



KT&G CORPORATION AND SUBSIDIARIES

**Consolidated Financial Statements
Full year of the 32nd
from January 1, 2018, to December 31, 2018**

(With Independent Auditors' Report Thereon)

KT&G CORPORATION

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KT&G CORPORATION AND SUBSIDIARIES

Independent auditor's report

English Translation of Independent Auditors' Report Originally Issued in Korean on March 21, 2019

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

Report on the Audited Consolidated Financial Statements

Our Opinion

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

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

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 Our Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements, including those related to independence, that are relevant to our audit of the consolidated financial statements in the Republic of Korea as required by prevailing audit regulations. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our 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 period. 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.

(1) Impairment of cash generating unit ("CGU") of Cosmocos Co., Ltd.

As discussed in Note 14 to the consolidated financial statements, the Group recognized an impairment loss of ₩5,461 million related to customer related intangible assets (other intangible assets) for the CGU of Cosmocos Co., Ltd.

The Group reviews the indication of impairment for each individual asset of Cosmocos Co., Ltd. If it is possible to estimate the recoverable amount of assets individually, the Group reviews the indication of impairment for CGU of Cosmocos Co., Ltd. The Group tests for impairment by determining the higher of value in use or fair value as the recoverable amount. However, Cosmocos Co., Ltd., is in the business of cosmetics, and the sensitivity of value in use could not be reasonably predicted due to intensified competition in the domestic market for CGU and uncertainties in demand for export markets such as China. Accordingly, the Group determined the recoverable amount of its CGU by measuring fair value using the adjusted net asset method without measuring value in use.

As there are possibilities of errors in measuring the recoverable amount because management's significant assumptions and estimates are involved in the measurement method used to determine the recoverable amount of an individual asset or CGU of Cosmocos Co., Ltd., we chose this as our key audit matters.

In order to determine the approach to auditing, we have evaluated the general suitability and error potential in the method of measuring the recoverable amount of individual assets or CGU of Cosmocos Co., Ltd., and the main audit procedures we have conducted based on our risk assessment are as follows:

- ① Understanding and evaluating the internal control design of the Company in relation to the impairment of an individual asset or CGU.
- ② Evaluating the independence and eligibility of external experts utilized by the Company to measure recoverability.
- ③ Evaluating the rationality of the key assumptions used in measuring the recoverable amount.
- ④ Verifying independently key input variables, appropriateness of valuation model, and valuation result by using external appraisal specialists of auditors for tangible assets measured by fair value.

Responsibilities of Management and the Audit Committee for the Financial Statements

Management is responsible for the preparation of the accompanying consolidated financial statements in accordance with K-IFRS, 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.

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.

The audit committee is responsible for overseeing the Group's financial reporting process.

Our Responsibilities for the Audit of the 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 prevailing audit regulations in the Republic of Korea 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 prevailing audit regulations in the Republic of Korea, 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.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the 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.

We communicate with the audit committee of the Group 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.

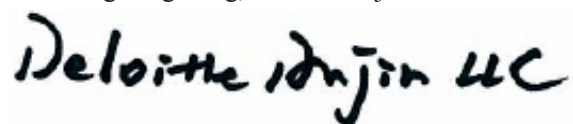
From the matters communicated with the audit committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Matters

The consolidated financial statements of the Group as of and for the year ended December 31, 2017 were audited by the KPMG Samjung Accounting Corporation and the auditor's report dated February 28, 2018 expressed an unqualified opinion. The consolidated financial statements for which the previous auditor expressed the opinion were consolidated financial statements prior to of the reconciliations described in Note 40. The comparative consolidated financial statements for the year ended December 31, 2017 are consolidated financial statements that reflect related adjustments.

The engagement partner on the audit 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 21, 2019

<p>This report is effective as of March 21, 2019, 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 financial statements and may result in modifications to the auditors' report.</p>
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KT&G CORPORATION AND SUBSIDIARIES

Consolidated financial statements

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

Full year of the 31st
from January 1, 2017, to December 31, 2017

"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

KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of financial position

As of December 31, 2018 and 2017

<i>in Korean won</i>	<i>Notes</i>	2018	2017
Assets:			
Current assets:			
Cash and cash equivalents	5,6,33,34,37,40	₩932,969,110,015	₩715,116,842,650
Current other financial assets	5,17,29,33,34,35,37,40	584,579,918,180	2,081,585,769,035
Current fair value through profit or loss	6,33,34,37	1,139,704,589,088	-
Financial derivatives	7,33	1,238,664,783	-
Trade and other receivables	8,26,29,32,33,37,40	975,921,202,909	1,124,279,605,312
Inventories	9,40	2,461,289,914,829	2,317,772,651,741
Refund asset	21	2,356,432,726	-
Accrued tobacco excise and other taxes		232,237,330,421	261,458,634,993
Advance payments	35	54,207,755,371	59,174,970,582
Prepaid expenses		24,622,742,813	26,315,942,164
Assets held for sale	4,13,16	4,246,922,005	-
Total current assets		6,413,374,583,140	6,585,704,416,477
Non-current assets:			
Other long-term financial assets	5,17,29,33,37	8,565,762,000	6,350,597,000
Long-term deposits in MSA Escrow Fund	10,29,33,35,37	615,527,896,771	510,223,375,080
Fair value through profit or loss	6,33,37	210,655,373,106	-
Long-term trade and other receivables	8,33,37	62,902,608,445	63,687,114,014
Fair value through other comprehensive income or loss	11,33,37	249,575,289,383	-
Available-for-sale financial assets	6,11,33,37	-	471,762,743,361
Investments in associates and joint ventures	4,12,32,35	83,988,748,090	51,030,988,219
Property, plant and equipment	13,15,16,17,40	1,818,787,823,851	1,775,342,492,036
Intangible assets	14	71,954,007,994	84,747,974,375
Investment property	13,15,17,40	495,048,833,035	317,784,188,108
Refund asset	21	223,771,427	-
Long-term advance payments	35	71,394,217,095	69,773,731,927
Long-term prepaid expenses		7,872,994,328	5,547,561,711
Deferred income tax assets	30	45,229,659,539	39,405,222,139
Total non-current assets	4	3,741,726,985,064	3,395,655,987,970
Total assets		₩10,155,101,568,204	₩9,981,360,404,447

KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of financial position, continued

As of December 31, 2018 and 2017

<i>in Korean won</i>	<i>Notes</i>	2018	2017
Liabilities and equity:			
Liabilities:			
Current liabilities:			
Short-term borrowings	17,18,29,33,34	₩129,924,101,195	₩174,656,638,008
Current portion of long-term borrowings	17,18,29,33,34	4,999,760,000	3,702,326,400
Trade and other payables	19,29,33,40	560,507,008,935	528,754,453,959
Derivative liabilities	7,33	460,667,312	-
Advance receipts	40	171,501,108,963	10,600,182,614
Current provisions	21,40	15,100,885,431	7,131,402,361
Income tax payable	30	200,796,906,309	175,149,546,607
Tobacco excise and other taxes payable		557,417,508,777	916,397,793,192
Total current liabilities		1,640,707,946,922	1,816,392,343,141
Non-current liabilities:			
Long-term borrowings	17,18,29,33,34	93,475,333,856	100,588,590,400
Long-term trade and other receipts	19,29,33	53,239,976,056	34,436,148,465
Long-term advance receipts	40	5,580,108,204	7,049,719,522
Net defined benefit liability	20	96,214,830,976	75,782,588,379
Provisions	21,40	3,844,558,820	9,201,578,053
Deferred income tax liabilities	30	125,558,940,716	108,149,068,670
Non-controlling interests liabilities	38	3,399,647,673	-
Total non-current liabilities		381,313,396,301	335,207,693,489
Total liabilities		2,022,021,343,223	2,151,600,036,630
Equity:			
Ordinary shares	22	954,959,485,000	954,959,485,000
Other capital surplus	22	(29,719,795,353)	(29,719,795,353)
Treasury shares	23	(328,157,286,128)	(328,157,286,128)
Gain on sale of treasury shares	23	513,775,933,891	513,775,933,891
Reserve	24	5,355,627,500,098	4,927,331,928,515
Retained earnings	25,37	1,612,794,013,734	1,733,863,414,006
Equity attributable to owners of the parent		8,079,279,851,242	7,772,053,679,931
Non-controlling interests	38	53,800,373,739	57,706,687,886
Total equity		8,133,080,224,981	7,829,760,367,817
Total liabilities and equity		₩10,155,101,568,204	₩9,981,360,404,447

"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, 2018 and 2017

<i>in Korean won</i>	<i>Notes</i>	2018	2017
Sales	4,26,37	₩4,471,515,592,060	₩4,667,193,482,245
Cost of sales	9,14,20,26,27,37	(1,836,031,136,556)	(1,908,887,335,457)
Gross profit		2,635,484,455,504	2,758,306,146,788
Selling, general and administrative expenses	8,14,16,20,27,37	(1,380,377,762,894)	(1,332,191,742,672)
Operating profit	4,16,27	1,255,106,692,610	1,426,114,404,116
Other income	8,16,28	110,050,164,763	98,280,763,455
Other expenses	8,9,28	(140,369,846,928)	(226,017,700,909)
Finance income	6,7,29,32,33	91,584,864,758	68,635,417,257
Cost of finance	6,7,29,33	(6,956,841,784)	(27,106,982,850)
Net finance income	29	84,628,022,974	41,528,434,407
Share of gain of associates and joint ventures	12	9,774,132,690	5,716,539,714
Share of loss of associates and joint ventures	12	(519,225,515)	-
Profit before income tax		1,318,669,940,594	1,345,622,440,783
Income tax expense	30,37	(420,010,600,187)	(181,414,204,164)
Profit for the year	36	898,659,340,407	1,164,208,236,619
Other comprehensive income (loss) after income tax:			
Items that will not be reclassified to profit or loss			
Remeasurements of net defined benefit liability	20	(24,807,327,456)	27,593,054,111
Gain or loss on valuation of fair value through other comprehensive income or loss	11,24,33	(27,707,366,228)	-
Capital changes in equity method	12	16,538,462	-
Items that are or may be reclassified subsequently to profit or loss			
Exchange differences on translating foreign operations	24	7,773,974,169	(6,836,930,436)
Gain or loss on valuation of available-for-sale financial assets	33	-	26,672,252,632
Other comprehensive income after income tax		(44,724,181,053)	47,428,376,307
Total comprehensive income for the year		853,935,159,354	1,211,636,612,926
Profit attributable to:			
Owners of the parent company		901,650,436,116	1,163,750,236,557
Non-controlling interests	38	(2,991,095,709)	458,000,062
Total		898,659,340,407	1,164,208,236,619
Other comprehensive income for the year attributable to:			
Owners of the parent company		857,857,695,749	1,207,694,493,332
Non-controlling interests	38	(3,922,536,395)	3,942,119,594
Total		₩853,935,159,354	₩1,211,636,612,926
Earnings per share:			
Basic and diluted	31	7,141	9,217

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



KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of changes in equity

For the year ended December 31, 2017

in Korean won	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, 2017	₩954,959,485,000	₩ (3,428,862,637)	₩ (328,157,286,128)	₩513,775,933,891	₩4,296,522,940,448	₩1,611,532,365,941	₩7,045,204,576,515	₩72,553,715,968	₩71,177,758,292,483
Total comprehensive income (loss) for the year:									
Profit for the year	-	-	-	-	-	1,163,750,236,557	1,163,750,236,557	458,000,062	1,164,208,236,619
Other comprehensive income (loss) for the year:									
Remeasurements of net defined benefit liability	-	-	-	-	-	27,049,891,174	27,049,891,174	543,162,937	27,593,054,111
Gain or loss on valuation of available-for-sale financial assets	-	-	-	-	-	26,672,252,632	26,672,252,632	-	26,672,252,632
Exchange differences on translating foreign operations	-	-	-	-	(9,777,887,031)	-	(9,777,887,031)	2,940,956,595	(6,836,930,436)
Sum of other comprehensive income (loss) for the year	-	-	-	-	16,894,365,601	27,049,891,174	43,944,256,775	3,484,119,532	47,428,376,307
Total comprehensive income (loss) for the year	-	-	-	-	16,894,365,601	1,190,800,127,731	1,207,694,493,332	3,942,119,594	1,211,636,612,926
Transactions with owners, recognized directly in equity:									
Dividends	-	-	-	-	-	(454,554,457,200)	(454,554,457,200)	-	(454,554,457,200)
Transfer from reserve for research and human resource development	-	-	-	-	(10,000,000,000)	10,000,000,000	-	-	-
Transfer to unconditional reserve	-	-	-	-	623,914,622,466	(623,914,622,466)	-	-	-
Changes in non-controlling interests and others	-	(26,290,932,716)	-	-	-	-	(26,290,932,716)	(18,789,147,676)	(45,080,080,392)
Total transactions with owners of the parent company	-	(26,290,932,716)	-	-	613,914,622,466	(1,068,469,079,666)	(480,845,389,916)	(18,789,147,676)	(499,634,537,592)
Balance at December 31, 2017	₩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

"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, 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	₩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 change in accounting policy	-	-	-	-	(36,765,729,396)	(8,805,287,042)	(45,571,016,438)	-	(45,571,016,438)
Balance at January 1, 2018 (basic 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:									
Remeasurements 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 Earning from 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, recognized directly in equity:									
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 unconditional reserve	-	-	-	-	495,035,507,256	(495,035,507,256)	-	-	-
Changes in non-controlling interests and others	-	-	-	-	(207,980,244)	207,980,244	-	16,222,248	16,222,248
Total transactions with owners of the parent company	₩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
Balance at December 31, 2018									

"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, 2018 and 2017

<i>in Korean won</i>	<i>Notes</i>	2018	2017
Cash flows from operating activities			
Cash generated from operations	36	₩1,162,304,102,644	₩1,538,070,062,839
Income tax paid		(340,246,893,758)	(394,958,049,223)
Net cash provided by operating activities		822,057,208,886	1,143,112,013,616
Cash flows from investing activities			
Interest received		15,799,778,784	48,762,890,543
Dividends received		21,665,150,035	24,677,349,065
Proceeds from sale of property, plant and equipment		27,335,395,493	4,324,275,183
Proceeds from sales of intangible assets		832,595,327	1,440,668,000
Disposal of non-current assets held for sale		-	19,303,200,000
Disposal of fair value through profit or loss		856,326,727,895	-
Disposal of fair value through other comprehensive income or loss		1,152,690,000	-
Disposal of available-for-sale financial assets		-	22,835,152,438
Collection of loans		14,740,189,324	13,972,016,874
Withdrawal of guarantee deposits		3,710,343,548	8,504,998,736
Receipt of government subsidies		62,700,000	-
Changes in consolidation criteria		-	481,646,427
Acquisition of equity method investments		5,024,535,939	7,318,754,972
Disposal of equity method investments		(30,500,000,000)	(1,000,000,000)
Acquisition of property, plant and equipment		(393,869,913,935)	(318,333,528,346)
Acquisition of intangible assets		(6,292,425,402)	(6,389,738,654)
Acquisition of fair value through profit or loss		(93,500,000,000)	-
Acquisition of fair value through other comprehensive income or loss		(1,350,000,000)	-
Acquisition of available-for-sale financial assets		-	(98,452,912,000)
Acquisition of subsidiaries		-	(46,045,660,504)
Increase in loans		(5,934,754,849)	(9,880,249,201)
Increase in guarantee deposits		(6,678,756,032)	(11,578,241,750)
Increase in long-term deposits in MSA Escrow Fund		(72,399,032,390)	(72,040,082,771)
Increase in other financial assets, net		(382,381,293,042)	(270,919,262,512)
Net cash used in investing activities		₩ (46,256,069,305)	₩ (683,018,723,500)

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

KT&G CORPORATION AND SUBSIDIARIES

Consolidated statements of cash flows, continued

For the years ended December 31, 2018 and 2017

<i>in Korean won</i>	<i>Notes</i>	2018	2017
Cash flows from financing activities			
Proceeds from borrowings		₩641,712,342,225	₩629,452,130,534
Increase of non-controlling interests		3,430,000,000	-
Increase in deposits received		1,018,093,000	1,155,301,300
Payments of share issuance cost		-	(22,708,420)
Interest paid		(2,463,659,866)	(29,405,502,898)
Payments of dividends		(505,060,508,000)	(454,554,457,200)
Payments of borrowings		(686,993,953,759)	(584,557,277,466)
Decrease in deposits received		(1,421,597,840)	(652,247,427)
Net cash used in financing activities		(549,779,284,240)	(438,584,761,577)
Net increase in cash and cash equivalents		226,021,855,341	21,508,528,539
Cash and cash equivalents at January 1		715,116,842,650	690,422,860,693
Effect of exchange rate fluctuation on cash held		(8,169,587,976)	3,185,453,418
Cash and cash equivalents at December 31		₩932,969,110,015	₩715,116,842,650

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

KT&G CORPORATION AND SUBSIDIARIES

Notes to the consolidated financial statements

For the years ended December 31, 2018 and 2017

1. Reporting Entity

1-1. Overview of the Parent Company

KT&G Corporation (the “Parent Company”) is engaged in manufacturing and selling tobaccos. As of December 31, 2018, 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 ownership of the Parent Company’s ordinary shares as of December 31, 2018, is held as follows:

	Number of shares	Percentage of ownership
National Pension Service	13,661,781	9.95%
Industrial Bank of Korea	9,510,485	6.93%
Employee Share Ownership Association	2,853,047	2.08%
Treasury shares	11,027,370	8.03%
Others	100,239,814	73.01%
Total	137,292,497	100.00%

1-2. Consolidated Subsidiaries

Controlling company	Subsidiary	Principal operation	Percentage of ownership	Reporting date	Location
The Parent Company	Korea Ginseng Corporation	Manufacturing and selling ginseng	100.00%	Dec.31.2018	Korea
	Yungjin Pharm. Co., Ltd.	Manufacturing and selling pharmaceuticals	52.45%	Dec.31.2018	Korea
	Tae-a Industry Co., Ltd.	Manufacturing tobacco materials	100.00%	Dec.31.2018	Korea
	KT&G Tutun Mamulleri Sanayi ve Ticaret A.S.	Manufacturing and selling tobaccos	99.99%	Dec.31.2018	Turkey
	Korea Tabacos do Brasil Ltda.	Processing leaf tobaccos	99.99%	Dec.31.2018	Brazil
	KT&G Pars	Manufacturing and selling tobaccos	99.99%	Dec.31.2018	Iran
	KT&G Rus L.L.C.	Manufacturing and selling tobaccos	100.00%	Dec.31.2018	Russia
	KT&G USA Corporation	Selling tobaccos	100.00%	Dec.31.2018	USA
	Cosmococ Co., Ltd.	Manufacturing and selling cosmetics	98.56%	Dec.31.2018	Korea
	Renzoluc Pte., Ltd. ¹⁾	Holding company	100.00%	Dec.31.2018	Singapore
	KGC Yebon Corporation	Manufacturing and selling medical herbs	100.00%	Dec.31.2018	Korea
	PT KT&G Indonesia	Selling tobaccos	99.99%	Dec.31.2018	Indonesia
	SangSang Stay Inc.	Hotel	100.00%	Dec.31.2018	Korea
	KT&G Global Rus L.L.C.	Selling tobaccos	100.00%	Dec.31.2018	Russia
	Gwacheon SangSang PFV	Developing and selling real estate	51.00%	Dec.31.2018	Korea
Korea Ginseng Corporation	KGC Life & Gin Co., Ltd.	Manufacturing and selling cosmetics	100.00%	Dec.31.2018	Korea
	Cheong Kwan Jang Taiwan Corporation	Selling ginseng	100.00%	Dec.31.2018	Taiwan
	Korean Red Ginseng Corp., Inc.	Selling ginseng	100.00%	Dec.31.2018	USA
	Korea Ginseng (China) Corp.	Selling ginseng	100.00%	Dec.31.2018	China
	Korea Ginseng Corporation Japan	Selling ginseng	100.00%	Dec.31.2018	Japan
	Jilin Hanzheng Ginseng Co., Ltd.	Manufacturing and selling ginseng	100.00%	Dec.31.2018	China
Cosmococ Co., Ltd.	K&I HK Co., Ltd.	Selling cosmetics	100.00%	Dec.31.2018	HongKong
	K&I China Co., Ltd.	Selling cosmetics	100.00%	Dec.31.2018	China
Renzoluc Pte., Ltd.	PT Trisakti Purwosari Makmur	Manufacturing and selling tobaccos	99.99%	Dec.31.2018	Indonesia
	PT Mandiri Maha Mulia	Manufacturing and selling tobaccos	99.98%	Dec.31.2018	Indonesia
PT Trisakti Purwosari Makmur	PT Sentosa Ababi Purwosari	Manufacturing and selling tobaccos	100.00%	Dec.31.2018	Indonesia
	PT Purindo Ilufa	Manufacturing and selling tobaccos	100.00%	Dec.31.2018	Indonesia
	PT Nusantara Indag Makmur	Selling tobaccos	100.00%	Dec.31.2018	Indonesia

¹⁾ The Parent Company's percentage of ownership, shown above, excludes redeemable convertible preferred shares. As of the end of the current term, the Parent Company's percentage of ownership would be 88.60% if preferred shares are included.

In 2017, by transferring its interest of K&I HK Co., Ltd. and K&I China Co., Ltd., the Parent Company made a capital contribution in kind to Cosmococ Co., Ltd., resulting in an increase of its ownership ratio from 98.49% to 98.56%.

In 2017, as a result of the Parent Company acquiring additional shares of PT Sentosa Ababi Purwosari, PT Trisakti Purwosari Makmur and PT Mandiri Maha Mulia, its ownership ratio increased from 99.8%, 60.17% and 66.47% to 100.00%, 99.99% and 99.98%, respectively.

In 2018, the Parent Company had made an acquisition of 51% shares of Gwacheon SangSang PFV.

1-3. Summarized Financial Information

Summarized Financial information¹⁾ for consolidated subsidiaries at 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.	64,898	35,008	75,811	(11,217)	(11,545)
Renzoluc Pte., Ltd.	125,258	28,052	-	(1,040)	(3,846)
KGC Yebon Corporation	56,965	10,963	13,428	(1,172)	(1,168)
PT KT&G Indonesia	54,373	66,626	104,346	3,756	3,982
SangSang Stay, Inc.	7,931	2,842	20,229	(4,849)	(4,862)
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)
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	10,174	(99)	(51)
Jilin Hanzheng Ginseng Co., Ltd.	49,722	464	10,070	(7,138)	(7,337)
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)
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)

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

Summarized Financial information¹⁾ for consolidated subsidiaries as of and for the year ended December 31, 2017, 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	₩1,955,637	₩325,028	₩1,200,003	₩125,353	₩139,447
Yungjin Pharm. Co., Ltd.	203,846	84,196	195,009	1,868	3,242
Tae-a Industry Co., Ltd.	13,375	1,847	13,984	415	253
KT&G Tutun Mamulleri Sanayi ve Ticaret A.S.	38,767	37,891	15,231	(5,731)	(6,535)
Korea Tabacos do Brasil Ltda.	2,615	6	-	-	-
KT&G Pars	17,310	52,916	3,456	(15,972)	(9,428)
KT&G Rus L.L.C.	137,183	57,893	37,402	11,816	6,262
KT&G USA Corporation	59,393	41,424	112,503	(74)	(2,379)
Cosmococ Co., Ltd.	69,323	27,888	75,306	(18,754)	(18,035)
Renzoluc Pte., Ltd.	128,479	27,427	-	(1,482)	(8,043)
KGC Yebon Corporation	60,479	13,245	12,820	1	(38)
PT KT&G Indonesia	45,685	61,920	60,403	7,108	9,624
SangSang Stay, Inc.	8,227	2,217	17,552	(5,491)	(5,467)
KT&G Global Rus L.L.C.	80,387	78,492	39,470	363	233
KGC Life & Gin Co., Ltd.	27,307	7,401	45,469	3,355	3,316
Cheong Kwan Jang Taiwan Corporation	14,366	12,248	20,269	989	908
Korean Red Ginseng Corp., Inc.	14,696	11,262	21,379	163	(875)
Korea Ginseng (China) Corp.	26,182	14,241	34,711	(2,738)	(3,534)
Korea Ginseng Corporation Japan	5,367	4,057	16,248	161	44
PT CKJ Indonesia	971	991	-	-	10
Jilin Hanzheng Ginseng Co., Ltd.	56,790	195	6,149	(6,125)	(9,661)
K&I HK Co., Ltd.	329	29	625	(224)	(282)
K&I China Co., Ltd.	1,823	687	1,338	(1,251)	(1,361)
PT Trisakti Purwosari Makmur	115,888	6,085	8,015	1,486	(10,709)
PT Mandiri Maha Mulia	46,599	32,711	49,316	7,992	6,595
PT Sentosa Ababi Purwosari	55,835	54,895	36,742	(3,992)	1,634
PT Purindo Ilufa	12,045	15,688	10,725	(93)	1,523
PT Nusantara Indag Makmur	523	8	16,228	1,074	1,034

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

1-4. Changes in Scope for Consolidation

The subsidiaries newly included and excluded from the scope for consolidation are as follows:

① Subsidiaries newly included in the consolidation for the year ended December 31, 2018:

Subsidiary	Reason
Gwacheon SangSang PFV	Newly acquired

② Subsidiaries excluded from the consolidation for the year ended December 31, 2018:

Subsidiary	Reason
PT CKJ Indonesia	Liquidation process completed

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 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 Parent Company were authorized by the Board of Directors on the Board of Directors’ meeting held on March 14, 2019. It is expected to be finally authorized at the stakeholders’ meeting on March 29, 2019.

2-2. Changes in Accounting Policies and Disclosures

(1) New and amended standards adopted by the Group

The Group has applied the following standards and amendments for the first time for their annual reporting period commencing January 1, 2018.

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

It is clarified that an investment interest in associates or joint ventures held by venture capital organizations or mutual funds can be selected for each share if the investment is valued at fair value rather than the equity method. Since the exemption does not apply to venture capital organizations, etc., there is no significant effect on the financial statements of those amendments.

- Amendment to K-IFRS No. 1040 Transfers of Investment Property

The amendment to K-IFRS No. 1040 clarifies that a transfer to, or from, investment property, including property under construction, can only be made if there has been a change in use that is supported by evidence, and the list of evidence for a change of use in the standard was re-characterized as a non-exclusive list of example. The amendment does not have a significant impact on the financial statements.

- Amendment to K-IFRS No. 1102 Share-based Payment

Amendments to K-IFRS No. 1102 clarify accounting for a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. Amendments also clarify that the measurement approach should treat the terms and conditions of a cash-settled award in the same way as for an equity-settled award. The amendment does not have a significant impact on the financial statements.

- Enactment of Interpretation 2122 Foreign Currency Transaction and Advance Consideration

According to the enactment, the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration.

- K-IFRS No. 1109 Financial Instruments

The Group has applied K-IFRS No. 1109 Financial Instruments on January 1, 2018, the date of initial application. In accordance with the transitional provisions in K-IFRS No. 1109, comparative figures have not been restated, and the differences between previous book amounts and book amounts at the date of initial application are recognized to retained earnings (or equity). See Note 37 for further details on the impact of the application of the standard.

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

The Group has applied to apply K-IFRS No. 1115 Revenue from Contracts with Customers. In accordance with the transition provisions in K-IFRS No. 1115, comparative figures have not been restated. The Group elected the modified retrospective approach, and recognized the cumulative impact of initially applying the revenue standard as an adjustment to retained earnings (or equity) as at January 1, 2018, the period of initial application. See Note 37 for further details on the impact of the application of the standard.

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

Certain new accounting standards and interpretations that have been published that are not mandatory for annual reporting period commencing January 1, 2018 and have not been early adopted by the Group are set out below.

- K-IFRS No. 1116 Leases

K-IFRS No. 1116 Leases issued on May 22, 2017 is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. This standard will replace K-IFRS No. 1017 Leases. The Group will apply the standards for annual periods beginning on or after January 1, 2019.

Under the new standard, with implementation of a single lease model, lessee is required to recognize assets and liabilities for all lease which lease term is over 12 months and underlying assets are not low value assets. A lessee is required to recognize a right-of-use asset and a lease liability representing its obligation to make lease payments.

The Group performed an impact assessment to identify potential financial effects of applying K-IFRS No. 1116. The Group is analyzing the effects on the consolidated financial statements based on available information as at December 31, 2018 to identify effects on 2018 consolidated financial statements; however, it is difficult to provide reasonable estimates of financial effects until the analysis is complete.

- 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 that does not result in the derecognition, a modification gain or loss shall be recognized in profit or loss. These amendments will be applied for annual periods beginning on or after January 1, 2019, with early adoption permitted.

- 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. The amendments are effective for plan amendments, curtailments and settlements occurring in reporting periods that begin on or after January 1, 2019.

- 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 joint venture to which the equity method is not applied. These include long-term interests that, in substance, form part of the entity's net investment in an associate or joint venture. These amendments will be applied for annual periods beginning on or after January 1, 2019, with early adoption permitted. In accordance with the transitional provisions in K-IFRS No. 1109, the restatement of the comparative information is not required and the cumulative effects of initially applying the amendments retrospectively should be recognized in the beginning balance of retained earnings (or other components of equity, as appropriate) at the date of initial application.

- 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. This Interpretation will be applied for annual periods beginning on or after January 1, 2019, and an entity can either restate the comparative consolidated financial statements retrospectively or recognize the cumulative effect of initially applying the Interpretation as an adjustment in the beginning balance at the date of initial application.

- Annual Improvements to K-IFRS No. 2015 – 2017 Cycle:

• 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. These amendments will be applied to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2019, with early adoption permitted.

• 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. These amendments will be applied to transactions in which an entity obtains joint control on or after the beginning of the first annual reporting period beginning on or after January 1, 2019, with early adoption permitted.

• K-IFRS No. 1012 Income Tax

The amendment is applied to all the income tax consequences of dividends and requires an entity to recognize the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognized those past transactions or events. These amendments will be applied for annual reporting periods beginning on or after January 1, 2019, with early adoption permitted.

• 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. These amendments will be applied to borrowing costs incurred on or after the beginning of the first annual reporting period beginning on or after January 1, 2019, with early adoption permitted.

The Group expects that no significant effects will occur on the consolidated financial statements resulting from amendments other than K-IFRS No. 1116 Leases.

2.3. Accounting Policies

(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.

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

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

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. 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.

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.

(3) 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 other tangible fixed assets, constituting trees and others, 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)
Buildings	10-60
Structures	5-40
Machinery	5-20
Vehicles	4-10
Tools	4-5
Equipment	2-5
Other tangible assets	5

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.

(4) 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.

(5) 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.

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.

(6) Intangible assets other than Goodwill

Intangible assets other than Goodwill are measured initially at cost and subsequently are carried at cost less accumulated amortization and accumulated impairment losses. Intangible assets other than Goodwill consist of industrial property rights, facility usage rights and intangible assets under development. 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(year)
Industrial property rights	5–20 or indefinite
Facility usage rights	Indefinite
Other intangible assets	3–14 or indefinite
Intangible assets under development	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.

(7) 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.

(8) 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. The impairment loss is recognized immediately in profit or loss if the fair value of the asset is impaired and the impairment loss is recognized in profit or loss if the fair value less costs can be reliably estimated. 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.

(9) 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 below.

Type	Determination method of unit cost price
Merchandise, finished goods, byproducts and work in progress	Weighted-average method
Processed tobacco leaf and tobacco leaf in raw material	Weighted-average method
Raw materials (excluding processed tobacco leaf and tobacco leaf in raw material) and supplies	Moving-average method
All other inventories	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.

(10) 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. Goodwill and 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.

The Group estimates the recoverable amount of an individual asset. If it is impossible to measure the individual recoverable amount of an asset, then the Group estimates the recoverable amount of a cash-generating unit ("CGU"). A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The recoverable amount of an asset or a CGU is the greater of its value in use or its fair value less costs to sell. The value in use is estimated by applying a pretax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU for which estimated future cash flows have not been adjusted to the estimated future cash flows expected to be generated by the asset or CGU.

An impairment loss is recognized if the carrying amount of an asset or a CGU exceeds its recoverable amount. Impairment losses are recognized in profit or loss.

Except for impairment losses with respect to goodwill, which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

(11) Financial Assets (Other than Derivative Instruments)

① Classification

From January 1, 2018, 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 statement of profit or loss 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, which held for long-term investment or strategic purpose, in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividend income from such investments continue to be recognized in profit or loss as 'finance income' when the right to receive payments is established.

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

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 statement of financial position

⑤ Offsetting of financial instruments

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

(12) 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.

(13) 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.

(14) 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 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.

④ 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.

⑤ 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.

(15) 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.

(16) 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.

(17) 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 Construction of real estate for residence

The Group constructs and sells real estate for residence according to a long-term contract with customers. Such contract is signed before the construction of real estate for residence 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. Therefore, revenue incurred from real estate for residence is recognized based on the percentage-of-completion method (in other words, in proportion to the cost incurred with regard to the work performed until the point compared to expected cost). The management personnel using the percentage-of-completion method have judged it to be an appropriate method for measuring the progress rate until the completion of the execution duty under K-IFRS No. 1115.

The Group has the right to make claims to the customer with regard to the construction of real estate for residence in accordance with the achievement of milestone related to a series of work. Upon reaching a certain milestone, the customer sends the relevant work specification signed by a third evaluator and the invoice related to the milestone consideration is issued. Contract assets recognized with regard to all works executed previously are reclassified as receivables at the point the claim is made to the customer. If the payment amount following the milestone exceeds the revenue recognized until then in accordance with the percentage-of-completion method, the Group recognizes the said difference as contract liability. The difference between the revenue recognition point and the milestone payment point under the percentage-of-completion method is below one year always, so there is no significant finance element in the contract with customers.

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

(18) Finance Income and Finance Cost

Finance income comprises interest income on funds invested (including available-for-sale financial assets), dividend income and investment income on long-term deposits in Master Settlement Agreement (“MSA”) Escrow Fund. Interest income is recognized as it accrues in profit or loss, using the effective interest method. Dividend income is recognized in profit or loss on the date the Group’s right to receive payment is established.

Finance cost is interest expense on borrowings and unwinding of the discount on trade and other payables, which is recognized in profit or loss using the effective interest method.

(19) Current and Deferred Tax

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

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

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.

(20) 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 statement of profit or loss within 'other income or other expenses'.

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

(21) 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.

(22) Lease

A lease is an agreement, whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. Leases in which a significant portion of the risks and rewards of ownership are not transferred to the Group are classified as operating leases. Payments made under operating leases are charged to profit or loss on a straight-line basis over the period of lease.

Leases where the Group, as lessee, has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalized at the lease's inception at the fair value of the leased property or, if lower, the present value of the minimum lease payments. The corresponding rental obligations, net of finance charges, are included in other short-term and long-term payables. Each lease payment is allocated between the liability and finance cost.

If the Group is a lessor, a lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership at the inception of the lease. A lease other than a finance lease is classified as an operating lease. Lease income from operating leases is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred by the lessor in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized as an expense over the lease term on the same basis as the lease income.

(23) Emission Rights

The Group accounts for greenhouse gases emission right and the relevant liability as below, pursuant to the Act on Allocation and Trading of Greenhouse Gas Emission that became effective in 2015.

① Greenhouse gases emission right

Greenhouse gases emission right consists of emission allowances that are allocated from the government free of charge or purchased from the market. The cost includes any directly attributable costs incurred during the normal course of business. Emission rights held for performing the obligation are classified as intangible assets and are initially measured at cost and after initial recognition are carried at cost less accumulated impairment losses. Emission rights held for short-swing profits are classified as current assets and are measured at fair value with any changes in fair value recognized as profit or loss in the respective reporting period.

The Group derecognizes an emission right asset when the emission allowance is unusable, disposed or submitted to the government in which the future economic benefits are no longer expected to be probable.

② Emission liability

Emission liability is a present obligation of submitting emission rights to the government with regard to emission of greenhouse gas. 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. Emission liability is an amount of estimated obligations for emission rights to be submitted to the government for the performing period. The emission liability is measured based on the expected quantity of emission for the performing period in excess of emission allowance in possession and the unit price for such emission rights in the market at the end of the reporting period.

(24) Current Arrangement of Consolidated Financial Statements

The Group has changed the order of current arrangement of consolidated financial statements in order to provide reliable information suitable to the objective. In order to conveniently compare the consolidated financial statements in the previous term and the consolidated financial statements of the current term, they were expressed in the order of current arrangement method. Such reclassification does not affect the net profit or loss or the net asset reported in the previous term net asset.

3. Critical Accounting Estimates and Assumptions

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

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

3-1. Estimated intangible asset(including goodwill) impairment

The Group tests whether goodwill has suffered any impairment on an annual basis. The recoverable amount of a cash generating unit (CGU) is determined based on value-in-use calculations (Note 14).

3-2. Income taxes

The Group's taxable income generated from these operations is subject to income taxes based on tax laws and interpretations of tax authorities in numerous jurisdictions. There are many transactions and calculations for which the ultimate tax determination is uncertain (Note 30).

If certain portion of the taxable income is not used for investments or increase in wages or dividends in accordance with the Tax System For Recirculation of Corporate Income, the Group is liable to pay additional income tax calculated based on the tax laws. The new tax system is effective for three years from 2015. Accordingly, the measurement of current and deferred income tax is affected by the tax effects from the new tax system. As the Group's income tax is dependent on the investments, increase in wages and dividends, there is an uncertainty measuring the final tax effects.

3-3. Fair value of financial instruments

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period (Note 33).

3-4. Impairment of financial assets

The provision for impairment for financial assets are based on assumptions about risk of default and expected loss rates. The Group uses judgement in making these assumptions and selecting the inputs to the impairment calculation based on the Group's past history, existing market conditions as well as forward looking estimates at the end of each reporting period (Note 33).

3-5. Retirement benefits: Defined benefit plans

The present value of net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate (Note 20).

3-6. Revenue recognition

A refund liability and a right to the returned goods are recognized for the products expected to be returned once they are sold. Accumulated experience is used to estimate such returns at the time of sale at a portfolio level (expected value method), and the Group's revenue is affected by changes in expected return rate.

3-7. Total construction revenues and total construction costs

(1) Uncertainty in gross contract revenue estimates

Total contract revenue is measured on the basis of the contract amount initially agreed, but it decreases when the contract is executed due to the increase in construction change, compensation, incentives or due to delays in completion due to reasons attributable to the consolidated company. The measurement of contract revenue is subject to various uncertainties related to the outcome of future events. The Group includes in the contract revenue when it is probable that the customer will approve the change in the amount of revenue due to a change in the company's construction or that the Group is more likely to meet its performance criteria and the amount can be reliably measured. (See Note 26)

(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. (Refer Note 26)

4. Operating Segments

4-1. 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

4-2. Segment information on sales and operating profit for the years ended December 31, 2018 and 2017, is as follows:

(1) December 31, 2018

<i>In millions of Korean won</i>	Tobacco	Ginseng	Real estate	Others	Segment total	Elimination	Consolidated
Total segment sales	₩2,865,067	₩1,454,340	₩177,151	₩335,123	₩4,831,681	₩ (360,165)	₩4,471,516
Intersegment sales	(223,850)	(111,531)	(12,984)	(11,800)	(360,165)	360,165	-
External sales	2,641,217	1,342,809	164,167	323,323	4,471,516	-	4,471,516
Operating profit	958,383	196,388	75,239	(11,948)	1,218,062	37,045	1,255,107

(2) December 31, 2017

<i>In millions of Korean won</i>	Tobacco	Ginseng	Real estate	Others	Segment total	Elimination	Consolidated
Total segment sales	₩3,056,123	₩1,291,098	₩191,059	₩512,162	₩5,050,442	₩ (383,249)	₩4,667,193
Intersegment sales	(214,095)	(78,698)	(12,711)	(77,745)	(383,249)	383,249	-
External sales	2,842,028	1,212,400	178,348	434,417	4,667,193	-	4,667,193
Operating profit	1,181,796	177,566	36,606	29,976	1,425,944	170	1,426,114

4-3. The Group obtains revenue by transferring goods and services over a period or at a point in the main business subsidiaries. The categories of main business subsidiaries are consistent with the revenue disclosure information per reporting segment in accordance with K-IFRS No. 1108.

The details of the Groups's revenue recognized over a period or at a point as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>		2018	2017
Revenue recognized at a point			
Manufacturing and sales of tobacco	Wholesale, retail, etc.	₩2,410,190	₩2,644,065
	Special (duty-free, a military unit, etc.)	204,232	197,963
	Direct sales	26,795	-
Manufacturing and sales of red ginseng, etc.	Wholesale, retail, etc.	144,666	116,511
	Direct sales	1,198,143	1,093,104
	Consignment	-	2,785
Others	Wholesale, retail, etc.	985	14,280
	Direct sales	300,687	389,609
	Technical service	-	510
Subtotal		4,285,698	4,458,827
Revenue recognized over a period			
Sales and rental of real estate	Sales and rental	164,167	178,348
Others	Direct sales, etc.	20,039	30,018
	Technology service	1,612	-
Subtotal		185,818	208,366
Total		₩4,471,516	₩4,667,193

4-4. Segment information on assets and liabilities as of December 31, 2018 and 2017, is as follows:

(1) For the year ended December 31, 2018

<i>In millions of Korean won</i>	Tobacco	Ginseng	Real estate	Others	Segment total	Elimination	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
Non-current 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

(2) For the year ended December 31, 2017

<i>In millions of Korean won</i>	Tobacco	Ginseng	Real estate	Others	Segment total	Elimination	Consolidated
Assets:							
Segment assets	₩3,855,289	₩1,950,480	₩280,899	₩244,782	₩6,331,450	₩ (362,806)	₩5,968,644
Investments in associates and joint ventures	-	-	47,865	3,166	51,031	-	51,031
Subtotal	3,855,289	1,950,480	328,764	247,948	6,382,481	(362,806)	6,019,675
Unallocated assets							3,961,685
Total assets							9,981,360
Acquisition of non-current assets	267,151	45,160	-	14,935	327,246	(2,523)	324,723
Liabilities:							
Segment liabilities	1,651,771	150,207	-	82,398	1,884,376	(327,617)	1,556,759
Unallocated liabilities							594,841
Total liabilities							2,151,600

Cash and cash equivalents, fair value through profit or loss, fair value through other comprehensive income or loss (previous term: available-for-sale financial assets), deferred tax assets and others are included in the unallocated assets and borrowings, deferred tax liabilities and others are included in unallocated liabilities.

4-5. Geographical information determined by customer's location for the years ended December 31, 2018 and 2017, is as follows:

<i>In millions of Korean won</i>	2018			2017		
	Korea	Overseas	Total	Korea	Overseas	Total
Sales	₩4,070,105	₩401,411	₩4,471,516	₩4,286,517	₩380,676	₩4,667,193
Non-current assets	3,613,114	128,613	3,741,727	3,259,527	136,129	3,395,656

4-6. Revenues from major customers, which are more than 10% of the details of the Group's consolidated total revenues for the previous term, are as follows:

<i>In millions of Korean won</i>	Major customer	2017
Tobacco	Alokozay International Limited	515,482

Revenues from major customers, which are more than 10% of the details of the Group's consolidated total revenues for the year ended December 31, 2018 do not exist.

5. Cash and Cash Equivalents and other Financial Assets

5-1. Cash and cash equivalents as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Cash on hand	₩505	₩36,955
Demand deposits	337,497	186,874
Specific money in trust	594,967	491,288
Total	₩932,969	₩715,117

5-2. Current other financial assets as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018		2017	
	Current	Non-current	Current	Non-current
Time deposits	₩572,522	₩6,937	₩113,811	₩6,340
Certificates of deposit	-	-	31,286	-
Special money trusts	12,000	-	1,936,489	-
Security deposits for checking accounts	58	1,629	-	11
Total	₩584,580	₩8,566	₩2,081,586	₩6,351

5-3. Current other financial assets limited to use as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>		2018	2017
Short-term other financial assets	Security deposits for checking accounts	₩58	₩ -
	Automated Clearing House (“ACH”) transaction collateral	22	1,287
	Security deposits for checking accounts	1,629	11
Long-term other financial assets	Real estate development performance guarantee	6,340	6,340
	Security Deposits for rental	597	-
Total		₩8,646	₩7,638

6. Financial Assets at Fair Value through Profit or Loss

As explained in Note 2, the Group applied K-IFRS No. 1109, ‘Financial Instruments,’ from the beginning of the year. Please refer to Note 37.1 for the effect of these accounting policies and changes on financial asset classification and consolidated financial statements.

6-1. Financial assets¹⁾ at fair value through profit or loss

<i>In millions of Korean won</i>	2018		2017	
	Current	Non-current	Current	Non-current
Special money trust	₩1,139,705	-	1,867,686	-
Beneficiary certificate of real estate	-	210,655	-	184,169
Total	₩1,139,705	210,655	1,867,686	184,169

¹⁾ The above financial assets were classified as other financial assets and available-for-sale financial assets at the end of the previous fiscal year. The figures above do not include the effect of changes in retained earnings caused by changes in accounting policies.

6-2. Amounts recognized in profit or loss

<i>In millions of Korean won</i>	2018	2017
Gains or losses on disposals related to the measurements at fair value through profit or loss ¹⁾	₩53,663	₩ -

¹⁾ Includes profit or loss of money trust recognized in cash and cash equivalents

7. Derivative Financial Assets

7-1. Derivative financial assets as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018		2017	
	Current	Non-current	Current	Non-current
Currency forward:				
Derivative assets	₩1,239	₩ -	₩ -	₩ -
Derivative liabilities	(461)	-	-	-
Total	₩778	₩ -	₩ -	₩ -

7-2. Changes in derivative financial assets for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩ -	₩ -
Valuation gain	1,239	-
Valuation loss	(461)	-
Ending balance	₩778	₩ -

8. Trade and Other Receivables

8-1. Trade and other receivables as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018		2017	
	Current	Non-current	Current	Non-current
Trade receivables	₩896,219	₩ -	₩1,038,387	₩ -
Loans to employees	16,824	28,604	17,100	36,021
Loans	236	241	949	880
Other receivables	13,570	290	17,371	-
Guarantee deposits	43,388	33,768	45,225	26,786
Accrued income	5,684	-	5,248	-
Total	₩975,921	₩62,903	₩1,124,280	₩63,687

8-2. Trade and other receivables and allowance for doubtful accounts as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018		2017	
	Current	Non-current	Current	Non-current
Total carrying amount	₩1,058,004	₩62,903	₩1,152,069	₩63,687
Allowances:				
Trade receivables	(81,731)	-	(25,600)	-
Other receivables	(352)	-	(2,189)	-
Total allowances	(82,083)	-	(27,789)	-
Net trade and other receivables	975,921	62,903	1,124,280	63,687

8-3. Changes in allowance for trade and other receivables for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩27,789	₩31,590
Change in accounting policy	69,258	-
Impairment loss (reversal)	(5,867)	(1,626)
Write off	(5,974)	-
Net exchange difference, etc.	(3,123)	(2,175)
Ending balance	₩82,083	₩27,789

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

8-4. The details of other bonds measured at amortized cost using the effective interest method as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	Effective interest rate	2018		Effective interest rate	2017	
		Current	Non-current		Current	Non-current
Loans to employees	1.49~5.68%	₩16,824	₩28,604	2.45~5.68%	₩17,100	₩36,021
Loans	1.93%	236	241	1.93%	949	880
Guarantee deposits	1.49~5.68%	43,388	33,768	1.49~3.52%	45,225	26,786
Total		₩60,448	₩62,613		₩63,274	₩63,687

9. Inventories

9-1. Inventories as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018			2017		
	Acquisition cost	Valuation loss allowance	Carrying amount	Acquisition cost	Valuation loss allowance	Carrying amount
Merchandise	₩89,686	₩ (1,524)	₩88,162	₩38,790	₩ (1,104)	₩37,686
Finished goods	785,749	(4,048)	781,701	679,882	(3,165)	676,717
Work in progress	677,990	(2,987)	675,003	696,828	(1,142)	695,686
Raw materials	817,422	(2,314)	815,108	821,992	(1,158)	820,834
Supplies	26,128	-	26,128	24,637	-	24,637
Byproducts	7,107	-	7,107	6,168	-	6,168
Buildings under construction	279	-	279	-	-	-
Completed buildings	3,069	-	3,069	-	-	-
Sites for construction of real estate	8,990	-	8,990	-	-	-
Goods in transit	55,743	-	55,743	56,045	-	56,045
Total	₩2,472,163	₩ (10,873)	₩2,461,290	₩2,324,342	₩ (6,569)	₩2,317,773

9-2. The amount of loss on valuation and disposals of inventories recognized as an expense for the years ended December 31, 2018 and 2017, is as follows:

<i>In millions of Korean won</i>	2018	2017
Cost of sales:		
Loss on valuation of inventories	₩6,393	₩3,339
Loss on disposal of inventories	7,612	8,185
Other expenses:		
Loss on disposal of inventories	133	1,359
Total	₩14,138	₩12,883

10. Long term Deposits in MSA Escrow Fund

Long-term deposits in MSA Escrow Fund as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Demand deposits	₩1,525	₩1,921
T-Note	614,003	508,302
Total	₩615,528	₩510,223

As discussed in Note 35 to the consolidated financial statements, long-term deposits in MSA Escrow Fund are deposited to the U.S. government related to the export of tobacco to the United States. For the years ended December 31, 2018 and 2017, ₩72,399 million and ₩72,040 million, respectively, were paid into long-term deposits in MSA Escrow Fund.

11. Financial Assets at Fair value through Other Comprehensive Income(previous term : Available-for-sale Financial Assets)

11-1. Financial assets at fair value through other comprehensive income(previous term : Available-for-sale financial assets) as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Listed		
- YTN Co. Ltd.	₩17,598	₩17,557
- Oscotech Inc.	11,933	8,686
- Shinhan Financial Group Co., Ltd.	158,731	198,013
- Rexahn Pharmaceuticals, Inc	664	1,382
- U&I Corporation	9,277	12,079
Listed total	198,203	237,717
Non-listed ¹⁾	51,372	234,046
Total	₩249,575	₩471,763

¹⁾ In the previous fiscal year, the Group classified unlisted equity instruments as available-for-sale financial assets for holding them in the long run. The figures did not include the effect of changes in assets caused by changes in accounting policies. Of the unlisted equity instruments classified as available-for-sale financial instruments, ₩184,169 million were reclassified to financial assets at fair value through profit or loss in accordance with the application of K-IFRS No. 1109.

When assessing the fair value of financial assets at fair value through other comprehensive income(previous term : Available-for-sale Financial Assets), the group used market prices traded in the active trading market for listed equity instruments and measured non-listed equity instruments in the cash flow discount 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.

11-2. Changes in fair value through other comprehensive income(previous term : Available-for-sale financial assets) for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩471,763	₩386,596
Change in accounting policy	(184,169)	-
Acquisition	1,350	98,453
Change in fair value	(38,369)	20,270
Disposal, reclassification	(1,000)	(33,556)
Ending balance	₩249,575	₩471,763

12. Investments in Associates and Joint Ventures

12-1. Investments in associates as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	Location	Principal Operation	Date of financial statements used	2018		2017	
				Percentage of ownership	Carrying amount	Percentage of ownership	Carrying amount
Lite Pharm Tech, Inc.	Korea	Manufacturing medical supplies	December 31	20.24%	₩3,037	20.24%	₩3,166
JR REIT V Co., Ltd.	Korea	Renting of real estate	December 31	34.63%	7,883	34.63%	5,202
JR REIT VIII Co., Ltd.	Korea	Renting of real estate	December 31	21.74%	13,552	21.74%	9,187
JR REIT X Co., Ltd.	Korea	Renting of real estate	December 31	28.79%	9,500	28.79%	8,471
JR REIT XIII Co., Ltd.	Korea	Renting of real estate	December 31	-	-	27.03%	4,805
KORAMCO Private REIT 50 Fund ¹⁾	Korea	Renting of real estate	December 31	84.21%	15,906	84.21%	16,168
KB Gimpo Logistics CR REIT Co., Ltd. ²⁾	Korea	Renting of real estate	December 31	12.00%	2,984	12.00%	3,032
Yong In Jung Sim Co., Ltd.	Korea	Developing real estate	December 31	22.22%	1,000	22.22%	1,000
LSK Global Pharma Services Co., Ltd.	Korea	Researching and developing medicine	December 31	23.15%	-	23.15%	-
Cosmo Tobacco Co., Ltd.	Mongolia	Manufacturing and sales of tobacco	December 31	40.00%	-	40.00%	-
Starfield Suwon	Korea	Real estate development and rental business	December 31	50.00%	11,975	-	-
KORAMCO Europe Private REIT 3-2 Fund ²⁾	Germany	Real estate rental business	December 31	51.35%	18,152	-	-
Total					₩83,989		₩51,031

¹⁾ 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⁾ 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.

In the current fiscal year, the Group had made an investment of ₩12,000 million in Starfield Suwon, and ₩18,500 million in KORAMCO Europe real estate investment fund III-2, in the previous year the Group had made an investment of ₩1,000 million in Yong In Jung Sim Co., Ltd.

The Group had recognized remaining asset dividends of ₩5,025 million through liquidation process of JR REIT XIII Co., Ltd. in the current term, and ₩7,319 million through KVG REIT 1 Co., Ltd. liquidation.

12-2. Financial information of associates and joint ventures, which represents 100% of the entities' balances, is as follows:

(1) For the year ended December 31, 2018

① Summarized financial information

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

② 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
KORAMCO Private REIT 50 Fund	₩ 1	₩875	₩ -	₩ -	₩ -	₩ -
KB Gimpo Logistics CR REIT Co., Ltd.	531	36,427	1,485	922	19	1,450
Starfield Suwon	7,654	4	-	-	10	-
KORAMCO Europe Private REIT 3-2 Fund	746	17	-	-	151	-

(2) For the year ended December 31, 2017

① Summarized financial information

<i>In millions of Korean won</i>	Total assets	Total liabilities	Revenue	Total comprehensive income(loss)
Lite Pharm Tech, Inc.	₩19,775	₩4,134	₩13,689	₩130
KVG REIT I Co., Ltd	-	-	12,825	10,044
JR REIT V Co., Ltd.	30,769	15,746	2,409	1,252
JR REIT VIII Co., Ltd.	107,087	64,826	6,920	2,337
JR REIT X Co., Ltd.	85,345	55,921	4,337	809
JR REIT XIII Co., Ltd.	46,898	29,123	1,772	248
KORAMCO Private REIT 50 Fund	19,383	28	684	649
KB Gimpo Logistics CR REIT Co., Ltd.	60,969	35,706	3,960	1,093
Yong In Jung Sim Co., Ltd.	4,500	-	-	-
LSK Global Pharma Services Co., Ltd.	9,112	10,831	349	106

② 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
KORAMCO Private REIT 50 Fund	₩ 3	₩28	₩ -	₩ -	₩ -	₩ -
KB Gimpo Logistics CR REIT Co., Ltd.	759	35,325	381	999	3	1,276

12-3. Changes in investments in associates and joint ventures for the years ended December 31, 2018 and 2017, are as follows:

① 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
Lite Pharm Tech, Inc.	₩3,166	₩ -	₩ -	₩ (145)	₩ -	₩16	₩3,037
JR REIT V Co., Ltd.	5,202	-	-	2,785	(104)	-	7,883
JR REIT VIII Co., Ltd.	9,187	-	-	4,672	(307)	-	13,552
JR REIT X Co., Ltd.	8,471	-	-	1,608	(579)	-	9,500
JR REIT XIII Co., Ltd.	4,805	-	(5,025)	220	-	-	-
KORAMCO Private REIT 50 Fund	16,168	-	-	454	(716)	-	15,906
KB Gimpo Logistics CR REIT Co., Ltd.	3,032	-	-	35	(83)	-	2,984
Yong In Jung Sim Co., Ltd.	1,000	-	-	-	-	-	1,000
LSK Global Pharma Services Co., Ltd.	-	-	-	-	-	-	-
Cosmo Tobacco Co., Ltd.	-	-	-	-	-	-	-
Starfield Suwon	-	12,000	-	(25)	-	-	11,975
KORAMCO Europe Private REIT 3-2 Fund	-	18,500	-	(348)	-	-	18,152
Total	₩51,031	₩30,500	₩ (5,025)	₩9,256	₩ (1,789)	₩16	₩83,989

② For the year ended December 31, 2017

<i>In millions of Korean won</i>	Beginning balance	Acquisition	Disposal	Share of gain(loss)	Dividends	Ending balance
Lite Pharm Tech, Inc.	₩3,001	₩ -	₩ -	₩165	₩ -	₩3,166
KVG REIT I Co., Ltd	6,426	-	(6,860)	2,980	(2,546)	-
JR REIT V Co., Ltd.	5,420	-	-	761	(979)	5,202
JR REIT VIII Co., Ltd.	9,555	-	-	512	(880)	9,187
JR REIT X Co., Ltd.	8,697	-	-	315	(541)	8,471
JR REIT XIII Co., Ltd.	4,742	-	-	63	-	4,805
KORAMCO Private REIT 50 Fund	15,692	-	-	723	(247)	16,168
KB Gimpo Logistics CR REIT Co., Ltd.	2,943	-	-	198	(109)	3,032
Yong In Jung Sim Co., Ltd.	-	1,000	-	-	-	1,000
LSK Global Pharma Services Co., Ltd.	-	-	-	-	-	-
Total	₩56,476	₩1,000	₩ (6,860)	₩5,717	₩ (5,302)	₩51,031

12-4. Reconciliation of the summarized financial information presented to the carrying amount of the Group's interest in associates and joint ventures as of December 31, 2018 and 2017, is as follows:

① For the year ended December 31, 2018

<i>In millions of Korean won</i>	Net assets	Percentage of ownership	Share of net assets	Preferred stock effect	Share of loss not recognized	Carrying amount
Lite Pharm Tech, Inc.	₩15,008	20.24%	3,037	-	-	₩3,037
JR REIT V Co., Ltd.	27,103	34.63%	9,386	(1,503)	-	7,883
JR REIT VIII Co., Ltd.	62,335	21.74%	13,552	-	-	13,552
JR REIT X Co., Ltd.	28,643	28.79%	8,246	1,254	-	9,500
KORAMCO Private REIT 50 Fund	18,889	84.21%	15,906	-	-	15,906
KB Gimpo Logistics CR REIT Co., Ltd.	24,870	12.00%	2,984	-	-	2,984
Yong In Jung Sim Co., Ltd.	4,203	22.22%	934	66	-	1,000
LSK Global Pharma Services Co., Ltd.	(6,604)	23.15%	(1,529)	-	1,529	-
Cosmo Tobacco Co., Ltd.	-	40.00%	-	-	-	-
Starfield Suwon	23,950	50.00%	11,975	-	-	11,975
KORAMCO Europe Private REIT 3-2 Fund	35,321	51.35%	18,152	-	-	18,152
Total						₩83,989

② For the year ended December 31, 2017

<i>In millions of Korean won</i>	Net assets	Percentage of ownership	Share of net assets	Share of loss not recognized	Carrying amount
Lite Pharm Tech, Inc.	₩15,641	20.24%	3,166	-	₩3,166
JR REIT V Co., Ltd.	15,023	34.63%	5,202	-	5,202
JR REIT VIII Co., Ltd.	42,261	21.74%	9,187	-	9,187
JR REIT X Co., Ltd.	29,424	28.79%	8,471	-	8,471
JR REIT XIII Co., Ltd.	17,775	27.03%	4,805	-	4,805
KORAMCO Private REIT 50 Fund	19,200	84.21%	16,168	-	16,168
KB Gimpo Logistics CR REIT Co., Ltd.	25,263	12.00%	3,032	-	3,032
Yong In Jung Sim Co., Ltd.	4,500	22.22%	1,000	-	1,000
LSK Global Pharma Services Co., Ltd.	(1,719)	23.15%	(398)	398	-
Cosmo Tobacco Co., Ltd.	-	40%	-	-	-
Total					₩51,031

13. Property, Plant and Equipment:

13-1. Details of property, plant and equipment as of December 31, 2018 and 2017, are summarized as follows

<i>In millions of Korean won</i>	2018			2017		
	Acquisition cost	Accumulated depreciation and impairment	Carrying amount	Acquisition cost	Accumulated depreciation and impairment	Carrying amount
Land	₩660,574	₩ (91)	₩660,483	₩635,857	₩ -	₩635,857
Buildings	1,094,179	(504,819)	589,360	1,069,925	(464,231)	605,694
Structures	76,199	(47,631)	28,568	74,031	(45,121)	28,910
Machinery	1,365,048	(1,038,926)	326,122	1,314,043	(1,001,641)	312,402
Vehicles	9,233	(6,897)	2,336	11,247	(8,405)	2,842
Tools	68,764	(58,106)	10,658	66,357	(54,541)	11,816
Equipment	252,527	(185,470)	67,057	227,245	(160,989)	66,256
Others	4,038	(56)	3,982	1,829	-	1,829
Construction in progress	137,567	(7,345)	130,222	109,736	-	109,736
Total	₩3,668,129	₩ (1,849,341)	₩1,818,788	₩3,510,270	₩ (1,734,928)	₩1,775,342

13-2. 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	Damaged loss	Reclassification ¹⁾	Others ²⁾	Ending balance
Land	₩635,857	₩43,572	₩ (345)	₩ -	₩ (91)	₩ (10,089)	₩ (8,422)	₩660,482
Buildings	605,694	32,988	(658)	(35,068)	13	(2,166)	(11,443)	589,360
Structures	28,910	885	(240)	(3,413)	-	2,511	(84)	28,569
Machinery	312,402	25,943	(359)	(60,271)	(1,326)	52,014	(2,280)	326,123
Vehicles	2,842	899	(588)	(747)	-	-	(70)	2,336
Tools	11,816	3,977	(167)	(5,492)	-	372	151	10,657
Equipment	66,256	28,215	(1,773)	(29,870)	-	3,304	925	67,057
Others	1,829	1,431	-	(56)	-	-	778	3,982
Construction in progress	109,736	268,610	(14)	-	(7,345)	(239,049)	(1,716)	130,222
Total	₩1,775,342	₩406,520	₩ (4,144)	₩ (134,917)	₩ (8,749)	₩ (193,103)	₩ (22,161)	₩1,818,788

¹⁾ For this fiscal year, from land, buildings, structures and construction in progress, ₩188,856 million worth had been reclassified to investment property, and ₩4,247 million worth to assets held for sale, collectively.

²⁾ It includes net exchange differences.

13-3. Changes in property, plant and equipment for the year ended December 31, 2017, are as follows:

<i>In millions of Korean won</i>	Beginning balance	Acquisition	Disposal	Depreciation	Damaged loss	Reclassification ¹⁾	Others ²⁾	Business combination	Ending balance
Land	₩544,074	₩1,394	₩ (245)	₩ -	₩ -	₩91,001	₩ (367)	₩ -	₩635,857
Buildings	613,250	6,925	(1,885)	(38,895)	-	33,880	(7,581)	-	605,694
Structures	30,398	1,378	(157)	(3,273)	-	641	(81)	4	28,910
Machinery	331,145	14,660	(3,191)	(69,932)	(654)	41,292	(918)	-	312,402
Vehicles	2,415	1,759	(1,609)	(969)	-	-	1,071	175	2,842
Tools	11,370	5,293	(110)	(5,152)	-	528	(117)	4	11,816
Equipment	62,698	28,313	(399)	(30,672)	-	3,142	3,001	173	66,256
Others	1,907	23	(185)	-	-	-	(7)	91	1,829
Construction in progress	50,340	250,753	(1,207)	-	-	(189,539)	(611)	-	109,736
Total	₩1,647,597	₩310,498	₩ (8,988)	₩ (148,893)	₩ (654)	₩ (19,055)	₩ (5,610)	₩447	₩1,775,342

¹⁾ For the previous year, ₩82 million worth construction in progress had been reclassified to intangible assets, ₩20,591 million worth land, buildings, structures reclassified to investment property, and ₩1,616 million worth inventories reclassified to construction in progress.

²⁾ It includes net exchange difference.

14. Intangible Assets

14-1. Details of intangible assets as of December 31, 2018 and 2017, are summarized as follows:

In millions of Korean won	2018			2017		
	Acquisition cost	Accumulated amortization and impairment	Carrying amount	Acquisition cost	Accumulated amortization and impairment	Carrying amount
Goodwill	₩91,189	₩ (91,189)	₩ -	₩91,189	₩ (85,472)	₩5,717
Industrial property rights	50,566	(41,043)	9,523	50,506	(38,193)	12,313
Facility usage rights	36,862	(786)	36,076	35,506	(1,113)	34,393
Other intangible assets ¹⁾	115,543	(92,332)	23,211	115,903	(84,424)	31,479
Intangible assets under development	5,201	(2,057)	3,144	2,756	(1,910)	846
Total	₩299,361	₩ (227,407)	₩71,954	₩295,860	₩ (211,112)	₩84,748

¹⁾ Other intangible assets as of December 31, 2018 includes land usage right of ₩17,318 million(previous year : ₩17,527 million), brand value of ₩4,565 million(previous year : ₩6,086 million), customer relationship value (previous year : ₩6,241 million).

14-2. Changes in intangible assets for the year ended December 31, 2018, are as follows:

In millions of Korean won	Beginning balance	Acquisition	Disposal	Amortization	Reclassification	Damaged loss	Others ¹⁾	Ending balance
Goodwill	₩5,717	₩ -	₩ -	₩ -	₩ -	₩ (5,717)	₩ -	₩ -
Industrial property rights	12,313	588	(12)	(670)	551	(4,420)	1,173	9,523
Facility usage rights	34,393	3,029	(558)	-	-	(786)	(2)	36,076
Other intangible assets	31,479	480	(100)	(3,118)	-	(5,462)	(68)	23,211
Intangible assets under development	846	2,195	(72)	-	(551)	(148)	874	3,144
Total	₩84,748	₩6,292	₩ (742)	₩ (3,788)	₩ -	₩ (16,533)	₩1,977	₩71,954

¹⁾ It includes net exchange differences.

The Group recognized an intangible asset impairment loss of ₩16,533 million during the current term, judging that the recoverable amount of goodwill, industrial property rights, facility usage rights, other intangible assets and intangible assets under development was below its carrying amount.

14-3. Changes in intangible assets for the year ended December 31, 2017, are as follows:

<i>In millions of Korean won</i>	Beginning balance	Acquisition	Disposal	Amortization	Reclassification ¹⁾	Damaged loss	Others ²⁾	Business combination	Ending balance
Goodwill	₩15,061	₩ -	₩ -	₩ -	₩ -	₩ (12,631)	₩ (199)	₩3,486	₩5,717
Industrial property rights	11,681	656	(10)	(774)	763	-	(3)	-	12,313
Facility usage rights	32,349	2,725	(923)	-	-	595	(353)	-	34,393
Other intangible assets	41,748	1,304	-	(4,518)	82	(3,031)	(4,106)	-	31,479
Intangible assets under development	4,090	476	(2,957)	-	(763)	-	-	-	846
Total	₩104,929	₩5,161	₩ (3,890)	₩ (5,292)	₩82	₩ (15,067)	₩ (4,661)	₩3,486	₩84,748

¹⁾ For the previous year, ₩82 million worth construction in progress had been reclassified from property, plant and equipment.

²⁾ It includes net exchange differences.

The Group recognized an intangible asset impairment loss of ₩15,662 million during the previous term, judging that the recoverable amount of goodwill and other intangible assets was below its carrying amount.

14-4. Research and development expenditures recognized as expenses for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Cost of sales	₩529	₩1,325
Selling, general and administrative expenses	43,148	43,552
Total	₩43,677	₩44,877

14-5. When assessing impairment of a CGU that includes goodwill, the recoverable amount was based on value in use and, in calculating value in use, used pre-tax cash flows estimated on the basis of a five-year budget approved by management. Estimates of recoverable amount reflect management's assessment of future trends in the industry and are based on internal and external historical data.

During the current term, the Group recognized total impairment loss of ₩5,717 million as a result of the impairment test on the asset due to the deterioration of business feasibility, changes in the business environment, and restructuring of its governance structure due to changes in the competitive environment. This is included in other expenses in the consolidated statements of comprehensive income.

14-6. During the current term, the Group recognized an impairment loss of total ₩5,461 million judging that the changes in business environment related to customer relationship related to cosmetics business included in other intangible assets had decreased the profitability. This is included in other expenses in the consolidated statement of comprehensive income.

15. Investment Property

15-1. Details of investment property as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018			2017		
	Acquisition cost	Accumulated depreciation and impairment	Carrying amount	Acquisition cost	Accumulated depreciation and impairment	Carrying amount
Land	₩245,842	₩ -	₩245,842	₩160,540	₩ -	₩160,540
Buildings	301,629	(75,068)	226,561	205,821	(74,500)	131,321
Construction in progress	22,646	-	22,646	25,923	-	25,923
Total	₩570,117	₩ (75,068)	₩495,049	₩392,284	₩ (74,500)	₩317,784

15-2. Changes in investment property for the year ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018				2017			
	Land	Buildings	Construction in progress	Total	Land	Buildings	Construction in progress	Total
Beginning balance	₩160,540	₩131,321	₩25,923	₩317,784	₩127,561	₩137,384	₩39,099	₩304,044
Depreciation	-	(11,475)	-	(11,475)	-	(6,851)	-	(6,851)
Reclassified from the Property, Plant and Equipment	85,302	106,715	(3,161)	188,856	32,979	788	(13,176)	20,591
Others	-	-	(116)	(116)	-	-	-	-
Total	₩245,842	₩226,561	₩22,646	₩495,049	₩160,540	₩131,321	₩25,923	₩317,784

15-3. Details of profit or loss recognized related to the investment property for the years ended December 31, 2018 and 2017, are summarized as follows

<i>In millions of Korean won</i>	2018	2017
Rental income	₩45,469	₩34,749
Operating expenses	(7,451)	(4,543)
Total	₩38,018	₩30,206

15-4. The carrying amount and the fair value of investment property as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018		2017	
	Fair value	Carrying amount	Fair value	Carrying amount
Land	₩755,332	₩245,842	₩703,057	₩160,540
Buildings	317,952	226,561	236,508	131,321
Construction in progress	22,646	22,646	25,923	25,923
Total	₩1,095,930	₩495,049	₩965,488	₩317,784

The fair value of the major investment property was determined by the value measured by an independent valuation institution, such as the Return on Revenue method, and was classified as Level 3 fair value based on the inputs used in the valuation technique.

If fair value cannot be measured reliably, the details of investment property that is 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
Sejong 1-5, P2	Land	₩33,528	
	Construction in progress	21,335	Asset under construction in progress
Sejong 1-5, P3	Land	41,747	The site market is not active.
	Buildings	81,850	No recent transactions
Suwon Hwaseo Prugio shopping mall	Construction in progress	1,311	Asset under construction in progress
Total		₩179,771	

16. Assets held for sale

16-1. Changes in assets held for sale for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩ -	₩21,165
Transfer from property, plant and equipment	4,247	-
Disposal	-	(21,165)
Ending balance	₩4,247	₩ -

During the current term, 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 ownership of this land will be transited upon the payment of the balance, which will be on the date of the commencement of the construction work.

During the previous term, the Group has disposed land and building in Pyeongtaek City, Gyeonggi-do, accounted for non-current assets held for sale and has recognized ₩283 million as gain on sale of property, plant and equipment.

17. Pledged Assets

17-1. Assets pledged as collateral as of December 31, 2018 are summarized as follows:

<i>In millions of Korean won</i>	Carrying amount	Type	Received amount	Collateralized amount	Collateral holder
Investment Property	₩337,988	Leasehold deposits received	₩18,395	₩19,665	Metlife Insurance Korea Co., Ltd., etc.
Property, Plant and Equipment;	58,468	Current long-term borrowings	2,166	65,000	Kookmin Bank
Investment property; etc.	563	Long-term borrowings	8,125		
		Investment subsidy	-	660	Chungju si
	31,292	Current long-term borrowings	2,833	15,500	Korea Development Bank ("KDB")
Property, Plant and Equipment		Long-term borrowings	5,758		
	22,740	Right to collateral security and lease	3,081	3,493	Korea Workers' Compensation & Welfare Service, etc.
	17,860	Short-term borrowings	14,000	24,000	KEB Hana Bank
	95,871	A government grant	3,488	4,186	Wonju si
	6,340	Performance bond	-	6,340	Korea Land & Housing Corporation
Other financial assets	597	Rental deposit	597	597	Samsungfire
	22	ACH pledged, etc.	22	22	Citibank Taiwan Ltd.
Total	₩571,741		₩58,465	₩139,463	

17-2. Assets pledged as collateral as of December 31, 2017 are summarized as follows:

<i>In millions of Korean won</i>	Carrying amount	Type	Received amount	Collateralized amount	Collateral holder
Investment Property	₩148,810	Leasehold deposits received	₩12,982	₩13,889	Metlife Insurance Korea Co., Ltd., etc.
Property, Plant and Equipment;		Short-term borrowings	14,666	76,138	KEB Hana Bank, etc.
Investment property; etc.	79,800	Long-term borrowings	10,292	12,862	KEB Hana Bank, etc.
		Investment subsidy	-	4,189	Wonju-si
		A government grant	-	660	Chungju-si
Property, Plant and Equipment	154,359	Long-term and short-term borrowings	10,800	15,500	KDB
		Right to collateral security and lease	3,104	3,493	Korea Workers' Compensation & Welfare Service, etc.
	1,287	ACH pledged, etc.	-	1,287	Bank of Oklahoma
Other financial assets	6,340	Performance bond	-	6,340	Korea Land & Housing Corporation
Total	₩390,596		₩51,844	₩134,358	

18. Short-term Borrowings

18-1. Short-term borrowings as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	Lender	Annual interest rate	2018	2017
Borrowings	KEB Hana Bank	3.59%~4.37%	₩14,000	₩12,500
	KEB Hana Bank Bahrain	2.50%	6,144	5,881
	KDB	2.30%~3.01%	75,412	100,237
	Korea Agro-Fisheries & Food Trade	1.00%~2.00%	15,000	15,000
	Kookmin Bank	-	-	9,249
	The Export-Import Bank of Korea	-	-	10,000
	Woori Bank	-	-	200
	Subtotal		110,556	153,067
Customer credit contracts ¹⁾	Nonghyup Bank, etc.	5.95%, etc.	19,368	21,590
Total			₩129,924	₩174,657

- ¹⁾ As the Group enters into a customer financial agreement with financial institutions such as Nonghyup Bank (share), it receives sales receivables from financial institutions and provides financial institutions with payment guarantees for the payment. On the other hand, the foregoing borrowing corresponds to trade receivables that were transferred as of the end of the current term but did not meet the derecognition requirements.

18-2. Long-term borrowings as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	Lender	Maturity	Annual interest rate	2018	2017
Other financial driver loan	Nonghyup Bank	2020.06.10~ 2023.05.30	-	₩44,252	₩47,193
	Kookmin Bank	2023.09.11	2.81%~2.98%	10,292	12,458
Borrowings	KDB	2021.08.19~ 2022.11.10	2.33%~3.44%	8,591	9,300
Redeemable convertible preferred shares (*)				35,340	35,340
Total				98,475	104,291
Consolidated statements of financial position:					
Current				5,000	3,702
Non-current				93,475	100,589
Total				₩98,475	₩104,291

(*) Details of convertible bonds and preferred shares as of December 31, 2018 are summarized as follows:

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.

18-3. As discussed in Note 17 to the consolidated financial statements, the Group provided collateral for the above borrowings.

19. Trade and Other Payables

Trade and other payables as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018		2017	
	Current	Non-current	Current	Non-current
Leasehold deposits received	₩23,399	₩12,859	₩23,189	₩9,406
Trade payables	72,573	-	68,537	-
Withholdings	8,277	-	9,195	-
Value-added deposit	158,861	-	156,169	-
Accrued expenses	213,711	24,490	202,729	17,532
Unpaid money	83,686	15,891	68,935	7,498
Total	₩560,507	₩53,240	₩528,754	₩34,436

20. Retirement Benefit Plan

20-1. Details of profit or loss recognized related to retirement benefits for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Defined benefit plans:		
Current service cost	₩44,447	₩45,794
Net interest on net defined benefit liability	2,255	2,726
Past service cost and settlement gain and loss	99	-
Subtotal	46,801	48,520
Defined contribution plan:		
Contributions recognized as expense	7,560	6,968
Other long-term employee benefits:		
Current service cost, etc.	8,550	17,532
Total	₩62,911	₩73,020

The Group recognized termination benefits amounting to ₩2,085 million and ₩799 million as an expense for the current term and previous term, respectively.

20-2. Net defined benefit liabilities for the years ended December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩75,783	₩123,610
Current service cost	44,447	45,794
Net interest on net defined benefit liability	2,255	2,726
Past service cost and settlement gain and loss	99	-
Re-measurement element of net defined benefit liability(before tax)	33,683	(32,206)
Payment amount (including related company in-outs)	(4,558)	(6,874)
Payment of plan assets	(55,269)	(57,489)
Increase/decrease from business combinations	-	927
Net exchange differences	(225)	(705)
Ending balance	₩96,215	₩75,783
Consolidated statements of financial position:		
Present value of defined benefit obligation	₩491,466	₩427,161
Fair value of plan assets	(395,251)	(351,378)
Total	₩96,215	₩75,783

20-3. Changes in the present value of the defined benefit obligation for the years ended December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩427,161	₩426,116
Current service cost	44,447	45,794
Interest expenses	11,999	8,837
Past service cost and settlement gain and loss	99	-
Re-measurement element(before tax)	30,108	(33,089)
Payment amount (including related company in-outs)	(22,123)	(20,719)
Increase/decrease from business combinations	-	927
Net exchange differences	(225)	(705)
Ending balance	₩491,466	₩427,161

20-4. Changes in the fair value of payment of plan assets for the years ended December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩351,378	₩302,506
Interest income	9,744	6,111
Re-measurement element(before tax)	(3,575)	(883)
Payment amount (including related company in-outs)	(17,565)	(13,845)
Payment of plan assets	55,269	57,489
Ending balance	₩395,251	₩351,378

The actual interest revenue from plan assets during the current term and the prior term is ₩6,182 million, ₩5,228 million, respectively.

20-5. Changes in the present value of other long-term employee benefits for the years ended December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩17,532	₩ -
Current service cost	2,396	-
Interest cost	484	-
Re-measurement element(before tax)	5,670	17,532
Payment amount	(1,593)	-
Net exchange differences	1	-
Ending balance	₩24,490	₩17,532

20-6. Remeasurements recognized in other comprehensive income for the years ended December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Actuarial gains and losses on defined benefit obligations:		
Changes in demographic assumptions	₩(9,845)	₩ (777)
Changes in financial assumptions	(20,734)	45,910
Changes in experience adjustments	471	(12,044)
Subtotal	(30,108)	33,089
Revenue from plan assets, excluding amounts included in net interest	(3,575)	(883)
Re-measurement element of net defined benefit liability(before tax)	(33,683)	32,206
Tax effect	8,876	(4,613)
Re-measurement element of net defined benefit liability(after tax)	₩(24,807)	₩27,593

20-7. The fair value of each of the major types included in the fair value of plan assets as of December 31, 2018 and 2017, is as follows:

<i>In millions of Korean won</i>	2018	2017
Regular deposits and cash equivalents	₩69,022	₩58,150
Principal and interest guarantee financial assets	326,229	293,228
Total	₩395,251	₩351,378

20-8. The major assumptions used for actuarial evaluation as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Discount rate	2.20%~9.00%	2.30%~2.98%
Expected wage increase rate	3.00%~12.00%	3.00%~5.33%

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 the end of the reporting period.

The weighted average maturity of the defined benefit obligation as of the end of the current term and the previous term is 11.50 years and 10.37 years, respectively.

20-9. The results of the analysis of the sensitivity of the defined benefit obligation to the major actuarial assumptions as of December 31, 2018, are as follows:

<i>In millions of Korean won</i>	Increase by 1%	Decrease by 1%
Changes in discount rate	₩(46,225)	₩53,966
Changes in expected wage increase rate	52,764	(46,146)

The increase (decrease) of the defined benefit obligation was calculated based on the present value of the defined benefit obligation as of the end of the current term.

21. Refund Liabilities and Provisions

21-1. The details of refund liabilities and provisions as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018		2017	
	Current	Non-current	Current	Non-current
Provision for refund	₩8,378	₩1,570	₩1,662	₩6,811
Provision for site restoration	2,812	1,575	2,535	828
Provision for others	3,911	-	2,934	1,563
Provision for financial guarantee	-	700	-	-
Total	₩15,101	₩3,845	₩7,131	₩9,202

21-2. 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 site restoration	3,363	-	1,027	(3)	4,387
Provision for others	4,497	-	776	(1,362)	3,911
Provision for financial guarantee	-	-	755	(55)	700
Total	₩16,333	₩1,333	₩3,605	₩ (2,325)	₩18,946

Changes in refund liabilities and provisions for the year ended December 31, 2017 are as follows:

<i>In millions of Korean won</i>	Beginning balance	Increase	Decrease	Ending balance
Provision for refund	₩4,704	₩4,800	₩ (1,031)	₩8,473
Provision for site restoration	-	3,363	-	3,363
Provision for others	-	4,497	-	4,497
Provision for financial guarantee	-	-	-	-
Total	₩4,704	₩12,660	₩ (1,031)	₩16,333

21-3. 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 sales costs of the parts expected to be returned.

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

<i>In millions of Korean won</i>	2018
Refund assets	₩2,580

21-4. The Group's provision for site restoration is the best estimate of the expected future recovery cost of the leased asset as of the end of the current term. 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.

21-5. 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, ₩1,203 million of penalty payment was set to (current) other provision.

22. Share Capital and Other Capital Surplus

22-1. Details of share capital and other capital surplus as of December 31, 2018 and 2017, are as follows: There is no change in following details during the current and previous terms.

Type	Amount
Number of Authorized shares	800,000,000shares
Amount per share	₩5,000
Issued	137,292,497shares
Share capital	₩954,959 million
Other capital surplus	₩(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.

For the previous term, the Parent Company acquired additional shares of PT Sentosa Ababi Purwosari, PT Trisakti Purwosari Makmur and PT Mandiri Maha Mulia, and following such acquisition, changes in the amount of shares related to such acquisition have been offset as other capital surplus.

23. Treasury Shares and Earning from disposal of Treasury Shares

Details of treasury shares and earnings from disposal of treasury shares as of December 31, 2018 and 2017, are as follows: There is no change in following details during the current and previous terms.

Type	Amount
Number of treasury shares	11,027,370shares
Treasury shares	₩328,157 million
Earnings from disposal of treasury shares	₩513,776 million

24. Reserves

24-1. Details of reserves as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Other comprehensive income(loss) - financial assets measured at fair value-net change in fair value (Previous term: Available-for-sale financial assets-net change in fair value)	₩(56,595)	₩7,730
Exchange differences on translating foreign operations	(83,942)	(91,719)
Statutory reserve	602,938	603,145
Discretionary reserve	4,893,211	4,408,176
Changes in equity method capital	16	-
Total	₩5,355,628	₩4,927,332

24-2. Details of other comprehensive income(loss) - financial assets measured at fair value-net change in fair value as(Previous term: Available-for-sale financial assets-net change in fair value) as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Other comprehensive income (loss)-net change in fair value before tax (Previous term: Available-for-sale financial assets-net change in fair value)	₩(78,634)	₩10,662
Tax effect	22,039	(2,932)
Other comprehensive income (loss)-net change in fair value after tax (Previous term: Available-for-sale financial assets-net change in fair value)	(56,595)	7,730

24-3. The statutory reserve is a profit reserve, and the Korean Commercial Act stipulates that the company shall set aside more than 10% of the dividend amount of profit from money as profit reserves in the period of each settlement until it reaches 50% of its capital. Such profit reserves shall not be allocated in cash and may be used only for the preservation and capital transfer of deferred losses according to the resolutions of the shareholders' meeting.

24-4. Details of discretionary reserve as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Reserve for business rationalization	₩12,851	₩12,851
Reserve for research and human resource development	-	10,000
Reserve for business expansion	698,881	698,881
Unconditional reserve	4,181,479	3,686,444
Total	₩4,893,211	₩4,408,176

① 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, so the corporate rationalization reserve was changed to discretionary reserve.

② Reserve for research and human resource development

Under the provisions of the Tax Specialization Restriction Act, the Parent Company deducts research and human resources development reserves through tax report adjustment and reserves them separately when disposing of retained earnings. The amount used for the purpose of the reserve fund and the spent balance can be transferred to the discretionary deposit for use in dividends.

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.

25. Retained Earnings

25-1. Changes in retained earnings for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩1,733,863	₩1,611,532
Change in accounting policy	(8,805)	-
Dividends	(505,061)	(454,554)
Transfer from reserve for research and human resource development	10,000	10,000
Accumulation of unconditional reserve	(495,036)	(623,915)
Profit for the year	898,659	1,164,208
- Less: Non-controlling interests	2,991	(458)
Remeasurements of net defined benefit liability(net of tax)	(24,807)	27,593
- Less: Non-controlling interests	929	(543)
Change in non-controlling interest	209	-
Other comprehensive income(loss)-Income(loss) from fair value of financial assets disposal	(148)	-
Ending balance	₩1,612,794	₩1,733,863

25-2. The statement of appropriation of retained earnings of the Parent Company for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
	Expected appropriation schedule : March 29, 2019	Appropriation fixed date : March 16, 2018
1. Unappropriated retained earnings	₩791,027	₩990,096
Unappropriated retained earnings carried over from prior year	-	-
Change in accounting policy	(30,393)	-
Profit(loss) for the year	840,947	974,896
Reclassification of gain on disposal of equity instruments at fair value through other comprehensive income	(148)	-
Remeasurements of net defined benefit liabilities	(19,379)	15,200
2. Transfers to discretionary reserves, etc.	-	10,000
Research and development reserves	-	10,000
Subtotal	791,027	1,000,096
3. Appropriation of retained earnings	(791,027)	(1,000,096)
Dividends (Cash dividend (%):		
Ordinary share		
: Current term : ₩4,000(80%),	(505,061)	(505,061)
: Previous term : ₩4,000(80%)		
Unconditional reserve	₩(285,966)	₩ (495,035)
4. Unappropriated retained earnings to be carried forward	-	-

25-3. Details of dividends paid for the years ended December 31, 2018 and 2017, are as follows:

	2018	2017
Total dividend payments	₩505,061 million	₩454,554 million
Dividend per share	₩4,000	₩3,600
Dividend rate per face value	80%	72%

The dividend per share and total dividend payments for the current period are ₩4,000 and ₩505,061 million, respectively, and will be proposed at the annual shareholders' meeting slated for March 29, 2019. The consolidated financial statements of the current period do not reflect this dividend payable.

26. Real Estate Sales Contract

26-1. Details of real estate sales contracts under construction as of December 31, 2018, are as follows:

<i>In millions of Korean won</i>	Construction period	2018	2017
Suwon hwaseo park prugio(Apartment)	February 2018 ~ August 2020	₩1,188,870	₩1,188,870
Suwon hwaseo park prugio(Efficiency apartment)		112,060	106,762
Dae-gu central xi ¹⁾		4,498	680
Total		₩1,305,428	₩1,296,312

¹⁾ Construction and sale have been completed as of the end of the current term, but resale is underway due to the cancellation of the contract.

26-2. Changes in balance of contract amount for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Beginning balance	₩ -	₩133,491
Contract increase	1,295,632	1,725
Revenue recognition ¹⁾	(122,516)	(135,216)
Ending balance	₩1,173,116	₩ -

¹⁾ As of the end of the previous term, the amount recognized as revenue from the completion of construction and sale did not include ₩4,498 million that was cancelled due to the termination of the sales contract during the current period.

26-3. The details of cumulative cost of the sales contract under construction as of December 31, 2018, are as follows:

<i>In millions of Korean won</i>	Progress	Accumulated revenue	Cumulative cost
Suwon hwaseo park prugio(Apartment)	9.5%	₩112,589	₩45,660
Suwon hwaseo park prugio(Efficiency apartment)	9.3%	9,927	5,879

26-4. No changes in estimated gross contract income and total contract cost occurred during the current term. The estimated gross contract income and total contract cost of an ongoing sales contract are based on the circumstances that occurred by the end of the current term and may vary over the future period.

27. Operating Profit

27-1. Details of expenses, classified by nature, incurred for the years ended December 31, 2018 and 2017, are as follows

<i>In millions of Korean won</i>	2018	2017
Changes in inventories	₩(126,441)	₩ (52,112)
Raw materials and consumables purchased	1,307,017	1,319,745
Salaries	594,471	551,452
Retirement and termination benefits	56,446	56,287
Depreciation	146,392	155,750
Amortization	3,788	5,292
Employee welfare	91,680	94,502
Advertising	282,538	294,915
Commissions	579,180	367,521
Other expenses	281,338	447,727
Total	₩3,216,409	₩3,241,079

27-2. Details of selling, general and administrative expenses for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Salaries	₩395,311	₩364,315
Retirement and termination benefits	36,662	38,214
Employee welfare	62,154	66,165
Travel expenses	19,068	18,628
Communication cost	5,951	5,327
Utilities	9,518	8,966
Taxes and utilities	24,162	22,104
Supplies	4,680	4,441
Rent	29,600	25,843
Depreciation	44,026	45,319
Amortization	3,002	4,326
Repairs and maintenance	6,306	6,441
Vehicles	7,428	6,515
Insurance	2,875	2,495
Commissions	349,482	303,266
Freight and custody	43,736	57,325
Conferences	4,938	4,817
Advertising	282,384	294,767
Education and training	7,610	6,612
Prizes and rewards	2,826	3,263
Cooperation	1,378	1,132
Research and development	43,148	43,552
Impairment loss (reversal of impairment loss) on trade receivables	(5,867)	(1,641)
Total	₩1,380,378	₩1,332,192

28. Other Income and Expenses

28-1. Details of other income for the years ended December 31, 2018 and 2017, are as follows

<i>In millions of Korean won</i>	2018	2017
Foreign currency transaction gain	₩19,242	₩12,631
Foreign currency translation gain	50,800	5,472
Gain on disposal of investment in associates	-	458
Gain on sale of property, plant and equipment	2,488	1,654
Gain on sale of intangible assets	203	685
Reversal of impairment loss of intangible assets	-	595
Gain in fair value of derivatives	1,239	-
Gain from derivative transactions	2,434	-
Miscellaneous profit	33,644	76,786
Total	₩110,050	₩98,281

28-2. Details of other expenses for the years ended December 31, 2018 and 2017, are as follows

<i>In millions of Korean won</i>	2018	2017
Foreign currency transaction loss	₩6,796	₩51,652
Foreign currency translation loss	66,121	108,815
Impairment loss on other receivables	-	15
Donations	14,809	10,564
Loss on sale of property, plant and equipment	2,926	3,352
Impairment loss on property, plant and equipment	8,749	654
Loss on sale of intangible assets	112	3,135
Impairment loss on intangible assets	16,533	15,662
Loss on sale of investments in joint ventures	-	1,794
Losses on valuation of derivatives	461	-
Losses on derivative transactions	11,521	-
Miscellaneous loss	12,342	30,375
Total	₩140,370	₩226,018

29. Net Finance Income

29-1. Details of net finance income for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Finance income:		
Interest income(excluding interest revenue from the effective interest method)	₩7,768	₩41,220
Interest revenue according to the effective interest method ¹⁾	9,645	1,946
Dividend income	20,509	19,773
Investment income on long-term deposits in MSA Escrow Fund	-	2,547
Current term's income-Gain in fair value of financial assets	53,663	-
Current term's income-Gain in fair value on sale of financial assets	-	3,149
Total finance income	91,585	68,635
Finance cost:		
Interest expense	(6,957)	(8,576)
Loss on disposition of available-for-sale securities	-	(5)
Impairment loss on available-for-sale securities	-	(18,526)
Total finance cost	(6,957)	(27,107)
Net finance income	₩84,628	₩41,528

¹⁾ This interest revenue generated from amortized cost measurement of financial assets.

29-2. Details of interest income included in finance income for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Deposits	₩7,759	₩41,817
Available-for-sale financial assets	-	7
Trade and other receivables	1,935	1,342
Long-term deposits	7,719	-
Total	₩17,413	₩43,166

29-3. Details of interest income included in finance income for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Borrowings	₩1,871	₩5,867
Trade and other payables	1,233	2,709
Others	3,853	-
Total	₩6,957	₩8,576

30. Income Tax Expense and Deferred Tax

30-1. Details of income tax expenses elements for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Current tax on profits for the year	₩362,369	₩352,251
Adjustments of the past income tax	1,977	15,610
Increase/decrease from temporary differences	55,665	(179,871)
Effects of income tax on unrefundable income	-	(6,576)
Income tax	₩420,011	₩181,414

30-2. Details of the income tax expenses and accounting profit for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Profit before income tax expense	₩1,318,670	₩1,345,622
Tax at domestic tax rates applicable to profits in the respective countries	357,200	338,572
Adjustments:		
Income not subject to tax	(20,727)	(31,306)
Expenses not deductible for tax purposes	8,581	9,760
Deferred income tax unrecognized amount of temporary difference, etc.	75,127	(153,186)
Tax deduction	(1,382)	(1,628)
Adjustment with respect to prior-year income tax	1,977	15,610
Others	(765)	3,592
Income tax expense	420,011	181,414
Average effective tax rate	31.85%	13.48%

30-3. Details of other comprehensive income and deferred tax for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Deferred tax:		
Gain (loss) on valuation of equity instruments at fair value through other comprehensive income	₩8,566	₩ (8,407)
Re-measurement element of net defined benefit liability	8,876	(4,613)
Exchange differences on translating foreign operations	-	754
Income tax expense relating to items recognized in other comprehensive income	17,442	(12,266)

30-4. Changes in deferred income tax assets (liabilities) for the years ended December 31, 2018 and 2017, are as follows:

(1) 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	5,745	-	(57)	8,566	14,254
Accrued expenses	39,737	-	4,511	-	44,248
Defined benefit liability	11,181	-	(4,516)	8,876	15,541
Treasury shares	(9,687)	-	-	-	(9,687)
Investments in joint ventures	(156,931)	-	(56,276)	-	(213,207)
Advanced depreciation provision	(16,470)	-	2,951	-	(13,519)
Others	25,145	(570)	(5,581)	-	18,994
Total	₩(68,744)	₩26,638	₩ (55,665)	₩17,442	₩ (80,329)

(2) For the year ended December 31, 2017

<i>In millions of Korean won</i>	Beginning balance	Profit or loss	Other comprehensive income	Ending balance
Accumulated depreciation	₩19,978	₩ (1,078)	₩ -	₩18,900
Provision for impairment	15,947	(2,311)	-	13,636
Available-for-sale financial assets	7,089	7,063	(8,407)	5,745
Accrued expenses	31,499	8,238	-	39,737
Defined benefit liability	19,942	(4,148)	(4,613)	11,181
Treasury shares	(8,525)	(1,162)	-	(9,687)
Investments in joint ventures	(316,123)	158,438	754	(156,931)
Advanced depreciation provision	(14,493)	(1,977)	-	(16,470)
Reserves	(3,307)	3,307	-	-
Others	11,644	13,501	-	25,145
Total	₩(236,349)	₩179,871	₩ (12,266)	₩ (68,744)

30-5. The deductible temporary differences related to investments in subsidiaries that are not recognized as deferred tax assets (liabilities) are ₩172,544 million and ₩93,394 million, respectively, because they are not likely to expire in the foreseeable future as of the end of the current term and the prior term.

30-6. Details of deductible temporary differences, unused tax losses and unused tax deductions not recognized as deferred tax assets as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Deductible temporary differences	₩20,569	₩12,090
Unused tax losses	143,761	150,035
Unused tax deductions	95	956
Total	₩164,425	₩163,081

31. EPS

31-1. Details of EPS and accounting profit for the years ended December 31, 2018 and 2017, are as follows:

	2018	2017
Profit for the period attributable to owners of the Parent Company	₩901,650 million	₩1,163,750 million
Weighted-average number of ordinary shares outstanding	126,265,127 shares	126,265,127 shares
Basic and diluted EPS	₩7,141	₩9,217

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.

32. Related Parties

32-1. Details of parent and subsidiary relationships and related companies as of December 31, 2018 and 2017, are as follows:

	2018	2017
Associates	Cosmo Tobacco Co., Ltd.	Cosmo Tobacco Co., Ltd.
	Lite Pharm Tech, Inc.	Lite Pharm Tech, Inc.
	JR REIT V Co., Ltd.	JR REIT V Co., Ltd.
	JR REIT VIII Co., Ltd.	JR REIT VIII Co., Ltd.
	LSK Global Pharma Services Co., Ltd.	LSK Global Pharma Services Co., Ltd.
	JR REIT X Co., Ltd.	JR REIT X Co., Ltd.
	1) ¹⁾	JR REIT XIII Co., Ltd.
	Yong In Jung Sim Co., Ltd.	Yong In Jung Sim Co., Ltd. ²⁾
Joint ventures	KB Gimpo Logistics CR REIT Co., Ltd.	KB Gimpo Logistics CR REIT Co., Ltd.
	KORAMCO Private REIT 50 Fund	KORAMCO Private REIT 50 Fund
	Starfield Suwon ³⁾	-
	KORAMCO Europe Private REIT 3-2 Fund ⁴⁾	-

1) JR REIT XIII Co., Ltd. had been eliminated from the related companies as of the end of current term, as the liquidation process had been completed during the current term.

2) The Parent Company had made investment on 22.22% share of Yong In Jung Sim Co., Ltd. during the previous term.

3) The Parent Company had made investment on 50.00% share of Starfield Suwon.

4) The Parent Company had made investment on 51.35% share of KORAMCO Europe Private REIT 3-2 Fund.

32-2. Details on dividends as of December 31, 2018 and 2017, are as follows, and there is no record of transactions such as sales of goods or service supplies.

<i>In millions of Korean won</i>		2018	2017
Associates and joint ventures	KVG REIT I Co., Ltd	₩ -	₩2,546
	JR REIT V Co., Ltd.	104	979
	JR REIT VIII Co., Ltd.	308	880
	JR REIT X Co., Ltd.	579	541
	JR REIT XIII Co., Ltd.	25	-
	KB Gimpo Logistics CR REIT Co., Ltd.	82	109
	KORAMCO Private REIT 50 Fund	716	247
Total		₩1,814	₩5,302

32-3. Details on account balances of receivables and payables with related companies as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>		2018		2017
		Receivables	Payables	Receivables
	LSK Global Pharma Services Co., Ltd.	₩150	₩ -	₩1,500
Associates and joint ventures	KB Gimpo Logistics CR REIT Co., Ltd.	697	-	-
	KORAMCO Private REIT 50 Fund	136	-	-
	Starfield Suwon	-	16,052	-
Total		₩983	₩16,052	₩1,500

32-4. Details of capital transactions with related parties as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>		2018		2017	
		Investment	Repayment of funds	Investment	Fund contribution
	LSK Global Pharma Services Co., Ltd.	₩ -	₩1,350	₩ -	₩2,054
	JR REIT XIII Co., Ltd.	(5,000)	-	-	-
Associates and joint ventures	KVG REIT I Co., Ltd.	-	-	(7,319)	-
	Yong In Jung Sim Co., Ltd.	-	-	1,000	-
	Starfield Suwon	12,000	-	-	-
	KORAMCO Europe Private REIT 3-2 Fund	18,500	-	-	-
Total		₩25,500	₩1,350	₩ (6,319)	₩2,054

32-5. There is no payment guarantee provided between or among the related parties.

32-6. During this term, 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 ownership of this land will be transited upon the payment of the balance, which will be on the date of the commencement of the construction work.(refer to Notes 16 and 35)

32-7. KB Gimpo Logistics CR REIT Co., Ltd. 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 KB Gimpo Logistics CR REIT Co., Ltd. is not entitled to have an impact on a resolution of the investee by the Financial Investment Services and Capital Markets Act.

32-8. KORAMCO Private REIT 50 Fund and KORAMCO Europe Private REIT 3-2 Fund are 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

32-9. Details of key management personnel compensation for the years ended December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Short-term employee benefits	₩19,330	₩18,548
Retirement benefits	1,459	1,777
Total	₩20,789	₩20,325

33. 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 Financial 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 are periodically analyzing 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.

When measuring the fair value of an asset or 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

If several inputs used to measure the fair value of an asset or liability are classified at different levels within the fair value hierarchy, the consolidation entity classifies the entire fair value measurement at the same level as the lowest level of inputs in the fair value hierarchy that is significant for the measurement as a whole, and recognizes the movement of the fair value hierarchy at the end of the reporting period when changes occur.

33-1. 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 Group's income or the value of its financial instruments. The purpose of market risk management is to manage and control market risk exposures within 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 entered into foreign currency forward contracts to hedge foreign currency risk, if necessary.

The carrying amounts of monetary assets and liabilities denominated in a currency other than the functional currency as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018		2017	
	Assets	Liabilities	Assets	Liabilities
USD	₩937,644	₩40,639	₩960,406	₩55,438
EUR	4	19,064	1,718	5,241
JPY, etc.	7,418	1,274	10,043	1
Total	₩945,066	₩60,977	₩972,167	₩60,680

The effects of a 10% change in the Korean won-Foreign Currency exchange rate on pre-tax profit or loss as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018		2017	
	10% increase	10% decrease	10% increase	10% decrease
Increase (decrease) in profit before tax	₩88,409	₩ (88,409)	₩91,149	₩ (91,149)

(2) Equity price risk

The Group is exposed to the fair value of the financial instrument or to other price changes in future cash flows due to changes in market prices in relation to its fair value measurement financial assets and listed equity instruments. 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) as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018		2017	
	5% increase	5% decrease	5% increase	5% decrease
Increase (decrease) in comprehensive income(loss) before tax	₩6,913	₩ (6,913)	₩6,040	₩ (6,040)

(3) Interest rate risk

The Group is exposed to interest rate fluctuation risk in relation to the borrowings. 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 the end of the current term, the effect of changes in interest rates on the fair value of the financial liability or future cash flows is not important.

33-2. 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 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 and 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, 2018 and 2017, is as follows:

<i>In millions of Korean won</i>	2018	2017
Cash and cash equivalents (excluding cash on hand) ¹⁾	₩430,901	₩678,162
Other financial assets	593,146	2,087,936
Fair value through profit or loss ¹⁾	1,851,922	-
Trade and other receivables	1,038,824	1,187,967
Long-term deposits in MSA Escrow Fund	615,528	510,223
Derivative assets	1,239	-
Total	₩4,531,560	₩4,464,288

¹⁾ Of the cash equivalents as of the end of the current term, the specific money trust is included in the financial assets at fair value through profit or loss.

33-3. 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 continuously analyzes 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 liability is redeemable through cash flows from operating activities and cash inflows from financial assets.

The maturity analysis according to the maturity of the remaining contract of the financial liability as of December 31, 2018 and 2017, is as follows:

<i>In millions of Korean won</i>	Carrying amount	Contractual cash flows	Residual contract			
			Less than 3months	3months ~1year	1year ~5years	Longer than 5years
December 31, 2018:						
Long-term borrowings	₩93,475	₩99,043	₩63	₩188	₩65,289	₩33,503
Current portion of long-term borrowings	5,000	5,192	1,297	3,895	-	-
Short-term borrowings	129,924	138,725	62,258	76,467	-	-
Trade and other payables	446,609	455,295	349,796	51,517	53,982	-
Derivative liabilities	461	461	461	-	-	-
Total	₩675,469	₩698,716	₩413,875	₩132,067	₩119,271	₩33,503
December 31, 2017:						
Long-term borrowings	₩100,589	₩103,057	₩362	₩1,080	₩87,157	₩14,458
Current portion of long-term borrowings	3,702	3,753	560	3,193	-	-
Short-term borrowings	174,657	181,003	22,623	158,380	-	-
Trade and other payables	380,294	381,188	330,629	28,750	21,524	285
Total	₩659,242	₩669,001	₩354,174	₩191,403	₩108,681	₩14,743

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

33-4 The carrying amounts of each category of financial assets and liabilities as of December 31, 2018 and 2017, are summarized as follows:

<i>In millions of Korean won</i>	2018	2017
Financial assets:		
Available-for-sale financial assets	₩ -	₩471,763
Fair value through profit or loss ¹⁾	1,851,922	-
Fair value through other comprehensive income or loss	249,575	-
Derivative assets	1,239	-
Financial assets measured at amortized cost		
- Cash and cash equivalents ¹⁾	431,408	715,117
- Other financial assets	593,146	2,087,936
- Trade and other receivables	1,038,824	1,187,967
- Long-term deposits in MSA Escrow Fund	615,528	510,223
Subtotal	2,678,906	4,501,243
Total financial assets	₩4,781,642	₩4,973,006
Financial liabilities:		
Derivative liability	₩461	₩ -
Financial liabilities measured at amortized cost		
- Long-term borrowings	93,475	100,589
- Current portion of long-term borrowings	5,000	3,702
- Short-term borrowings	129,924	174,657
- Trade and other payables	446,609	380,294
Subtotal	675,008	659,242
Total financial liabilities	₩675,469	₩659,242

¹⁾ Of the cash equivalents as of the end of the current term, the specific money trust is included in the financial assets at fair value through profit or loss.

33-5. The fair value measurements classified by fair value hierarchy as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	Carrying amount	Fair value		
		Level 1	Level 2	Level 3
December 31, 2018:				
Fair value through profit or loss ¹⁾	₩1,851,922	₩ -	₩1,641,267	₩210,655
Fair value through other comprehensive income or loss	249,575	198,204	-	51,371
Derivative assets	1,239	-	1,239	-
Derivative liability	461	-	461	-
Total	₩2,103,197	₩198,204	₩1,642,967	₩262,026
December 31, 2017				
Available-for-sale financial assets	421,886	237,717	-	184,169

¹⁾ Of the cash equivalents as of the end of the current term, 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 current term and the prior term.

As of the end of the current term, the fair value of real estate investment trusts and equity securities classified as at fair value through profit or loss (previous term : available-for-sale financial assets) was measured using the Net Asset Value Adjustment Act, Discounted Cash Flow and were 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>	2018	2017
Beginning balance ¹⁾	₩234,046	₩132,956
Acquisition	63,850	70,946
Disposal	(39,840)	(22,798)
Changes in fair value	3,970	3,065
Ending balance	₩262,026	₩184,169

¹⁾ As of the end of the previous term, available-for-sale financial assets that were measured using cost method included the effect of being classified as fair value through other comprehensive income of ₩49,877 million.

33-6. Details of finance income (costs) by categories for the years ended December 31, 2018 and 2017, are as follows:

(1) For the year ended December 31, 2018

<i>In millions of Korean won</i>	Profit or loss- financial assets at fair value	Other comprehensive income (loss)- financial assets at fair value	Derivative assets	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	-	20,509	-	-	-	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	₩53,663	20,509	(8,309)	23,280	(6,957)	82,186
Other comprehensive income (loss) before tax:						
Net change in fair value	₩ -	(38,013)	-	-	-	(38,013)
Reclassification due to disposal	-	(204)	-	-	-	(204)
Total	₩ -	₩ (38,217)	₩ -	₩ -	₩ -	₩ (38,217)

(2) For the year ended December 31, 2017

<i>In millions of Korean won</i>	Available-for-sale financial assets	Financial assets measured at amortized cost	Financial liabilities measured at amortized cost	Total
Profit for the year:				
Interest income	₩ 7	₩43,159	₩ -	₩43,166
Dividend income	19,773	-	-	19,773
Investment profit on long-term deposits in MSA Escrow Fund	-	2,547	-	2,547
Gain or loss on valuation	3,144	-	-	3,144
Interest expense	-	-	(8,576)	(8,576)
Impairment loss	(18,526)	1,626	-	(16,900)
Total	₩4,398	₩47,332	₩ (8,576)	₩43,154
Other comprehensive income (loss) before tax:				
Net change in fair value	₩20,270	₩ -	₩ -	₩20,270
Reclassification due to disposal	(3,144)	-	-	(3,144)
Reclassification due to impairment	18,526	-	-	18,526
Total	₩35,652	₩ -	₩ -	₩35,652

34. 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 previous term.

Details on the Group's capital structure as of December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Debt	₩228,399	₩278,948
Less: Cash and cash equivalents	(932,969)	(715,117)
Less: Current other financial assets, Fair value through profit or loss	(1,724,285)	(2,081,586)
Net debt (asset)	2,428,855	2,517,755
Total equity	₩8,133,080	₩7,829,760

35. Contingent Liabilities and Commitments

35-1. Litigation cases

As of December 31, 2018, the Group has total 20 cases of pending litigations under progress and the litigation value is ₩54,557 million. It is not possible to reasonably predict the impact of the final outcome of pending litigation as of the end of the current term on the consolidated financial statements of the Group.

35-2. Major commitments

As of the end of the current term, the Group has agreed with financial institutions including KEB Hana Bank to open foreign currency import Letter of Credit("L/C") (Limit : USD 187,600 thousand), the Trade Bond mortgage agreement (Limit : ₩97,330 million), the Trade Bill loan commitment (Limit : ₩10,000 million), the Financial Loan commitment (Limit : ₩233,101 million), the mortgage loan commitment (₩5,000 million), the derivative agreement (Limit : USD 153,700 thousand) and an overdraft agreement (Limit : ₩1,500 million).

As of the end of the current term, the Group has signed short-term export insurance (insurance amount: USD 40,690 thousand) and implementation guarantee insurance (guaranteed amount: ₩4,056 million) with the Korea Trade Insurance Corporation for manufacturing and tobacco exports.

As of the end of the current term, the Group is provided with payment guarantees of USD36,000 thousand, USD20,000 thousand, and IDR 165,423 million from KEB Hana Bank, Westchester Fire Insurance Company of U.S. Materials, and Jasaraharaja Putera of Indonesia, respectively, for the opening of an import L/C for KT&G U.S. Corporation imports and customs clearance, and provides collateral for local financial services of foreign subsidiaries, and is responsible for the claim of the amount of the guarantees executed.

Details of execution of the payment guarantee as of December 31, 2018, are as follows:

	Payment guarantee amount
Performance guarantee related to exporting tobacco materials to Thailand Tobacco Monopoly	THB 2,832 thousand
Opening of KT&G USA Corporation's Customs Bonds and Import L/C related to Import and Customs	USD 13,500 thousand

As of the end of the current term, the Group has received payment guarantees of USD 6,560 thousand from the U.S. based TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA.

35-3. Payment guarantee and collateral details

The details of payment guarantees provided by the Group for other people (excluding related parties) are as follows:

<i>In millions of Korean won</i>	Guarantee user	Limit	Excution amount
Loan guarantee for the payment	Shinhan bank	₩79,400	₩10,345
	KEB Hana bank	60,000	8,474
	Suhyup bank	9,494	1,993
Total		₩148,894	₩20,812

As of the end of the current term, the Group deposited ₩6,340 million won 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. This amount has been set up as of the end of the current term.

As of the end of the current term, the Group has signed a housing distribution guarantee contract worth ₩889,041 million with the Korea Housing & Urban Guarantee Corporation.

As of the end of the current term, the Group provides ₩884 million in deductible payment guarantee for the Korea Special Sale Credit Union to four locations other than Donginbi Yeonjae agency.

Details of bills provided by the Group in relation to borrowings, etc. as of December 31, 2018, are as follows:

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

As of the end of the current term, 11 notes and two cheques with unknown origin and amount are lost, and the Group will proceed with the authorization process for this bill.

35-4. Others

Payment of long-term deposits (MSA Escrow Fund)

Each year, the Group deposits a proportion of sales of tobacco products 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. The unused portion of this fund will be refunded to the Group 25 years from the date of each annual funding. The Group recorded as long-term deposits the amounts paid into the MSA Escrow Funds of state governments in the United States against potential litigation and damages related to the export of tobacco to the United States.

As of the end of the current term, Regular tax investigation on subsidiaries in Indonesia is ongoing, the Group expects that there is no significant impact on its consolidated financial statements.

The Group has maintained a contract with the farmers who grow six-year-old green ginseng for purchase volume guarantees and recorded contractual amounts paid to the farmers as long-term advance payments and advance payments in the amount of ₩59,369 million (₩69,373 for the end of previous term) and ₩25,841 million (₩32,636 for the end of previous term), respectively.

As of March 17, 2011, the Parent Company, KT&G, signed a Memorandum of understanding (“MOU”) with the National Pension Service on a global investment partnership that calls for the joint investment of less than ₩800,000 in total into overseas assets.

As a result of merger of Youngjin Pharmaceutical Co., Ltd. and KT&G Life Sciences Corporation, the Parent Company, KT&G, has entered into a shareholders’ agreement with Gwak, Tae-Hwan (“Individual Shareholder”) who is a former owner of KT&G Life Sciences Corporation. Details of the agreement are as follows:

Details	
Restrictions on the disposal of shares by individual shareholders	Individual shareholders are not permitted to dispose of their shares for one year from the date they are listed or have the same effect on the shares held as of the date of the signing of the contract.
Preferred purchase of KT&G	If an individual shareholder transfers all or part of the shares held to a third party, KT&G holds the right to buy the shares first.
Tag-along right held by the Individual Shareholder	If the Parent Company proposes to enter into a transaction or a series of related transactions with a third-party purchaser to dispose of its shares, then the Individual Shareholder shall elect to participate in such disposition upon the terms and conditions no less favorable than those applicable to the Parent Company.

As of December 31, 2018, the Group has entered into a management trust agreement with Marriott International Management Company B.V. and has been provided international public relations services through Global Hospitality Licensing S.A.R.L. Also, the Group has been provided technical advice by Marriott International Design & Construction Services., Inc.

As of December 31, 2018, the Group had established Starfield Suwon under 50:50 ratio with Shinsaegae Property (“Joint Investment Party”). The disposal of such share is limited for five years from the approval for use of the multi-shopping mall. Also, upon the decision of either the Group or the Joint Investment Party to transfer all of the shares owned, the other party is obliged to exercise the right of preemption preference or the joint selling right selectively.

As of December 31, 2018, the Group had made a land contract with Starfield Suwon and Gwacheon city, and the ownership of the land will be transited upon the payment of balance.

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 in the supply of logistics facilities developed by the Yongin Jungsim. Also, the Group has the right to transfer shares to SpaceG if they do not receive the sale.

36. Cash flows

36-1. Details of cash generated from operations for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Profit for the year	₩898,659	₩1,164,208
Adjustments:		
Income tax expense	₩420,011	₩181,414
Finance cost	6,957	27,107
Finance income	(91,585)	(68,635)
Depreciation	146,392	155,750
Amortization	3,788	5,292
Retirement and termination benefits	56,446	56,287
Foreign currency translation loss	66,121	108,815
Impairment loss (reversal) on trade and other receivables	(5,867)	(1,626)
Loss on valuation of inventories	6,393	3,339
Loss on sales of property, plant and equipment	2,926	3,352
Impairment loss on property, plant and equipment	8,749	654
Loss on disposal of intangible assets	112	3,135
Impairment loss(reversal) on intangible assets	16,533	15,067
Loss on sale of investment in joint ventures	-	1,794
Other expenses, etc.	20,098	45,270
Share of loss of associates	519	-
Share of gain of associates	(9,774)	(5,717)
Gain on disposal of investment in associates	-	(458)
Foreign currency translation gain	(50,800)	(5,472)
Gain on sale of property, plant and equipment	(2,488)	(1,654)
Gain on sale of intangible assets	(203)	(685)
Total	₩1,492,987	₩1,687,237
Changes in working capital:		
Changes in trade and other receivables	₩71,063	₩124,272
Changes in advance payments	5,766	27,347
Changes in prepaid expenses	(4,463)	3,680
Changes in accrued tobacco excise and other taxes	43,402	183,563
Changes in inventories	(170,351)	(78,028)
Changes in trade and other payables	15,688	(84,957)
Changes in tobacco excise and other taxes payable	(359,605)	(255,283)
Payment of retirement and termination	(68,358)	(74,454)
Changes in other assets/liabilities	136,175	4,693
Cash generated from operation	₩1,162,304	₩1,538,070

36-2. Details of material transactions without cash inflow and outflow for the years ended December 31, 2018 and 2017, are as follows:

<i>In millions of Korean won</i>	2018	2017
Increase (decrease) in accrued expenses related to payment of retirement and termination benefits	₩ (69)	₩ (2,324)
Increase (decrease) in other payables related to acquisition of property, plant and equipment	12,650	(7,836)
Increase in other payables related to acquisition of intangible assets	-	(1,229)
Increase in other receivables related to disposal of property, plant and equipment and held for sale assets	7,609	2,683
Increase (decrease) in advance receipts related to disposal of property, plant and equipment and held for sale assets	16,020	(2,145)
Reclassification of property, plant and equipment to investment property	188,856	20,591
Reclassification of property, plant and equipment to held-for-sale assets	4,247	-
Reclassification of available-for-sale financial assets to loans	-	2,054
Reclassification of long-term loan to long-term advance payment	4,817	-

36-3. Changes in liabilities due to financial activities for the years ended December 31, 2018 and 2017, are as follows:

(1) For the year ended December 31, 2018

<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)	178,359	(44,991)	1,556	134,924
Long-term borrowings	100,589	(291)	(6,823)	93,475
Deposits received	32,595	(404)	4,067	36,258
Total	₩311,543	₩ (550,747)	₩503,861	₩264,657

(2) For the year ended December 31, 2017

<i>In millions of Korean won</i>	Beginning balance	Cash flows from financing activities	Others	Ending balance
Dividend payable	₩ -	₩ (454,554)	₩454,554	₩ -
Short-term borrowings (including current portion of long-term borrowings)	146,196	39,412	(7,249)	178,359
Long-term borrowings	115,953	5,483	(20,847)	100,589
Deposits received	27,606	503	4,486	32,595
Total	₩289,755	₩ (409,156)	₩430,944	₩311,543

36-4. 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.

37. Changes in Accounting Policies

37-1. Application of K-IFRS No. 1109, 'Financial Instruments'

(1) Classification and measurement of financial instruments

Details of changes in retained earnings due to the classification and measurement of financial instruments are as follows:

<i>In millions of Korean won</i>	Amount
Retained earnings at the beginning of term-K-IFRS No. 1039	₩1,733,863
Reclassification of loans and receivables as current term's profit (loss)-financial assets at fair value	(4,236)
Reclassification of available-for-sale securities to current fair value through profit or loss	3,895
Reclassification of available-for-sale securities to fair value through other comprehensive income or loss	32,870
Measurement of long-term deposits in MSA Escrow Fund at amortized cost	8,086
Increase in trade and other receivables-net of allowance	(69,258)
Reduction of deferred income tax following the adjustment of surplus at the beginning of term	28,374
Adjustment of total surplus due to adoption of K-IFRS No. 1109	(269)
Retained earnings at the beginning of term-K-IFRS No. 1109	1,733,594

Management evaluated the business model applicable to financial assets held as of January 1, 2018 at the date of initial application of K-IFRS No. 1109 and classified financial assets in accordance with K-IFRS No. 1109. The effects of this reclassification are as follows:

<i>In millions of Korean won</i>	Fair value through profit or loss	Fair value through other comprehensive income or loss (available-for-sale securities as of December 31, 2017)	Long-term deposits in MSA Escrow Fund	Financial assets measured at amortized cost (loans and receivables as of December 31, 2017)			Total
				Trade and other receivables	Other financial assets	Cash and cash equivalents	
Retained earnings at the beginning of term-K-IFRS No. 1039	₩ -	₩471,763	₩510,223	₩1,187,967	₩2,087,936	₩715,117	₩4,973,006
Reclassification of loans and receivables as current term's profit (loss)-financial assets at fair value	2,352,467	-	-	(4,076)	(1,867,686)	(484,941)	(4,236)
Reclassification of available-for-sale securities to current fair value through profit or loss	184,169	(184,169)	-	-	-	-	-
Measurement of long-term deposits in MSA Escrow Fund at amortized cost	-	-	9,402	1,971	-	-	11,373
Carrying amount at beginning of term-K-IFRS No. 1109	2,536,636	287,594	519,625	1,185,862	220,250	230,176	4,980,143

① Reclassification of loans and receivables as current term's profit (loss)-financial assets at fair value
Of the cash equivalents and other financial assets as of the beginning of the current term, ₩2,356,703 million in monetary trust and related interest, which are not solely interest on principal and principal balances, was reclassified to fair value through profit or loss. As of the beginning of the current term, the difference between amortized cost and fair value of the money trust was ₩4,236 million, which was reclassified as retained earnings. During the current term, ₩46,601 million was recognized in profit or loss, including changes in fair value related to the financial asset.

② Reclassification of available-for-sale securities to current fair value through profit or loss
Of the available-for-sale financial assets as of the beginning of the current term, ₩184,169 million in investments in real estate return securities was reclassified from available-for-sale financial assets to fair value through profit or loss. The financial asset does not qualify for classification as amortized cost because the contractual cash flows do not represent payments of principal and interest only. As of the beginning of the current term, the accumulated other comprehensive income of ₩3,895 million was reclassified as retained earnings. During the current term, ₩7,045 million, including changes in fair value related to the financial asset, was recognized in profit or loss.

③ Reclassification of available-for-sale securities to fair value through other comprehensive income or loss
The Group chose to present in other comprehensive income changes in the fair value of equity instruments that were not for trading purposes that were previously classified as available for sale. As a result, ₩287,594 million was reclassified as a fair value through other comprehensive income financial asset. The cumulative amount of other comprehensive income of ₩32,870 million recognized in this respect as of the beginning of the current term is not reclassified to profit or loss even if the financial asset is disposed.

④ Measurement of long-term deposits in MSA Escrow Fund at amortized cost
As of the beginning of the current term, the long-term deposit of ₩510,223 million was classified as being subject to amortized cost measurement because cash flows consisting solely of the principal and interest on the principal balances occur and are aimed at collecting contractual cash flows. As of the beginning of the current term, the long-term reserve increased by ₩9,402 million and retained earnings increased by ₩8,086 million. Interest income of ₩7,719 million related to long-term deposits was recognized during the current term.

The effect of these changes on the Group's capital is as follows:

<i>In millions of Korean won</i>	Change in accumulated amount of other comprehensive income (loss)	Change in retained earnings
Retained earnings at the beginning of term-K-IFRS No. 1039	₩7,730	₩1,733,863
Reclassification of loans and receivables as current term's profit (loss)-financial assets at fair value	-	(4,236)
Reclassification of available-for-sale securities to current fair value through profit or loss	(3,895)	3,895
Reclassification of available-for-sale securities to fair value through other comprehensive income or loss	(32,870)	32,870
Measurement of long-term deposits in MSA Escrow Fund at amortized cost	-	8,086
Increase in trade and other receivables-net of allowance	-	(69,258)
Reduction of deferred income tax following the adjustment of surplus at the beginning of term	-	28,374
Adjustment of total surplus due to adoption of K-IFRS No. 1109	(36,765)	(269)
Retained earnings at the beginning of term-K-IFRS No. 1109	(29,035)	1,733,594

The reclassification of financial assets as of January 1, 2018 (the initial application date), due to adoption of K-IFRS No. 1109 is as follows:

<i>In millions of Korean won</i>	Measurement scope		Carrying amount		
	K-IFRS No. 1039	K-IFRS No. 1109	K-IFRS No. 1039	K-IFRS No. 1109	Difference
Cash and cash equivalents	Loans and receivables	Financial assets measured at amortized cost	₩715,117	₩230,176	₩ (484,941)
Other financial assets	Loans and receivables	Financial assets measured at amortized cost	2,087,936	220,250	(1,867,686)
Other financial assets	Loans and receivables	Financial assets measured at fair value through profit or loss	-	2,352,467	2,352,467
Long-term deposits in MSA Escrow Fund	Financial assets recognized as current term's profit (loss)	Financial assets measured at amortized cost	510,223	519,625	9,402
Fair value through other comprehensive income or loss	Available-for-sale financial assets	Fair value through other comprehensive income or loss	471,763	287,594	(184,169)
Financial assets measured at fair value through profit or loss	Available-for-sale financial assets	Financial assets measured at fair value through profit or loss	-	184,169	184,169
Trade and other receivables	Loans and receivables	Financial assets measured at amortized cost	1,187,967	1,185,862	(2,105)
Total			₩4,973,006	₩4,980,143	₩7,137

(2) Impairment of financial assets

The consolidation entity has two types of financial assets subject to the new expected credit loss model in K-IFRS No. 1109.

- Trade receivables from sales of inventories
- Debt instruments measured at amortized cost

The Group changed the policy on recognition of impairment loss as a result of the adoption of K-IFRS No. 1109. Please refer to the table in the above (1) for the effect on the beginning balance of the retained earnings for the period.

37-2. Application of K-IFRS No. 1115, 'Revenue from Contracts with Customers'

As noted in Note 3, the Group has applied K-IFRS No. 1115 since the current period, and the comparative presentation of the consolidated financial statements in accordance with the transitional provisions has not been restated. The effect of the application of this Standard on consolidated financial statements is as follows:

- (1) Adjustments reflected as of January 1, 2018 (the initial application date), in the consolidated statements of financial position are as follows:

<i>In millions of Korean won</i>	As of December 31, 2017, before adjustments	Adjustment	As of January 1, 2018, after adjustments
Current assets	₩6,585,704	₩1,260	₩6,586,964
Non-current assets	3,395,656	(4,792)	3,390,864
Total assets	9,981,360	(3,532)	9,977,828
Current liabilities	1,816,392	5,955	1,822,347
Non-current liabilities	335,208	(950)	334,258
Total liabilities	2,151,600	5,005	2,156,605
Total equity	7,829,760	(8,537)	7,821,223

The Group provides logistics, insurance, and credit card payment for some contracts it has signed with the customer. Logistics costs, etc., are recognized as a reduction in revenue as they are the consideration payable to the customer in accordance with K-IFRS No. 1115.

- (2) Each of the consolidated financial statements affected by the criteria prior to the modification in the reporting period in which K-IFRS No. 1115 was first applied is as follows:

<i>In millions of Korean won</i>	Amounts reported	Adjustments	If K-IFRS No. 1115 had not been applied
Current assets	₩6,413,375	₩ (1,428)	₩6,414,803
Non-current assets	3,741,727	(964)	3,742,691
Total assets	10,155,102	(2,392)	10,157,494
Current liabilities	1,640,708	(2,333)	1,643,041
Non-current liabilities	381,313	(344)	381,657
Total liabilities	2,022,021	(2,677)	2,024,698
Total equity	8,133,080	285	8,132,795
Sales	4,471,516	(35,054)	4,506,570
Cost of sales	1,836,031	(9,141)	1,845,172
Selling, general and administrative expenses	1,380,378	5,569	1,374,809
Income tax	420,011	78	419,933
Net profit for the period	898,659	(493)	899,152
Total comprehensive income (loss)	853,935	(493)	854,428

- (3) The cash flows from adoption of K-IFRS No. 1115 are the same as cash flows under previous standards.

38. Non-controlling interest

38-1. Changes in accumulated non-controlling interest

Gains or losses on disposal of non-controlling interests in consolidated subsidiaries that are attributable to non-controlling interests in equity are as follows

(1) For the year ended December 31, 2018

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

The non-controlling interest of 49% of the shares of Gwacheon Sangsang PFV acquired during the current period is included in the non-controlling interest in the consolidated statement of financial position.

(2) For the year ended December 31, 2017

<i>In millions of Korean won</i>	Non-controlling interest rate(%)	Basic Cumulative Non-controlling Interest	Net profit or loss distributed to non-controlling interests	Others	Adjustment
Yungjin Pharm. Co., Ltd.	47.55%	₩56,211	₩768	₩ -	₩56,979
Cosmococ Co., Ltd.	1.44%	998	(310)	40	728
Total equity		₩57,209	₩458	₩40	₩57,707

39. Business Combination

39-1. Details of business combination for the year ended December 31, 2017, are as follows:

<i>In millions of Korean won</i>	Principal operation	Acquisition date	Percentage of voting equity acquired(%)	Consideration transferred	Purpose
PT Nusantara Indag Makmur	Selling tobaccos	April 10, 2017	100	₩2,968	Business expansion-

39-2. Details of fair value of assets and liabilities recognized on acquisition date due to business combination for the years ended December 31, 2017 were as follows:

<i>In millions of Korean won</i>	Amount
Fair value of identifiable assets	₩11,100
Fair value of identifiable liabilities	(11,618)
Total of fair value of identifiable net assets	₩(518)

39-3. Details of goodwill recognized from business combination for the years ended December 31, 2017 were as follows:

<i>In millions of Korean won</i>	Amount
Consideration transferred	₩2,968
Less : Acquired fair value of identifiable net assets	(518)
Goodwill	₩3,486

39-4. Details of net cash transferred due to business combination for the years ended December 31, 2017 were as follows:

<i>In millions of Korean won</i>	Amount
Transferred cash	₩2,968
Less : Acquired cash and cash equivalents	(482)
Total transferred cash	₩2,486

40. Modification of comparative consolidated financial statements

40-1. The consolidated financial statements for the year ended December 31, 2017 have been adjusted and presented in the comparative consolidated financial statements.

40-2. The effect on the consolidated financial statements for the year ended December 31, 2017 is as follows:

<i>In millions of Korean won</i>	End of 2017	End of 2016
Re-classification of specific money trust accounts ¹⁾	₩515,059	₩160,363
Re-classification of property, plant and equipment to investment property ²⁾	101,198	80,846
Re-classification of investment property to property, plant and equipment ³⁾	114,413	118,382
Recognition of not-yet-arrived inventories ⁴⁾	5,455	-
Reclassification of inventories to property, plant and equipment ⁵⁾	5,149	3,532
Liquidity substitution of other liabilities ⁶⁾	7,939	-

- ¹⁾ Re-classification of special money trust account from cash equivalents to financial instruments
- ²⁾ Re-classification of fixed assets for rental purposes from property, plant and equipment to investment property
- ³⁾ Re-classification of self-usage assets from investment property to property, plant and equipment
- ⁴⁾ Recognizing not-yet-arrived inventories to inventories
- ⁵⁾ Reclassification of inventories to construction in progress of property, plant and equipment
- ⁶⁾ Liquidity substitution of provisions and grants

40-3. The effects of comparative presentation of consolidated financial statements on consolidated financial statements for fiscal year prior to December 31, 2017 are as follows:

<i>In millions of Korean won</i>	End of 2017		End of 2016	
	Before adjustment	After adjustment	Before adjustment	After adjustment
Current assets:	₩6,585,398	₩6,585,704	₩6,615,492	₩6,611,959
Cash and cash equivalents	1,230,176	715,117	850,786	690,423
Current other financial assets	1,563,900	2,081,586	1,657,338	1,824,907
Trade and other receivables	1,126,907	1,124,280	1,283,647	1,276,442
Inventories	2,317,466	2,317,773	2,265,355	2,261,822
Non-current assets:	3,390,507	3,395,656	3,196,595	3,200,127
Property, plant and equipment	1,756,979	1,775,342	1,606,529	1,647,597
Investment property	330,999	317,784	341,580	304,044
Total assets	₩9,975,905	₩9,981,360	₩9,812,087	₩9,812,087
Current liabilities:	₩1,802,999	₩1,816,392	₩2,153,379	₩2,153,379
Trade and other payables	523,300	528,754	622,208	622,208
Advance receipts	6,823	10,600	9,574	9,574
Current provision	2,970	7,131	-	-
Non-current liabilities:	343,146	335,208	540,950	540,950
Long-term advance receipts	10,827	7,050	9,877	9,877
Provision	13,363	9,202	4,704	4,704
Total liabilities	₩2,146,145	2,151,600	2,694,329	2,694,329
Total equity	₩7,829,760	7,829,760	7,117,758	7,117,758
Total liabilities and equity	₩9,975,905	9,981,360	9,812,087	9,812,087

40-4. The comparative presentation of consolidated financial statements does not affect the consolidated statement of profit or loss in 2017.

40-5. The effects of comparative presentation of consolidated financial statements on consolidated cash flows for financial years prior to December 31, 2017 are as follows:

<i>In millions of Korean won</i>	2017	
	Before adjustment	After adjustment
Cash flows from operating activities:		
Cash generated from operations	₩1,534,827	₩1,538,070
Net cash provided by operating activities	1,139,869	1,143,112
Cash flows from investing activities:		
Changes of guarantee deposits	(4,636)	(3,073)
Decrease in other financial assets(Increase)	83,776	(270,919)
Net cash used in investing activities	(329,886)	(683,019)
Cash flows from financing activities:		
Increase in deposits received	5,309	503
Net cash used in financing activities	(433,779)	(438,585)
Net increase in cash and cash equivalents	379,390	21,509
Cash and cash equivalents at January 1	850,786	690,423
Cash and cash equivalents at December 31	1,230,176	715,117

41. Events occurred after the reporting period

In April 2019, through the resolution of the board of directors on March 14, 2019, the Group will make capital contribution in kind to KGC Yebon Corporation of 100% of the shares which is held by the parent company, as a subsidiary of Korea Ginseng Corporation.

The four consolidated subsidiaries in Indonesia (PT Trisakti Purwosari Makmur, PT Mandiri Maha Mulia, PT Sentosa Ababi Purwosari and PT Purindo Ilufa) will be merged in May 2019 through a Board resolution on February 14, 2019.