Daekyo Co., Ltd. and Subsidiaries
Consolidated Financial Statements
December 31, 2017 and 2016

Daekyo Co., Ltd. and Subsidiaries
Index
December 31, 2017 and 2016

Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of
Daekyo Co., Ltd.

We have audited the accompanying consolidated financial statements of Daekyo Co., Ltd. and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as at December 31, 2017 and 2016, and the consolidated statements of profit or loss, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information.

Management's Responsibilities for the Financial Statements

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

Auditor's Responsibilities

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements, and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of Daekyo Co., Ltd. and its subsidiaries as at December 31, 2017 and 2016, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean IFRS.

Other Matter

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

Samil PricewaterhouseCoopers

Seoul, Korea
March 15, 2018

This report is effective as of March 15, 2018, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

Daekyo Co., Ltd. and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2017 and 2016

(in Korean won)	**Notes**	**2017**	**2016**
Assets			
Current assets			
Cash and cash equivalents	4,5,7,8	60,251,798,959	96,847,068,258
Financial deposits	4,5,7,8,32	20,688,270,244	12,121,398,451
Trade receivables	5,7,9,44	21,354,580,944	22,111,470,948
Other receivables	5,7,9,44	43,395,784,718	41,088,006,818
Financial assets at fair value through profit or loss	5,7,10	51,799,310,135	74,272,304,685
Derivative financial instruments	5,7,11	665,544,419	45,421,937
Available-for-sale financial assets	5,7,12	103,810,029,072	72,905,569,910
Inventories	13	16,077,010,855	20,115,480,766
Other current assets	14	4,178,718,312	4,041,559,742
		322,221,047,658	343,548,281,515
Non-current assets held for sale	16	-	3,544,206,750
Non-current assets			
Financial deposits	5,7,32	-	300,000,000
Long-term other receivables	5,7,9,44	9,047,789,414	11,079,941,679
Available-for-sale financial assets	5,7,12	161,564,480,707	149,403,008,832
Investments in associates	15	17,070,564,749	6,595,105,227
Property, plant and equipment	17	190,747,027,330	190,863,369,097
Investment properties	18	120,301,293,091	102,189,687,798
Intangible assets	19	35,921,936,259	40,249,056,113
Other non-current assets	14	223,339,984	366,311,508
		534,876,431,534	501,046,480,254
Total assets		857,097,479,192	848,138,968,519

Daekyo Co., Ltd. and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2017 and 2016

(in Korean won)	Notes	2017	2016
Liabilities			
Current liabilities			
Trade payables	4,5,7,44	8,893,795,885	9,969,681,040
Derivative financial instruments	4,5,7,11	193,705,899	1,065,085,697
Other payables	4,5,7,20,44	69,781,081,449	77,029,698,421
Borrowings	4,5,7,21	19,929,837,195	18,774,144,852
Income tax payable		6,273,929,274	6,359,802,084
Provisions	22	482,371,342	567,806,966
Other current liabilities	23	46,163,726,751	47,128,785,234
		151,718,447,795	160,895,004,294
Non-current liabilities			
Other payables	4,5,7,20	10,952,134,552	9,585,919,505
Borrowings	4,5,7,21	8,200,717,029	9,460,350,244
Net defined benefit liability	24	8,796,328,695	5,281,342,941
Deferred tax liabilities	25	497,386,934	119,648,054
		28,446,567,210	24,447,260,744
Total liabilities		180,165,015,005	185,342,265,038
Equity			
Share capital	26	52,064,920,000	52,064,920,000
Reserves	27	72,720,242,871	72,514,886,266
Other components of equity	28,29,30	(79,861,427,413)	(74,918,987,086)
Accumulated other comprehensive income	25	53,452,808,387	52,289,828,801
Accumulated other comprehensive income relating to the non-current asset held for sale	16	-	1,257,107,559
Retained earnings	31	572,213,321,630	551,632,229,562
Equity attributable to owners of the Parent Company		670,589,865,475	654,839,985,102
Non-controlling interest			
Non-controlling interest		6,342,598,712	7,956,718,379
Total equity		676,932,464,187	662,796,703,481
Total liabilities and equity		857,097,479,192	848,138,968,519

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

Daekyo Co., Ltd. and Subsidiaries
Consolidated Statements of Profit or Loss
Years Ended December 31, 2017 and 2016

(in Korean won)	Notes	2017	2016
Sales	6,33,44	812,203,103,598	820,717,373,381
Cost of sales	35,44	651,339,590,134	654,713,696,850
Gross profit		160,863,513,464	166,003,676,531
Selling and administrative expenses	34,35,44	115,378,593,639	123,156,826,326
Operating income	6	45,484,919,825	42,846,850,205
Other income	36	29,710,519,144	29,552,731,535
Other expenses	37,44	21,810,050,780	20,442,410,233
Share of profit of associates	15	594,520,526	865,216,300
Finance income	38,44	2,018,002,725	1,930,181,518
Finance costs	39	1,535,084,658	1,148,086,800
Profit before income tax		54,462,826,782	53,604,482,525
Income tax expense	40	12,843,983,573	11,814,039,080
Profit for the year		41,618,843,209	41,790,443,445
Profit for the year attributable to:			
Owners of the Parent Company	31	41,740,965,066	42,557,838,536
Non-controlling interests		(122,121,857)	(767,395,091)
Basic earnings per share attributable to the equity holders of the Parent Company:	41		
Basic earnings per share for ordinary shares		466	472
Basic earnings per share for preferred shares		465	471
Diluted earnings per share attributable to the equity holders of the Parent Company:	41		
Diluted earnings per share for ordinary shares		466	470
Diluted earnings per share for preferred shares		455	470

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

Daekyo Co., Ltd. and Subsidiaries
Consolidated Statements of Comprehensive Income
Years Ended December 31, 2017 and 2016

(in Korean won)	Notes	2017	2016
Profit for the year		41,618,843,209	41,790,443,445
Other comprehensive income, net of tax:			
Items that will not be reclassified to profit or loss			
Remeasurements of the net defined benefit liability	24,25,31	563,999,661	(2,581,226,162)
Items that may be subsequently reclassified to profit or loss			
Changes in the fair value of available-for-sale financial assets	25	1,526,946,281	2,035,022,822
Other comprehensive income relating to the non-current asset held for sale		(1,671,720,870)	1,430,607,270
Currency translation differences		(702,180,502)	(122,000,633)
Share of other comprehensive income of associates		70,447,759	(1,073,839,883)
Other comprehensive income for the year, net of tax		(212,507,671)	(311,436,586)
Total comprehensive income for the year		41,406,335,538	41,479,006,859
Total comprehensive income for the year is attributable to:			
Owners of the Parent Company		42,213,397,745	41,812,783,377
Non-controlling interest		(807,062,207)	(333,776,518)

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

Daekyo Co., Ltd. and Subsidiaries
Consolidated Statements of Changes in Equity
Years Ended December 31, 2017 and 2016

(in Korean won)

		Attributable to owners of the Parent Company							
	Notes	**Share capital**	**Reserves**	**Other components of equity**	**Accumulated other comprehensive income**	**Accumulated other comprehensive relating to the non-current asset held for sale**	**Retained earnings**	**Non-controlling interest**	**Total equity**
Balance at January 1, 2016		52,064,920,000	71,347,042,554	(73,278,036,516)	51,714,109,601	-	533,460,489,924	8,668,268,749	643,976,794,312
Comprehensive income (loss)									
Profit (loss) for the year		-	-	-	-	-	42,557,838,536	(767,395,091)	41,790,443,445
Changes in the fair value of available-for-sale financial assets		-	-	-	1,990,174,416	-	-	44,848,406	2,035,022,822
Currency translation differences		-	-	-	(159,301,733)	-	-	37,301,100	(122,000,633)
Remeasurement of net defined benefit liability		-	-	-	-	-	(2,577,881,918)	(3,344,244)	(2,581,226,162)
Share of other comprehensive income of associates		-	-	-	(1,073,839,883)	-	-	-	(1,073,839,883)
Reclassification relating to the non-current asset held for sale and others		-	-	-	(181,313,600)	1,257,107,559	-	354,813,311	1,430,607,270
Transactions with owners									
Dividends	42	-	-	-	-	-	(12,781,724,980)	-	(12,781,724,980)
Interim dividends	42	-	-	-	-	-	(9,026,492,000)	-	(9,026,492,000)
Dividends of subsidiaries		-	(1,892,984)	-	-	-	-	(985,974,042)	(987,867,026)
Issuance of shares of subsidiaries		-	370,309,318	-	-	-	-	608,200,190	978,509,508
Acquisition of treasury share	30	-	-	(4,188,410,220)	-	-	-	-	(4,188,410,220)
Disposal of treasury share	30	-	799,427,378	2,532,537,816	-	-	-	-	3,331,965,194
Stock options	29	-	-	14,921,834	-	-	-	-	14,921,834
Balance at December 31, 2016		52,064,920,000	72,514,886,266	(74,918,987,086)	52,289,828,801	1,257,107,559	551,632,229,562	7,956,718,379	662,796,703,481
Balance at January 1, 2017		52,064,920,000	72,514,886,266	(74,918,987,086)	52,289,828,801	1,257,107,559	551,632,229,562	7,956,718,379	662,796,703,481
Comprehensive income (loss)									
Profit (loss) for the year		-	-	-	-	-	41,740,965,066	(122,121,857)	41,618,843,209
Changes in the fair value of available-for-sale financial assets		-	-	-	1,452,916,982	-	-	74,029,299	1,526,946,281
Currency translation differences		-	-	-	(360,385,155)	-	-	(341,795,347)	(702,180,502)
Remeasurement of net defined benefit liability		-	-	-	-	-	566,560,652	(2,560,991)	563,999,661
Share of other comprehensive income of associates		-	-	-	70,447,759	-	-	-	70,447,759
Reclassification relating to the non-current asset held for sale and others		-	-	-	-	(1,257,107,559)	-	(414,613,311)	(1,671,720,870)
Transactions with owners									
Dividends	42	-	-	-	-	-	(12,768,742,350)	-	(12,768,742,350)
Interim dividends	42	-	-	-	-	-	(8,957,691,300)	-	(8,957,691,300)
Dividends of subsidiaries		-	-	-	-	-	-	(891,420,847)	(891,420,847)
Issuance of shares of subsidiaries		-	(154,307,373)	-	-	-	-	84,363,387	(69,943,986)
Acquisition of treasury share	30	-	-	(6,809,672,900)	-	-	-	-	(6,809,672,900)
Disposal of treasury share	30	-	359,663,978	1,178,998,944	-	-	-	-	1,538,662,922
Stock options	29	-	-	688,233,629	-	-	-	-	688,233,629
Balance at December 31, 2017		52,064,920,000	72,720,242,871	(79,861,427,413)	53,452,808,387	-	572,213,321,630	6,342,598,712	676,932,464,187

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

Daekyo Co., Ltd. and Subsidiaries
Consolidated Statements of Cash Flows
Years Ended December 31, 2017 and 2016

(in Korean won)	Note	2017	2016
Cash flows from operating activities			
Cash generated from operations	43	104,027,306,650	90,801,405,997
Dividends received		3,875,688,570	4,642,167,563
Interest received		1,783,207,938	1,550,286,933
Interest paid		(1,033,623,877)	(963,470,428)
Income tax paid		(15,706,436,415)	(10,277,260,740)
Net cash inflow from operating activities		92,946,142,866	85,753,129,325
Cash flows from investing activities			
Decrease in financial deposits		11,801,957,835	7,799,624,763
Proceeds from disposal of available-for-sale financial assets		178,575,135,529	121,439,407,092
Proceeds from disposal of non-current assets held for sale		2,744,184,250	331,750,000
Decrease in other receivables		7,413,746,926	7,123,493,842
Proceeds from disposal of investments in associates		1,212,000,000	348,000,000
Proceeds from disposal of property, plant and equipment		2,329,391,940	289,642,415
Grants from governments		179,224,707	-
Increase in financial deposits		(20,083,477,693)	(11,156,373,310)
Acquisition of available-for-sale financial assets		(205,492,695,196)	(130,233,478,630)
Increase in other receivables		(7,746,670,118)	(9,640,963,478)
Investments in associates		(11,000,000,000)	(3,892,500,000)
Acquisition of property, plant and equipment		(47,075,856,046)	(34,615,239,918)
Acquisition of intangible assets		(14,353,760,685)	(12,327,992,469)
Decraese in cash due to business acquisition		(815,181,294)	-
Net cash outflow from investing activities		(102,311,999,845)	(64,534,629,693)
Cash flows from financing activities			
Disposal of treasury shares		557,182,496	1,220,421,160
Issuance of shares of subsidiaries		84,363,387	978,509,508
Proceeds from borrowings		6,302,428,000	23,769,968,639
Acquisition of treasury shares		(6,809,672,900)	(4,188,410,220)
Dividends of subsidiaries		(891,420,847)	(987,867,026)
Dividends paid		(21,726,433,650)	(21,808,216,980)
Repayments of borrowings		(3,791,767,834)	(24,471,292,405)
Net cash outflow from financing activities		(26,275,321,348)	(25,486,887,324)
Net decrease in cash and cash equivalents		(35,641,178,327)	(4,268,387,692)
Cash and cash equivalents at the beginning of the year		96,847,068,258	101,204,520,321
Exchange losses on cash and cash equivalents		(954,090,972)	(89,064,371)
Cash and cash equivalents at the end of the year		60,251,798,959	96,847,068,258

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

1. General Information

Daekyo Co., Ltd. (the Company) and its subsidiaries (collectively referred to as the Group) are engaged in educational and cultural work. The Company was incorporated in December 1986, to engage in the publication, manufacturing and sales of home-school materials. The Company, as an education and culture company, provides various products and educational services such as the Noonnoppi education, pre-school education, publishing, educational institutions, home-based teaching, on-line education, and after-school teaching.

In February 2004, the Company listed its shares on the KRX KOSPI Market of the Korean Exchange. As at December 31, 2017, the majority shareholder, Daekyo Holdings Co., Ltd. owns 54.5% of the Company.

1.1 Subsidiaries

		Percentage of ownership (%)							
		December 31, 2017			December 31, 2016				
Subsidiaries	Location	Controlling interest (%)	Interest owned by subsidiary (%)	Non-controlling interest (%)	Controlling interest (%)	Interest owned by subsidiary (%)	Non-controlling interest (%)	Closing Month	Major Business
Daekyo Edupia Co., Ltd.	Korea	98.64	-	1.36	98.64	-	1.36	December	Education
Daekyo Book Center Co., Ltd.[1]	Korea	-	-	-	100.00	-	-	December	Book sales
Daekyo Edu camp Co., Ltd.	Korea	99.86	-	0.14	99.86	-	0.14	December	Education
DK BUSAN Co., Ltd.	Korea	-	100.00	-	-	100.00	-	December	Education
DK ULSAN Co., Ltd.	Korea	-	100.00	-	-	100.00	-	December	Education
Daekyo CSA Co., Ltd.	Korea	70.00	-	30.00	70.00	-	30.00	December	Education
Daekyo New Development Investment Association[4]	Korea	-	-	-	80.00	-	20.00	December	Investment
Daekyo America, Inc.	USA	50.06	-	49.94	50.06	-	49.94	December	Education
Daekyo Hong Kong Co., Ltd. [2]	China	47.89	-	52.11	47.89	-	52.11	December	Education
Daekyo Malaysia Sdn. Bhd.	Malaysia	100.00	-	-	100.00	-	-	December	Education
Beijing Daekyo Co., Ltd.	China	100.00	-	-	100.00	-	-	December	Education
Shanghai Daekyo Co., Ltd.	China	100.00	-	-	100.00	-	-	December	Education
P.T Daekyo Indonesia	Indonesia	69.83	-	30.17	69.83	-	30.17	December	Education
Daekyo Enopi Singapore PTE Ltd.	Singapore	70.00	-	30.00	70.00	-	30.00	December	Education
Daekyo Vietnam Co., Ltd.	Vietnam	100.00	-	-	100.00	-	-	December	Education
EYE LEVEL HUB LLC.	USA	50.06	-	49.94	50.06	-	49.94	December	Lease
Daekyo India Private Limited	India	100.00	-	-	100.00	-	-	March	Education
Daekyo UK CO.,Ltd.	UK	100.00	-	-	100.00	-	-	December	Education
Changchun Daekyo Consulting Co., Ltd. [3]	China	100.00	-	-	-	-	-	December	Education
Heungkuk Altoran Securities Private Investment Trust	Korea	77.69	-	22.31	77.69	-	22.31	December	Investment
Hyundai Advantage Private Equity 5	Korea	100.00	-	-	100.00	-	-	December	Investment

Truston Private Securities Investment Trust 4	Korea	100.00	-	-	100.00	-	-	December	Investment

[1]Daekyo Book Center Co., Ltd. was merged into the Company during 2017.

[2] Although the Company has less than 50% of the voting power in the investee, it is included in subsidiary as the Company has a right to appoint the majority of its Board of Directors.

[3] As Changchun Daekyo Consulting Co., Ltd. was newly established during 2017, it is included in a subsidiary.

[4] Daekyo New Development Investment Association was liquidated during 2017.

1.2 Summary of Financial Information of Consolidated Subsidiaries

Summary of financial position and comprehensive income of consolidated subsidiaries as at and for the years ended December 31, 2017 and 2016, is as follows:

(in millions of Korean won)	December 31, 2017			December 31, 2016		
	Assets	Liabilities	Equity	Assets	Liabilities	Equity
Daekyo Edupia Co., Ltd.	5,219	10,042	(4,823)	5,556	9,222	(3,666)
Daekyo Book Center Co., Ltd.	-	-	-	5,304	4,353	951
Daekyo Educamp Co., Ltd. and its subsidiaries	15,689	2,334	13,355	14,570	2,413	12,157
Daekyo CSA Co., Ltd.	14	-	14	12	-	12
Daekyo New Development Investment Association.	-	-	-	3,927	-	3,927
Daekyo America, Inc.	4,553	3,964	589	6,360	5,199	1,161
Daekyo Hong Kong Co., Ltd.	7,437	1,241	6,196	7,652	1,130	6,522
Daekyo Malaysia Sdn. Bhd.	1,749	1,036	713	1,658	1,058	600
Beijing Daekyo Co., Ltd.	250	370	(120)	275	388	(113)
Shanghai Daekyo Co., Ltd.	1,007	953	54	765	437	328
P.T Daekyo Indonesia	1,599	2,761	(1,162)	1,617	2,302	(685)
Daekyo Enopi Singapore PTE Ltd.	680	2,157	(1,477)	654	1,827	(1,173)
Daekyo Vietnam Co., Ltd.	347	259	88	397	283	114
EYE LEVEL HUB LLC	23,747	25,174	(1,427)	27,055	28,241	(1,186)
Daekyo India Private Limited	627	96	531	726	143	583
Daekyo UK CO.,Ltd.	561	100	461	896	26	870
Changchun Daekyo Consulting Co., Ltd.	138	304	(166)	-	-	-
Heungkuk Altoran Securities Private Investment Trust	19,591	7	19,584	18,559	7	18,552
Hyundai Advantage Private Equity 5	9,760	148	9,612	9,056	55	9,001
Truston Private Securities Investment Trust 4	5,976	810	5,166	4,964	5	4,959

(in millions of Korean won)	2017			2016		
	Sales	**Profit (loss)**	**Comprehensive income (loss)**	**Sales**	**Profit (loss)**	**Comprehensive income (loss)**
Daekyo Edupia Co., Ltd.	10,392	(987)	(1,157)	12,325	(283)	(361)
Daekyo Book Center Co., Ltd.[1]	1,784	(331)	(332)	15,576	(265)	(265)
Daekyo Educamp Co., Ltd. and its subsidiaries	30,638	1,372	1,198	29,309	2,278	2,138
Daekyo CSA Co., Ltd.	-	1	1	-	(1)	(1)
Daekyo New Development Investment Association.	-	643	(1,430)	-	539	2,612
Daekyo America, Inc.	9,157	(466)	(573)	9,028	(900)	(897)
Daekyo Hong Kong Co., Ltd.	6,816	1,071	267	6,613	953	1,148
Daekyo Malaysia Sdn. Bhd.	1,954	126	113	2,216	182	169
Beijing Daekyo Co., Ltd.	6	(13)	(6)	95	(76)	(74)
Shanghai Daekyo Co., Ltd.	605	(836)	(869)	443	(1,155)	(1,232)
P.T Daekyo Indonesia	879	(1,168)	(1,044)	1,066	(938)	(946)
Daekyo Enopi Singapore PTE Ltd.	1,279	(597)	(545)	1,240	(820)	(839)
Daekyo Vietnam Co., Ltd.	257	(581)	(597)	227	(690)	(684)
EYE LEVEL HUB LLC.	3,338	(396)	(240)	3,179	(955)	(1,000)
Daekyo India Private Limited	190	(452)	(499)	74	(407)	(410)
Daekyo UK CO.,Ltd.	91	(390)	(409)	75	(124)	(287)
Changchun Daekyo Consulting Co., Ltd.	-	(273)	(267)	-	-	-
Heungkuk Altoran Securities Private Investment Trust	-	735	1,067	-	385	318
Hyundai Advantage Private Equity 5	-	565	611	-	(484)	(542)
Truston Private Securities Investment Trust 4	-	146	357	-	(192)	(150)

[1]The information of profit or loss is financial performance before merger.

1.3 Change in the Scope of Consolidation

Subsidiary newly included in the consolidation for the year ended December 31, 2017:

Subsidiary	**Reason**
Changchun Daekyo Consulting Co., Ltd.	Newly acquired as Changchun Daekyo Consulting Co., Ltd. was newly established

Subsidiaries excluded from the consolidation for the year ended December 31, 2017:

Subsidiaries	Reason
Daekyo Book Center Co., Ltd.	It was merged into the Company
Daekyo New Development Investment Association	It was liquidated

2. Significant Accounting Policies

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

2.1 Basis of Preparation

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

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

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

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

2.1.1 Changes in Accounting Policies and Disclosures

(a) New and amended standards adopted by the Group

The Group has applied the following standards and amendments for the first time for their annual reporting period commencing January 1, 2017. The adoption of these amendments did not have any material impact on the financial statements.

- Amendments to Korean IFRS 1007 *Statement of Cash Flows*

Amendments to Korean IFRS 1007 *Statement of Cash flows* require to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash flows.

- Amendments to Korean IFRS 1012 *Income Tax*

Amendments to Korean IFRS 1012 clarify how to account for deferred tax assets related to debt instruments measured at fair value. Korean IFRS 1012 provides requirements on the recognition and measurement of current or deferred tax liabilities or assets. The amendments issued clarify the requirements on recognition of deferred tax assets for unrealized losses, to address diversity in practice.

- Amendments to Korean IFRS 1112 *Disclosures of Interests in Other Entities*

Amendments to Korean IFRS 1112 clarify when an entity's interest in a subsidiary, a joint venture or an associate is classified as held for sales in accordance with Korean IFRS 1105, the entity is required to disclose other information except for summarized financial information in accordance with Korean IFRS 1112.

(b) 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, 2017 and have not been early adopted by the Group are set out below.

- Amendments to Korean IFRS 1028 *Investments in Associates and Joint Ventures*

When an investment in an associate or a joint venture is held by, or it held indirectly through, an entity that is a venture capital organization, or a mutual fund, unit trust and similar entities including investment-linked insurance funds, the entity may elect to measure that investment at fair value through profit or loss in accordance with Korean IFRS 1109. The amendments clarify that an entity shall make this election separately for each associate of joint venture, at initial recognition of the associate or joint venture. The amendments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the amendments to have a significant impact on the financial statements because the Group is not a venture capital organization.

- Amendment to Korean IFRS 1040 *Transfers of Investment Property*

Paragraph 57 of Korean IFRS 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 provides a list of circumstances as examples. The amendment will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the amendment to have a significant impact on the financial statements.

- Amendments to Korean IFRS 1102 *Share-based Payment*

Amendments to Korean IFRS 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 amendments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the amendments to have a significant impact on the financial statements.

- Enactment of Interpretation 2122 *Foreign Currency Transaction and Advance Consideration*

According to these enactments, 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. If there are multiple payments or receipts in advance, the entity shall determine a date of the transaction for each payment or receipt of advance consideration. These enactments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the enactments to have a significant impact on the financial statements.

- Enactment of Korean IFRS 1116 *Leases*

Korean IFRS 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 Korean IFRS 1017 *Leases*, Interpretation 2104 *Determining whether an Arrangement contains a Lease*, Interpretation 2015 *Operating Leases-Incentives*, and Interpretation 2027 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*.

At inception of a contract, the Group shall assess whether the contract is, or contains, a lease. Also, at the date of initial application, the Group shall assess whether the contract is, or contains, a lease in accordance with the standard. However, the Group will not need to reassess all contracts with applying the practical expedient because the Group elected to apply the practical expedient only to contracts entered before the date of initial application.

For a contract that is, or contains, a lease, the Group shall account for each lease component within the contract as a lease separately from non-lease components of the contract. A lessee is required to recognize a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. The lessee may elect not to apply the requirements to short-term lease (a lease term of 12 months or less at the commencement date) and low value assets. In addition, as a practical expedient, the lessee may elect, by class of underlying asset, not to separate non-lease components from lease components, and instead account for each lease component and any associated non-lease components as a single lease component.

a) Lessee accounting

Method of applying Korean IFRS 1116 *Leases*

A lessee shall apply this standard to its leases either:

- retrospectively to each prior reporting period presented applying Korean IFRS 1008 *Accounting Policies, Changes in Accounting Estimates and Errors* (Full retrospective application); or

- retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial application.

The Group has not yet elected the application method.

Financial effects of Korean IFRS 1116 *Leases*

The Group performed an impact assessment to identify potential financial effects of applying Korean IFRS 1116. The assessment was performed based on available information as at December 31, 2017 to identify effects on financial statements. The Group is analyzing the effects on the financial statements; however, it is difficult to provide reasonable estimates of financial effects until the analyses is complete.

b) Lessor accounting

Method of applying and financial effects of Korean IFRS 1116 *Leases*

The Group expects the effect on the financial statements applying the new standard will not be significant as accounting for the Group, as a lessor, will not significantly change.

- Enactment of Korean IFRS 1109 *Financial Instruments*

The new standard for financial instruments issued on September 25, 2015 is effective for annual periods beginning on or after January 1, 2018 with early application permitted. This standard will replace Korean IFRS 1039 *Financial Instruments: Recognition and Measurement*. The Group will apply the standards for annual periods beginning on or after January 1, 2018.

The standard requires retrospective application with some exceptions. For example, an entity is not required to restate prior period in relation to classification and measurement (including impairment) of financial instruments. The standard requires prospective application of its hedge accounting requirements for all hedging relationships except the accounting for time value of options and other exceptions.

Korean IFRS 1109 *Financial Instruments* requires three main areas including: (a) classification and measurement of financial assets on the basis of the entity's business model for managing financial assets and the contractual cash flow characteristics of the financial assets, (b) a new impairment model of financial instruments based on the expected credit losses, and (c) hedge accounting including expansion of the range of eligible hedging instruments and hedged items that qualify for hedge accounting or change of a method of hedge effectiveness assessment.

An effective implementation of Korean IFRS 1109 requires preparation processes including financial impact assessment, accounting policy establishment, accounting system development and the system stabilization. The impact on the Group's financial statements due to the application of the standard is dependent on judgements made in applying the standard, financial instruments held by the Group and macroeconomic variables.

The Group performed an impact assessment to identify potential financial effects of applying Korean IFRS 1109. The assessment was performed based on available information as at December 31, 2017, and the results of the assessment are explained as below. The Group plans to perform more detailed analyses on the financial effects based on additional information in the future; therefore, the results of the assessment may change due to additional information that the Group may obtain after the assessment.

a) Classification and Measurement of Financial Assets

When implementing Korean IFRS 1109, the classification of financial assets will be driven by the Group's business model for managing the financial assets and contractual terms of cash flow. The following table shows the classification of financial assets measured subsequently at amortized cost, at fair value through other comprehensive income and at fair value through profit or loss. If a hybrid contract contains a host that is a financial asset, the classification of the hybrid contract shall be determined for the entire contract without separating the embedded derivative.

Business model for the contractual cash flows characteristics	**Solely represent payments of principal and interest**	**All other**
Hold the financial asset for the collection of the contractual cash flows	Measured at amortized cost[1]	Recognized at fair value through profit or loss[2]
Hold the financial asset for the collection of the contractual cash flows and sale	Recognized at fair value through other comprehensive income [1]	
Hold for sale	Recognized at fair value through profit or loss	

[1] A designation at fair value through profit or loss is allowed only if such designation mitigates an accounting mismatch (irrevocable).

[2] Equity investments not held for trading can be recorded in other comprehensive income (irrevocable).

With the implementation of Korean IFRS 1109, the criteria to classify the financial assets at amortized cost or at fair value through other comprehensive income are more strictly applied than the criteria applied with Korean IFRS 1039. Accordingly, the financial assets at fair value through profit or loss may increase by implementing Korean IFRS 1109 and may result an extended fluctuation in profit or loss.

As at December 31, 2017, the Group owns loans and receivables of ₩ 154,739 million, financial assets available-for-sales of ₩ 265,374 million and financial assets at fair value through profit or loss of ₩ 52,465 million. And, the Group does not hold financial assets held-to-maturity.

According to Korean IFRS 1109, a debt instrument is measured at amortized cost if: a) the objective of the business model is to hold the financial asset for the collection of the contractual cash flows, and b) the contractual cash flows under the instrument solely represent payments of principal and interest. As at December 31, 2017, the Group measured loans and receivables of ₩ 154,739 million at amortized costs. And, the Group does not hold financial assets held-to-maturity.

The application of the new standard as at December 31, 2017 does not have a material impact on the Group's financial statements. This is because the Group holds the majority of financial assets measured at amortized cost that meets the both criteria: a) the contractual terms of the financial assets that the Group holds give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding on a specified date, and b) the Group holds the financial assets in order to collect contractual cash flow.

According to Korean IFRS 1109, a debt instrument is measured at fair value through other comprehensive income if the objective of the business model is achieved both by collecting contractual cash flows and selling financial assets; and the contractual cash flows represents solely payments of principal and interest on a specific date under contract terms. As at December 31, 2017, the Group holds debt instruments of ₩ 20,129 million classified as financial assets available-for-sale.

Based on results from the impact assessment of Korean IFRS 1109, if Korean IFRS 1109 is applied for the above debt instruments classified as financial assets available-for-sale, the Group expects the majority of the financial assets to be measured at fair value through other comprehensive income.

According to Korean IFRS 1109, equity instruments that are not held for trading, the Group can make an irrevocable election at initial recognition to classify the instruments as assets measured at fair value through other comprehensive income, which all subsequent changes in fair value being recognized in other comprehensive income and not recycled to profit or loss. As at December 31, 2017, the Group holds equity instruments of ₩ 245,245 million classified as financial assets available-for-sale and recycled unrealized gain or loss of ₩ 11,474 million arose from the equity instruments to profit or loss.

Based on results from the impact assessment of Korean IFRS 1109, the Group plans to designate equity instruments, which are classified in financial assets available-for-sale, as instruments measured at fair value through other comprehensive income for long-term investment purpose. Therefore, the Group is analyzing the effects on the financial statements.

According to Korean IFRS 1109, debt instruments those contractual cash flows do not represent solely payments of principal and interest and held for trading, and equity instruments that are not designated as instruments measured at fair value through other comprehensive income are measured at fair value through profit or loss. As at December 2017, the Group holds equity instruments classified as financial assets at fair value through profit or loss that amount to ₩ 51,799 million.

Based on results from the impact assessment, if the Group applies Korean IFRS 1109 to the financial assets measured at fair value through profit or loss as at December 31, 2017, the application will not have a material impact on the financial statements because the majority of the financial assets will still be classified as at fair value through profit or loss.

b) Classification and Measurement of Financial Liabilities

Korean IFRS 1109 requires the amount of the change in the liability's fair value attributable to changes in the credit risk to be recognized in other comprehensive income, unless this treatment of the credit risk component creates or enlarges a measurement mismatch. Amounts presented in other comprehensive income are not subsequently transferred to profit or loss.

Under Korean IFRS 1039, all financial liabilities designated at fair value through profit or loss recognized their fair value movements in profit or loss. However, under Korean IFRS 1109, certain fair value movements will be recognized in other comprehensive income and as a result profit or loss from fair value movements may decrease.

As at December 31, 2017, the Group holds financial liabilities at fair value through profit or loss of ₩ 194 million. Based on results from the impact assessment, the financial liabilities in applying Korean IFRS 1109 may not be expected to have a material impact on the financial statements because the majority of financial liabilities designated as at fair value through profit or loss as at December 31, 2017 have short maturities and insignificant fluctuations in their credit risks.

c) Impairment: Financial Assets and Contract Assets

The new impairment model requires the recognition of impairment provisions based on expected credit losses (ECL) rather than only incurred credit losses as is the case under Korean IFRS 1039. It applies to financial assets classified at amortized cost, debt instruments measured at fair value through other comprehensive income, lease receivables, contract assets, loan commitments and certain financial guarantee contracts.

Under Korean IFRS 1109 'expected loss' model, a credit event (or impairment 'trigger') no longer has to occur before credit losses are recognized. The Group will always recognize (at a minimum) 12-month expected credit losses in profit or loss. Lifetime expected losses will be recognized on assets for which there is a significant increase in credit risk after initial recognition.

Stage[1]		Loss allowance
1	No significant increase in credit risk after initial recognition[2]	12-month expected credit losses (expected credit losses that result from those default events on the financial instrument that are possible within 12 months after the reporting date)
2	Significant increase in credit risk after initial recognition	Lifetime expected credit losses (expected credit losses that result from all possible default events over the life of the financial instrument)
3	Credit-impaired	

[1] A loss allowance for lifetime expected credit losses is required for a financial instrument if the credit risk on that financial instrument has increased significantly since initial recognition. It is also required for contract assets or trade receivables that are not, according to Korean IFRS 1115 *Revenue from Contracts with Customers*, considered to contain a significant financing component. Additionally, the Group can elect an accounting policy of recognizing lifetime expected credit losses for all contract assets and/or all trade receivables, including those that contain a significant financing component.

[2] If the financial instrument has low credit risk at the end of the reporting period, the Group may assume that the credit risk has not increased significantly since initial recognition.

Under Korean IFRS 1109, the asset that is credit-impaired at initial recognition would recognize all changes in lifetime expected credit losses since the initial recognition as a loss allowance with any changes recognized in profit or loss.

As at December 31, 2017, the Group owns loans and receivables carried at amortized cost of ₩ 167,105 million (before deducting allowance for doubtful accounts), the Group recognized loss allowance of ₩ 12,366 million for these assets.

d) Hedge Accounting

Hedge accounting mechanics (fair value hedges, cash flow hedges and hedge of net investments in a foreign operations) required by Korean IFRS 1039 remains unchanged in Korean IFRS 1109, however, the new hedge accounting rules will align the accounting for hedging instruments more closely with the Group's risk management practices. As a general rule, more hedge relationships might be eligible for hedge accounting, as the standard introduces a more principles-based approach. Korean IFRS 1109 allows more hedging instruments and hedged items to qualify for hedge accounting, and relaxes the hedge accounting requirement by removing two hedge effectiveness tests that are a prospective test to ensure that the hedging relationship is expected to be highly effective and a quantitative retrospective test (within range of 80-125%) to ensure that the hedging relationship has been highly effective throughout the reporting period.

With implementation of Korean IFRS 1109, volatility in profit or loss may be reduced as some items that were not eligible as hedged items or hedging instruments under Korean IFRS 1039 are now eligible under Korean IFRS 1109.

Furthermore, when the Group first applies Korean IFRS 1109, it may choose as its accounting policy choice to continue to apply all of the hedge accounting requirements of Korean IFRS 1039 instead of the requirements of Korean IFRS 1109.

- Enactment of Korean IFRS 1115 *Revenue from Contracts with Customers*

Korean IFRS 1115 *Revenue from Contracts with Customers* issued on November 6, 2015 will be effective for annual reporting periods beginning on or after January 1, 2018 with early adoption permitted. This standard replaces Korean IFRS 1018 *Revenue*, Korean IFRS 1011 *Construction Contracts*, Interpretation 2031 *Revenue-Barter Transactions Involving Advertising Services*, Interpretation 2113 *Customer Loyalty Programs*, Interpretation 2115 *Agreements for the Construction of Real Estate* and Interpretation 2118 *Transfers of assets from customers.* The Group must apply Korean IFRS 1115 *Revenue from Contracts with Customers* within annual reporting periods beginning on or after January 1, 2018, and will elect the modified retrospective approach which will recognize the cumulative impact of initially applying the revenue standard as an adjustment to retained earnings as at January 1 2018, the period of initial application.

Korean IFRS 1018 and other current revenue standard identify revenue as income that arises in the course of ordinary activities of an entity and provides guidance on a variety of different types of revenue, such as, sale of goods, rendering of services, interest, dividends, royalties and construction contracts. However, the new standard is based on the principle that revenue is recognized when control of a good or service transfers to a customer so the notion of control replaces the existing notion of risks and rewards. A new five-step process must be applied before revenue from contract with customers can be recognized:

- Identify contracts with customers
- Identify the separate performance obligation
- Determine the transaction price of the contract
- Allocate the transaction price to each of the separate performance obligations, and
- Recognize the revenue as each performance obligation is satisfied.

As at December 31, 2017, for the preparation of implementing Korean IFRS 1115, the Group formed a task force team consist of members from accounting and IT departments, and also other practical departments if necessary.

The Group plans to perform detailed analysis on financial effects of applying the standard and disclose the result of the analysis in the notes on the financial statements as at March 31, 2018.

The Group performed an impact assessment to identify potential financial effects of applying Korean IFRS 1115. The assessment was performed based on available information as at December 31, 2017, and the results of the assessment are explained as below. The results of the assessment as at December 31, 2017 may change due to additional information that the Group may obtain after the assessment.

a) Identify performance obligation

With the implementation of Korean IFRS 1115, the Group identifies performance obligations from contract with a customer such as (a) sales of goods and (b) rendering of services. The timing of revenue recognition depends on a performance obligation is satisfied at a point in time or over time. The Group could not analyze the financial effects of separating performance obligations in detail.

b) Variable consideration

Variable consideration received from customer may fluctuate as the Group's publication business allows refunds at the contract that provides customer with the books. The Group could not analyze the financial effects of variable consideration policy in detail.

2.2 Consolidation

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

(a) Subsidiaries

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

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

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

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

(b) Changes in ownership interests in subsidiaries without change of control

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 changed 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.

(c) Disposal of subsidiaries

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.

(d) 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 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.

2.3 Segment Reporting

Group’s operating segments are disclosed by entities reported to chief operating decision maker, the representative director, disclosures related to segment reporting are disclosed in ‘Note 6’ in accordance with Korean IFRS 1108, Segment reporting.

2.4 Foreign Currency Translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group’s entities are measured using the currency of the primary economic environment in which the each entity operates (the “functional currency”). The consolidated financial statements are presented in Korean won, which is the Controlling Company’s functional and presentation currency.

(b) Transactions and balances
Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in profit or loss, except when deferred in other comprehensive income as qualifying cash flow hedges.

Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented in 'finance income or costs' in the statement of profit or loss. All other foreign exchange gains and losses are presented in 'other income and expenses' in the statement of profit or loss.

Changes in the fair value of monetary securities denominated in foreign currency classified as available-for-sale are analyzed between translation differences resulting from changes in the amortized cost of the security and other changes in the carrying amount of the security. Translation differences related to changes in amortized cost are recognized in profit or loss, and other changes in carrying amount are recognized in other comprehensive income.

Exchange differences arising on non-monetary financial assets and liabilities such as equity instruments at fair value through profit or loss and available-for-sale equity instruments are recognized in profit or loss and included in other comprehensive income, respectively, as part of the fair value gain or loss.

2.5 Cash and Cash Equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks, and other short-term highly liquid investments with original maturities of three months or less.

2.6 Financial Assets

(a) Classification and measurement

The Group classifies its financial assets into the following categories: financial assets at fair value through profit or loss, available-for-sale financial assets, loans and receivables, and held-to-maturity financial assets. Regular way purchases and sales of financial assets are recognized on trade-date, the date on which the Group commits to purchase or sell the asset.

For hybrid (combined) instruments, the Group is unable to measure an embedded derivative separately from its host contract; therefore, the entire hybrid (combined) contract is classified as at fair value through profit or loss. The Group designated financial assets, equity-linked securities, as at fair value through profit or loss.

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. Available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. And, loans and receivables and held-to-maturity investments are subsequently carried at amortized cost using the effective interest method.

Gains or losses arising from changes in the fair value of financial assets at fair value through profit or loss are recognized in profit or loss. Gains or losses arising from changes in the available-for-sale financial assets are recognized in other comprehensive income, and amounts are reclassified to profit or loss when the associated assets are sold or impaired.

(b) Impairment

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or a group of financial assets that can be reliably estimated.

Impairment of loans and receivables is presented as a deduction in an allowance account, and that of other financial assets is directly deducted from their carrying amount. The Group writes off financial assets when the assets are determined to be no longer recoverable.

The objective evidence that a financial asset is impaired includes significant financial difficulty of the issuer or obligor; a delinquency in interest or principal payments; or the disappearance of an active market for that financial asset because of financial difficulties. Moreover, in the case of equity investments classified as available-for-sale, a significant decline in the fair value of the security below its cost, or prolonged decline is considered an objective evidence of impairment.

(c) Derecognition

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.

(d) Offsetting of financial instruments

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

2.7 Derivative Instruments

Derivatives are initially recognized at fair value on the date when a derivative contract is entered into and are subsequently remeasured at their fair value at the end of each reporting period. Changes in the fair value of any derivative instrument that are not qualified for hedge accounting are recognized in profit or loss within 'other income (expenses)' or 'finance income (costs)' based on the nature of transactions.

2.8 Trade Receivables

Trade receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of business. If collection is expected in one year or less, they are classified as current assets. If not, they are presented as non-current assets. Trade receivables are recognized initially at fair value, less allowance for doubtful accounts.

2.9 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the moving average method and FIFO method.

2.10 Non-current Assets (or disposal group) Held for Sale

Non-current assets (or disposal group) are classified as ‘non-current assets held-for-sale’ (or assets of disposal group classified as held for sale) when their carrying amount is to be recovered principally through a sale transaction and a sale is considered highly probable. They are stated at the lower of carrying amount and fair value less costs to sell.

2.11 Property, Plant and Equipment

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

Subsequent costs are included in the 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 to 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 statement of income during the financial period in which they are incurred.

Land, standing timber and construction-in-progress are not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate the difference between their cost and their residual values over their estimated useful lives, as follows:

	Estimated Useful lives
Buildings	40 - 60 years
Structures	3 - 40 years
Machinery	4 - 5 years
Vehicles	4 - 10 years
Tools	4 - 6 years
Supplies	3 - 17 years
Equipment	5 years

The assets' depreciation method, 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 within 'other income (expenses)' in the statement of profit or loss.

2.12 Borrowing Costs

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

2.13 Investment Property

Investment properties is property held to earn rentals or for capital appreciation or both. An investment properties is measured initially at its cost. An investment properties is measured after initial measurement at depreciated cost (less any accumulated impairment losses). After recognition as an asset, investment properties is carried at cost less accumulated depreciation and impairment losses. The Group depreciates investment properties, except for land, using the straight-line method over their useful lives of 40 to 60 years.

2.14 Intangible Assets

(a) Goodwill

Goodwill is measured as explained in Note 2.2 and goodwill arising on the acquisition of subsidiaries and business is included in intangible assets. Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the CGUs, or group of CGUs, that is expected to benefit from the synergies of the combination.

Goodwill impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment. The carrying amount of goodwill is compared to the recoverable amount, which is the higher of value in use and the fair value less costs to sell. Any impairment is recognized immediately as an expense and is not subsequently reversed.

(b) Membership rights

Membership rights are regarded as intangible assets with indefinite useful life and not amortized because there is no foreseeable limit to the period over which the asset is expected to be utilized.

(c) Development Costs

Expenditure on research is recognized as an expense as incurred. Development costs which are individually identifiable and directly related to a new technology or to new products which carry probable future economic benefits are recognized as intangible assets when all the following criteria are met:

- It is technically feasible to complete the intangible asset so that it will be available for use or sale;
- Management intends to complete the intangible asset and use or sell it;
- There is the ability to use or sell the intangible asset;
- It can be demonstrated how the intangible asset will generate probable future economic benefits;
- Adequate technical, financial and other resources to complete the development and to use or sell the intangible asset are available; and
- The expenditure attributable to the intangible asset during its development can be reliably measured.

Other development expenditures that do not meet these criteria are recognized as an expense as incurred. Development costs previously recognized as an expense are not recognized as an asset in a subsequent period. Capitalized development costs stated as intangible assets are amortized using the straight-line method or declining-balance method over their estimated useful lives when the assets are available for using or selling and are tested for impairment.

Internally Generated Development Cost

The Group generally recognizes expenditures incurred after the capitalization assessment phase as intangible assets, and expenditures incurred before the phase are recognized as expenses within research and development expenses.

(d) Other intangible assets

Other intangible assets such as industrial property rights and software which meet the definition of an intangible asset are amortized using the following depreciation method and estimated useful lives when the asset is available for use.

	Estimated Useful Lives	Depreciation Method
Industrial property rights	5 - 10 years	Straight-line method
Software	4 years	Straight-line method
Other intangible assets	1 - 15 years	Straight-line method
Right to use donated assets	1 - 4 years	Straight-line method

2.15 Government Grants

Government grants are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants related to income are deferred and recognized in the statement of comprehensive income over the period necessary to match them with the costs that they are intended to compensate.

Government grants related to property, plant and equipment are presented by deducting the grants in arriving at carrying amount of the assets and are credited to depreciation over the expected lives of the related assets.

2.16 Impairment of Non-financial Assets

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

2.17 Financial Liabilities

(a) Classification and measurement

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

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

(b) Derecognition

Financial liabilities are removed from the statement of financial position when it is extinguished; for example, when the obligation specified in the contract is discharged or cancelled or expired or when the terms of an existing financial liability are substantially modified.

2.18 Trade Payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities. Trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

2.19 Borrowings

Borrowings are recognized initially at fair value, net of transaction costs incurred. Borrowings are subsequently carried at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the statement of income over the period of the borrowings using the effective interest method. The Group classifies the liability as current as long as it does not have an unconditional right to defer its settlement for at least 12 months after the reporting date.

2.20 Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of past events and an outflow of resources required to settle the obligation is probable and can be reliably estimated. Provisions are not recognized for future operating losses. The Group recognises the sales return provision for the estimated sales return based on historical results.

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

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

2.22 Employee Benefits

(a) *Post-employment benefits*

The Group companies operate various pension schemes. The schemes are generally funded through payments to insurance companies or trustee-administered funds, determined by periodic actuarial calculations. The Group has both defined benefit and defined contribution plans.

A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expense when employees render services. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

A defined benefit plan is a pension plan that is not a defined contribution plan. Typically defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability(asset) recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability. The remeasurements of the net defined benefit liability are recognized in other comprehensive income.

If any plan amendments, curtailments, or settlements occur, past service costs or any gains or losses on settlement are recognized as profit or loss for the year.

(b) Share-based payments

The Group operates equity-settled, share-based compensation plans, under which the Group receives services from employees as consideration for equity instruments (options) of the Group. The fair value of the employee services received in exchange for the grant of the options is recognized as an expense. The total amount to be expensed is determined by reference to the fair value of the options granted. The Group makes payments with its treasury shares when the options are exercised.

2.23 Share Capital

Ordinary shares and preferred shares that are not mandatorily redeemable are classified as equity.

Where the Group purchases its own equity share capital (treasury shares), the consideration paid, including any directly attributable incremental costs is deducted from equity attributable to the Company’s equity holders until the shares are cancelled or reissued. Where such ordinary shares are subsequently reissued, any consideration received is included in equity attributable to the Company’s equity holders.

2.24 Revenue Recognition

Revenue is measured at the fair value of the consideration received or receivable for the sales of goods or rendering of services arising from the normal course of the business. Amounts disclosed as revenue are net of value added taxes, returns, rebates and discounts and after elimination of inter-company transactions.

The Group recognizes revenue when i) the amount of revenue can be reliably measured, ii) it is probable that future economic benefits will flow to the Group and iii) specific criteria have been met for each of the Group's activities as described below. The Group bases its estimate on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

(a) Sales of goods

The Group sells weekly home-school materials, reference books, collections, publications and others. Sales of goods are recognized when products are delivered to the purchaser. Delivery does not occur until the products have been shipped to the specified location, the risks of obsolescence and loss have been transferred to the wholesaler, and either the purchaser has accepted the products in accordance with the sales contract, the acceptance provisions have lapsed or the Group has objective evidence that all criteria for acceptance have been satisfied.

(b) Rendering of services

The Group generally recognizes revenue by reference to contract conditions in accordance with the substance of the relevant agreements.

(c) Interest income

Interest income is recognized using the effective interest method according to the time passed. When a loan and receivable is impaired, the Group recognizes the difference between the carrying amount and its recoverable amount as impairment loss and continues unwinding the discount as interest income. Interest income on impaired loans and receivables is recognized using the original effective interest rate.

(d) Dividend income

Dividend income is recognized when the right to receive payment is established.

(e) Royalty income

Royalty income is recognized on an accrual basis in accordance with the substance of the relevant agreements.

2.25 Lease

Leases in which a substantial 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 the statement of profit or loss on a straight-line basis over the period of the lease.

2.26 Dividend Distribution

Dividend distribution to the Company's shareholders is recognized as a liability in the financial statements in the period in which the dividends are approved by the Company's shareholders.

2.27 Business Combinations

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

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

3. Critical Accounting Estimates and Assumptions

The preparation of financial statements requires the Group to make estimates and assumptions concerning the future. Estimates and judgments 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. The resulting accounting estimates will, by definition, seldom equal the related actual results. 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.

(a) Estimated impairment of goodwill

The Group tests annually whether goodwill has suffered any impairment in accordance with the accounting policy stated in Note 2.16. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of estimates.

(b) Income taxes

The Group is operating in numerous countries and the 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.

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.

(c) Fair value of financial instruments

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

(d) Provisions

As described in Note 22, the Group recognizes provisions for estimated returns as at the reporting date. The amounts are estimated based on historical data.

(e) Net defined benefit liability

The present value of the defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for pensions include the discount rate. Any changes in these assumptions will impact the carrying amount of the defined benefit liability. The Group determines the appropriate discount rate at the end of each year. This is the interest rate that is used to determine the present value of estimated future cash outflows expected to be required to settle the defined benefit liability. In determining the appropriate discount rate, the Group considers the interest rates of high-quality corporate bonds that are denominated in the currency in which the pension benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability. Other key assumptions for defined benefit liability are based in part on current market conditions. Additional information is disclosed in Note 24.

4. Financial Risk Management

4.1 Financial Risk Factors

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

Risk management is carried out under policies approved by the board of directors. The board reviews and approves written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity.

(a) Market risk

i) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from foreign currency transactions, primarily with respect to the US dollar and the Chinese yuan. Foreign exchange risk arises from future commercial transactions, recognized assets and liabilities and net investments in foreign entities.

Management has set up a policy to require group companies to manage their foreign exchange risk against their functional currencies.

The Group has certain investments in foreign entities, whose net assets are exposed to foreign currency translation risk. Currency exposure arising from the net assets of the Group’s foreign entities is managed primarily through trade receivables denominated in the relevant foreign currencies.

The Group’s financial assets exposed to foreign currency risk as at December 31, 2017 and 2016, are as follows:

(in USD, CNY and millions of Korean won)		December 31, 2017		December 31, 2016	
		Foreign currency	Korean won	Foreign currency	Korean won
Cash and cash equivalents	USD	7,133,843	7,643	2,344,664	2,834
	CNY	149,823	25	-	-
Trade receivables	USD	32,803	35	121,535	147
	JPY	369,133	60	371,236	64

The table below summarizes the impact of weakened/strengthened Korean won on the Group's equity and post-tax profit for the year. The analysis is based on the assumption that Korean won has weakened/strengthened by 1% with all other variables held constant.

	2017		**2016**	
(in millions of Korean won)	**1% increase**	**1% decrease**	**1% increase**	**1% decrease**
USD	58	(58)	23	(23)
CNY	1	(1)	1	(1)

ii) Interest rate risk

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

As at December 31, 2017 and 2016, if interest rates had changed by 100bp with all other variables held constant, the effects on interest expense and interest income from floating rate deposits and borrowings are as follows:

	2017		**2016**	
(in millions of Korean won)	**100bp increase**	**100bp decrease**	**100bp increase**	**100bp decrease**
Interest income	121	(121)	214	(214)
Interest expense	197	(197)	130	(130)

iii) Price risk

The Group is exposed to equity securities price risk because of investments held by the Group and classified on the consolidated statement of financial position as available-for-sale financial assets or financial assets at fair value through profit or loss. To manage its price risk arising from investments in equity securities, the Group diversifies its portfolio. Diversification of the portfolio is done in accordance with the limits set by the group.

If the prices of equity instruments had changed by 5% with all other variables held constant, the effects on profit (loss) for the year and total comprehensive income (loss) would be as follows:

	2017		**2016**	
(in millions of Korean won)	**5% increase**	**5% decrease**	**5% increase**	**5% decrease**
Profit (loss) for the year	1,963	(1,963)	2,817	(2,817)
Comprehensive income (loss)	10,040	(10,040)	9,750	(9,750)

(b) Credit Risk

Credit risk is managed on a group basis. Credit risk arises from cash and cash equivalents and deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions. For banks and financial institutions, only independently rated parties with a minimum rating of 'A' are accepted. Corporate customers are evaluated taking into account its financial position, past experience and other factors and sales to individual customers are settled in cash or using major credit cards.

(c) Liquidity Risk

The Group forecasts its cash flow and liquidity status and sets action plans on a regular basis to manage liquidity risk proactively.

In addition, the Group copes with potential financial distress by maintaining adequate amount of cash and financial deposits. The balances of cash and cash equivalents, and current-financial deposits as at December 31, 2017, is ₩80,940 million (2016: ₩108,968 million).

The analysis of the Group's financial liabilities into relevant maturities based on the remaining period at the end of the reporting period to the contractual maturity date as at December 31, 2017 and 2016, are as follows:

	December 31, 2017				
(in millions of Korean won)	**Book amount**	**Cash flow on contract**	**Less than 1 year**	**Between 1 and 2 years**	**Between 2 and 5 years**
Trade payables	8,894	8,894	8,894	-	-
Derivative financial liabilities	194	194	194	-	-
Other payables (current)	69,781	69,781	69,781	-	-
Borrowings (current)	19,930	20,595	20,595	-	-
Other payables (non-current)	10,952	10,952	-	10,952	-
Borrowings (non-current)	8,201	9,160	264	914	7,982

	December 31, 2016				
(in millions of Korean won)	**Book amount**	**Cash flow on contract**	**Less than 1 year**	**Between 1 and 2 years**	**Between 2 and 5 years**
Trade payables	9,970	9,970	9,970	-	-
Derivative financial liabilities	1,065	1,065	1,065	-	-
Other payables (current)	77,030	77,030	77,030	-	-
Borrowings (current)	18,774	19,005	19,005	-	-
Other payables (non-current)	9,586	9,586	-	9,586	-
Borrowings (non-current)	9,460	10,866	309	519	10,038

The amounts disclosed in the table are the contractual undiscounted cash flows, prepared based on the earliest date of the payments that can be requested and the cash flow of interest is included.

4.2 Capital Management

The Group's objectives when managing capital are to maintain a sound capital structure. The Group monitors capital on the basis of the liabilities/equity ratio which is calculated as total liabilities divided by total equity on consolidated statements of financial position.

Debt-to-equity ratios as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Total liabilities (A)	180,165	185,342
Total equity (B)	676,932	662,797
Debt-to-equity ratio (A/B)	27%	28%

5. Fair Value

5.1 Fair Value of Financial Instruments by Category

Carrying amount and fair value of financial instruments by category as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017		December 31, 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Current:				
Cash and cash equivalents	60,252	60,252	96,847	96,847
Financial deposits	20,688	20,688	12,121	12,121
Trade receivables	21,355	21,355	22,111	22,111
Other receivables	43,396	43,396	41,088	41,088
Financial assets at fair value through profit or loss	51,799	51,799	74,272	74,272
Derivative financial assets	666	666	45	45
Available-for-sale financial assets	103,810	103,810	72,906	72,906
	301,966	301,966	319,390	319,390
Non-current:				
Financial deposits	-	-	300	300
Other receivables	9,048	9,083	11,080	11,287
Available-for-sale financial assets	135,219	135,219	121,161	121,161
	144,267	144,302	132,541	132,748
	446,233	446,268	451,931	452,138

(in millions of Korean won)	December 31, 2017		December 31, 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities				
Current:				
Trade payables	8,894	8,894	9,970	9,970
Derivative financial liabilities	194	194	1,065	1,065
Other payables	69,781	69,781	77,030	77,030
Borrowings	19,930	19,930	18,774	18,774
	98,799	98,799	106,839	106,839
Non-current:				
Other payables	10,952	10,840	9,586	10,094
Borrowings	8,201	8,201	9,460	9,460
	19,153	19,041	19,046	19,554
	117,952	117,840	125,885	126,393

Carrying amount of financial assets and financial liabilities classified as current portion is measured at a reasonable approximation of fair value. Equity instruments that do not have a quoted price in an active market are measured at cost because their fair value cannot be measured reliably and excluded from the fair value disclosures. Equity securities measured at cost amount to ₩ 26,345 million (2016: ₩ 28,242 million) as at December 31, 2017.

5.2 Fair Value Measurement Method

Fair value with the purpose of measurement and disclosure is determined by the below methods.

(a) Available-for-sale financial assets

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, an entity within the same industry, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Group is the current bid price.

(b) Non-current other receivables

Carrying amount and fair value of non-current other receivables as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017		December 31, 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
Long-term loans	9	9	-	-
Deposits	9,039	9,074	11,080	11,287
	9,048	9,083	11,080	11,287

Fair value of non-current other receivables is calculated based on a nominal value of expected future cash inflows discounted using a discount rate reflecting credit risk.

	December 31, 2017	December 31, 2016
Discount rate	3.64%	3.58%

(c) Non-current other payables

Carrying amount and fair value of non-current other payables as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017		December 31, 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
Long-term deposits received	10,952	10,840	9,586	10,094

Fair value of non-current other payables is calculated based on a nominal value of expected future cash outflows discounted using rates of return on non-guaranteed bonds having similar credit ratings as the Group.

	December 31, 2017	December 31, 2016
Discount rate	2.79%	2.02%

(d) Current financial assets and liabilities

As current financial assets and liabilities' maturity is short-term, their fair value is approximation of carrying amount.

5.3 Fair Value Hierarchy

Assets measured at fair value or for which the fair value is disclosed are categorized within the fair value hierarchy, and the defined levels are as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- Level 3: Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

Fair value hierarchy classifications of the financial assets and financial liabilities that are measured at fair value or its fair value is disclosed as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial asset/liabilities that are measured at fair value				
Financial assets at fair value through profit or loss	51,799	-	-	51,799
Derivative financial instruments (assets)	-	666	-	666
Available-for-sale financial assets	233,238	-	5,791	239,029
Derivative financial instruments (liabilities)	-	194	-	194
Non-current other receivables	-	9,083	-	9,083
Non-current other payables	-	10,840	-	10,840
Borrowings	-	-	8,201	8,201
Financial asset/liabilities that are not measured at fair value: N/A				

(in millions of Korean won)	**December 31, 2016**			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial asset/liabilities that are measured at fair value				
Financial assets at fair value through profit or loss	74,272	-	-	74,272
Derivative financial instruments (assets)	-	45	-	45
Available-for-sale financial assets	194,067	-	-	194,067
Derivative financial instruments (liabilities)	-	1,065	-	1,065
Non-current other receivables	-	11,287	-	11,287
Non-current other payables	-	10,094	-	10,094
Borrowings	-	-	9,460	9,460
Financial asset/liabilities that are not measured at fair value: N/A				

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, an entity in the same industry, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Group is the current bid price. These instruments are included in Level 1. The financial instruments within Level 1 consist of listed equity securities which are categorized as available-for-sale securities and others.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses various valuation techniques and makes judgments based on current market conditions. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to measure the fair value an instrument are observable, the instrument is included in Level 2. The fair value categorized as Level 2 consists of compound financial instruments, such as corporate bonds which derivative contracts are embedded in, and others. The fair value of compound financial instruments are measured at present value based on the forward exchange rate at the end of reporting period.

If one or more of the significant inputs is not based on observable market data, the instrument is included in Level 3.

Valuation techniques and inputs used in Level 3 fair value measurements are as follows:

(in millions of Korean won)	2017				
	Fair value	**Level**	**Valuation techniques**	**Inputs**	**Range of inputs**
Available-for-sale financial assets	5,791	3	Income approach	Perpetual growth rate	0~1%
				Discount rate	8.4%~9.7%

Borrowings categorized as Level 3 are measured at present value by using a discount rate reflecting credit risk and others.

Equity instruments that do not have a quoted price in an active market and are measured at cost are not included in above hierarchy because there are no fair value measurements recognized in the statement of financial position.

6. Segment Information

Management has determined the operating segments based on the reports reviewed by the board of directors that are used to make strategic decisions.

The segments of the Group are strategic business divisions providing different products and services. They are reported separately because each business division requires different technologies and marketing strategies. The main products and services of each business division for the year ended December 31, 2017, are as follows:

	Products and services
Noonnoppi business	Noonnoppi home-school material, Premium home-school material (CHAIHONG, Soluny), HRD service business
Media business	Publication, Book center, Media business and others
Other	Rental service, Textbook business, Resort business, Managing and supporting department and others
Subsidiaries	Domestic/Overseas subsidiaries

The segment information for sales and operating income for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017		2016	
	Segment sales	Operating income	Segment sales	Operating income
Noonnoppi business	692,717	48,669	673,421	41,248
Media business	40,946	(767)	64,646	1,407
Other	23,107	(806)	33,189	2,876
Subsidiaries	67,385	(3,130)	81,466	(2,711)
	824,155	43,966	852,722	42,820
Inter-segment transactions	(11,952)	1,519	(32,005)	27
	812,203	45,485	820,717	42,847

Segment information of share of profit from associates, depreciation, amortization and fluctuation of non-current assets for the years ended December 31, 2017 and 2016, follows:

	2017			2016		
(in millions of Korean won)	Profit (loss) from associates	Depreciation /Amortization	Increase (decrease) of non-current assets[1]	Profit (loss) from associates	Depreciation/ Amortization	Increase (decrease) of non-current assets[1]
Noonnoppi business	-	18,476	(1,817)	-	17,948	(40)
Media business	-	2,781	13,281	-	3,743	(2,465)
Other	595	7,413	7,400	865	7,408	16,971
Subsidiaries	-	5,302	(4,894)	-	5,990	(502)
	595	33,972	13,970	865	35,089	13,964
Inter-segment transactions	-	19	(302)	-	-	-
	595	33,991	13,668	865	35,089	13,964

[1] Financial instrument, deferred tax assets and investments in associates are excluded.

Details of segment information of assets, liabilities and investments in associates for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017 Assets	2017 Investments in associates	2017 Liabilities	2016 Assets	2016 Investments in associates	2016 Liabilities
Noonnoppi business	101,244	-	75,558	97,825	-	76,632
Media business	33,391	-	13,239	23,706	-	13,140
Other	720,892	17,071	57,810	637,140	6,595	58,293
Subsidiaries	98,896	-	51,711	110,005	-	57,092
	954,423	17,071	198,318	868,676	6,595	205,157
Inter-segment transactions	(97,326)	-	(18,153)	(20,537)	-	(19,815)
	857,097	17,071	180,165	848,139	6,595	185,342

Sales by geographic areas for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Domestic	787,985	797,683
Overseas	24,218	23,034
	812,203	820,717

There is no external customer attributing to more than 10% of total sales for the years ended December 31, 2017 and 2016.

7. Financial Instruments by Category

Categorizations of financial instruments as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017			
	Financial assets at fair value through profit or loss	**Loans and receivables**	**Available-for-sale financial assets**	**Total**
Financial assets				
Current				
Cash and cash equivalents	-	60,252	-	60,252
Financial deposits	-	20,688	-	20,688
Trade receivables	-	21,355	-	21,355
Other receivables	-	43,396	-	43,396
Financial assets at fair value through profit or loss	51,799	-	-	51,799
Derivative financial instruments	666	-	-	666
Available-for-sale financial assets	-	-	103,810	103,810
	52,465	145,691	103,810	301,966
Non-current				
Financial deposits	-	-	-	-
Other receivables	-	9,048	-	9,048
Available-for-sale financial assets	-	-	161,564	161,564
	-	9,048	161,564	170,612
	52,465	154,739	265,374	472,578

(in millions of Korean won)	December 31, 2017		
	Financial liabilities at fair value through profit or loss	**Financial liabilities carried at amortized cost**	**Total**
Financial liabilities			
Current			
Trade payables	-	8,894	8,894
Other payables	-	69,781	69,781
Derivative financial instruments	194	-	194
Borrowings	-	19,930	19,930
	194	98,605	98,799
Non-current			
Other payables	-	10,952	10,952
Borrowings	-	8,201	8,201
	-	19,153	19,153
	194	117,758	117,952

(in millions of Korean won)	December 31, 2016			
	Financial assets at fair value through profit or loss	Loans and receivables	Available-for-sale financial assets	Total
Financial assets				
Current				
Cash and cash equivalents	-	96,847	-	96,847
Financial deposits	-	12,121	-	12,121
Trade receivables	-	22,111	-	22,111
Other receivables	-	41,088	-	41,088
Financial assets at fair value through profit or loss	74,272	-	-	74,272
Derivative financial instruments	45	-	-	45
Available-for-sale financial assets	-	-	72,906	72,906
	74,317	172,167	72,906	319,390
Non-current				
Financial deposits	-	300	-	300
Other receivables	-	11,080	-	11,080
Available-for-sale financial assets	-	-	149,403	149,403
	-	11,380	149,403	160,783
	74,317	183,547	222,309	480,173

(in millions of Korean won)	December 31, 2016		
	Financial liabilities at fair value through profit or loss	Financial liabilities carried at amortized cost	Total
Financial liabilities			
Current			
Trade payables	-	9,970	9,970
Other payables	-	77,030	77,030
Derivative financial instruments	1,065	-	1,065
Borrowings	-	18,774	18,774
	1,065	105,774	106,839
Non-current			
Other payables	-	9,586	9,586
Borrowings	-	9,460	9,460
	-	19,046	19,046
	1,065	124,820	125,885

Gain and loss of financial instruments by category for the years ended December 31, 2017 and 2016, are as follows:

	2017					
(in millions of Korean won)	**Financial assets at fair value through profit or loss**	**Loans and receivables**	**Available-for-sale financial assets**	**Financial liabilities at fair value through profit or loss**	**Financial liabilities carried at amortized cost**	**Total**
Dividend income	-	-	3,876	-	-	3,876
Loss on foreign currency translation	-	(1,879)	-	-	(10)	(1,889)
Loss on foreign currency transactions	-	(278)	(11)	-	(1)	(290)
Interest income (expenses)	-	2,007	252	-	(614)	1,645
Bad debt expenses	-	(944)	-	-	-	(944)
Gain (loss) on valuation of financial assets[1,2]	(2,228)	-	1,527	-	-	(701)
Gain on disposal of financial assets	1,075	-	14,879	-	-	15,954
Gain (loss) on valuation of derivatives	666	-		(194)	-	472
Gain (loss) on transaction of derivatives	1,179	-	-	(566)	-	613
Impairment loss on assets	-	-	(3,137)	-	-	(3,137)

	2016					
(in millions of Korean won)	**Financial assets at fair value through profit or loss**	**Loans and receivables**	**Available-for-sale financial assets**	**Financial liabilities at fair value through profit or loss**	**Financial liabilities carried at amortized cost**	**Total**
Dividend income	-	-	3,642	-	-	3,642
Gain on foreign currency translation	-	319	-	-	-	319
Gain (loss) on foreign currency transactions	-	125	-	-	(152)	(27)
Interest income (expenses)	-	1,974	272	-	(593)	1,653
Bad debt expenses	-	(733)	-	-	-	(733)
Gain on valuation of financial assets[1,2]	574	-	2,035	-	-	2,609
Gain on disposal of financial assets	2,381	-	15,837	-	-	18,218
Loss on valuation of derivatives	-	-	-	(1,114)	-	(1,114)
Gain (loss) on transaction of derivatives	833	-	-	(391)	-	442
Impairment loss on assets	-	-	(1,655)	-	-	(1,655)

[1] The amounts recognized as other comprehensive income (post-tax) are included.

[2] The reclassified amounts from other comprehensive income (post-tax) into the statement of profit or loss include ₩11,474 million (2016: ₩8,639 million).

8. Cash and Cash Equivalents, and Financial Deposits

Details of cash and cash equivalents as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Ordinary deposits	25,593	27,147
Short-term deposits	34,659	69,700
	60,252	96,847

The financial deposits restricted in use as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016	Reason
Financial deposits	1,315	1,315	Security deposits and others

9. Trade Receivables and Other Receivables

Details of trade receivables and other receivables as at December 31, 2017 and 2016, are as follows:

	December 31, 2017		
(in millions of Korean won)	Original amount	Less : allowance for doubtful accounts	Carrying amount
Current			
Trade receivables[1]	28,470	(7,116)	21,354
Non-trade receivables	8,284	(5,250)	3,034
Accrued income	204	-	204
Loans	27	-	27
Deposits	40,131	-	40,131
	77,116	(12,366)	64,750
Non-current			
Loans	9	-	9
Deposits	9,039	-	9,039
	9,048	-	9,048
	86,164	(12,366)	73,798

	December 31, 2016		
(in millions of Korean won)	Original amount	Less : allowance for doubtful accounts	Carrying amount
Current			
Trade receivables[1]	28,852	(6,741)	22,111
Non-trade receivables	8,698	(5,648)	3,050
Accrued income	49	-	49
Loans	3	-	3

(in millions of Korean won)	December 31, 2016 Original amount	Less : allowance for doubtful accounts	Carrying amount
Deposits	37,986	-	37,986
	75,588	(12,389)	63,199
Non-current			
Loans	-	-	-
Deposits	11,080	-	11,080
	11,080	-	11,080
	86,668	(12,389)	74,279

[1]The Group's certain trade receivables are provided with collateral and others from counterparties.

The aging analysis of trade and other receivables as at December 31, 2017 and 2016, is as follows:

	December 31, 2017						
		Past due but not impaired					
(in millions of Korean won)	Current	Up to 3 months	3 to 6 months	6 to 12 months	Over one year	Impaired[1]	Total
Current							
Trade receivables	16,722	865	1,341	1,754	1,415	6,373	28,470
Non-trade receivables	1,695	176	236	366	561	5,250	8,284
Accrued income	204	-	-	-	-	-	204
Loans	27	-	-	-	-	-	27
Deposits	40,131	-	-	-	-	-	40,131
	58,779	1,041	1,577	2,120	1,976	11,623	77,116
Non-current							
Loans	9	-	-	-	-	-	9
Deposits	9,039	-	-	-	-	-	9,039
	9,048	-	-	-	-	-	9,048
	67,827	1,041	1,577	2,120	1,976	11,623	86,164

	December 31, 2016						
		Past due but not impaired					
(in millions of Korean won)	Current	Up to 3 months	3 to 6 months	6 to 12 months	Over one year	Impaired[1]	Total
Current							
Trade receivables	16,424	2,523	1,847	2,007	211	5,840	28,852
Non-trade receivables	2,313	485	10	14	228	5,648	8,698
Accrued income	49	-	-	-	-	-	49
Loans	3	-	-	-	-	-	3
Deposits	37,986	-	-	-	-	-	37,986
	56,775	3,008	1,857	2,021	439	11,488	75,588

Non-current							
Deposits	11,080	-	-	-	-	-	11,080
	11,080	-	-	-	-	-	11,080
	67,855	3,008	1,857	2,021	439	11,488	86,668

[1] The impaired receivables have been fully provided with allowance for doubtful accounts.

The Group assesses whether a loss event exists for individual receivables and recognizes impairment loss with the difference between the recoverable amount and its carrying amount based on such assessment. The impairment loss for the overdue receivables is recognized by applying the provision rates based on historical experience considering the overdue period of receivables or by considering collateral provided and others.

Changes in bad debts allowance for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017				
	Beginning balance	**Addition**	**Write-off**	**Exchange differences**	**Ending balance**
Trade receivables	6,741	785	(374)	(36)	7,116
Non-trade receivables	5,648	159	(426)	(131)	5,250
	12,389	944	(800)	(167)	12,366

(in millions of Korean won)	2016				
	Beginning balance	**Addition**	**Write-off**	**Exchange differences**	**Ending balance**
Trade receivables	6,519	374	(162)	10	6,741
Non-trade receivables	5,565	359	(178)	(98)	5,648
	12,084	733	(340)	(88)	12,389

The provision of bad debts allowance for impaired receivables have been included in 'selling and administrative expenses' in the statement of profit or loss.

10. Financial Assets at Fair Value through Profit or Loss

Details of financial assets at fair value through profit or loss as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Equity-linked securities and others	51,799	74,272

Financial assets at fair value through profit or loss are presented within operating activities as part of changes in working capital in the statements of cash flows.

11. Derivative Financial Instruments

Details of derivative financial instruments as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017		December 31, 2016	
	Assets	Liabilities	Assets	Liabilities
Currency forward exchange contracts and others	666	194	45	1,065

12. Available-for-sale Financial Assets

Details of available-for-sale financial assets as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Current		
Beneficiary certificate	103,810	72,906
	103,810	72,906
Non-Current		
Beneficiary certificate	7,674	3,258
Marketable equity securities	101,625	103,898
Non-marketable equity securities	32,136	28,242
Debt securities	20,129	14,005
	161,564	149,403
	265,374	222,309

Beneficiary certificates and marketable equity securities are measure based on quoted price in active market. Non-marketable equity securities are measured at cost when the ranges of expected cash flows are significant and the probabilities of the various estimates cannot be reasonably assessed.

Details of marketable equity securities as at December 31, 2017 and 2016, are as follows:

	December 31, 2017		
(in millions of Korean won)	Acquisition cost	Fair value	Book amount
Shinhan Financial Group Co., Ltd.	23,131	89,743	89,743
Others	10,993	11,882	11,882
	34,124	101,625	101,625

	December 31, 2016		
(in millions of Korean won)	Acquisition cost	Fair value	Book amount
Shinhan Financial Group Co., Ltd.	27,126	96,404	96,404
Inzi Controls Co., Ltd.	68	31	31
Others	7,266	7,463	7,463

	34,460	103,898	103,898

Changes in available-for-sale financial assets for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017						
	Beginning balance	**Acquisition**	**Disposal**	**Valuation**	**Exchange differences**	**Impairment[1]**	**Ending balance**
Beneficiary certificate	76,164	149,072	(117,320)	3,568	-	-	111,484
Marketable equity securities	103,898	24,271	(34,777)	8,233	-	-	101,625
Non-marketable equity securities	28,242	12,000	(4,968)	-	(1)	(3,137)	32,136
Debt securities	14,005	20,150	(14,121)	95	-	-	20,129
	222,309	205,493	(171,186)	11,896	(1)	(3,137)	265,374

[1] The Group recognized an impairment loss on available-for-sale financial assets amounting to ₩3,137 million as the book amount exceeded its recoverable value.

(in millions of Korean won)	2016							
	Beginning balance	**Acquisition**	**Disposal**	**Valuation**	**Exchange differences**	**Impairment[1]**	**Transfer to assets held-for-sale**	**Ending balance**
Beneficiary certificate	47,899	71,632	(44,410)	1,043	-	-	-	76,164
Marketable equity securities	108,405	37,127	(53,077)	12,637	-	-	(1,194)	103,898
Non-marketable equity securities	26,371	5,363	(2,302)	-	541	(1,055)	(676)	28,242
Debt securities	15,830	16,111	(17,212)	(24)	-	(600)	(100)	14,005
	198,505	130,233	(117,001)	13,656	541	(1,655)	(1,970)	222,309

[1] The Group recognized an impairment loss on available-for-sale financial assets amounting to ₩1,655 million as the book amount exceeded its recoverable value.

13. Inventories

Details of inventories as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Merchandise	4,371	6,777
Finished goods	10,114	11,184
Stored goods	1,804	2,113
Raw materials	498	657
	16,787	20,731
Allowance for losses on valuation of inventories	(710)	(616)
	16,077	20,115

The cost of inventories recognized as expense and included in 'cost of sales' amounts to ₩45,155 million (2016: ₩47,872 million). Losses on valuation of inventories amounts to ₩94 million (2016: nil) and there is no reversal of allowance for losses on valuation of inventories (2016: ₩126 million).

14. Other Assets

Details of other assets as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Current		
Advances	770	915
Prepaid expenses	3,409	3,127
	4,179	4,042
Non-current		
Prepaid expenses	223	366
	223	366
	4,402	4,408

15. Investments in Associates

Details of investments in associates as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	Country	Percentage of ownership (%) December 31, 2017	Percentage of ownership (%) December 31, 2016	December 31, 2017	December 31, 2016
DKI Growing Star 1 Investment partnership	Korea	24.00	24.00	1,518	2,389
With the Green Co., Ltd.	Korea	45.70	45.70	4,113	4,206
HR DAVINCHI Private Securities Investment Trust 2 [1]	Korea	48.71	-	5,352	-
IBK A One Convertible Professional Investment Type Private Security Investment Trust 1 [1]	Korea	28.35	-	3,073	-
Rico-Synergy Collaboration Multi Mezzanine Specialized Investment Model Private Equity Investment Trust No. 3 [1]	Korea	30.00	-	3,015	-
				17,071	6,595

[1] The above entities are included in associates as the Group newly acquired these entities during 2017.

Changes in investments in associates for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Beginning balance	6,595	4,694
Acquisition	11,000	3,893
Share of profit (loss)	595	865
Share of other comprehensive income (loss)	93	(1,417)
Disposal	(1,212)	(348)
Dividend	-	(1,092)
Ending balance	17,071	6,595

Summarized financial information of associates for the year ended December 31, 2017, is as follows:

	2017						
(in millions of Korean won)	**Current assets**	**Non-current assets**	**Current liabilities**	**Non-current liabilities**	**Sales**	**Profit (loss) for the year**	**Total comprehensive income (loss)**
DKI Growing Star 1 Investment partnership	355	6,141	171	-	-	1,601	1,421
With the Green Co., Ltd.	272	8,737	9	-	91	(204)	(204)
HR DAVINCHI Private Securities Investment Trust 2	409	10,576	-	-	-	534	746
IBK A One Convertible Professional Investment Type Private Security Investment Trust 1	7,319	3,522	-	-	-	31	258
Rico-Synergy Collaboration Multi Mezzanine Specialized Investment Model Private Equity Investment Trust No. 3	1,836	8,219	3	-	-	156	50

	2016						
(in millions of Korean won)	**Current assets**	**Non-current assets**	**Current liabilities**	**Non-current liabilities**	**Sales**	**Profit (loss) for the year**	**Total comprehensive income (loss)**
DKI Growing Star 1 Investment partnership	1,354	8,788	188	-	-	3,779	(720)
With the Green Co., Ltd.	1,219	7,989	4	-	-	(94)	(94)

Details of adjusting its interest in associates as at December 31, 2017 and 2016, are as follows:

	December 31, 2017						
(in millions of Korean won)	**Net assets**	**Group's share in %**	**Group's share in KRW**	**Goodwill**	**Unrealized gains or losses**	**Unrecognized losses**	**Book amount at the end of year**
DKI Growing Star 1 Investment partnership	6,325	24.00	1,518	-	-	-	1,518
With the Green Co., Ltd.	9,000	45.70	4,113	-	-	-	4,113
HR DAVINCHI Private Securities Investment Trust 2	10,985	48.71	5,352	-	-	-	5,352
IBK A One Convertible Professional Investment	10,841	28.35	3,073	-	-	-	3,073

(in millions of Korean won)	December 31, 2017						
	Net assets	**Group's share in %**	**Group's share in KRW**	**Goodwill**	**Unrealized gains or losses**	**Unrecognized losses**	**Book amount at the end of year**
Type Private Security Investment Trust 1							
Rico-Synergy Collaboration Multi Mezzanine Specialized Investment Model Private Equity Investment Trust No. 3	10,052	30.00	3,015	-	-	-	3,015
	47,203		17,071	-	-	-	17,071

(in millions of Korean won)	December 31, 2016						
	Net assets	**Group's share in %**	**Group's share in KRW**	**Goodwill**	**Unrealized gains or losses**	**Unrecognized losses**	**Book amount at the end of year**
DKI Growing Star 1 Investment partnership	9,954	24.00	2,389	-	-	-	2,389
With the Green Co., Ltd.	9,204	45.70	4,206	-	-	-	4,206
	19,158		6,595	-	-	-	6,595

16. Non-current Assets Held for sale

On October 31, 2016, the Group decided the dissolution of Daekyo New Growth Investment Partnership with the approval of the Board of Directors and shareholders. The available-for-sale financial assets related to Daekyo New Growth Investment Partnership are presented as held for sale. Liquidation procedure was completed on July 31, 2017.

Details of assets of disposal group classified as held for sale as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Available-for-sale financial assets	-	3,544

Cumulative income or expense recognized in other comprehensive income relates to the disposal group classified as held for sale as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Gain on the valuation of available-for-sale financial assets	-	1,257

17. Property, Plant and Equipment

Details of property, plant and equipment as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017										
	Land	Buildings	Structures	Machinery	Vehicles	Tools	Supplies	Equipment	Standing timber	Construction-in-progress	Total
Acquisition cost	48,364	137,547	3,903	468	2,335	62	110,212	2,520	929	774	307,114
Accumulated depreciation	-	(29,612)	(1,316)	(468)	(1,854)	(49)	(81,006)	(2,062)	-	-	(116,367)
Net book amount	48,364	107,935	2,587	-	481	13	29,206	458	929	774	190,747

(in millions of Korean won)	December 31, 2016										
	Land	Buildings	Structures	Machinery	Vehicles	Tools	Supplies	Equipment	Standing timber	Construction-in-progress	Total
Acquisition cost	53,794	108,756	3,546	468	2,119	114	95,941	2,395	528	26,179	293,840
Accumulated depreciation	-	(28,174)	(1,221)	(468)	(1,689)	(92)	(69,310)	(2,023)	-	-	(102,977)
Net book amount	53,794	80,582	2,325	-	430	22	26,631	372	528	26,179	190,863

Changes in property, plant and equipment for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017									
	Land	Buildings	Structures	Vehicles	Tools	Supplies	Equipment	Standing timber	Construction -in-progress	Total
At January 1	53,794	80,582	2,325	430	22	26,631	372	528	26,179	190,863
Acquisitions	10	4,558	360	265	-	14,410	281	216	22,250	42,350
Increase due to business acquisition	-	-	-	-	-	1	-	-	-	1
Disposal/disuse	(1,614)	-	-	(4)	-	(292)	(45)	-	-	(1,955)
Depreciation	-	(3,290)	(98)	(194)	(7)	(13,117)	(150)	-	-	(16,856)
Reclassification to investment properties	(3,550)	(18,175)	-	-	-	-	-	-	-	(21,725)
Transfer-in(out)	3	45,861	-	-	-	1,664	-	185	(47,655)	58
Exchange differences	(279)	(1,601)	-	(16)	(2)	(91)	-	-	-	(1,989)
At December 31	48,364	107,935	2,587	481	13	29,206	458	929	774	190,747

(in millions of Korean won)	2016									
	Land	Buildings	Structures	Vehicles	Tools	Supplies	Equipment	Standing timber	Construction -in-progress	Total
At January 1	50,897	77,063	2,309	709	28	24,500	424	528	4,175	160,633
Acquisitions	3,858	2	94	80	-	14,462	109	-	22,078	40,683
Disposal/disuse	-	-	-	(56)	-	(181)	(23)	-	-	(260)
Depreciation	-	(2,528)	(90)	(304)	(7)	(12,172)	(138)	-	-	(15,239)
Reclassification to investment properties	(1,178)	5,372	-	-	-	-	-	-	-	4,194

Transfer-in(out)	62	-	12	-	-	-	-	-	(74)	-
Exchange differences	155	673	-	1	1	22	-	-	-	852
At December 31	53,794	80,582	2,325	430	22	26,631	372	528	26,179	190,863

Depreciation for the years ended December 31, 2017 and 2016, is charged as follows:

(in millions of Korean won)	**2017**	**2016**
Cost of sales	13,363	8,293
Selling and administrative expenses	3,493	6,946
	16,856	15,239

Details of property, plant and equipment provided as collateral as at December 31, 2017, are as follows:

(in millions of Korean won)	**December 31, 2017**				
	Book amount	**Secured amount**	**Related line item**	**Related amount**	**Secured party**
Land and buildings	3,288	8,571	Borrowings (Notes 21 and 32)	8,357	Woori Bank

As at December 31, 2017, certain property, plant and equipment are provided as leasehold rights and pledged as collateral (Note 32).

18. Investment Properties

Details of investment properties as at December 31, 2017 and 2016, are as follows:

	December 31, 2017		
(in millions of Korean won)	**Acquisition cost**	**Accumulated depreciation**	**Book amount**
Land	25,862	-	25,862
Buildings	132,498	(38,059)	94,439
	158,360	(38,059)	120,301

	December 31, 2016		
(in millions of Korean won)	**Acquisition cost**	**Accumulated depreciation**	**Book amount**
Land	22,475	-	22,475
Buildings	113,631	(33,916)	79,715
	136,106	(33,916)	102,190

Changes in investment properties for the years ended December 31, 2017 and 2016, are as follows:

	2017		
(in millions of Korean won)	**Land**	**Buildings**	**Total**
At January 1	22,475	79,715	102,190
Depreciation	-	(2,511)	(2,511)
Transfer	3,550	18,175	21,725
Exchange differences	(163)	(940)	(1,103)
At December 31	25,862	94,439	120,301

	2016		
(in millions of Korean won)	**Land**	**Buildings**	**Total**
At January 1	21,297	87,587	108,884
Depreciation	-	(2,500)	(2,500)
Transfer	1,178	(5,372)	(4,194)
At December 31	22,475	79,715	102,190

Fair value of investment properties as at December 31, 2017, is ₩236,716 million (2016: ₩210,654 million).

Rent income from investment properties during the year ended December 31, 2017, is ₩13,227 million (2016: ₩10,649 million), and operating expenses (including repairs and maintenance) directly related to those investment properties is ₩9,324 million (2016: ₩6,242 million).

Details of investment properties provided as collateral as at December 31, 2017, are as follows:

(in millions of Korean won)	December 31, 2017				
	Book amount	**Secured amount**	**Related line item**	**Related amount**	**Secured party**
Land and buildings	19,874	8,571	Borrowings (Notes 21 and 32)	8,357	Woori Bank

As at December 31, 2017, certain property, plant and equipment are provided as leasehold rights and pledged as collateral (Note 32).

19. Intangible Assets

Details of intangible assets as at December 31, 2017 and 2016, are as follows:

	December 31, 2017							
(in millions of Korean won)	Goodwill	Membership rights	Development costs	Industrial property rights	Software	Other intangible assets	Right to use donated assets	Total
Acquisition cost	1,180	8,924	151,693	2,606	40,936	19,404	158,011	382,754
Accumulated amortization	-	-	(106,696)	(2,225)	(34,083)	(16,984)	(152,764)	(312,752)
Accumulated impairments loss	(346)	-	(32,749)	(2)	(376)	(48)	-	(33,521)
Government grants	-	-	-	-	-	(559)	-	(559)
Net book amounts	834	8,924	12,248	379	6,477	1,813	5,247	35,922

	December 31, 2016							
(in millions of Korean won)	Goodwill	Membership rights	Development costs	Industrial property rights	Software	Other intangible assets	Right to use donated assets	Total
Acquisition cost	3,844	8,924	148,475	2,525	39,808	18,313	155,970	377,859
Accumulated amortization	-	-	(103,135)	(2,024)	(30,538)	(15,468)	(149,239)	(300,404)
Accumulated impairments loss	(3,252)	-	(30,905)	(3)	(2,263)	(24)	-	(36,447)
Government grants	-	-	-	-	(7)	(752)	-	(759)
Net book amounts	592	8,924	14,435	498	7,000	2,069	6,731	40,249

Changes in intangible assets for the years ended December 31, 2017 and 2016, are as follows:

	2017							
(in millions of Korean won)	Goodwill	Membership rights	Development costs	Industrial property rights	Software	Other intangible assets	Right to use donated assets	Total
At January 1	592	8,924	14,435	498	7,000	2,069	6,731	40,249
Acquisitions	24	-	10	83	3,128	1,080	2,041	6,366
Increase due to business acquisition	628	-	-	-	8	-	-	636
Acquisitions by internal development	-	-	7,874	-	-	-	-	7,874
Amortization (including government grants)	-	-	(6,089)	(202)	(3,658)	(1,149)	(3,525)	(14,623)
Impairments[1]	(347)	-	(3,982)	-	(1)	-	-	(4,330)
Others	(58)	-	-	-	-	-	-	(58)
Government grants	-	-	-	-	-	(179)	-	(179)
Exchange differences	(5)	-	-	-	-	(8)	-	(13)
At December 31	834	8,924	12,248	379	6,477	1,813	5,247	35,922

	2016							
(in millions of Korean won)	Goodwill	Membership rights	Development costs	Industrial property rights	Software	Other intangible assets	Right to use donated assets	Total
At January 1	573	8,924	19,818	636	10,300	1,913	8,329	50,493
Acquisitions	16	-	-	54	2,650	1,241	2,454	6,415
Acquisitions by internal development	-	-	5,925	-	-	-	-	5,925
Amortization (including government grants)	-	-	(7,931)	(192)	(4,088)	(1,087)	(4,052)	(17,350)
Impairments[1]	-	-	(3,377)	-	(1,862)	-	-	(5,239)
Exchange differences	3	-	-	-	-	2	-	5
At December 31	592	8,924	14,435	498	7,000	2,069	6,731	40,249

[1] The Group recognized an impairment loss on development costs and others amounting to ₩4,330 million (2016: ₩5,239 million) as the book amount exceeded its recoverable value.

Amortization for the years ended December 31, 2017 and 2016, is charged as follows:

(in millions of Korean won)	2017	2016
Cost of sales	11,397	14,136
Selling and administrative expenses	3,226	3,214
	14,623	17,350

Development Costs

Development costs considered as low business value are recognized as impairment loss of ₩3,982 million and included in 'other expense' within statements of profit or loss. Also, that development costs are belong to the media business and other business of operating segments.

a. Impairment loss of development cost as at December 31, 2017, is as follows:

(in millions of Korean won)

Related account	Separate asset	Carrying amount	Impairment loss	Recoverable amount valuation method
Development costs	Study material for overseas sales such as Eye Level English: 8 cases [1]	3,174	3,174	Value in use
	Development costs for a complete series such as fairy tale: 3 cases [1]	770	770	Value in use
	3rd and 4th grade textbook development costs of the year 2009 : 2 cases [2]	38	38	Value in use
		3,982	3,982	

[1] As the Group considered it to have low business value and the recoverable amount being less than the book amount of development cost, according to the result of an impairment test, the Group impaired the entire amount.
[2] Related book value is entirely impaired as economic benefits are estimated to be none due to expiration of curriculum as of Jan. 1st, 2018.

b. Estimating recoverable amount

The Group estimated recoverable amount of development costs based on value-in-use calculation as the assets cannot be reliably measured at fair value.

The value-in-use calculations use cash flow projections covering a four-year period based on historical operating performance and financial budgets approved by management.

Discount rate used for value-in-use calculation is 6.93% and the rate is weight average cost of capital reflected specific risks relating to the asset.

c. Line items including impairment loss in the statement of profit or loss are other expense of ₩3,982 million (2016: ₩3,377 million).

d. List of major assets for development costs

Study material development costs out of the development costs consist of in-progress development costs of ₩272 million and completed development costs of ₩7,369 million, and the weighted average residual amortization period of development costs that is being amortized is 2.8 years.

Complete series of publication development costs consist of in-progress development costs of ₩155 million and completed development cost of ₩1,140 million, and the weighted average residual amortization period of development costs that is being amortized is 2.2 years.

Textbook development costs consist of in-progress development cost of ₩2,673 million and completed development costs of ₩493 million, and the weighted average residual amortization period of development costs that is being amortized is 1.1 years.

Development costs for other contents include ₩146 million of completed development costs and its weighted average residual amortization period is 1.1 years.

e. Total research and development costs recognized as expenses for the year ended December 2017, are as follows:

(in millions of Korean won)	**2017**	**2016**
Cost of sales	566	683
Selling and administrative expenses	23	23
	589	706

Goodwill is allocated among the Group's cash-generating units (CGUs) according to operating segments. Details of goodwill by operating segments as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
CHAIHONG division	480	480
Daekyo Edupia Co., Ltd.	354	-
P.T Daekyo Indonesia	-	61
Daekyo Enopi Singapore PTE Ltd.	-	51
	834	592

The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management covering four years.

Management determined the estimated cash flow based on past performance and its expectations of market development. The discount rates used are pre-tax and reflect risks relating to the relevant operating segments. Discount rates used for value-in-use calculations of the CHAIHONG division and others is 6.93%.

20. Other Payables

Details of other payables as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Current		
Non-trade payables	19,541	24,606
Accrued expenses	38,669	41,371
Short-term deposits received	447	391
Leasehold deposits received	11,124	10,662
	69,781	77,030
Non-current		
Leasehold deposits received	10,952	9,586
	10,952	9,586
	80,733	86,616

21. Borrowings

Details of borrowings as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	Details	Latest maturity date	Annual interest rate (%) at Dec 31, 2017	December 31, 2017	December 31, 2016
Current					
Daekyo Holdings Co., Ltd.	Borrowings from related party	2018-12-31	3.60	7,170	5,600
Woori Bank[1]	Facility loans	2018-12-31	3.25	178	194
Shinhan Bank[2]	Facility loans	2018-03-22	Libor 3M + 120BP	8,496	4,834
Shinhan Bank	Facility loans	2018-03-22	Libor 3M + 120BP	4,071	8,133
Hong Leong Bank	General loans	2018-03-01	2.69	1	-
Public Bank Berhad	General loans	2018-12-31	3.33	5	-
Maybank Islamic Berhad	General loans	2018-12-31	2.45	4	-
Hyundai Motors Finance	General loans	2018-12-31	3.97	3	3
Hitachi Capital Singapore Pte	General loans	2018-12-31	15.00	2	3
KIA Motors Finance	General loans	-	-	-	3
KIA Motors Finance	General loans	-	-	-	4
				19,930	18,774
Non-Current					
Woori Bank[1]	Facility loans	2021-08-01	3.25	8,179	9,410
Hong Leong Bank	General loans	-	-	-	4
Public Bank Berhad	General loans	2019-07-19	3.33	3	13
Maybank Islamic Berhad	General loans	2020-05-25	2.45	4	12
Hyundai Motors Finance	General loans	2021-09-30	3.97	9	14
Hitachi Capital Singapore Pte.	General loans	2021-02-28	15.00	6	7
				8,201	9,460
				28,131	28,234

[1] Certain property, plant and equipment and investment properties are pledged as collateral for these borrowings (Note 17, 18 and 32).

[2] Payment guarantees are provided from Daekyo Holdings Co., Ltd. for these borrowings (Note 32).

Changes in borrowings for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
At January 1	28,234	28,304
Addition	6,302	23,717
Repayment	(3,792)	(24,457)
Effect of changes in currency exchange	(2,613)	670
At December 31	28,131	28,234

22. Provisions

Changes in provisions for sales return for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
At January 1	568	659
Addition	366	63
Utilization	(452)	(154)
At December 31	482	568

23. Other Liabilities

Details of other liabilities as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Current		
Withholding	4,683	4,791
Advances from customer	39,960	41,225
Unearned income	1,521	1,113
	46,164	47,129

24. Post-employment Benefit

24.1 Defined Benefit Plan

Details of retirement benefit obligations recognized on the consolidated statements of financial position as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Present value of funded defined benefit obligations	60,123	58,859
Present value of unfunded defined benefit obligations	661	778
Fair value of plan assets	(51,988)	(54,356)
Net defined benefit liability	8,796	5,281

The amounts recognized in the consolidated statements of profit or loss for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Current service cost	8,561	8,275
Net interest cost	67	(22)
Total expenses	8,628	8,253

Cumulative actuarial losses recognized in the consolidated statements of comprehensive income as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Remeasurement of net defined benefit liability before tax	(11,308)	(12,163)
Tax effect	2,375	2,666
Remeasurement of net defined benefit liability after tax	(8,933)	(9,497)

Total expenses for the years ended December 31, 2017 and 2016, are charged as follows:

(in millions of Korean won)	**2017**	**2016**
Cost of sales	6,870	6,586
Selling and administrative expenses	1,758	1,667
	8,628	8,253

Changes in the carrying amount of defined benefit liability for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
At January 1	59,637	53,731
Current service cost	8,561	8,275
Interest expense	1,297	1,169
Remeasurements:		
- Actuarial gains and losses from changes in financial assumptions	(1,902)	2,677
- Actuarial gains and losses from experience adjustments	525	528
- Actuarial gains and losses from changes in demographic assumptions	52	-
Benefit payments	(7,386)	(6,743)
At December 31	60,784	59,637

Changes in the fair value of plan assets for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
At January 1	54,356	52,731
Expected return on plan assets	1,230	1,191
Remeasurements:		
- Return on plan assets	(470)	(129)
Contributions of employers	3,560	6,318
Benefit payments	(6,688)	(5,755)
At December 31	51,988	54,356

The principal actuarial assumptions to calculate defined benefit liability as at December 31, 2017 and 2016, are as follows:

(%)	December 31, 2017	December 31, 2016
Discount rate	3.00~3.16	2.00~2.67
Future salary increases	3.00~4.27	2.00~4.14

Plan assets as at December 31, 2017 and 2016, consist of:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Time deposits	23	5,198
Equity-linked Securities	9,580	18,282
Derivative linked securities		
(Principal and interest assured) and others	42,385	30,876
	51,988	54,356

Expected future contribution of defined benefit plans by employer is best estimated to be ₩3,600 million after the reporting period.

The sensitivity of the defined benefit obligations to changes in the principal actuarial assumptions is as follows:

	Changes in principal assumption	Effect on defined benefit obligation
Discount rate	0.5% increase/decrease	2.76% decrease / 2.89% increase
Salary growth rate	0.5% increase/decrease	2.93% increase / 2.82% decrease

A decrease in corporate bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings.

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. The sensitivity of the defined benefit obligation to changes in principal actuarial assumptions is calculated using the projected unit credit method, the same method applied when calculating the defined benefit obligations recognized on the statement of financial position.

The methods and types of assumptions used in preparing the sensitivity analysis were not changed compared to the previous period.

The Group reviews the funding level on an annual basis and has a policy to eliminate deficit in the fund.

Expected maturity analysis of undiscounted pension benefits as at December 31, 2017, is as follows:

(in millions of Korean won)	**Less than 1 year**	**Between 1 and 2 years**	**Between 2 and 5 years**	**Between 5 and 10 years**	**More than 10 years**	**Total**
Pension benefits	8,929	11,691	26,162	37,045	64,474	148,301

The weighted average duration of the defined benefit obligations is 6.1 years.

24.2 Defined Contribution Plan

Recognized expense related to the defined contribution plan for the year ended December 31, 2017, is ₩781 million (2016: ₩611 million).

25. Deferred Income Tax

The analysis of deferred tax assets and deferred tax liabilities as at December 31, 2017 and 2016, is as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Deferred tax assets		
Deferred tax asset to be recovered within 12 months	12,703	13,152
Deferred tax asset to be recovered after more than 12 months	18,418	17,582
Deferred tax assets before offsetting	31,121	30,734
Deferred tax liabilities		
Deferred tax liability to be recovered within 12 months	1,072	468
Deferred tax liability to be recovered after more than 12 months	30,546	30,386
Deferred tax liabilities before offsetting	31,618	30,854
Deferred tax liabilities, net	(497)	(120)

Changes in the deferred tax assets and liabilities for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
At January 1	(120)	819
Charged to the statement of profit or loss	2,863	1,705
Charged (credited) to other comprehensive income	(3,240)	(2,644)
At December 31	(497)	(120)

Changes in deferred tax assets and liabilities for the years ended December 31, 2017 and 2016, without offsetting balances within the same tax jurisdiction, are as follows:

(in millions of Korean won)	2017			
		Increase (decrease)		
	Beginning balance	Profit or loss	Other comprehensive income (loss)	Ending balance
Deferred tax assets				
Net defined benefit liability	12,007	345	-	12,352
Allowance for doubtful accounts	1,555	972	-	2,527
Accrued expenses	2,034	(330)	-	1,704
Loss on valuation of available-for-sale financial assets	8,417	(1,306)	(368)	6,743
Remeasurement of net defined benefit liability	2,615	-	(290)	2,325
Impairment loss on intangible assets	1,074	70	-	1,144
Amortization	459	-	-	459
Leasehold deposits provided	287	(64)	-	223
Depreciation	1,024	(288)	-	736
Other	1,262	1,646	-	2,908
	30,734	1,045	(658)	31,121
Deferred tax liabilities				
Available-for-sale financial assets	(866)	128	-	(738)
Plan assets	(11,300)	(852)	-	(12,152)
Gain on valuation of available-for-sale financial assets	(17,012)	3,003	(2,513)	(16,522)
Other	(1,676)	(461)	(69)	(2,206)
	(30,854)	1,818	(2,582)	(31,618)
	(120)	2,863	(3,240)	(497)

(in millions of Korean won)	2016			
		Increase (decrease)		
	Beginning balance	Profit or loss	Other comprehensive income (loss)	Ending balance
Deferred tax assets				
Net defined benefit liability	10,464	1,543	-	12,007
Allowance for doubtful accounts	1,403	152	-	1,555
Accrued expenses	1,766	268	-	2,034

(in millions of Korean won)	**2016**			
		Increase (decrease)		
	Beginning balance	**Profit or loss**	**Other comprehensive income (loss)**	**Ending balance**
Loss on valuation of available-for-sale financial assets	9,962	(1,707)	162	8,417
Remeasurement of net defined benefit liability	1,888	-	727	2,615
Impairment loss on intangible assets	1,776	(702)	-	1,074
Amortization	459	-	-	459
Leasehold deposits provided	351	(64)	-	287
Depreciation	1,320	(296)	-	1,024
Other	1,081	181	-	1,262
	30,470	(625)	889	30,734
Deferred tax liabilities				
Available-for-sale financial assets	(1,020)	154	-	(866)
Plan assets	(10,390)	(938)	28	(11,300)
Gain on valuation of available-for-sale financial assets	(16,521)	3,070	(3,561)	(17,012)
Other	(1,720)	44	-	(1,676)
	(29,651)	2,330	(3,533)	(30,854)
	819	1,705	(2,644)	(120)

Tax effects recognized directly in other comprehensive income as at December 31, 2017 and 2016, are as follows:

	December 31, 2017		
(in millions of Korean won)	**Before Tax**	**Tax effects**	**After Tax**
Gain (loss) on valuation of available-for-sale financial assets	71,279	(17,250)	54,029
Remeasurement of net defined benefit liability	(11,195)	2,376	(8,819)
Currency translation differences	(829)	9	(820)
Other comprehensive income of associates	321	(78)	243

	December 31, 2016		
(in millions of Korean won)	**Before Tax**	**Tax effects**	**After Tax**
Gain (loss) on valuation of available-	69,527	(16,825)	52,702

for-sale financial assets			
Remeasuremet of net defined benefit liability	(12,163)	2,666	(9,497)
Currency translation differences	(460)	-	(460)
Other comprehensive income of associates	173	-	173

Details of temporary differences that are unrecognized as deferred tax assets as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Investments in subsidiaries and others	85,752	82,154

26. Share Capital

The Company is authorized to issue 1,500 million shares with a par value per share of ₩500. As at December 31, 2017, 84,702,850 shares (₩42,352 million) of ordinary share and 19,426,990 shares (₩9,713 million) of preferred share are issued outstanding. There are no movements in ordinary and preferred shares during 2017 and 2016.

When the dividend rate of ordinary share exceeds the dividend rate of preferred share (over 9% of the par value according to the resolution of the Board of Directors), the preferred share has the right to be entitled to receive dividends at the same rate with the ordinary share for the excess rate.

27. Reserves

Details of reserves as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Share premium	46,797	46,797
Other reserves	25,923	25,718
	72,720	72,515

28. Other Components of Equity

Details of other components of equity as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Stock options	1,589	901
Treasury shares	(81,450)	(75,820)
	(79,861)	(74,919)

29. Share-Based Payments

As at December 31, 2017, the summary of stock options to be granted to employees is as follows:

	Details
Date of the first announcement	February 9, 2017
Grant method	Issuance of shares
Exercise period	April 16, 2018 ~ April 20, 2018 (scheduled)
Vesting conditions	Options are conditional on the employee completing service between January 1, 2017 and December 31, 2017 and achieving performance goals.
Exercise price[1]	Standard price of preferred share × (1- discount rate)
Shares to be granted	347,518 shares of preferred share

[1] The standard price of preferred share is calculated as mathematical average of closing price on reference date, one month average closing price and one week average closing price rolled-back from the reference date, December 31, 2017. The discount rates are 50% and 100%.

The summary of stock options granted to employees for the year ended December 31, 2017, is as follows:

	Details
Date of the first announcement	August 18, 2016
Grant method	Issuance of shares
Exercise period	February 13, 2017 ~ February 17, 2017
Vesting conditions	Options are conditional on the employee completing service between July 1, 2016 and December 31, 2016 and achieving performance goals.
Exercise price[1]	Standard price of ordinary share × (1- discount rate)
Shares to be granted[2]	168,612 shares of ordinary share

[1] The standard price of ordinary share is ₩8,200 and the discount rates are 30%, 50% and 100%.
[2] Shares to be issued can be replaced with preferred share in equivalent value, depending on the employees' choice. Standard price of preferred share for replacement was ₩5,180. Vested stock options of 148,981 of ordinary share and 31,076 of preferred share were exercised and unexercised options have been lapsed.

The fair value of stock appreciation rights determined was ₩1,589 million (2016: ₩901 million). The significant inputs into the model were the weighted average share price of ₩5,054 (2016: ₩8,198), exercise price of nil (2016: ₩3,125), volatility of 9.8% (2016: 19.3%), dividend yield of 4.9% (2016: 2.5%), an expected option life of 1.20 years (2016: 0.51 years) and an annual risk-free interest rate of 1.87% (2016: 1.57%).

Changes in stock options for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
At January 1	901	886
Compensation cost	1,589	1,619
Exercise	(901)	(1,604)
At December 31	1,589	901

30. Treasury Shares

Changes in treasury shares for the years ended December 31, 2017 and 2016, are as follows:

(shares, in millions of Korean won)	**2017**		
	Ordinary share	**Preferred share**	**Amounts**
At January 1	9,560,180	4,443,759	75,820
Acquisition	676,110	276,104	6,810
Disposal	(148,981)	(82,160)	(1,180)
At December 31	10,087,309	4,637,703	81,450

(shares, in millions of Korean won)	**2016**		
	Ordinary share	**Preferred share**	**Amounts**
At January 1	9,517,598	4,388,392	74,164
Acquisition	420,267	125,822	4,188
Disposal	(377,685)	(70,455)	(2,532)
At December 31	9,560,180	4,443,759	75,820

31. Retained Earnings

Retained earnings as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Legal reserve[1]	32,300	32,300
Discretionary reserve	494,586	477,319
Unappropriated retained earnings	45,327	42,013
	572,213	551,632

[1] The Commercial Code of the Republic of Korea requires the Company to appropriate, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its issued share capital. As at December 31, 2017, the Company's reserve equals 50% of the capital, therefore no additional reserve is needed. The reserve is not available for the payment of cash dividends, but may be transferred to share capital or used to reduce accumulated deficit, if any, with the ratification of the Company's majority shareholders.

Changes in retained earnings for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
At January 1	551,632	533,460
Profit for the year attributable to owners of the Parent Company	41,741	42,558
Remeasurement of net defined benefit liability	566	(2,578)
Dividend paid	(21,726)	(21,808)
At December 31	572,213	551,632

32. Contingencies and Commitments

As at December 31, 2017, the Group has credit agreements with Woori Bank up to ₩7,000 million in relation to B2B transactions and loan agreements with related party, Daekyo Holdings Co., Ltd. up to ₩9,900 million.

As at December 31, 2017, the Group has borrowing agreements in foreign currencies with Shinhan Bank up to USD 12,230 thousand.

In relation to using the copyright of Noonnoppi Math, the Group pays Korea contents bank a certain percentage of sales from the use. Payments of the copyright for the year ended December 31, 2017, are ₩805 million.

As at December 31, 2017, certain property, plant and equipment and investment properties are provided as collateral for borrowings in foreign currencies from Woori Bank (Notes 17, 18 and 21).

As at December 31, 2017, the Group provides financial deposits as collaterals amounting to ₩1,315 million for certain lessees in connection with the lessees' guarantee deposits. Seoul Guarantee Insurance Co., Ltd. has provided guarantees up to ₩3,940 million for the Company's execution of contracts.

The Group entered into contracts with free-lance instructors to manage its educational service members. In accordance with the contracts, the Group pays the instructors a certain percentage of monthly cash collections from its educational service members. Expenses in relation to these contracts amounted to ₩357,004 million (2016: ₩368,383 million) in 2017.

As at December 31, 2017, the Group is either a plaintiff in 4 legal case or a defendant in 8 legal cases (total amount of litigation: ₩4,476 million). The outcome of the cases and effect on the financial statements could not be ascertained at the end of the reporting period.

As at December 31, 2017, the Group has agreements with KEB Hana Bank up to USD 2,804 thousand for derivatives transactions.

Assets pledged as margin for futures trading as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**	**December 31, 2016**
Available-for-sale financial assets		
NH Investment & Securities Co., Ltd.	415	335
Korea Investment & Securities Co., Ltd.	415	333
Financial deposits		
NH Investment & Securities Co., Ltd.	-	81
	830	749

As at December 31, 2017, the Group has been provided with payment guarantees of USD 7,930 thousands from the ultimate Parent Company, Daekyo Holdings Co., Ltd., in relation to certain borrowings of EYE LEVEL HUB LLC (Note 21). The ultimate Parent Company, Daekyo Holdings Co., Ltd., provides financial support for Daekyo Edupia Co., Ltd., a subsidiary.

As at December 31, 2017, the Group’s leasehold deposits are provided as collateral for borrowings from Daekyo Holdings Co., Ltd.

As at December 31, 2017, the Company has entered into a lease agreement with Mirae Asset Daewoo Co., Ltd. and Korea Investment & Securities Co., Ltd. In relation to the agreement, the Company provides 7,904 shares and 1,000 shares of Shinhan Financial Holding Co., Ltd., respectively.

As at December 31, 2017, certain property, plant and equipment are provided as leasehold rights for ₩ 5,650 million and pledged as collateral for ₩ 6,732 million.

33. Sales

Details of sales for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Sales of goods	726,807	736,726
Rendering of services	65,806	67,813
Royalty income	19,590	16,178
	812,203	820,717

34. Selling and Administrative Expenses

Details of selling and administrative expenses for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Wages and salaries	27,053	27,283
Post-employment benefits	1,758	1,667
Welfare expense	5,460	5,365
Depreciation	3,493	6,946
Advertising expense	31,735	31,102
Commission expense	24,872	26,524
Amortization	3,226	3,214
Taxes and dues	3,028	3,485
Transportation expense	2,355	2,520
Printing expense	182	173
Rental expense	3,980	5,327
Other	8,237	9,551
	115,379	123,157

35. Expenses by Nature

Expenses that are recorded by nature as cost of sales and selling and administrative expenses in the statement of profit or loss for the years ended December 31, 2017 and 2016, consist of:

(in millions of Korean won)	**2017**	**2016**
Changes in inventories	4,038	2,071
Purchase of raw materials and merchandise	41,117	45,801
Depreciation, amortization	33,991	35,089
Employee benefit expenses	154,171	153,549
Commission expenses	427,381	436,343
Rental expenses	37,477	36,846
Advertising expenses	31,813	31,102
Other expenses	36,730	37,070
	766,718	777,871

36. Other Income

Other income for the years ended December 31, 2017 and 2016, consists of:

(in millions of Korean won)	**2017**	**2016**
Interest income (lease)	1,149	1,310
Dividend income	3,876	3,642
Gain on disposal of financial assets at fair value through profit or loss	1,490	2,575
Gain on valuation of financial assets at fair value through profit or loss	624	1,137
Gain on disposal of available-for-sale financial assets	16,989	18,454
Gain on disposal of non-current assets held for sale	1,949	132
Gain on valuation of derivatives	666	-
Gain on transaction of derivatives	1,179	882
Other	1,789	1,421
	29,711	29,553

37. Other Expenses

Other expenses for the years ended December 31, 2017 and 2016, consist of:

(in millions of Korean won)	**2017**	**2016**
Interest expense (lease)	408	415
Loss on foreign currency transaction	328	290
Loss on foreign currency translation	1,471	63
Donations	1,715	4,708
Other commission expenses	2,099	2,216
Loss on disposal of financial assets at fair value through profit or loss	415	194
Loss on valuation of financial assets at fair value through profit or loss	2,852	563
Impairment loss on intangible assets	4,330	5,239
Impairment loss on available-for-sale financial assets	3,137	1,655
Loss on disposal of available-for-sale financial assets	2,110	2,617
Loss on disposal of non-current assets held for sale	676	-
Loss on valuation of derivatives	194	1,114
Loss on transaction of derivatives	566	440
Other	1,509	928
	21,810	20,442

38. Finance Income

Finance income for the years ended December 31, 2017 and 2016, is as follows:

(in millions of Korean won)	2017	2016
Interest Income	1,938	1,721
Gain on foreign currency translation	80	209
	2,018	1,930

39. Finance Costs

Finance costs for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Interest expenses	1,034	963
Loss on foreign currency translation	501	152
Loss on foreign currency transaction	-	33
	1,535	1,148

40. Income Tax Expense

Income tax expense for the years ended December 31, 2017 and 2016, consists of:

(in millions of Korean won)	2017	2016
Current tax on profit for the year	15,706	13,889
Changes in total deferred tax	378	939
Deferred tax charged or credited directly to equity	(3,240)	(2,644)
Difference of changes in currency exchange	-	(370)
Income tax expense	12,844	11,814

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

(in millions of Korean won)	2017	2016
Profit before tax	54,463	53,604
Tax calculated at domestic tax rates applicable to profits in the respective countries	12,623	12,368
Tax adjustments:		
Income not subject to tax / expenses not deductible for tax purposes	462	(605)
Effects of unrecognized deferred income tax	287	1,400
Adjustments in respect of prior years	(604)	(1,687)
Others	76	338
Income tax expense	12,844	11,814
Effective tax rate (Income tax over profit before tax)	23.58%	22.04%

41. Earnings per Share

Basic earnings per share is calculated by dividing the profit attributable to shareholders of the Group by the weighted average number of shares in issue excluding shares purchased by the Group and held as treasury shares. Preferred shares have rights to participate in the profits of the Group. These participation rights have been considered in presenting the EPS for ordinary shares and preferred shares.

Basic earnings per ordinary share for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Profit attributable to ordinary shares[1]	34,835	35,476
Weighted average number of ordinary shares outstanding[2] (Unit: share)	74,826,527	75,231,636
Basic earnings per share (in won)		
Basic earnings per ordinary share	466	472

Basic earnings per preferred share for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Profit attributable to preferred shares[1]	6,906	7,082
Weighted average number of preferred shares outstanding[2] (Unit: share)	14,840,587	15,033,931
Basic earnings per share (in won)		
Basic earnings per preferred share	465	471

[1] Profit attributable to ordinary and preferred shares is as follows:

(in millions of Korean won)	**2017**	**2016**
Profit attributable to equity holders of the Parent Company (A)	41,741	42,558
Ordinary shares dividends (B)	17,908	18,034
Preferred shares dividends (C)	3,697	3,746
Undistributed earnings (D=A-B-C)	20,136	20,778
Undistributed earnings available for ordinary shares (E)	16,927	17,442
Undistributed earnings available for preferred shares(F)	3,209	3,336
Profit attributable to ordinary shares (G=B+E)	34,835	35,476
Profit attributable to preferred shares (H=C+F)	6,906	7,082

[2] Weighted average numbers of shares are calculated as follows:

(Shares)	**2017**	**2016**
Ordinary shares issued	84,702,850	84,702,850
Ordinary treasury shares	(10,087,309)	(9,560,180)
Ordinary shares outstanding	74,615,541	75,142,670
Weighted average number of ordinary shares outstanding	74,826,527	75,231,636
Preferred shares issued	19,426,990	19,426,990
Preferred treasury shares	(4,637,703)	(4,443,759)
Preferred shares outstanding	14,789,287	14,983,231
Weighted average number of preferred shares outstanding	14,840,587	15,033,931

Diluted earnings per ordinary share for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Profit attributable to ordinary shares	34,835	35,476
Weighted average number of ordinary shares outstanding and dilutive potential ordinary shares (Unit: share)	74,826,527	75,405,897
Diluted earnings per share (in won)		
Diluted earnings per ordinary share	466	470

Diluted earnings per preferred share for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Profit attributable to preferred shares	6,906	7,082
Weighted average number of preferred shares outstanding and dilutive potential preferred shares (Unit: share)	15,188,105	15,068,315
Diluted earnings per share (in won)		
Diluted earnings per preferred share	455	470

42. Dividends

The interim dividends for ordinary shares paid in 2017 and 2016 were ₩7,476 million (₩100 per share, dividend rate: 20%) and ₩7,522 million (₩100 per share, dividend rate: 20%) and the interim dividends for preferred shares were ₩1,482 million (₩100 per share, dividend rate: 20%) and ₩1,505 million (₩100 per share, dividend rate: 20%), respectively.

The dividends for ordinary shares paid in 2017 and 2016 were ₩10,521 million (₩140 per share, dividend rate: 28%) and ₩10,526 million (₩140 per share, dividend rate: 28%) and the dividends for preferred shares were ₩2,248 million (₩150 per share, dividend rate: 30%) and ₩2,256 million (₩150 per share, dividend rate: 30%), respectively.

A dividend for ordinary share in respect of the year ended December 31, 2017, of ₩140 per share (dividend rate: 28%), amounting to total dividend of ₩10,446 million and a dividend for preferred share of ₩150 per share (dividend rate: 30%), amounting to total dividend of ₩2,218 million, are to be proposed at the annual general meeting on March 23, 2018. These financial statements do not reflect this dividend payable.

43. Cash Generated from Operations

Cash generated from operations for the years ended December 31, 2017 and 2016, is as follows:

(in millions of Korean won)	**2017**	**2016**
Profit for the year	41,619	41,790
Adjustments :	45,625	48,843
Post-employment benefits	8,628	8,253
Depreciation and amortization	33,991	35,089
Impairment loss on intangible assets	4,330	5,239
Impairment loss on available-for-sale financial assets	3,137	1,655
Interest income	(3,087)	(3,031)
Interest expense	1,442	1,378
Gain on disposal of available-for-sale financial assets	(14,879)	(15,837)
Dividend income	(3,876)	(3,642)
Income tax expense	12,844	11,814
Other	3,095	7,925
Changes in operating assets and liabilities:	16,783	168
Decrease in financial assets at fair value through gain or loss	21,320	14,088
Increase in trade receivables	(1,381)	(692)
Increase in other receivables	(221)	(605)
Decrease (increase) in inventories	3,161	(684)
Decrease (increase) in other assets	1,268	(1,174)
Decrease in trade payables	(972)	(434)
Increase (decrease) in other payables	(328)	1,678

(in millions of Korean won)	**2017**	**2016**
Decrease in provisions	(85)	(91)
Decrease in other liabilities	(1,314)	(5,013)
Payment of net defined benefit liability	(698)	(988)
Deposit in plan assets, net	(3,560)	(6,318)
Changes in other assets, liabilities	(407)	401
Cash generated from operations	104,027	90,801

Significant non-cash transactions for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Valuation of available-for-sale financial assets	1,453	1,990
Exercise of stock options	901	1,604
Reclassification of investment properties	21,725	(4,194)
Increase (decrease) in non-trade payables in relation to property, plant and equipment	(4,726)	6,068
Increase (decrease) in non-trade payables in relation to intangible assets	(114)	12

Changes in liabilities arising from financing activities

Changes in liabilities arising from financial activities for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**Liabilities from financing activities**		
	Short-term borrowings	**Long-term borrowings**	**Total**
At January 1, 2016	5,100	23,204	28,304
Cash flows	13,065	(13,766)	(701)
Exchange differences	609	22	631
At December 31, 2016	18,774	9,460	28,234
At January 1, 2017	18,774	9,460	28,234
Cash flows	2,510	-	2,510
Exchange differences	(1,354)	(1,259)	(2,613)
At December 31, 2017	19,930	8,201	28,131

44. Related Party Transactions

As at December 31, 2017 and 2016, the ultimate Parent Company of the Group is Daekyo Holdings Co., Ltd.

Details of other related parties that have sales and other transactions with the Group or have receivables and payables balances as at December 31, 2017 and 2016, are as follows:

	December 31, 2017	December 31, 2016	Relationship
Other related parties	Daekyo D&S Co., Ltd.	Daekyo D&S Co., Ltd.	A subsidiary of Parent Company
	Daekyo CNS Co., Ltd.	Daekyo CNS Co., Ltd.	A subsidiary of Parent Company
	Gangwon Deep Sea Water Co., Ltd.	Gangwon Deep Sea Water Co., Ltd.	A subsidiary of Parent Company
	Daekyo Culture foundation	Daekyo Culture foundation	Key management performs the important duty
	World Youth and Culture foundation	World Youth and Culture foundation	Key management performs the important duty
	BongAm Institute	BongAm Institute	Key management performs the important duty
	Deakyo Investment Co., Ltd.	Deakyo Investment Co., Ltd.	Key management performs the important duty
	Tara Graphics Co., Ltd.	Tara Graphics Co., Ltd.	Relatives of key managements is the entity's CEO
	Tara Distribution Co., Ltd.	Tara Distribution Co., Ltd.	Relatives of key managements is the entity's CEO
	Tara TPS Co., Ltd.	Tara TPS Co., Ltd.	Relatives of key managements is the entity's CEO
	Crystal One Co., Ltd.	Crystal One Co., Ltd.	Relatives of key managements is the entity's CEO
	Crystal Wine Collection Co., Ltd.	Crystal Wine Collection Co., Ltd.	Relatives of key managements is the entity's CEO
	Crystal Wine Club Co., Ltd.	Crystal Wine Club Co., Ltd.	Key management performs the important duty
	Korea contents bank	-	Key management performs the important duty
Associates	With the Green Co., Ltd.	With the Green Co., Ltd.	An associate
	DKI Growing Star 1'st Investment Partnership	DKI Growing Star 1'st Investment Partnership	An associate
	HR DAVINCHI Private Securities Investment Trust 2	-	An associate
	IBK A One Convertible Professional Investment Type Private Security Investment Trust 1	-	An associate
	Rico-Synergy Collaboration Multi Mezzanine Specialized Investment Model Private Equity Investment Trust No. 3	-	An associate

Significant transactions for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017					
	Sales		**Purchases**			
	Sales[1]	**Others**	**Purchases[2]**	**Acquisition of non-current assets**	**Selling and administrative expenses**	**Others**
Parent Company						
Daekyo Holdings Co., Ltd.	92	310	1	8	3,531	400
Other related parties						
Daekyo D&S Co., Ltd.	114	37	281	141	7,899	4
Daekyo CNS Co., Ltd.	195	23	-	3,050	13,906	-
Gangwon Deep Sea Water Co., Ltd.	92	27	3	-	932	155
Daekyo Culture Foundation	134	79	-	-	1	-
World Youth & Culture Foundation	108	-	-	-	-	-
BongAm Institute	-	-	-	-	-	621
Deakyo Investment Co., Ltd.	44	4	-	-	624	-
Tara Graphics Co., Ltd.	-	-	53	6	326	-
Tara Distribution Co., Ltd.	-	-	6,807	-	-	-
Tara TPS Co., Ltd.	312	-	24,892	60	449	-
Crystal One Co., Ltd.[3]	225	-	-	-	1,895	392
Crystal Wine Collection Co., Ltd.	23	3	-	-	1	-
Crystal Wine Club Co., Ltd.	-	-	-	-	15	8
Korea contents bank	-	-	805	-	-	-
With the Green Co., Ltd.	-	-	-	-	1	-
	1,339	483	32,842	3,265	29,580	1,580

(in millions of Korean won)	2016					
	Sales		**Purchases**			
	Sales[1]	**Others**	**Purchases[2]**	**Acquisition of non-current assets**	**Selling and administrative expenses**	**Others**
Parent Company						
Daekyo Holdings Co., Ltd.	64	404	89	143	3,447	178
Other related parties						
Daekyo D&S Co., Ltd.	97	35	968	304	5,978	-
Daekyo CNS Co., Ltd.	193	81	-	2,762	13,034	-
Gangwon Deep Sea Water Co., Ltd.	110	17	2	-	1,127	-
Daekyo Culture Foundation	67	106	-	-	3	519
World Youth & Culture Foundation	67	-	-	-	-	-
BongAm Institute	-	-	-	-	-	531
Deakyo Investment Co., Ltd.	38	3	-	-	1,195	-
Tara Graphics Co., Ltd.	-	-	70	-	326	-

Tara Distribution Co., Ltd.	-	-	6,748	-	931	-
Tara TPS Co., Ltd.	314	-	26,675	41	439	-
Crystal One Co., Ltd.	221	-	-	-	2,091	-
Crystal Wine Collection Co., Ltd.	4	1	-	-	-	-
Crystal Wine Club Co., Ltd.	-	-	3	-	460	-
	1,175	647	34,555	3,250	29,031	1,228

[1] Sales of goods and rendering of services are included.
[2] Purchases of goods and services (royalty and others) are included.
[3] The Group acquired new media, travel and insurance divisions from Crystal One Co., Ltd. (Note 45).

The balances of significant receivables and payables as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**December 31, 2017**				
	Receivables			**Payables**	
	Trade receivables	**Other receivables**	**Others**	**Trade payables**	**Other payables**
Parent Company					
Daekyo Holdings Co., Ltd.	27	81	-	-	9,944
Other related parties					
Daekyo D&S Co., Ltd.	2	28	7,560	-	1,814
Daekyo CNS Co., Ltd.	-	2	-	-	3,993
Gangwon Deep Sea Water Co., Ltd.	-	70	-	-	287
Daekyo Culture Foundation	5	53	-	-	36
World Youth&Culture Foundation	-	-	-	-	36
Deakyo Investment Co., Ltd.	-	3	-	-	692
Tara Graphics Co., Ltd.	-	-	-	-	30
Tara Distribution Co., Ltd.	-	-	-	1,823	-
Tara TPS Co., Ltd.	-	-	-	5,820	1
Crystal One Co., Ltd.	-	1	-	-	24
Crystal Wine Collection Co. Ltd.	-	-	-	-	178
Crystal wine Club Co., Ltd.	-	-	-	-	3
Korea contents bank	-	-	-	-	114
	34	238	7,560	7,643	17,152

(in millions of Korean won)	**December 31, 2016**				
	Receivables			**Payables**	
	Trade receivables	**Other receivables**	**Others**	**Trade payables**	**Other payables**
Parent Company					
Daekyo Holdings Co., Ltd.	-	116	-	61	7,383
Other related parties					

Daekyo D&S Co., Ltd.	-	47	7,560	-	1,985
Daekyo CNS Co., Ltd.	-	3	-	11	4,506
Gangwon Deep Sea Water Co., Ltd.	-	55	-	2	301
Daekyo Culture Foundation	76	-	-	-	36
World Youth&Culture Foundation	-	-	-	-	35
Deakyo Investment Co., Ltd.	-	2	-	-	559
Tara Graphics Co., Ltd.	-	-	-	6	78
Tara Distribution Co., Ltd.	-	-	-	1,407	-
Tara TPS Co., Ltd.	-	-	-	4,246	26
Crystal One Co., Ltd.	48	34	-	-	197
Crystal Wine Collection Co. Ltd.	-	1	-	-	10
Crystal wine Club Co., Ltd.	-	-	-	-	1
	124	258	7,560	5,733	15,117

Fund transactions with related parties for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**					
				Equity contributions (reduction) in cash	**Borrowing transactions**	
	Dividend paid	**Dividends of subsidiaries**	**Dividend received**		**Borrowings**	**Repayments**
Parent Company						
Daekyo Holdings Co., Ltd.	11,081	329	-	-	4,380	2,810
Other related parties						
Daekyo CNS Co., Ltd.	-	125	-	-	-	-
Daekyo Culture Foundation	715	3	-	-	-	-
World Youth&Culture Foundation	233	-	-	-	-	-
BongAm Institute	30	-	-	-	-	-
Deakyo Investment Co., Ltd.	-	125	-	-		
Crystal One Co., Ltd.	468	-	-	-	-	-
Associates						
DKI Growing Star 1st Investment Partnership	-	-	-	(1,212)	-	-
HR DAVINCHI Private Securities Investment Trust 2	-	-	-	5,000	-	-
IBK A One Convertible Professional Investment Type Private Security Investment Trust 1	-	-	-	3,000	-	-
Rico-Synergy Collaboration Multi Mezzanine	-	-	-	3,000	-	-

Specialized Investment Model Private Equity Investment Trust No. 3						
	12,527	582	-	9,788	4,380	2,810

(in millions of Korean won)	2016					
				Equity contributions	**Borrowing transactions**	
	Dividend paid	**Dividends of subsidiaries**	**Dividend received**	**(reduction) in cash**	**Borrowings**	**Repayments**
Parent Company						
Daekyo Holdings Co., Ltd.	11,081	294	-	-	500	-
Other related parties						
Daekyo CNS Co., Ltd.	-	100	-	-	-	-
Daekyo Culture Foundation	715	3	-	-	-	-
World Youth&Culture Foundation	233	-	-	-	-	-
BongAm Institute	30	-	-	-	-	-
Deakyo Investment Co., Ltd.	-	100	-	-	-	-
Crystal One Co., Ltd.	468	-	-	-	-	-
Associates						
DKI Growing Star 1st Investment Partnership	-	-	1,092	(348)	-	-
With the Green Co., Ltd.	-	-	-	3,893	-	-
	12,527	497	1,092	3,545	500	-

Key management compensation of the Group for the years ended December 31, 2017 and 2016, consists of:

(in millions of Korean won)	**2017**	**2016**
Short-term employee benefit	4,574	3,787
Post-employment benefits	705	548
	5,279	4,335

Key management refers to the directors who have significant control and responsibilities on the Group’s business plans, operations and controls.

As at December 31, 2017, no payment guarantees are provided by the Group for the funding sources of the related parties and payment guarantees provided by the related parties are described in Note 32.

45. Business acquisition

The Company acquired new media, travel and insurance divisions from Crystal One Co., Ltd. in October, 2017. Details of the assets and liabilities recognized as a result of the acquisition and the assessments of the fair value of net assets at the acquisition date are as follows:

(in millions of Korean won)	**Amount**
Purchase consideration	
Cash and cash equivalents	815
Total purchase consideration	815
Recognized amounts of identifiable assets acquired and liabilities assumed	
Trade and other receivables	266
Property, plant and equipment	1
Intangible assets	8
Trade and other payables	(87)
Net identifiable assets acquired	188
Goodwill[1]	627

[1]The Group recognized impairment loss amounting to ₩274 million on goodwill arising from the acquisition.

46. Approval of Financial Statements

The issuance of the consolidated financial statements as at December 31, 2017 was approved by the Board of Directors on February 19, 2018, which is subject to change with the approval of the shareholders at their annual shareholders' meeting.