776 million

(2) Changes in the number of treasury shares for the years ended December 31, 2019 and 2018, are as follows:

Type	2019	2018
Beginning balance	11,027,370shares	11,027,370shares
Treasury shares donation	(314,796)shares	- shares
Ending Balance	10,712,574shares	11,027,370shares

During the year ended December 31, 2019, the Group donated treasury shares(314,796 shares, Fair value: ₩30,220 million) to the Employee Welfare Funds of the Tobacco and Ginseng mutual benefit association Co., Ltd. and Gong-young enterprise Co., respectively, to raise funds for employee benefits and accompanied growth. And the Group recognized ₩15,118 million as gain on disposal of treasury shares (after tax).

22. Reserves

(1) Details of reserves as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Gain and loss on valuation of financial assets at fair value through other comprehensive income	₩ (49,672)	₩ (56,595)
Profit reserve	602,937	602,937
Reserve for business rationalization	12,851	12,851
Reserve for business expansion	698,881	698,881
Unconditional reserve	4,467,445	4,181,479
Exchange differences on translating foreign operations	(60,878)	(83,942)
Changes in equity method capital	(84)	17
Total	₩5,671,480	₩5,355,628

① Profit reserve

The commercial law stipulates that the Company shall set aside more than 10% of the profit dividends from the money as profit reserve at every settlement of accounts until it reaches 50% of the capital. The profit reserve cannot be distributed in cash and can be used only for the maintenance of carrying forward losses and capital transfer by resolution at the general meeting of shareholders. As of the December 31, 2019 and 2018, the profit reserve set aside in excess of 50% of the Parent Company's capital is ₩125,458 million won.

② Reserve for business rationalization

Until 2002, the Parent Company had put the tax deduction amount under the Tax Specialization Act as the corporate rationalized reserve, which could only be used to preserve and transfer capital losses. However, the Act on Restriction of Special Taxes was amended on December 11, 2002, and the relevant provisions were deleted at the time of the amendment.

③ Reserve for business expansion and unconditional reserve

In addition to the above-mentioned reserves, the Parent Company can reserve for business expansion and unconditionally with no particular purpose. These reserves can be used for other purposes according to the resolutions of the shareholders' meeting.

(2) Details of gain and loss on valuation of fair value through other comprehensive income or loss as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Gain and loss on valuation of financial assets at fair value through other comprehensive income before tax	₩ (69,069)	₩ (78,634)
Tax effect	19,397	22,039
Gain and loss on valuation of financial assets at fair value through other comprehensive income after tax	(49,672)	(56,595)

23. Retained Earnings

Changes in retained earnings for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩1,612,794	₩1,733,863
Change in accounting policy	(4,670)	(8,805)
Dividends	(505,061)	(505,061)
Transfer from reserve for research and human resource development	-	10,000
Accumulation of special reserve fund	(285,966)	(495,036)
Profit(loss) for the year	1,038,670	898,659
- Less: Non-controlling interests	(2,195)	2,991
Re-measurements of net defined benefit liabilities(after tax)	(10,425)	(24,807)
- Less: Non-controlling interests(after tax)	430	929
Change in non-controlling interest, etc.	-	209
Reclassification of loss on disposal of financial assets at fair value through other comprehensive income	-	(148)
Ending balance	₩1,843,577	₩1,612,794

24. Real Estate Sales Contract

(1) Details of real estate sales contracts under construction as of December 31, 2019, are as follows:

<i>In millions of Korean won</i>	Construction period	Total sales value	Total sales contract value
Suwon hwaseo park prugio(Apartment)	February 2018 - August 2021	₩1,188,870	₩1,187,006
Suwon hwaseo park prugio(Efficiency apartment)		112,060	106,762
Dae-gu central Xi ¹⁾	-	3,818	1,063
Total		₩1,304,748	₩1,294,831

¹⁾ Construction and sales have been completed as of December 31, 2019, but resale is underway due to the cancellation of the contract.

(2) Changes in balance of contract amount for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩1,173,116	₩ -
Change in contracts	(1,864)	1,295,632
Revenue recognition ¹⁾	(350,469)	(122,516)
Ending balance	₩820,783	₩1,173,116

¹⁾ As of December 31, 2019, ₩1,063 million (₩(3,818) million as of December 31, 2018) of revenue recognition (sales cancellation) from Dae-gu central Xi under resale was not included due to the cancellation of the real estate sales contract.

(3) Details of cumulative cost of the sales contract under construction for the years ended December 31, 2019, are as follows:

<i>In millions of Korean won</i>	Progress (%)	Accumulated revenue	Cumulative cost
Suwon hwaseo park prugio(Apartment)	36.59	₩434,301	₩177,933
Suwon hwaseo park prugio(Efficiency apartment)	36.23	38,684	23,288
Total		₩472,985	₩201,221

(4) No material changes in estimated gross contract income and total contract cost occurred during the year ended December 31, 2019. The estimated gross contract income and total contract cost of an ongoing sales contract are based on the circumstances that have occurred by as of December 31, 2019, and can be subject to change in the future.

25. Operating Expenses

(1) Details of expenses, classified by nature, incurred for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Changes in inventories	₩14,076	₩ (126,441)
Raw materials used and merchandise purchased	1,343,131	1,307,017
Salaries	605,606	594,471
Retirement and termination benefits	62,659	56,446
Depreciation	177,819	146,392
Amortization	4,975	3,788
Employee welfare	89,089	91,680
Advertising	275,922	282,538
Commissions	637,175	579,180
Other expenses	370,732	281,338
Total	₩3,581,184	₩3,216,409

(2) Details of selling, general and administrative expenses for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Salaries	₩402,826	₩395,311
Retirement and termination benefits	40,880	36,662
Employee welfare	59,656	62,154
Travel expenses	19,506	19,068
Communication cost	5,712	5,951
Utilities	10,197	9,518
Taxes and Dues	29,071	24,162
Supplies	4,861	4,680
Rent	15,746	29,600
Depreciation	60,607	44,026
Amortization	4,786	3,002
Repairs and maintenance	6,145	6,306
Vehicles	6,899	7,428
Insurance	2,853	2,875
Commissions	389,901	349,482
Freight and custody	53,758	43,736
Conferences	4,886	4,938
Advertising	275,798	282,384
Education and training	8,046	7,610
Prizes and rewards	2,680	2,826
Cooperation	1,118	1,378
Research and development	49,673	43,148
Impairment loss (reversal of impairment loss) on trade receivables	37,003	(5,867)
Total	₩1,492,608	₩1,380,378

26. Other Income and Expenses

(1) Details of other income for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Gain on foreign currency transaction	₩27,448	₩19,242
Gain on foreign currency translation	40,653	50,800
Gain on valuation of derivatives	6,705	3,673
Gain on disposal of property, plant and equipment	2,383	2,488
Gain on disposal of intangible assets	3	203
Gain on lease contract adjustments	54	-
Gain on disposal of investments in associates and joint ventures	134	-
Miscellaneous income	28,491	33,644
Total	₩105,871	₩110,050

(2) Details of other expenses for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Loss on foreign currency transaction	₩10,075	₩6,796
Loss on foreign currency translation	8,677	66,121
Loss on valuation of derivatives	19,591	11,982
Loss on impairment of other receivables	369	-
Loss on disposal of property, plant and equipment	4,484	2,926
Loss on disposal of right-of-use asset	3,016	-
Loss on impairment of right-of-use asset	908	-
Loss on impairment of property, plant and equipment	2,885	8,749
Loss on disposal of intangible assets	147	112
Loss on impairment of intangible assets	3,771	16,533
Donations	39,851	14,809
Loss on lease contract adjustments	30	-
Miscellaneous loss	15,864	12,342
Total	₩109,668	₩140,370

27. Finance Income and Cost

(1) Details of finance income and cost for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Finance income:		
Interest income ¹⁾	₩24,270	₩17,413
Dividend income	22,502	20,509
Gain on adjustment of debt	68	-
Gain on valuation of fair value through profit or loss	49,865	53,663
Total finance income	96,705	91,585
Finance cost:		
Interest expense	6,851	6,957
Loss on valuation of fair value through profit or loss	6,945	-
Total finance cost	13,796	6,957
Net finance income	₩82,909	₩84,628

¹⁾ The interest income is from financial instruments measured at amortized cost.

(2) Details of interest income included in finance income for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Deposits	₩13,456	₩7,731
Trade and other receivables	1,511	1,935
Long-term deposits	9,095	7,719
Reversal of financial guarantee liabilities	208	28
Total	₩24,270	₩17,413

(3) Details of interest expense included in finance cost for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Borrowings	₩1,424	₩1,871
Trade and other payables	1,173	1,205
Lease liabilities	1,573	-
Amortization of prepaid expense	208	28
Others	2,473	3,853
Total	₩6,851	₩6,957

28. Income Tax Expense and Deferred Tax

(1) Details of income tax expenses elements for the years ended December 31, 2019 and December 31, 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Current tax on profits for the year	₩419,150	₩362,369
Adjustments on the past income tax	1,318	1,977
Effects of change in accounting policy ¹⁾	1,959	-
Increase/decrease from temporary differences	850	55,665
Effects of income tax on non-recirculation income	723	-
Income tax	₩424,000	₩420,011

¹⁾ For the year ended December 31, 2019, income tax expense has increased by ₩1,959 million and the beginning balance of retained earnings has decreased by ₩4,670 million as the effects of changes in accounting policies from enactment to interpretation of K-IFRS 2123 Uncertainty over Income Tax Treatments (see Note 35).

(2) Details of the income tax expenses and accounting profit for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Profit before income tax expense	₩1,462,671	₩1,318,670
Tax rate (%)	26.56	27.09
Tax at domestic tax rates applicable to profits in the respective countries	₩388,433	₩357,200
Adjustments:		
Income not subject to tax	(27,621)	(20,727)
Expenses not deductible for tax purposes	34,815	8,581
Deferred income tax unrecognized amount of temporary difference, etc.	26,344	75,127
Tax credit	(2,296)	(1,382)
Adjustment with respect to prior-year income tax	1,318	1,977
Effects of change in accounting policy	1,959	-
Others	1,048	(765)
Income tax expense	₩424,000	₩420,011
Average effective tax rate (%)	28.99	31.85

(3) Details of current and deferred income tax related to items recognized outside profit or loss for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Current tax:		
Gain on disposal of treasury shares	₩ (5,734)	₩ -
Capital changes in equity method	32	-
Subtotal	(5,702)	-
Deferred tax:		
Gain (loss) on valuation of equity instruments at fair value through other comprehensive income	(2,642)	8,566
Re-measurement element of net defined benefit liabilities	3,056	8,876
Subtotal	414	17,442
Total	₩ (5,288)	₩17,442

(4) Changes in deferred income tax assets (liabilities) for the years ended December 31, 2019 and 2018, are as follows:

① For the year ended December 31, 2019

<i>In millions of Korean won</i>	Beginning balance	Profit or loss	Other comprehensive income	Ending balance
Accumulated depreciation	₩22,897	₩ (1,652)	₩ -	₩21,245
Provision for impairment	40,150	8,066	-	48,216
Fair value through other comprehensive income or loss(profit or loss)	14,254	(109)	(2,642)	11,503
Accrued expenses	44,248	1,706	-	45,954
Defined benefit liabilities	15,541	(834)	3,056	17,763
Treasury shares	(9,687)	276	-	(9,411)
Investments in subsidiaries	(213,207)	(19,164)	-	(232,371)
Advanced depreciation provision	(13,518)	3,514	-	(10,004)
Others	18,993	7,347	-	26,340
Total	₩ (80,329)	₩ (850)	₩414	₩ (80,765)

② For the year ended December 31, 2018

<i>In millions of Korean won</i>	Beginning balance	Change in accounting policy	Profit or loss	Other comprehensive income	Ending balance
Accumulated depreciation	₩18,900	₩ -	₩3,997	₩ -	₩22,897
Provision for impairment	13,636	27,208	(694)	-	40,150
Fair value through other comprehensive income or loss(profit or loss)	5,745	-	(57)	8,566	14,254
Accrued expenses	39,737	-	4,511	-	44,248
Defined benefit liabilities	11,181	-	(4,516)	8,876	15,541
Treasury shares	(9,687)	-	-	-	(9,687)
Investments in subsidiaries	(156,931)	-	(56,276)	-	(213,207)
Advanced depreciation provision	(16,469)	-	2,951	-	(13,518)
Others	25,144	(570)	(5,581)	-	18,993
Total	₩ (68,744)	₩26,638	₩ (55,665)	₩17,442	₩ (80,329)

(5) Details of deductible temporary differences, unused tax losses and unused tax credit not recognized as deferred tax assets as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Deductible temporary differences	₩492,224	₩464,930
Unused tax losses	167,572	143,761
Unused tax credit	400	95
Total	₩660,196	₩608,786

(6) As of December 31, 2019 and 2018, the temporary difference to be added for investments in subsidiaries and associates and investments in joint ventures that are not recognized as deferred tax liabilities is ₩284,943 million (₩276,243 million as of December 31, 2018).

29. EPS

(1) Details of EPS and accounting profit for the years ended December 31, 2019 and 2018, are as follows:

	2019	2018
Profit for the period attributable to owners of the Parent Company	₩1,036,475 million	₩901,650 million
Weighted-average number of ordinary shares outstanding	126,278,926 shares	126,265,127 shares
Basic and diluted EPS	₩8,208	₩7,141

(2) The basis for calculating the weighted average number of ordinary shares for the years ended December 31, 2019 and 2018, is as follows:

A. For the year ended December 31, 2019

	Date	Number of shares(shares)	Days	Weighted Shares
Beginning balance for outstanding shares	2019-01-01	137,292,497	365	50,111,761,405
Beginning balance for treasury shares	2019-01-01	(11,027,370)	365	(4,024,990,050)
Disposal of treasury shares	2019-12-16	314,796	16	5,036,736
Total				46,091,808,091
Days in circulation				365 days
Weighted average number of ordinary shares outstanding ((Ordinary shares outstanding * period covered) / days in circulation)				126,278,926 shares

B. For the year ended December 31, 2018

	Date	Number of shares(shares)	Days	Weighted Shares
Beginning balance for outstanding shares	2018-01-01	137,292,497	365	50,111,761,405
Beginning balance for treasury shares	2018-01-01	(11,027,370)	365	(4,024,990,050)
Total				46,086,771,355
Days in circulation				365 days
Weighted average number of ordinary shares outstanding ((Ordinary shares outstanding * period covered) / days in circulation)				125,265,127 shares

The weighted average number of ordinary shares is the number of ordinary shares acquired and disposed of during the period or the number of newly issued ordinary shares, adjusted to take into account the weighting of each period.

30. Related Parties

(1) Details of parent and subsidiary relationships and related companies as of December 31, 2019 and 2018, are as follows:

	2019	2018
Associates	LitePharmTech Co., Ltd. ¹⁾	LitePharmTech Co., Ltd.
	LSK Global Pharma Services Co., Ltd.	LSK Global Pharma Services Co., Ltd.
	- ²⁾	JR REIT 5 Co., Ltd.
	- ²⁾	JR REIT 8 Co., Ltd.
	- ²⁾	JR REIT 10 Co., Ltd.
	Yong In Jung Sim Co., Ltd.	Yong In Jung Sim Co., Ltd.
Joint ventures	KB Gimpo Logistics CR REIT Co., Ltd. ³⁾	KB Gimpo Logistics CR REIT Co., Ltd.
	KORAMCO Private REIT 50 Fund ⁴⁾	KORAMCO Private REIT 50 Fund
	Starfield Suwon	Starfield Suwon ⁵⁾
	KORAMCO Europe Private REIT 3-2 Fund ⁴⁾	KORAMCO Europe Private REIT 3-2 Fund ⁶⁾

¹⁾ It is classified as an investment in associates even though the Group's holding in the invested company is less than 20%. Since it has the right to participate in the invested company's board of directors meeting according to the shareholder's agreement, the Group has judged that it has significant influence over the invested company.

²⁾ Due to the liquidation of JR REIT 5 Co., Ltd., JR REIT 8 Co., Ltd. and JR REIT 10 Co., Ltd. for the year ended December 31, 2019, they have been excluded from the scope of the Group's related parties as of December 31, 2019.

³⁾ It is classified as a joint venture since decisions about the significant financial and operating policies of the investee cannot be made without unanimous consent of the parties, holding 12% shares each, as the voting power of 76% shares held by the collective investment business entity is not entitled to have an impact on a resolution of the investee by the Financial Investment Services and Capital Markets Act.

⁴⁾ It is classified as a joint venture since decisions about the significant financial and operating policies of the investee cannot be made without unanimous consent of the parties that control the arrangement collectively.

⁵⁾ For the year ended December 31, 2018, the Group had made investment on 50% share of Starfield Suwon.

⁶⁾ During the year ended December 31, 2018, the Group had made investment on 51.35% share of KORAMCO Europe Private REIT 3-2 Fund.

(2) The Group carries out no transactions with related parties such as sales of goods and services other than dividend, and the details of dividend with related parties for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>		2019	2018
Associates and Joint ventures	LSK Global Pharma Services Co., Ltd.	₩ 1	₩ 64
	JR REIT 5 Co., Ltd.	130	104
	JR REIT 8 Co., Ltd.	108	308
	JR REIT 10 Co., Ltd.	559	579
	JR REIT 13 Co., Ltd.	-	25
	KB Gimpo Logistics CR REIT Co., Ltd.	-	82
	KORAMCO Private REIT 50 Fund	-	716
	KORAMCO Europe Private REIT 3-2 Fund	1,191	-
Total		₩1,989	₩1,878

(3) Details on account balances of receivables and payables with related companies as of December 31, 2019 and 2018, are summarized as follows:

<i>In millions of Korean won</i>		2019		2018	
		Receivables	Payables	Receivables	Payables
	LSK Global Pharma Services Co., Ltd.	₩ -	₩ -	₩150	₩ -
Associates and joint ventures	KB Gimpo Logistics CR REIT Co., Ltd.	523	-	697	-
	KORAMCO Private REIT 50 Fund	99	-	136	-
	Starfield Suwon	-	16,020	-	16,020
Total		₩622	₩16,020	₩983	₩16,020

(4) Details of fund transactions with related parties for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>		2019		2018	
		Investment (recovery)	Repayment of funds	Investment (recovery)	Repayment of funds
	LSK Global Pharma Services Co., Ltd.	₩ -	₩150	₩ -	₩ 1,350
Associates and joint ventures	JR REIT 5 Co., Ltd. ¹⁾	(11,125)	-	-	-
	JR REIT 8 Co., Ltd. ¹⁾	(13,526)	-	-	-
	JR REIT 10 Co., Ltd. ¹⁾	(9,500)	-	-	-
	JR REIT 13 Co., Ltd. ²⁾	-	-	(5,025)	-
	Starfield Suwon	-	-	12,000	-
	KORAMCO Europe Private REIT 3-2 Fund	-	-	18,500	-
Total		₩ (34,151)	₩150	₩25,475	₩1,350

¹⁾ According to the liquidation procedure of JR REIT 5 Co. Ltd., JR REIT 8 Co. and JR REIT 10 Co., the Group has been allocated a portion of the remaining assets and has recognized ₩9,051 million gain on disposal of investments in associates and joint ventures during the year ended December 31, 2019.

²⁾ According to the liquidation procedure of JR REIT 13Co. Ltd., the Group has been allocated a portion of the remaining assets and has recognized ₩25 million gain on disposal of investments in associates and joint ventures during the year ended December 31, 2018.

(5) There is no payment guarantee provided between or among the related parties.

(6) During the year ended December 31, 2018, the Group had made a land contract with Starfield Suwon and had received the down payment of ₩16,020 million from the total ₩160,200 million. The Group has classified the land as 'assets held for sale' as of December 31, 2019, and its ownership will be transferred upon the payment of the balance, which will be on the date of commencement of the construction work(see Note 14).

(7) Details of key management personnel compensation for the years ended December 31, 2019 and 2018, are summarized as follows:

<i>In millions of Korean won</i>	2019	2018
Short-term employee benefits	₩17,703	₩19,330
Retirement benefits	1,902	1,459
Total	₩19,605	₩20,789

31. Risk Management and Fair Value of Financial Instruments

In relation to financial instruments, the Group is exposed to market risk, credit risk and liquidity risk. The purpose of risk management of the Group is to identify potential risks affecting the financial performance of the Group and to reduce, eliminate and avoid them to an acceptable level. The Group prepares and operates the company-wide risk management policies and procedures, and is responsible for the overall responsibility for risk management in the consolidated financial statements of the subsidiaries. The finance department of the Group is responsible for monitoring and managing the financial risks associated with the operations of the subsidiaries in accordance with the risk management policies and procedures approved by the board of directors, and it periodically analyses the nature and exposure of the financial risks. In addition, the Parent Company's audit committee continuously reviews compliance with risk management policies and procedures and limits on risk exposure. The Group's overall financial risk management strategy is the same as the previous one.

(1) Market risk

Market risk is the risk that changes in market prices – such as foreign exchange rates, interest rates and equity prices – will affect the fair value or future cash flow of the Group's financial instruments. The purpose of market risk management is to manage and control market risk exposures within the acceptable limits, while optimizing the revenue.

① Currency risk

The Group has exposure to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates arising from the export and import of tobacco. The Group's management has measured the currency risk internally and regularly and has ₩2,277 million (as of December 31, 2018: derivative assets ₩1,239 million and derivative liabilities ₩461 million) as derivative assets in accordance with foreign currency forward contracts as of December 31, 2019.

The carrying amounts of monetary assets and liabilities denominated in a currency other than the functional currency as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	Monetary assets	Monetary liabilities	Monetary assets	Monetary liabilities
USD	₩1,073,603	₩33,047	₩937,644	₩40,639
EUR	1,249	9,029	4	19,064
JPY, etc.	3,723	2	7,418	1,274
Total	₩1,078,575	₩42,078	₩945,066	₩60,977

The effects of a 10% change in the Korean won-foreign currency exchange rate on pre-tax profit or loss as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	10% increase	10% decrease	10% increase	10% decrease
Increase (decrease) in profit before tax	₩103,650	₩ (103,650)	₩88,409	₩ (88,409)

② Price risk

The Group is exposed to other price risks in relation to its listed equity instruments in financial assets at fair value through other comprehensive income that the fair value of the financial instruments or the future cash flows will change due to factors such as changes in market price etc. The management of the Group regularly measures the risk of changes in the fair value or future cash flows of the listed equity instruments due to changes in market prices. Management of important investments within the portfolio is performed individually and acquisition and disposal are approved by the management of the Group.

The effects of a 5% fluctuation in the price index of stocks on comprehensive income (loss) before tax (gain or loss on valuation of financial assets at fair value through other comprehensive income) as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019		2018	
	5% increase	5% decrease	5% increase	5% decrease
Increase (decrease) in comprehensive income(loss) before tax	₩5,732	₩ (5,732)	₩6,913	₩ (6,913)

③ Interest rate risk

The Group is exposed to interest rate fluctuation risk in relation to the borrowings, lease liabilities and trade payables and other payables. The management of the Group regularly measures the risk of changes in the fair value or future cash flows of the financial instrument due to changes in the market interest rate, maintaining an appropriate balance between fixed and variable interest loans. Considering the size of the variable interest rate borrowings of the Group as of December 31, 2019, the effect of changes in interest rates on the fair value of a financial liability or future cash flows is not important.

(2) Credit risk

The Group is exposed to credit risk that will cause financial losses to the other party because one of the parties to the financial instrument fails to perform its obligations. To manage credit risk, the management of the Group deals with customers with a certain level of creditworthiness or higher, and prepares and operates policies and procedures for credit enhancement of the financial assets. The Group evaluates the creditworthiness of the client using financial information disclosed at the time of contract with the new client and information provided by the credit rating agency, and determines the credit limit on the basis of this, and is provided with collateral or payment guarantee. In addition, the Group periodically reassesses the credit limit, readjusts the collateral level by reassessing the client's creditworthiness, and reports the delayed recovery status and recovery measures on a quarterly basis for financial assets that are delayed, and takes appropriate measures according to the reason for the delay.

The carrying amount of a financial asset indicates the maximum exposure to credit risk. The maximum exposure to credit risk as of December 31, 2019 and 2018, is as follows:

<i>In millions of Korean won</i>	2019	2018
Cash and cash equivalents (excluding cash on hand) ¹⁾	₩435,576	₩391,496
Other financial assets	402,429	593,146
Fair value through profit or loss ¹⁾	1,946,558	1,891,327
Trade and other receivables	1,100,448	1,038,824
Long-term deposits in MSA escrow fund	751,437	615,528
Derivative assets	2,277	1,239
Total	₩4,638,725	₩4,531,560

¹⁾ Of the cash equivalents as of December 31, 2019, ₩455,400 million (as of December 31, 2018: ₩540,967 million) of the specific money trust is included in the financial assets at fair value through profit or loss.

(3) Liquidity risk

The Group is exposed to liquidity risk that will be difficult to meet its obligations related to financial liabilities that are settled by delivering cash or other financial assets. To manage liquidity risk, the management of the Group establishes short and long term financial management plan and continuously analyses and reviews the cash outflow budget and actual cash outflows to respond to the maturity of financial liabilities and financial assets. Management of the Group determines that the financial liabilities are redeemable through cash flows from operating activities and cash inflows from financial assets.

The maturity analysis according to the remaining maturity of the financial liabilities as of December 31, 2019 and 2018, is as follows:

<i>In millions of Korean won</i>	Carrying amount	Contractual cash flows	Remaining maturity			
			Less than 3months	3months ~1year	1year ~5years	Longer than 5years
As of December 31, 2019:						
Short-term borrowings	₩ 27,066	₩ 30,377	₩ 12,607	₩17,770	₩ -	₩ -
Current portion of long-term borrowings	5,285	5,359	1,349	4,010	-	-
Trade and other payables	353,881	357,480	273,469	38,264	45,747	-
Lease liabilities	43,306	46,024	4,912	14,736	23,301	3,075
Long-term borrowings	90,954	95,023	63	192	94,768	-
Total	₩520,492	₩534,263	₩292,400	₩74,972	₩163,816	₩3,075
As of December 31, 2018:						
Short-term borrowings	₩129,924	₩138,725	₩ 62,258	₩ 76,467	₩ -	₩ -
Current portion of long-term borrowings	5,000	5,192	1,297	3,895	-	-
Trade and other payables	273,841	282,527	201,518	51,517	29,492	-
Derivative liabilities	461	461	461	-	-	-
Long-term borrowings	93,475	99,043	63	188	98,792	-
Total	₩502,701	₩525,948	₩265,597	₩132,067	₩128,284	₩ -

The remaining maturity cash flows of the above financial liabilities are not discounted nominal amounts, are prepared on the basis of the earliest date during which payment may be required and include the cash flows of interest.

As of December 31, 2019, the Group provides a loan alliance guarantee for the second payment (guarantee limit: ₩148,880 million, remaining contract expiration: 1 year to 5 years) to the beneficiaries of the Suwon Hwaseo Prugio presale construction, and recognizes a financial guarantee liability of ₩492 million (as of December 31, 2018: ₩700 million(see Notes 19 and 33).

(4) The carrying amounts of each category of financial assets and liabilities as of December 31, 2019 and 2018, are summarized as follows:

<i>In millions of Korean won</i>	2019	2018
Financial assets:		
Fair value through profit or loss ¹⁾	₩1,946,558	₩1,891,327
Fair value through other comprehensive income or loss	257,640	249,575
Derivative assets	2,277	1,239
Financial assets measured at amortized cost		
- Cash and cash equivalents ¹⁾	435,906	392,003
- Other financial assets	402,429	593,146
- Trade and other receivables	1,100,448	1,038,824
- Long-term deposits in MSA Escrow Fund	751,437	615,528
Subtotal	2,690,220	2,639,501
Total financial assets	₩4,896,695	₩4,781,642
Financial liabilities:		
Derivative liabilities	₩ -	₩461
Financial liabilities measured at amortized cost		
Short-term borrowings	27,066	129,924
Current portion of long-term borrowings	5,285	5,000
Trade and other payables	353,881	273,841
Lease liabilities	43,306	-
Long-term borrowings	90,954	93,475
Subtotal	520,492	502,240
Total financial liabilities	₩520,492	₩502,701

¹⁾ Of the cash equivalents as of December 31, 2019, ₩455,400 million (as of December 31, 2018: ₩540,967 million) of the specific money trust is included in the financial assets at fair value through profit or loss.

(5) When measuring the fair value of an asset or a liability, the Group uses observable inputs in the market as much as possible. Fair value is classified within the fair value hierarchy based on the inputs used in the valuation technique as follows:

	Inputs used
Level 1	Unadjusted quoted price in an active market accessible at the measurement date for the same asset or liability.
Level 2	Inputs that are observable directly or indirectly for an asset or liability other than the quoted price of Level 1.
Level 3	Unobservable inputs for an asset or liability

The fair value measurements classified by fair value hierarchy as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	Carrying amount	Fair value		
		Level 1	Level 2	Level 3
As of December 31, 2019:				
Fair value through profit or loss ¹⁾	₩1,946,558	₩ -	₩1,694,663	₩251,895
Fair value through other comprehensive income or loss	257,640	209,108	-	48,532
Derivative assets	2,277	-	2,277	-
Total	₩2,206,475	₩209,108	₩1,696,940	₩300,427
As of December 31, 2018:				
Fair value through profit or loss ¹⁾	₩1,891,327	₩ -	₩1,680,672	₩210,655
Fair value through other comprehensive income or loss	249,575	198,204	-	51,371
Derivative assets	1,239	-	1,239	-
Derivative liabilities	461	-	461	-
Total	₩2,142,602	₩198,204	₩1,682,372	₩262,026

¹⁾ Of the cash equivalents as of December 31, 2019, ₩455,400 million (as of December 31, 2018: ₩540,967 million) of the specific money trust is included in the financial assets at fair value through profit or loss.

There is no movement between levels of the fair value hierarchy during the years ended December 31, 2019 and 2018.

As of December 31, 2019 and 2018, the fair value of investment trusts and equity securities classified as at fair value through profit or loss (other comprehensive income or loss) was measured using the Net Asset Value Adjustment Act, discounted cash flow and was classified as Level 3 fair value based on the inputs used in the valuation technique. The changes in Level 3 fair value during the current and prior terms are as follows:

<i>In millions of Korean won</i>	2019	2018
Beginning balance	₩262,026	₩234,046
Acquisition	54,677	63,850
Disposal	(15,058)	(39,840)
Changes in fair value	(1,218)	3,970
Ending balance	₩300,427	₩262,026

(6) Details of net gains or losses by category of financial instruments for the years ended December 31, 2019 and 2018, are as follows:

① For the year ended December 31, 2019

<i>In millions of Korean won</i>	Fair value through profit or loss	Fair value through other comprehensive income or loss	Derivatives	Financial assets measured at amortized cost	Financial liabilities measured at amortized cost	Total
Profit for the year:						
Interest income	₩ -	₩ -	₩ -	₩24,270	₩ -	₩24,270
Dividend income	15,921	6,581	-	-	-	22,502
Gain or loss on valuation	42,920	-	(12,886)	-	-	30,034
Interest expense	-	-	-	-	(6,851)	(6,851)
Impairment loss	-	-	-	(37,372)	-	(37,372)
Total	₩58,841	₩6,581	₩ (12,886)	₩ (13,102)	₩ (6,851)	₩32,583
Other comprehensive income (loss) before tax:						
Net change in fair value	₩ -	₩9,492	₩ -	₩ -	₩ -	₩9,492
Total	₩ -	₩9,492	₩ -	₩ -	₩ -	₩9,492

② For the year ended December 31, 2018

<i>In millions of Korean won</i>	Fair value through profit or loss	Fair value through other comprehensive income or loss	Derivatives	Financial assets measured at amortized cost	Financial liabilities measured at amortized cost	Total
Profit for the year:						
Interest income	₩ -	₩ -	₩ -	₩17,413	₩ -	₩17,413
Dividend income	14,291	6,218	-	-	-	20,509
Gain or loss on valuation	53,663	-	(8,309)	-	-	45,354
Interest expense	-	-	-	-	(6,957)	(6,957)
Reversal of impairment loss	-	-	-	5,867	-	5,867
Total	₩67,954	₩6,218	₩ (8,309)	₩23,280	₩ (6,957)	₩82,186
Other comprehensive income (loss) before tax:						
Net change in fair value	₩ -	₩ (38,573)	₩ -	₩ -	₩ -	₩ (38,573)
Total	₩ -	₩ (38,573)	₩ -	₩ -	₩ -	₩ (38,573)

32. Capital Management

The purpose of capital management of the Group is to maintain its viability as a continuous company and maximize shareholder profits by maintaining a sound capital structure and minimizing capital procurement costs. The board of directors is striving to balance the return on higher borrowing with sound financial position.

The Group manages capital on a capital basis with net liabilities (net assets) deducting cash and cash equivalents from the borrowings, and the overall capital management policy is the same as the prior term.

Details on the Group's capital structure as of December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Debt	₩123,305	₩228,399
Less: Cash and cash equivalents	(891,306)	(932,969)
Less: Current other financial assets	(397,949)	(584,580)
Less: Current fair value through profit or loss	(1,239,263)	(1,139,705)
Net asset (debt)	₩2,405,213	₩2,428,855
Total equity	₩8,705,934	₩8,133,080

33. Contingent Liabilities and Commitments

(1) Litigation cases

As of December 31, 2019, the Group has 25 cases of pending litigations under progress and the litigation value is ₩70,628 million. It is not possible to reasonably predict the impact of the outcome of pending litigation as of December 31, 2019, on the consolidated financial statements of the Group.

(2) Commitments with financial institutions

Details of major commitments of the Group with financial institutions as of December 31, 2019, are as follows:

<i>In millions of Korean won, and thousands of US dollars</i>			
Type	Financial institutions	Currency	Limit
Opening import letter of credits	KEB Hana Bank and one other	USD	185,300
Derivatives trading ¹⁾	KEB Hana Bank and three others	USD	227,700
Group loans	KEB Hana Bank	KRW	300,000
Consumer financing arrangement	KEB Hana Bank	KRW	7,000
Others	KDB Industrial Bank and six others	KRW	201,386
	KEB Hana Bank Bahrain branch	USD	6,600

¹⁾ Derivatives are composed of foreign exchange forward contracts and are held for trading as of December 31, 2019.

(3) Payment guarantee and collateral details

Details of payment guarantees the Group is provided as of December 31, 2019, are as follows:

In millions of Korean won, and thousands of US dollars

Provider	Currency	Limit	Details
Korea Housing & Urban Guarantee Corporation	KRW	948,351	Housing distribution guarantee, etc.
Korea Trade Insurance Corporation	USD	86,392	Export guarantee insurance
Seoul Guarantee Insurance	KRW	3,008	License guarantee, etc.
Travelers Casualty and Surety Company of America	USD	8,991	Escrow deposit guarantee
Liberty Mutual	USD	183	Payment guarantees on licence bond
KEB Hana Bank	USD	2,000	Performance guarantee related to exporting reconstituted tobacco leaves
NH Nonghyup Bank	KRW	3,000	Collateral on local tax payment

As of December 31, 2019, the Group is provided with payment guarantees to a limit of USD 20,000 thousand from Westchester Fire Insurance Company (based in the United States), and has recourse responsibilities for the amount of guarantees executed. The purpose of such payment guarantees includes KT&G USA Corporation's imports and customs clearance.

Details of execution of the payment guarantee as of December 31, 2019, are as follows:

In thousands of US dollar

Provider	Currency	Limit	Execution amount	Details
Westchester Fire Insurance Company	USD	20,000	19,800	Import duty payment guarantee

The details of payment guarantees provided by the Group for other people as of December 31, 2019, are as follows:

<i>In millions of Korean won</i>	Guarantee user	Currency	Limit	Execution amount
Loan guarantee for the payment	Shinhan Bank	KRW	79,400	31,097
	KEB Hana Bank	KRW	60,000	25,222
	Suhyup Bank	KRW	9,480	4,527
Payment guarantee for deductibles (Mokpo branch and five other branches)	Korea Special Sales Association	KRW	1,346	-
Total		KRW	150,226	60,846

The Group provides payment guarantees to financial institutions in accordance with the consumer financial agreement in connection with retail sales receivables, and receives related bonds from financial institutions and recognizes them as short-term borrowings(see Note 16).

Assets pledged as collateral for short-term borrowings, etc. as of December 31, 2019, are summarized as follows:

<i>In millions of Korean won</i>	Carrying amount	Debt amount	Collateralized amount	Collateral holder	Type
Investment property	₩382,924	₩20,573	₩22,399	MetLife Insurance, etc.	Establishment of right to collateral security and leasehold for leasehold deposits
Property, plant and equipment	20,323	3,315	3,315	Korea Workers' Compensation & Welfare Service, etc.	Establishment of leasehold rights to leasehold deposits
Other financial assets	8,540	-	8,540	Korea Land & Housing Corporation	Establishment of a pledge to guarantee business performance ¹⁾
	597	597	597	Samsung Fire & Marine Insurance	Establishment of a pledge for leasehold deposits
Property, plant and equipment	92,566	3,488	4,186	Wonju City-Hall	Establishment of right to collateral security through a government grant
Property, plant and equipment	58,172	11,325	52,000	KEB Hana Bank, etc.	Short-term and long-term borrowings
Property, plant and equipment	17,494	14,000	24,000	KEB Hana Bank	Short-term borrowings
Property, plant and equipment	32,605	3,100	15,500	Korea Development Bank ("KDB")	Current portion of long-term borrowings
Investment property	2,797	2,658			
Total	₩616,018	₩59,056	₩130,537		

¹⁾ As of December 31, 2019, the Group has deposited ₩8,540 million in NH Nonghyup Bank and classified it as other financial assets to guarantee its business performance in connection with the project to create a central commercial area in the administrative city. There is a pledge right established on this amount as of December 31, 2019.

Details of bills and cheques provided as collateral by the Group in relation to borrowings, etc. as of December 31, 2019, are as follows:

<i>In millions of Korean won</i>	Type	Quantity	Face amount	Details
Jinheung Savings Bank	Draft bill	1 note	₩1,000	Not collected after debt dissipation
	Cheque	1 note	Blank	

As of December 31, 2019, other than explained above, 11 notes and two cheques with unknown origin and face amount are lost, and the Group will proceed with the authorization process for this bill.

Financial assets limited to use as of December 31, 2019 and 2018, are summarized as follows:

<i>In millions of Korean won</i>		2019	2018
Other financial assets	Real estate development performance guarantee	₩8,540	₩6,340
	Security deposits for rent	597	597
	Security deposits for checking accounts, etc.	1,727	1,709
	Reserves for compensation of damages related to personal information	1,000	-
	Deposit in the Accompanied Growth Cooperation Loan Fund	100,000	100,000
Total		₩111,864	₩108,646

(4) Others

Payment of long-term deposits (MSA Escrow Fund)

Each year, the Group deposits a proportion of sales of tobacco products sold in the United States in accordance with the Tobacco Master Settlement Agreement (MSA) under the Escrow Statute of the U.S. government. The MSA Escrow Fund is maintained to pay the medical expenses of tobacco purchasers who have suffered health effects as a result of smoking which is considered to be the Group's illegal act. The unused portion of the fund will be refunded to the Group after 25 years from the date of each annual funding. The Group has recognized ₩751,437 million as of December 31, 2019 (₩615,528 million as of December 31, 2018) as long-term deposits and they are composed of T-Note and demand deposits.

The Group has maintained a contract with the farmers who grow six-year-old green ginseng for purchasing determined volumes as guarantees and recorded contractual amounts paid to the farmers as long-term advance payments and advance payments in the amount of ₩62,630 million as of December 31, 2019 (₩59,369 million as of December 31, 2018) and ₩23,945 million as of December 31, 2019 (₩25,841 million as of December 31, 2018), respectively.

As of March 17, 2011, the Group signed a memorandum of understanding with the National Pension Service on a global investment partnership that calls for the joint investment of less than ₩800,000 million in total into overseas assets.

As of December 31, 2019, the Group has entered into a management trust agreement with Marriott International Management Company B.V. and has been provided with international public relations services through Global Hospitality Licensing S.A.R.L. Also, the Group has been provided with technical advice by Marriott International Design & Construction Services., Inc.

The Group is currently operating Starfield Suwon Corporation after establishing the joint venture under 50:50 ratio with Shinsaegae Property. The disposal of such share is limited for five years from the approval for the use of the multi-shopping mall. In the event that the Group or the joint venture intend to transfer all of its shares, the other party shall have the pre-emptive right to purchase the shares and selectively exercise its joint put-option rights.

The Group had made a land contract with Starfield Suwon, a joint venture, (land contract value: ₩160,200 million), and the ownership of the land will be transited upon the payment of balance when the construction for Starfield Suwon begins.

The Group has made a contract with Gwacheon SangSang PFV, a subsidiary company, to purchase the land for development of Gwacheon Knowledge and Information Town at the time the Group's internal management decision is completed.

As of December 31, 2019, there is a capital call agreement for overseas real estate funds invested by the Group. However, we expect that the arrangement will be substantially less practicable as it will only be executed if the trustee defaults on the currency swap/forward contract.

The Group has the first priority of nomination in the supply of logistics facilities developed by Yongin Jungsim. Also, the Group has the right to transfer shares to SpaceG if it does not receive the sale proceeds.

In October 2019, in preparation of the second phase of liquid e-cigarette safety management countermeasures jointly with the relevant departments, the Ministry of Health and Welfare recommended discontinuing the use of liquid e-cigarettes until the safety management system improvement and hazard verification are complete. Accordingly, CVS companies (the Group's suppliers), have announced that they will stop selling or placing new orders for two of the Group's products (SiiD Tundra and SiiD Toba) and are currently discussing sales returns for the products with the Group. As of December 31, 2019, the Group has recognized in relation to the above event: inventory valuation loss allowance of ₩2,232 million, refund liabilities of ₩2,392 million, and miscellaneous loss of ₩499 million as compensation for suppliers regarding cancellation of orders.

In relation to the products that the Group has manufactured and exported to the United States, the Coalition Against Korean Cigarettes (a coalition of Cheyenne International and Xcaliber International) has submitted a petition to the United States Department of Commerce requesting an investigation into export dumping and industrial damages. The products subject to the investigation are 4th tier cigarettes (cigarettes produced by small manufacturers) and the period in question is 1 year for export dumping (October 2018 to September 2019) and 3 years and 9 months for industrial damages (January 2016 to September 2019). In relation to the above, the process of investigation and adjudication by the United States Department of Commerce is due to continue until 2021. It is not possible for the Group to rationally predict the impact the results of this investigation will have on its consolidated financial statements.

As of December 31, 2019, tax investigations on subsidiaries in Indonesia (PT Trisakti Purwosari Makmur and PT KT&G Indonesia) and a subsidiary in Turkey (KT&G Tutun Mamulleri Sanayi ve Ticaret A.S.) are under way.

34. Cash Flows

(1) Details of cash generated from operations for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Profit for the year	₩1,038,670	₩898,659
Adjustments:		
Employee welfare	₩4,325	₩8,550
Retirement benefits	51,298	46,801
Loss on valuation/disposal of inventories	34,091	14,139
Depreciation	177,819	146,392
Amortization	4,975	3,788
Treasury shares donations	30,220	-
Impairment loss (reversal) on trade and other receivables	37,372	(5,867)
Loss on foreign currency translation	8,677	66,121
Loss on disposal of property, plant and equipment	4,484	2,926
Loss on impairment of property, plant and equipment	2,885	8,749
Loss on disposal of intangible assets	147	112
Loss on impairment of intangible assets	3,771	16,533
Loss on impairment of right-of-use assets	908	-
Loss on disposal of right-of-use assets	3,016	-
Loss on adjustments of lease contracts	30	-
Loss on valuation of derivatives	19,591	11,982
Other expenses, etc.	14,346	6,821
Finance cost	13,796	6,957
Income tax expense	424,000	420,011
Gain on foreign currency translation	(40,653)	(50,800)
Gain on disposal of investments in associates and joint ventures	(134)	-
Gain on disposal of property, plant and equipment	(2,383)	(2,488)
Gain on disposal of intangible assets	(3)	(203)
Gain on valuation of derivatives	(6,705)	(3,673)
Gain on adjustments of lease contracts	(54)	-
Other income, etc.	(2,363)	-
Finance income	(96,705)	(91,585)
Share of loss/gain of associates and joint ventures	(1,541)	(9,255)
Changes in working capital:		
Decrease(increase) in trade and other receivables	(85,929)	73,255
Increase in derivatives	(14,384)	(9,087)
Decrease(increase) in inventories	426	(170,351)
Decrease(increase) in accrued tobacco excise and other taxes	(58,165)	43,402
Increase in advance payments	(5,325)	(3,734)
Increase in prepaid expenses	(5,121)	(4,463)
Increase in trade and other payables	58,755	15,284
Increase(decrease) in advance receipts	(96,872)	141,243
Increase(decrease) in tobacco excise and other taxes payable	17,676	(359,605)
Decrease in net defined benefit obligation	(70,858)	(58,713)
Cash generated from operations	₩1,464,083	₩1,161,901

(2) Details of material transactions without cash inflow and outflow for the years ended December 31, 2019 and 2018, are as follows:

<i>In millions of Korean won</i>	2019	2018
Reclassification of property, plant and equipment to investment property	₩154,728	₩151,030
Reclassification of investment property to inventories	7,940	2,731
Reclassification of construction in progress(property, plant and equipment, intangibles, and investment property) to the related asset accounts	360,145	237,404

(3) Changes in liabilities due to financial activities for the years ended December 31, 2019 and 2018, are as follows:

① For the year ended December 31, 2019

<i>In millions of Korean won</i>	Beginning balance	Cash flows from financing activities	Others	Ending balance
Dividend payable	₩ -	₩ (505,061)	₩505,061	₩ -
Short-term borrowings (including current portion of long-term borrowings)	134,924	(117,035)	14,461	32,350
Long-term borrowings	93,475	12,135	(14,656)	90,954
Lease liabilities	-	(18,604)	61,910	43,306
Total	₩228,399	₩ (628,565)	₩566,776	₩166,610

② For the year ended December 31, 2018

<i>In millions of Korean won</i>	Beginning balance	Cash flows from financing activities	Others	Ending balance
Dividends payable	₩ -	₩ (505,061)	₩505,061	₩ -
Short-term borrowings (including current portion of long-term borrowings)	178,359	(56,661)	13,226	134,924
Long-term borrowings	100,589	11,379	(18,493)	93,475
Total	₩278,948	₩ (550,343)	₩499,794	₩228,399

(4) The Group had indicated some other items of inflow and outflow of financial instruments that have been marked as net increase and decrease as those are frequently traded and have a large total and short-term maturity

35. Changes in Accounting Policies

(1) Application of K-IFRS No.1116 ‘Leases’

As stated in Note. 2, the Group had applied K-IFRS No. 1116 from the beginning of this reporting period, January 1st, 2019. Under the transitional provisions, the cumulative effect of applying K-IFRS No. 1116 is adjusted on the balance of retained earnings at the date of initial application, and the comparative presentation of the consolidated financial statements for the year ended December 31, 2018, has not been restated.

① Measurement of lease liabilities

<i>In millions of Korean won</i>	<i>Amount</i>
Operating lease contracts disclosed as of December 31, 2018	₩50,521
Operating lease contracts discounted by the lessee’s incremental borrowing rate as of January 1, 2019	₩48,082
(Less): Short-term lease payments not recognized as liabilities	(2,821)
(Less): Lease payments for low value assets not recognized as liabilities	(1,183)
Lease liabilities recognized as of January 1, 2019	₩44,078
Liquidity classification for lease liabilities recognized	
Current lease liabilities	₩18,616
Non-current lease liabilities	25,462
Total	₩44,078

② Adjustments recognized on consolidated statement of financial position as of January 1, 2019

The total of the minimum lease payments of the lease liabilities before discounting for present value is ₩46,024 million as of December 31, 2019. The amount is ₩43,306 million when discounted by the interest rate implicit in the lease and the lessee’s incremental borrowing rate.

As of January 1, 2019, right-of-use assets, current lease liabilities and non-current lease liabilities increased by ₩52,667 million, ₩18,616 million and ₩25,462 million, respectively. These lease liabilities have been measured as the present value of the remaining lease payments, which have been discounted by the lessee’s incremental borrowing rate. As of January 1, 2019, the interest rate implicit in the lease and the lessee’s incremental borrowing rate used for the measurement of lease liabilities are 0.43%~24.68%.

(2) Application of Interpretation of K-IFRS No.2123 ‘Uncertainty over Income Tax Treatments’

As stated in Note. 2.2, the Group had applied Interpretation of K-IFRS No. 2123 from the beginning of this reporting period, January 1st, 2019. Under the transitional provisions, the cumulative effect of applying Interpretation of K-IFRS No. 2123 is adjusted on the balance of retained earnings at the date of initial application, and the comparative presentation of the consolidated interim financial statements for the year ended December 31, 2018, has not been restated.

As of January 1st, 2019, the beginning balance of the retained earnings has been reduced by ₩4,670 million, and deferred tax liabilities for the period have increased by ₩4,670 million. As of December 31, 2019, the end of the reporting period, income tax expenses have increased by ₩1,959 million.

36. Non-Controlling Interests

The profit or loss allocated to non-controlling interests and accumulated non-controlling interests of subsidiaries that are material to the Group are as follows:

(1) For the year ended December 31, 2019

<i>In millions of Korean won</i>	Non-controlling interest rate(%)	Beginning balance of accumulated non-controlling interests	Net profit or loss distributed to non-controlling interests	Others	Ending balance of accumulated non-controlling interests
Yungjin Pharm. Co., Ltd.	47.55	₩53,264	₩ 2,392	₩ (617)	₩55,039
Cosmocos Co., Ltd.	1.44	536	(197)	(9)	330
Total equity		₩53,800	₩ 2,195	₩ (626)	₩55,369

(2) For the year ended December 31, 2018

<i>In millions of Korean won</i>	Non-controlling interest rate(%)	Beginning balance of accumulated non-controlling interests	Net profit or loss distributed to non-controlling interests	Others	Ending balance of accumulated non-controlling interests
Yungjin Pharm. Co., Ltd.	47.55	₩56,979	₩ (2,791)	₩ (924)	₩53,264
Cosmocos Co., Ltd.	1.44	728	(200)	8	536
Total equity		₩57,707	₩ (2,991)	₩ (916)	₩53,800

(3) The Group has classified the convertible preferred stock issued by its subsidiary, Renzoluc Pte., Ltd. as non-controlling interest liabilities and presented it as borrowings in its consolidated financial statements, separately from equity attributable to owners of the Parent Company.

(4) The Group has presented the non-controlling interest of 49% of shares of Gwacheon Sangsang PFV acquired during the year ended December 31, 2018 as non-controlling interest liabilities in its consolidated financial statements, separately from equity attributable to owners of the Parent company.

37. Subsequent Events

On January 29, 2020, Philip Morris Products S.A. (“PMI”) has signed a contract with the Group. The contract enables PMI to exclusively sell the Group’s smoke-free products in all overseas countries excluding the Republic of Korea. In accordance with the contract, PMI has the right to market, distribute and sell the Group’s smoke-free products overseas for the duration of the contract (three years starting from a previous agreed-upon date), and the smoke-free products include the Group’s HNB (Heat Not Burn) and E-Vapour (device, exclusive sticks, exclusive liquid cartridges and accessories for Lil Plus, Lil Mini, Lil Hybrid and Lil Vapour) product lines.

On February 26, 2020, the Group signed a distributorship agreement with Alokozay International Limited (“AIL,” a regional importer with which the Group had existing business relations), giving AIL the rights to sell the Group’s manufactured cigarettes in the Middle East and CIS countries. In accordance with the contract, AIL has the right to market, distribute and sell the Group’s products in the regions concerned. Commencing on the contract date, the duration of the contract is until June 30, 2027. In accordance with the contract, the minimum quantity that AIL needs to purchase from the Group is two million boxes of cigarettes from the contract date to June 30, 2021. From June 30, 2021, AIL needs to purchase one and a half million boxes of cigarettes from the Group every year. In accordance with this contract, AIL’s trade receivable balance against the Group will gradually be reduced to USD 67 million from the contract date to June 30, 2027.

The Korea Ginseng Corporation, a subsidiary of the Parent Company, is conducting a tax investigation on the business year from 2015 to 2017 by the tax authorities after the end of the reporting period.