SK HYNIX, INC. and Subsidiaries

Consolidated Financial Statements

December 31, 2016 and 2015

(With Independent Auditors' Report Thereon)

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Independent Auditors' Report

Based on a report originally issued in Korean

The Board of Directors and Shareholders
SK hynix, Inc.:

We have audited the accompanying consolidated financial statements of SK hynix, Inc. and its subsidiaries (the "Group") which comprise the consolidated statements of financial position as of December 31, 2016 and 2015, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on these 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 our 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, we consider 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 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 consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2016 and 2015 and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.

Other Matter

The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries.

KPMG Samjong Accounting Corp.

Seoul, Korea
February 17, 2017

This report is effective as of February 17, 2017, 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 there to. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

SK HYNIX, INC. and Subsidiaries
Consolidated Statements of Financial Position
As of December 31, 2016 and 2015

(In millions of won)

	Note		2016	2015
Assets				
Current assets				
Cash and cash equivalents	*5,6*	₩	613,786	1,175,719
Short-term financial instruments	*5,6,7*		3,521,893	3,615,554
Trade receivables, net	*5,6,8,32*		3,251,652	2,628,448
Loans and other receivables, net	*5,6,8,32*		25,611	61,613
Inventories, net	*9*		2,026,198	1,923,376
Current tax assets			489	1,394
Other current assets	*11*		399,353	353,926
			9,838,982	9,760,030
Non-current assets				
Equity-accounted investees	*12*		131,016	122,609
Available-for-sale financial assets	*5,6,13*		147,779	131,354
Loans and other receivables, net	*5,6,8,32*		39,490	62,919
Other financial assets	*5,6,7*		423	430
Property, plant and equipment, net	*14,33*		18,777,402	16,966,252
Intangible assets, net	*15,29*		1,915,591	1,704,896
Investment property, net	*14,16*		2,573	2,679
Deferred tax assets	*21,30*		792,368	361,204
Other non-current assets	*11*		570,402	565,533
			22,377,044	19,917,876
Total assets		₩	32,216,026	29,677,906

See accompanying notes to the consolidated financial statements.

SK HYNIX, INC. and Subsidiaries
Consolidated Statements of Financial Position, Continued
As of December 31, 2016 and 2015

(In millions of won)

	Note		2016	2015
Liabilities				
Current liabilities				
Trade payables	*5,6*	₩	696,144	791,373
Other payables	*5,6,32*		1,606,417	1,337,803
Other non-trade payables	*5,6*		685,154	1,001,171
Borrowings	*5,6,17,32*		704,860	1,013,372
Other financial liabilities	*5,6,22*		288	-
Provisions	*19,33*		42,822	25,276
Current tax liabilities			374,666	627,260
Other current liabilities	*18*		50,498	44,443
			4,160,849	4,840,698
Non-current liabilities				
Other non-trade payables	*5,6*		27,426	89,891
Borrowings	*5,6,17,32*		3,631,118	2,805,223
Other financial liabilities	*5,6,22*		-	683
Defined benefit liabilities, net	*20*		306,488	484,977
Deferred tax liabilities	*21*		4,732	7,582
Other non-current liabilities	*18*		61,883	61,149
			4,031,647	3,449,505
Total liabilities			8,192,496	8,290,203
Equity				
Equity attributable to owners of the Parent Company				
Capital stock	*1,23*		3,657,652	3,657,652
Capital surplus	*23*		4,143,736	4,143,736
Other equity	*23*		(771,913)	(771,913)
Accumulated other comprehensive loss	*24*		(79,103)	(1,600)
Retained earnings	*25*		17,066,583	14,358,988
Total equity attributable to owners of the Parent Company			24,016,955	21,386,863
Non-controlling interests			6,575	840
Total equity			24,023,530	21,387,703
Total liabilities and equity		₩	32,216,026	29,677,906

See accompanying notes to the consolidated financial statements.

SK HYNIX, INC. and Subsidiaries
Consolidated Statements of Comprehensive Income
For the years ended December 31, 2016 and 2015

(In millions of won, except per share information)

	Note		2016	2015
Revenue	*4,32*	₩	17,197,975	18,797,998
Cost of sales	*27,32*		10,787,139	10,515,353
Gross profit			6,410,836	8,282,645
Selling and administrative expense	*26,27*		3,134,090	2,946,545
Operating profit			3,276,746	5,336,100
Finance income	*28*		814,892	846,752
Finance expenses	*28*		846,328	829,913
Share of profit of equity-accounted investees	*12*		22,752	24,642
Other income	*29*		52,371	40,479
Other expenses	*29*		103,979	148,939
Profit before income tax			3,216,454	5,269,121
Income tax expense	*30*		255,971	945,526
Profit for the year			2,960,483	4,323,595
Other comprehensive income				
Item that will never be reclassified to profit or loss:				
Remeasurements of defined benefit liability, net of tax	*20*		106,822	(21,871)
Items that are or may be reclassified to profit or loss:				
Foreign operations – foreign currency translation differences, net of tax	*24*		(82,066)	33,479
Equity-accounted investees – share of other comprehensive income, net of tax	*12,24*		4,088	6,487
Other comprehensive income for the year, net of tax			28,844	18,095
Total comprehensive income for the year		₩	2,989,327	4,341,690
Profit attributable to:				
Owners of the Parent Company		₩	2,953,774	4,322,356
Non-controlling interests			6,709	1,239
Total comprehensive income attributable to:				
Owners of the Parent Company			2,982,703	4,340,700
Non-controlling interests			6,624	990
Earnings per share				
Basic and diluted earnings per share (in won)	*31*		4,184	6,002

See accompanying notes to the consolidated financial statements.

SK HYNIX, INC. and Subsidiaries
Consolidated Statements of Changes in Equity, Continued
For the years ended December 31, 2016 and 2015

(In millions of won)

		Attributable to owners of the Parent Company							
		Capital stock	Capital surplus	Other equity	Accumulated other comprehensive income (loss)	Retained earnings	Total	Non-controlling interests	Total equity
Balance at January 1, 2015	₩	3,657,652	4,143,736	(24)	(41,815)	10,276,904	18,036,453	(150)	18,036,303
Total comprehensive income									
Profit for the year		-	-	-	-	4,322,356	4,322,356	1,239	4,323,595
Remeasurements of defined benefit liability, net of tax		-	-	-	-	(21,871)	(21,871)	-	(21,871)
Other comprehensive income from joint venture and associate, net of tax		-	-	-	6,487	-	6,487	-	6,487
Foreign currency translation differences for foreign operations, net of tax		-	-	-	33,728	-	33,728	(249)	33,479
Total comprehensive income		-	-	-	40,215	4,300,485	4,340,700	990	4,341,690
Transactions with owners of the Parent Company									
Dividends paid		-	-	-	-	(218,401)	(218,401)	-	(218,401)
Acquisition of treasury shares		-	-	(771,889)	-	-	(771,889)	-	(771,889)
Total transactions with owners of the Parent Company		-	-	(771,889)	-	(218,401)	(990,290)	-	(990,290)
Balance at December 31, 2015	₩	3,657,652	4,143,736	(771,913)	(1,600)	14,358,988	21,386,863	840	21,387,703

See accompanying notes to the consolidated financial statements.

SK HYNIX, INC. and Subsidiaries
Consolidated Statements of Changes in Equity, Continued
For the years ended December 31, 2016 and 2015

(In millions of won)

		Attributable to owners of the Parent Company							
		Capital stock	Capital surplus	Other equity	Accumulated other comprehensive income (loss)	Retained earnings	Total	Non-controlling interests	Total equity
Balance at January 1, 2016	₩	3,657,652	4,143,736	(771,913)	(1,600)	14,358,988	21,386,863	840	21,387,703
Total comprehensive income									
Profit for the year		-	-	-	-	2,953,774	2,953,774	6,709	2,960,483
Remeasurements of defined benefit liability, net of tax		-	-	-	-	106,822	106,822	-	106,822
Other comprehensive income from joint venture and associate, net of tax		-	-	-	4,088	-	4,088	-	4,088
Foreign currency translation differences for foreign operations, net of tax		-	-	-	(81,981)	-	(81,981)	(85)	(82,066)
Total comprehensive income		-	-	-	(77,893)	3,060,596	2,982,703	6,624	2,989,327
Transactions with owners of the Parent Company									
Dividends paid		-	-	-	-	(353,001)	(353,001)	-	(353,001)
Disposal of a subsidiary		-	-	-	390	-	390	(889)	(499)
Total transactions with owners of the Parent Company		-	-	-	390	(353,001)	(352,611)	(889)	(353,500)
Balance at December 31, 2016	₩	3,657,652	4,143,736	(771,913)	(79,103)	17,066,583	24,016,955	6,575	24,023,530

See accompanying notes to the consolidated financial statements.

SK HYNIX, INC. and Subsidiaries
Consolidated Statements of Cash Flows, Continued
For the years ended December 31, 2016 and 2015

(In millions of won)

	Note		2016	2015
Cash flows from operating activities				
Cash generated from operating activities	*34*	₩	6,486,781	10,357,267
Interest received			42,895	51,610
Interest paid			(125,818)	(124,304)
Dividends received			20,744	17,045
Income tax paid			(875,680)	(982,098)
Net cash provided by operating activities			5,548,922	9,319,520
Cash flows from investing activities				
Decrease in short-term financial instruments, net			109,803	39,533
Collection of loans and other receivables			15,422	10,692
Increase in loans and other receivables			(13,613)	(14,134)
Proceeds from disposal of available-for-sale financial assets			2,651	1,319
Acquisition of available-for-sale financial assets			(19,085)	(5,359)
Decrease in other financial assets			5	-
Increase in other financial assets			(2)	-
Cash inflows from derivative transactions			1,077	1,672
Cash outflows from derivative transactions			(1,525)	(2,088)
Proceeds from disposal of property, plant and equipment			162,120	220,097
Acquisition of property, plant and equipment			(5,956,354)	(6,774,625)
Proceeds from disposal of intangible assets			1,585	7,963
Acquisition of intangible assets			(530,375)	(623,743)
Proceeds from disposal of assets held for sale			-	22,630
Receipt of government grants			133	406
Investments in associates			(2,293)	(9,893)
Net cash used in investing activities		₩	(6,230,451)	(7,125,530)
Cash flows from financing activities				
Proceeds from borrowings		₩	2,080,343	3,933,056
Repayments of borrowings			(1,610,466)	(4,405,023)
Acquisition of treasury shares			-	(771,889)
Dividends paid			(353,001)	(218,401)
Net cash provided by (used in) financing activities			116,876	(1,462,257)
Effect of movements in exchange rates on cash and cash equivalents			2,720	7,225
Net increase (decrease) in cash and cash equivalents			(561,933)	738,958
Cash and cash equivalents at beginning of the year			1,175,719	436,761
Cash and cash equivalents at end of the year		₩	613,786	1,175,719

See accompanying notes to the consolidated financial statements.

1. Reporting Entity

(1) General information about SK hynix, Inc. (the "Parent Company") and its subsidiaries (collectively the "Group") is as follows:

The Parent Company is engaged in the manufacture, distribution and sales of semiconductor products and its shares have been listed on the Korea Exchange since 1996. The Parent Company's headquarters is located at 2091 Gyeongchung-daero, Bubal-eup, Icheon-si, Gyeonggi-do, South Korea, and the Group has manufacturing facilities in Icheon-si and Cheongju-si, South Korea, and Wuxi and Chongqing, China.

As of December 31, 2016, the shareholders of the Parent Company are as follows:

Shareholder	Number of shares	Percentage of ownership (%)
SK Telecom Co., Ltd.	146,100,000	20.07
National Pension Service	72,338,677	9.94
Share Management Council[1]	5,097,667	0.70
Other investors	482,465,451	66.27
Treasury shares	22,000,570	3.02
	728,002,365	100.00

[1] As of December 31, 2016, the number of shares held by each member of Share Management Council is as follows:

Shareholder	Number of shares	Percentage of ownership (%)
KEB Hana Bank	5,092,500	0.70
Other financial institutions	5,167	0.00
	5,097,667	0.70

According to the share purchase agreement dated November 14, 2011, between SK Telecom Co., Ltd. and the Share Management Council, the Share Management Council should exercise its voting right on its shares following SK Telecom Co., Ltd.'s decision in designating officers of the Parent Company or other matters unless this conflicts with the Share Management Council's interest.

1. Reporting Entity, Continued

(2) Details of the Group's consolidated subsidiaries as of December 31, 2016 and 2015 are as follows:

Company	Location	Business	Ownership (%)	
			2016	2015
SK hyeng Inc.	Korea	Domestic subsidiary	100.00	100.00
SK hystec Inc.	Korea	Domestic subsidiary	100.00	100.00
Siliconfile Technologies Inc.	Korea	Development and manufacturing of electronic component	100.00	100.00
Happymore Inc.[1]	Korea	Domestic subsidiary	100.00	-
SK hynix America Inc. (SKHYA)	U.S.A.	Overseas sales subsidiary	97.74	97.74
Hynix Semiconductor Manufacturing America Inc. (HSMA)[2]	U.S.A.	Overseas manufacturing subsidiary	-	100.00
SK hynix Deutschland GmbH (SKHYD)	Germany	Overseas sales subsidiary	100.00	100.00
SK hynix U.K. Ltd. (SKHYU)	U.K.	Overseas sales subsidiary	100.00	100.00
SK hynix Asia Pte. Ltd. (SKHYS)	Singapore	Overseas sales subsidiary	100.00	100.00
SK hynix Semiconductor India Pvt. Ltd. (SKHYIS)[3]	India	Overseas sales subsidiary	100.00	100.00
SK hynix Semiconductor Hong Kong Ltd. (SKHYH)	Hong Kong	Overseas sales subsidiary	100.00	100.00
SK hynix Semiconductor (Shanghai) Co., Ltd. (SKHYCS)	China	Overseas sales subsidiary	100.00	100.00
SK hynix Japan Inc. (SKHYJ)	Japan	Overseas sales subsidiary	100.00	100.00
SK hynix Semiconductor Taiwan Inc. (SKHYT)	Taiwan	Overseas sales subsidiary	100.00	100.00
SK hynix Semiconductor (China) Ltd. (SKHYCL)	China	Overseas manufacturing subsidiary	100.00	100.00
SK hynix Semiconductor (Wuxi) Ltd. (SKHYMC)	China	Overseas manufacturing subsidiary	100.00	100.00
SK hynix (Wuxi) Semiconductor Sales Ltd. (SKHYCW)	China	Overseas sales subsidiary	100.00	100.00
SK hynix Italy S.r.l (SKHYIT)	Italy	Overseas R&D center	100.00	100.00
SK hynix memory solutions Inc. (SKHMS)	U.S.A.	Overseas R&D center	100.00	100.00
SK hynix Flash Solution Taiwan (SKHYFST)	Taiwan	Overseas R&D center	100.00	100.00
SK APTECH Ltd. (SKAPTECH)	Hong Kong	Holding company	100.00	100.00
SK hynix Semiconductor (Chongqing) Ltd. (SKHYCQL)[4]	China	Overseas manufacturing subsidiary	100.00	100.00
Softeq Flash Solutions LLC.(SOFTEQ)	Belarus	Overseas R&D center	100.00	100.00
SK hynix Ventures Hong Kong Ltd. (SKH Ventures)[5]	Hong Kong	Overseas investing subsidiary	100.00	-
MMT (Money Market Trust)	Korea	Money Market Trust	100.00	100.00

[1] Happymore Inc. was established during the year ended December 31, 2016.
[2] HSMA is a subsidiary of SK Hynix America Inc. and its liquidation process was completed during the year ended December 31, 2016.
[3] Subsidiary of SK hynix Asia Pte. Ltd. (SKHYS)
[4] Subsidiary of SK APTECH Ltd. (SKAPTECH)
[5] The Group acquired SK hynix Venture Hong Kong Ltd. (SKH Ventures) during the year ended December 31, 2016.

1. Reporting Entity, Continued

(3) The changes in the consolidated subsidiaries for the year ended December 31, 2016 are follows

	Company	Description
Acquisition	SK hynix Ventures Hong Kong Ltd. (SKH Ventures)	Included in Subsidiary by establishment
Acquisition.	Happymore Inc.	Included in Subsidiary by establishment
Excluded from subsidiary	Hynix Semiconductor Manufacturing America Inc. (HSMA)	Excluded from subsidiary by liquidation

(4) Major subsidiaries' summarized statements of financial position as of December 31, 2016 and 2015 are as follows:

(In millions of won)

	2016			2015		
	Assets	Liabilities	Equity	Assets	Liabilities	Equity
SK hynix America Inc. (SKHYA)	₩ 1,584,043	1,279,493	304,550	1,504,882	1,333,291	171,591
SK hynix Asia Pte. Ltd. (SKHYS)	337,506	253,918	83,588	269,286	190,155	79,131
SK hynix Semiconductor Hong Kong Ltd. (SKHYH)	932,437	810,556	121,881	529,095	431,074	98,021
SK hynix Semiconductor (Shanghai) Co., Ltd. (SKHYCS)	46,177	18,595	27,582	68,196	45,998	22,198
SK hynix Japan Inc. (SKHYJ)	251,274	184,504	66,770	245,142	183,277	61,865
SK hynix Semiconductor Taiwan Inc. (SKHYT)	310,933	290,174	20,759	299,834	277,520	22,314
SK hynix Semiconductor (China) Ltd. (SKHYCL)	3,476,086	232,117	3,243,969	3,718,832	503,776	3,215,056
SK hynix Deutschland GmbH (SKHYD)	83,388	45,575	37,813	75,152	38,697	36,455
SK hynix U.K. Ltd. (SKHYU)	146,327	128,807	17,520	155,531	138,918	16,613
SK hynix Semiconductor (Chongqing) Ltd. (SKHYCQL)	350,305	171,088	179,217	406,552	224,672	181,880

1. Reporting Entity, Continued

(5) Major subsidiaries' summarized statements of comprehensive income for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

	2016			2015		
	Revenue	Profit	Total comprehensive income	Revenue	Profit	Total comprehensive income
SK hynix America Inc. (SKHYA)	₩ 5,398,193	117,848	117,848	7,599,679	89,716	89,716
SK hynix Asia Pte. Ltd. (SKHYS)	1,497,869	1,929	1,929	1,612,550	1,303	1,303
SK hynix Semiconductor Hong Kong Ltd. (SKHYH)	5,655,093	20,019	20,019	4,181,208	6,909	6,909
SK hynix Semiconductor (Shanghai) Co., Ltd. (SKHYCS)	345,863	6,073	6,073	528,670	8,150	8,150
SK hynix Japan Inc. (SKHYJ)	673,127	867	804	934,001	1,116	1,322
SK hynix Semiconductor Taiwan Inc. (SKHYT)	1,742,632	2,676	2,676	1,915,465	5,852	5,852
SK hynix Semiconductor (China) Ltd. (SKHYCL)	2,137,576	123,753	123,753	2,273,536	206,446	206,446
SK hynix Deutschland GmbH (SKHYD)	321,309	1,747	1,747	414,489	1,072	1,072
SK hynix U.K. Ltd. (SKHYU)	532,661	374	374	702,329	1,289	1,289
SK hynix Semiconductor (Chongqing) Ltd. (SKHYCQL)	296,121	2,674	2,674	350,110	13,328	13,328

(6) There are no significant non-controlling interests to the Group as of December 31, 2016 and 2015.

2. Basis of Preparation

The consolidated financial statements have been prepared in accordance with Korean International Financial Reporting Standards ("K-IFRS"), as prescribed in the *Act on External Audits of Corporations in the Republic of Korea*.

The consolidated financial statements were authorized for issuance by the board of directors on January 25, 2017, which will be submitted for approval at the shareholders' meeting to be held on March 24, 2017.

(2) Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis, except for the following material items in the consolidated statements of financial position:

- derivative financial instruments are measured at fair value
- financial instruments at fair value through profit or loss are measured at fair value
- liabilities for defined benefit plans are recognized at the net of the total present value of defined benefit obligations less the fair value of plan assets

2. Basis of Preparation, Continued

(3) Functional and presentation currency

Financial statements of entities within the Group are presented in functional currency and the currency of the primary economic environment in which each entity operates. Consolidated financial statements of the Group are presented in Korean won, which is the Parent Company's functional and presentation currency.

(4) Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

(a) Critical judgments

Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the separate financial statements is included in the following notes for financial instruments, classification of leases and others.

(b) Assumptions and estimation uncertainties

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next fiscal year are included in the following notes for reserves in accounts receivable, net realizable value of inventories, goodwill impairment, recognition and measurement of provisions, measurement of defined benefit obligations, recognition of deferred tax assets and others.

(c) Fair value measurement

The Group establishes fair value measurement policies and procedures as its accounting policies and disclosures require fair value measurements for various financial and non-financial assets and liabilities. Such policies and procedures are executed by the valuation department, which is responsible for the review of significant fair value measurements including fair values classified as level 3 in the fair value hierarchy.

The valuation department regularly reviews unobservable significant inputs and valuation adjustments. If third party information such as prices available from an exchange, dealer, broker, industry group, pricing service or regulatory agency is used for fair value measurements, the valuation department reviews whether the valuation based on third party information includes classifications by levels within the fair value hierarchy and meets the requirements for the relevant standards.

The Group uses the best observable inputs in market when measuring fair values of assets or liabilities. Fair values are classified within the fair value hierarchy based on inputs used in valuation methods 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 (i.e. as prices) or indirectly (i.e. derived from prices)
Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs)

2. Basis of Preparation, Continued

(4) Use of estimates and judgments, Continued

If various inputs used to measure fair value of assets or liabilities fall into different levels of the fair value hierarchy, the Group classifies the assets and liabilities at the lowest level of inputs among the fair value hierarchy, which is significant to the entire measured value. The Group recognizes transfers between levels at the end of the reporting period of which such transfers occurred.

Information about assumptions used for fair value measurements are included in note 6.

3. Significant Accounting Policies

The significant accounting policies applied by the Group in preparation of its consolidated financial statements are explained below. The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements.

(1) Operating Segments

An operating segment is a component of the Group that: 1) engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with other components of the Group, 2) whose operating results are reviewed regularly by the Group's chief operating decision maker ("CODM") in order to allocate resources and assess its performance, and 3) for which discrete financial information is available. The Group's CODM is the board of directors, who do not receive and therefore do not review discrete financial information for any component of the Group. Consequently, no operating segment information is included in these consolidated financial statements. Entity wide disclosures of geographic, product and customer information are provided in note 4.

(2) Basis of consolidation

(a) Business combination

A business combination is accounted for by applying the acquisition method, unless it is a combination involving entities or businesses under common control.

The consideration transferred in the acquisition is generally measured at fair value, as are the identifiable net assets acquired. Any goodwill that arises is tested annually for impairment. Any gain on a bargain purchase is recognized in profit or loss immediately. Transaction costs are expensed as incurred, except if related to the issue of debt or equity securities.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognized in profit or loss.

Any contingent consideration is measured at fair value at the date of acquisition. If an obligation to pay contingent consideration that meets the definition of a financial instrument is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes in the fair value of the contingent consideration are recognized in profit or loss.

If share-based payment awards (replacement awards) are required to be exchanged for awards held by the acquiree's employees (acquiree's awards), then all or a portion of the amount of the acquirer's replacement awards is included in measuring the consideration transferred in the business combination. This determination is based on the market-based measure of the replacement awards compared with the market-based measure of the acquiree's awards and the extent to which the replacement awards relate to pre-combination service.

3. Significant Accounting Policies, Continued

(2) Basis of consolidation, Continued

(b) Non-controlling interests

Non-controlling interests are measured at their proportionate share of the acquiree's identifiable net assets at the date of acquisition.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

(c) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Consolidation of an investee begins from the date the Group obtains control of the investee and cease when the Group loses control of the investee.

(d) Loss of control

If the Group loses control of a subsidiary, the Group derecognizes the assets and liabilities of the former subsidiary from the consolidated statement of financial position and recognizes gain or loss associated with the loss of control attributable to the former controlling interest. Any investment retained in the former subsidiary is recognized at its fair value when control is lost.

(e) Interests in equity-accounted investees

The Group's interest in equity-accounted investees comprise interests in an associate and a joint venture. An associate is an entity in which the Group has significant influence, but not control or joint control, over the entity's financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in an associate and a joint venture are initially recognized at cost including transaction costs. Subsequent to initial recognition, their carrying amounts are increased or decreased to recognize the Group's share of the profit or loss and changes in equity of the associate or the joint venture. Distributions from equity-accounted investees are accounted for as deduction from the carrying amounts.

(f) Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. The Group's share of unrealized gain incurred from transactions with equity-accounted investees are eliminated and unrealized loss are eliminated using the same basis if there are no evidence of asset impairments.

(g) Business combinations under common control

The assets and liabilities acquired in the combination of entities or business under common control are recognized at the carrying amounts recognized previously in the consolidated financial statements of the ultimate parent. The difference between consideration transferred and carrying amounts of net assets acquired is added to or deducted from other capital adjustments.

3. Significant Accounting Policies, Continued

(3) Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with maturities of three months or less from the acquisition date that are subject to an insignificant risk of changes in their fair value, and are used by the Group in the management of its short-term commitments.

(4) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is based on the weighted average method (except for goods in-transit that is based on the specific identification method), and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing inventories to their existing location and condition. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and selling expenses. In the case of manufactured inventories and work-in-process, cost includes an appropriate share of production overheads based on the actual capacity of production facilities. However, the normal capacity is used for the allocation of fixed production overheads if the actual level of production is lower than the normal capacity.

(5) Non-derivative financial assets

The Group recognizes and measures non-derivative financial assets by the following four categories: financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables and available-for-sale financial assets. The Group recognizes financial assets in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Upon initial recognition, non-derivative financial assets not at fair value through profit or loss are measured at their fair value plus transaction costs that are directly attributable to the asset's acquisition.

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

A financial asset is classified as financial assets at fair value through profit or loss if it is held for trading or designated as such upon initial recognition. Upon initial recognition, transaction costs are recognized in profit or loss when incurred. Financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss.

(b) Held-to-maturity investments

A non-derivative financial asset with a fixed or determinable payment and fixed maturity, for which the Group has the positive intention and ability to hold to maturity, is classified as held-to-maturity investments. Subsequent to initial recognition, held-to-maturity investments are measured at amortized cost using the effective interest rate method.

(c) Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest rate method.

3. Significant Accounting Policies, Continued

(5) Non-derivative financial assets, Continued

(d) Available-for-sale financial assets

Available-for-sale financial assets are those non-derivative financial assets that are designated as available-for-sale or are not classified as financial assets at fair value through profit or loss, held-to-maturity investments or loans and receivables. Subsequent to initial recognition, they are measured at fair value, and changes in their fair value, net of any tax effect, are recorded in other comprehensive income. Investments in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost.

(e) De-recognition of financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. If the Group neither transfers nor retains substantially all of the risks and rewards of ownership of the financial assets, it derecognizes the financial assets when it does not retain control over the transferred financial assets. If the Group has retained control over the transferred financial assets, it continues to recognize the assets to the extent of its continuing involvement. If the Group retains substantially all the risks and rewards of ownership of the transferred financial assets, the Group continues to recognize the transferred financial assets and recognizes financial liabilities for the consideration received.

(f) Offsetting between financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is presented in the consolidated statement of financial position only when the Group currently has a legally enforceable right to offset the recognized amounts, and there is the intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

(6) Derivative financial instruments

Derivatives are initially recognized at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

(a) Embedded derivatives

Embedded derivatives are separated from the host contract and accounted for separately only if the following criteria have been met:

- the economic characteristics and risks of the embedded derivative are not closely related to those of the host contract;
- a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
- the hybrid instrument is not measured at fair value with changes in fair value recognized in profit or loss.

Changes in the fair value of separable embedded derivatives are recognized immediately in profit or loss.

(b) Other derivative financial instruments

Changes in the fair value of other derivative financial instrument not designated as a hedging instrument are recognized immediately in profit or loss.

3. Significant Accounting Policies, Continued

(7) Impairment of financial assets

A financial asset not carried at fair value through profit or loss is assessed at the end of each reporting period to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably. However, losses expected as a result of future events, regardless of likelihood, are not recognized.

Objective evidence that a financial asset is impaired includes:

- significant financial difficulty of the issuer or obligor;
- a breach of contract, such as default or delinquency in interest or principal payments;
- the lender, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider;
- it becoming probable that the borrower will enter bankruptcy or other financial reorganization;
- the disappearance of an active market for that financial asset because of financial difficulties; or
- observable data indicating that there is a measurable decrease in the estimated future cash flows from a group of financial assets since the initial recognition of those assets, although the decrease cannot be identified with the individual financial assets in the group

In addition, for an investment in an equity security, a significant or prolonged decline in its fair value below its cost is objective evidence of impairment.

If there is objective evidence that financial assets are impaired, impairment losses are measured and recognized.

(a) Financial assets measured at amortized cost

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount and the present value of its estimated future cash flows discounted at the asset's original effective interest rate. If it is not practicable to obtain the financial asset's estimated future cash flows, impairment losses would be measured based on prices from any observable current market transactions. Impairment losses are deducted through an allowance account or directly from the carrying amount. If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, the previously recognized impairment loss is reversed through profit or loss either directly or by adjusting an allowance account.

(b) Financial assets carried at cost

The amount of the impairment loss is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment losses are not reversed.

3. Significant Accounting Policies, Continued

(7) Impairment of financial assets, Continued

(c) Available-for-sale financial assets

When a decline in the fair value of an available-for-sale financial asset has been recognized in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative loss that had been recognized in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment even though the financial asset has not been derecognized. Impairment losses recognized in profit or loss for an investment in an equity instrument classified as available-for-sale are not reversed through profit or loss. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in profit or loss, the impairment loss is reversed, with the amount of the reversal recognized in profit or loss.

(8) Property, plant and equipment

Property, plant and equipment are initially measured at cost. The cost of property, plant and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent to initial recognition, an item of property, plant and equipment is carried at its cost less any accumulated depreciation and any accumulated impairment losses.

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

Property, plant and equipment, except for land, are depreciated on a straight-line basis over estimated useful lives that appropriately reflect the pattern in which the asset's future economic benefits are expected to be consumed.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized as other income or expenses.

The estimated useful lives of the Group's property, plant and equipment are as follows:

	Useful lives (years)
Buildings	10 - 50
Structures	10 - 30
Machinery	4 - 15
Vehicles	4 - 10
Other	3 - 15

Depreciation methods, useful lives, and residual values are reviewed at the end of each reporting period and, if appropriate, accounted for as changes in accounting estimates.

3. Significant Accounting Policies, Continued

(9) Borrowing costs

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

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

(10) Intangible assets

Intangible assets are measured initially at cost and, subsequently, are carried at cost less accumulated amortization and accumulated impairment losses.

Goodwill arising from business combinations is recognized as the excess of the consideration transferred in the acquisition over the net fair value of the identifiable assets acquired and liabilities assumed. Any deficit is a bargain purchase that is recognized in profit or loss. Goodwill is measured at cost less accumulated impairment losses.

Amortization of intangible assets except for goodwill is calculated on a straight-line basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value of intangible assets is zero. However, certain intangible assets are determined as having indefinite useful lives and not amortized as there is no foreseeable limit to the period over which the assets are expected to be available for use.

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

	Useful lives (years)
Industrial rights	5 - 10
Development costs	2
Software	5

Useful lives and the amortization methods for intangible assets with finite useful lives are reviewed at the end of each reporting period. The useful lives of intangible assets that are not being amortized are reviewed at the end of each reporting period to determine whether events and circumstances continue to support indefinite useful life assessments for those assets. Changes are accounted for as changes in accounting estimates.

Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in profit or loss as incurred. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditures are recognized in profit or loss as incurred.

3. Significant Accounting Policies, Continued

(10) Intangible assets, Continued

Subsequent expenditures are capitalized only when they increase the future economic benefits embodied in the specific asset to which it relates. All other expenditures, including expenditures on internally generated goodwill and brands, are recognized in profit or loss as incurred.

(11) Government grants

Government grants are not recognized unless there is reasonable assurance that the Group will comply with the grant's conditions and that the grant will be received.

(a) Grants related to assets

Government grants whose primary condition is that the Group purchases, constructs or otherwise acquires non-current assets are deducted in calculating the carrying amount of the asset. The grant is recognized in profit or loss over the useful lives of depreciable assets.

(b) Grants related to income

Government grants which are intended to compensate the Group for expenses incurred are recognized in profit or loss by as deduction of the related expenses.

(12) Investment property

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

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

Investment property except for land, are depreciated on a straight-line basis over estimated useful lives.

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting period and, if appropriate, accounted for as changes in accounting estimates.

(13) Impairment of non-financial assets

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

3. Significant Accounting Policies, Continued

(13) Impairment of non-financial assets, Continued

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

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

Goodwill acquired in a business combination is allocated to each CGU that is expected to benefit from the synergies arising from business combination. Any impairment identified at the CGU level will first reduce the carrying value of goodwill and then be used to reduce the carrying amount of the other assets in the CGU on a pro rata basis.

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

(14) Leases

The Group classifies and accounts for leases as either a finance or operating lease, depending on the terms. Leases where the Group assumes substantially all of the risks and rewards of ownership are classified as finance leases. All other leases are classified as operating leases.

(a) Finance leases

At the commencement of the lease term, the Group recognizes as finance lease assets and finance lease liabilities in its consolidated statements of financial position, the lower amount of the fair value of the leased property and the present value of the minimum lease payments, each determined at the inception of the lease. Any initial direct costs are added to the amount recognized as an asset.

Minimum lease payments are apportioned between the finance expense and the reduction of the outstanding liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability. Contingent rents are charged as expenses in the periods in which they are incurred.

The depreciable amount of a leased asset is allocated to each accounting period during the period of expected use on a systematic basis consistent with the depreciation policy the lessee adopts for depreciable assets that are owned. If there is no reasonable certainty that the lessee will obtain ownership by the end of the lease term, the asset is fully depreciated over the shorter of the lease term and its useful life. The Group reviews whether the leased asset is impaired.

(b) Operating leases

Leases where the lessor retains a significant portion of the risks and rewards of ownership are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are recognized in profit or loss on a straight-line basis over the period of the lease.

3. Significant Accounting Policies, Continued

(14) Leases, Continued

(c) Determining whether an arrangement contains a lease

Determining whether an arrangement is, or contains, a lease is based on the substance of the arrangement and requires an assessment of whether fulfillment of the arrangement is dependent on the use of a specific asset or assets (the asset) and the arrangement conveys a right to use the asset.

At inception or reassessment of the arrangement, the Group separates payments and other consideration required by such an arrangement into those for the lease and those for other elements on the basis of their relative fair values. If the Group concludes for a financial lease that it is impracticable to separate the payments reliably, the Group recognizes an asset and a liability at an amount equal to the fair value of the underlying asset that was identified as the subject of the lease. Subsequently, the liability is reduced as payments are made and an imputed finance expense on the liability recognized using the purchaser's incremental borrowing rate of interest.

(15) Non-current assets held for sale

Non-current assets, or disposal groups comprising assets and liabilities, that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. In order to be classified as held for sale, the asset (or disposal group) must be available for immediate sale in its present condition and its sale must be highly probable. The assets or disposal group that are classified as non-current assets held for sale are measured at the lower of their carrying amount and fair value less cost to sell. The Group recognizes an impairment loss for any initial or subsequent write-down of an asset (or disposal group) to fair value less costs to sell, and a gain for any subsequent increase in fair value less costs to sell, up to the cumulative impairment loss previously recognized.

A non-current asset that is classified as held for sale or part of a disposal group classified as held for sale is not depreciated (or amortized).

(16) Non-derivative financial liabilities

The Group classifies non-derivative financial liabilities into financial liabilities at fair value through profit or loss or other financial liabilities in accordance with the substance of the contractual arrangement and the definitions of financial liabilities. The Group recognizes financial liabilities in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the financial liability.

(a) Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading or designated as such upon initial recognition. Subsequent to initial recognition, financial liabilities at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss. Upon initial recognition, any directly attributable transaction costs are recognized in profit or loss as incurred.

3. Significant Accounting Policies, Continued

(16) Non-derivative financial liabilities, Continued

(b) Other financial liabilities

Non-derivative financial liabilities other than financial liabilities at fair value through profit or loss are classified as other financial liabilities. At the date of initial recognition, other financial liabilities are measured at fair value less any directly attributable transaction costs. Subsequent to initial recognition, other financial liabilities are measured at amortized cost using the effective interest rate method. The Group derecognizes a financial liability from the consolidated statements of financial position when it is extinguished (i.e. when the obligation specified in the contract is discharged, cancelled or expires).

(17) Employee benefits

(a) Short-term employee benefits

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

(b) Other long-term employee benefits

Other long-term employee benefits include employee benefits that are settled beyond 12 months after the end of the reporting period in which the employees render the related service, and are calculated at the present value of the amount of future benefit that employees have earned in return for their service in the current and prior periods. Any changes from remeasurements are recognized through profit or loss in the period in which they arise.

(c) Retirement benefits: defined benefit plans

As of the end of reporting period, defined benefits liabilities relating to defined benefit plans are recognized as present value of defined benefit obligations, net of fair value of plan assets.

The calculation is performed annually by an independent actuary using the projected unit credit method. When the fair value of plan assets exceeds the present value of the defined benefit obligation, the Group recognizes an asset, to the extent of the present value of any economic benefits available in the form of refunds from the plan or reduction in the future contributions to the plan.

Remeasurements of the net defined benefit liability comprise of actuarial gains and losses, the return on plan assets excluding amounts included in net interest on the net defined benefit liability, and any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability, and are recognized in other comprehensive income. The Group determines net interests on net defined benefit liability (asset) by multiplying discount rate determined at the beginning of the annual reporting period and considers changes in net defined benefit liability (asset) from contributions and benefit payments. Net interest costs and other costs relating to the defined benefit plan are recognized through profit or loss.

When the plan amendment or curtailment occurs, gains or losses on amendment or curtailment in benefits for the past service provided are recognized through profit or loss. The Group recognizes gain or loss on a settlement when the settlement of defined benefit plan occurs.

3. Significant Accounting Policies, Continued

(17) Employee benefits, Continued

(d) Retirement benefits: defined contribution plans

When an employee has provided service for a certain period of time in relation to the defined contribution plan, the contribution to the defined contribution plan is recognized in profit or loss except to be included in the cost of the asset. The contributions to be paid are recognized as liabilities (accrued expenses) less the contributions that have been already paid.

(e) Termination benefits

The Group recognizes a liability and expense for termination benefits at the earlier of the period when the Group can no longer withdraw the offer of those benefits and the period when the Group recognizes costs for a restructuring. If benefits are not payable within 12 months after the end of the reporting period, then they are discounted to their present value.

(18) Provisions

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

The risks and uncertainties that inevitably surround many events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Where some or all of the expenditures required to settle a provision are expected to be reimbursed by another party, the reimbursement is recognized when, and only when, it is virtually certain that reimbursement will be received if the Group settles the obligation. The reimbursement is treated as a separate asset.

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

A provision is used only for expenditures for which the provision was originally recognized.

(19) Foreign currencies

(a) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are retranslated to the functional currency using the reporting date's exchange rate. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are translated to the functional currency at the exchange rate at the date that the fair value was determined.

Foreign currency differences arising on the settlement or retranslation of monetary items are recognized in profit or loss, except for differences arising on the retranslation of the net investment in a foreign operation, which are recognized in other comprehensive income. When a gain or loss on a non-monetary item is recognized in other comprehensive income, any exchange component of that gain or loss is recognized in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognized in profit or loss, any exchange component of that gain or loss is recognized in profit or loss.

3. Significant Accounting Policies, Continued

(19) Foreign currencies, Continued

(b) Foreign operations

If the presentation currency of the Group is different from a foreign operation's functional currency, the financial statements of the foreign operation are translated into the presentation currency using the following methods:

The assets and liabilities of foreign operations, whose functional currency is not the currency of a hyperinflationary economy, are translated to presentation currency at exchange rates at the end of reporting period. The income and expenses of foreign operations are translated to functional currency at exchange rates at the dates of the transactions. Foreign currency differences are recognized in other comprehensive income.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of that foreign operation is treated as assets and liabilities of the foreign operation. Thus they are expressed in the functional currency of the foreign operation and translated at the exchange rates at the end of reporting date.

When a foreign operation is disposed of, the relevant amount in the translation is transferred to profit or loss as part of the profit or loss on disposal. On the partial disposal of a subsidiary that includes a foreign operation, the relevant proportion of such cumulative amount is reattributed to non-controlling interest. In any other partial disposal of a foreign operation, the relevant proportion is reclassified to profit or loss.

(20) Equity capital

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

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

(21) Revenue

Revenue from the sale of goods, rendering of services or use of assets is measured at the fair value of the consideration received or receivable, net of returns, trade discounts and volume rebates.

(a) Sale of goods

Revenue is recognized when persuasive evidence exists, usually in the form of an executed sales agreement, that the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the goods, and the amount of revenue can be measured reliably.

(b) Sale of services

Revenue from services rendered is recognized in profit or loss in proportion to the stage of completion of the transaction at the reporting date. The stage of completion is assessed by reference to surveys of work performed.

3. Significant Accounting Policies, Continued

(22) Finance income and finance expenses

Finance income comprises interest and dividend income on funds invested (including available-for-sale financial assets), gains on the disposal of available-for-sale financial assets, and changes in the fair value of financial instruments at fair value through profit or loss. Interest income is recognized as it accrues in profit or loss, using the effective interest rate method. Dividend income is recognized in profit or loss on the date that the Group's right to receive dividend is established.

Finance expenses comprise interest expense on borrowings, unwinding of the discount on provisions, and changes in the fair value of financial instruments at fair value through profit or loss. Interest expense on borrowings and debentures are recognized in profit or loss using the effective interest rate method.

(23) Income taxes

Income tax expense comprises current and deferred tax. Current and deferred tax are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

(a) Current tax

Current tax is the expected tax payable or refundable on the taxable profit or loss for the year, using tax rates enacted or substantively enacted at the end of the reporting period and any adjustment to tax payable in respect of previous years. The taxable profit is different from the accounting profit for the period since the taxable profit is calculated excluding the temporary differences, which will be taxable or deductible in determining taxable profit (tax loss) of future periods, and non-taxable or non-deductible items from the accounting profit. The tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period.

(b) Deferred tax

Deferred tax is recognized, using the asset-liability method, in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

The Group recognizes a deferred tax liability for all taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures 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. The Group recognizes deferred tax assets for all deductible temporary differences including unused tax loss and tax credit to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and reduces the carrying amount to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred tax liabilities and deferred tax assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period to recover or settle the carrying amount of its assets and liabilities.

3. Significant Accounting Policies, Continued

(23) Income taxes, Continued

(b) Deferred tax, Continued

Deferred tax assets and liabilities are offset only if there is a legally enforceable right to offset the related current tax liabilities and assets, and they relate to income taxes levied by the same tax authority and they intend to settle current tax liabilities and assets on a net basis. If there are any additional income tax expense incurred in accordance with dividend payments, such income tax expense is recognized when liabilities relating to the dividend payments are recognized.

(24) Earnings per share

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

(25) Standards issued but not yet effective

The following new standards, amendments to standards and interpretations are effective for annual periods beginning on or after January 1, 2016 and earlier application is permitted; however, the Group has not early adopted them in preparing these consolidated financial statements.

K-IFRS 1109, '*Financial Instruments*' published on September 25, 2015, is effective for annual periods beginning on or after January 1, 2018, with earlier adoption permitted. It replaces existing guidance in K-IFRS 1039, '*Financial Instruments: Recognition and Measurement*'. The Group plans to adopt K-IFRS 1109 for the year beginning on January 1, 2018.

K-IFRS 1109 will generally be applied retrospectively; however the Group plans to take advantage of the exemption allowing it not to restate the comparative information for prior periods with respect to classification and measurement including impairment changes. New hedge accounting requirements will generally be applied prospectively except for certain exemptions including the accounting for the time value of options.

Key features of the new standard, K-IFRS 1109, are 1) classification and measurement of financial assets that reflects the business model in which the assets are managed and their cash flow characteristics, 2) impairment methodology that reflects 'expected credit loss' (ECL) model for financial assets, and 3) expanded scope of hedged items and hedging instruments which qualify for hedge accounting and changes in assessment method for effect of hedging relationships.

K-IFRS 1109 will require the Group to assess the financial impact from application of K-IFRS 1109 and revise its accounting processes and internal controls related to financial instruments. Actual impact of adopting K-IFRS 1109 will be dependent on the financial instruments the Group holds and economic conditions at that time as well as accounting policy elections and judgment that it will make in the future.

The Group is preparing for changes in internal controls processes or accounting processing systems, and analyzing an assessment of the financial impact resulting from the application of K-IFRS 1109. The Group expects to disclose additional quantitative information in the notes to the financial statements for the year ending December 31, 2017 after completion of its assessment by September 30, 2017. Expected impacts on the financial statements are generally categorized as follows:

3. Significant Accounting Policies, Continued

(25) Standards issued but not yet effective, Continued

(i) Classification and measurement of financial assets
Under K-IFRS 1109, financial assets are classified into three principal categories; measured at amortized cost, fair value through other comprehensive income (FVOCI) and fair value through profit or loss (FVTPL) based on the business model in which assets are managed and their cash flow characteristics, as detailed in the below table.

Under K-IFRS 1109, derivatives embedded in hybrid contracts where the host is a financial asset are not bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification.

Business model	Contractual cash flows are solely payments of principal and interests	All other cases
To collect contractual cash flows	At amortized cost[1]	
Both to collect contractual cash flows and sell financial assets	At FVOCI	FVTPL[2]
For trading, and others	At FVOCI	

[1] The Group may irrevocably designate as at FVTPL to eliminate or significantly reduce an accounting mismatch.
[2] The Group may irrevocably designate equity investments that is not held for trading as at FVOCI.

As there are additional requirements for a financial asset to be classified as measured at amortized costs or FVOCI under K-IFRS 1109 compared to the existing guidance in K-IFRS 1039, the adoption of K-IFRS 1109 would potentially increase the proportion of financial assets that are measured at FVTPL, increasing volatility in the Group's profit or loss.

As of December 31, 2016, the Group has loans and receivables amounting to ₩5,882,683 million, available-for-sale financial assets amounting to ₩147,779 million, and financial assets at fair value through profit or loss amounting to ₩1,570,172 million.

Under K-IFRS 1109, a financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL: 1) the asset is held within a business model whose objective is to hold assets to collect contractual cash flows; and 2) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. As of December 31, 2016, the Group has loans and receivables which amount to ₩5,882,683 million, and measured them at amortized costs.

Under K-IFRS 1109, a financial asset is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL: 1) the asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and 2) the contractual terms of the financial asset give rise on specified dates to cash flow that are solely payments of principal and interest on the principal amount outstanding. As of December 31, 2016, the Group has debt instruments of ₩716 million classified as available-for-sale, where the host is a financial asset.

Under K-IFRS 1109, on initial recognition of equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in fair value in OCI, and will not reclassify(recycle) the those items in OCI to profit or loss subsequently. As of December 31, 2016, the Group has equity investment that is classified as available-for-sale which amounts to ₩147,063 million, and these were no accumulated fair value reserve related to available-to-sale financial assets.

3. Significant Accounting Policies, Continued

(25) Standards issued but not yet effective, Continued

Under K-IFRS 1109, a financial asset is measured at FVTPL if the contractual terms of the financial asset give rise to specified dates to cash flows that are not solely payments of principal and interest on the principal amount outstanding, the debt instrument is held within a business model whose objective is to sell the asset, or the equity instruments that are not elected to be designated as measured at FVOCI. As of December 31, 2016, the Group has debt instruments measured at FVTPL which amount to ₩1,570,172 million.

(ii) Classification and measurement of financial liabilities
Under K-IFRS 1109, the amount of change in the fair value attributable to the changes in the credit risk of the financial liabilities is presented in OCI, not recognized in profit or loss, and the OCI amount will not be reclassified (recycled) to profit or loss. However, if doing so creates or increase an accounting mismatch, the amount of change in the fair value is recognized in profit or loss.

As a portion of fair value change which was recognized in profit or loss under the existing standard, K-IFRS 1039, will be presented in OCI under K-IFRS 1109, profit or loss related to valuation of financial liabilities is likely to decrease. As of December 31, 2016, there was no financial liabilities measured at FVTPL.

(iii) Impairment: Financial assets and contract assets
K-IFRS 1109 replaces the 'incurred loss' model in the existing standard with a forward-looking 'expected credit loss' (ECL) model for debt instruments, lease receivables, contractual assets, loan commitments, financial guarantee contracts.

Under K-IFRS 1109, impairment losses are likely to be recognized earlier than using the incurred loss model under the existing guidance in K-IFRS 1039 as loss allowances will be measured on either of the 12-month or lifetime ECL based on the extent of increase in credit risk since inception as shown in the below table.

	Classification[1]	**Loss allowances**
Stage 1	Credit risk has not increased significantly since the initial recognition[2]	12-month ECL: ECLs that resulted from possible default events within the 12 months after the reporting date
Stage 2	Credit risk has increase significantly since the initial recognition	Lifetime ECL: ECL that resulted from all possible default events over the expected life of a financial instrument
Stage 3	Credit-impaired	

[1] Under K-IFRS No. 1115, for trade receivables and contract assets arising with no significant credit risk, loss allowances are recognized at an amount equal to lifetime expected credit losses. However, for trade receivables and contract assets with a significant financing component arising under K-IFRS No. 1115, the Group may choose as its accounting policy to recognize loss allowances at an amount equal to lifetime expected credit losses. In addition, for receivables under lease arrangement, the Group may choose to recognize loss allowances at an amount equal to lifetime expected credit losses.
[2] The Group may determine that a financial asset's credit risk has not increased significantly if the asset has low credit risk at the end of reporting period.

Under K-IFRS 1109, financial assets of which the credit was impaired at the initial recognition, cumulative changes in lifetime ECL since the initial recognition are recognized as loss allowances.

As of December 31, 2016, the Group has debt instruments (loans and receivables) measured at amortized cost amounting to ₩5,887,367 million, debt instruments measured at FVOCI as they are classified as available for sale amounting to ₩716 million, and has recognized loss allowances for ₩4,684 million.

3. Significant Accounting Policies, Continued

(25) Standards issued but not yet effective, Continued

K-IFRS 1115 'Revenue from Contracts from Customers', published on November 6, 2015, is effective for annual periods beginning on or after January 1, 2018, with earlier adoption permitted. It replaces existing revenue recognition guidance, including K-IFRS 1018 Revenue, K-IFRS 1011 Construction Contracts K-IFRS 2031 Revenue- Barter transactions involving advertising services, K-IFRS 2113 Customer Loyalty Programs, K-IFRS 2115 Agreements for the construction of real estate, K-IFRS 2118 Transfers of assets from customers. The Group plans to adopt K-IFRS 1115 in its consolidated financial statements for the year ending December 31, 2018, and retrospectively adjust the comparative period presented in the set of financial statements, in accordance with K-IFRS 1008 Accounting Policies, changes in accounting estimates and errors. The Group plans to use the practical expedients for completed contracts- i.e. completed contracts as of January 1, 2017 are not restated.

Existing K-IFRS standards and interpretations including K-IFRS 1018 provide revenue recognition guidance by transaction types such as sales of goods, rendering of services, interest income, royalty income, dividend income and construction revenue; however, under the new standard, K-IFRS 1115, the five-step approach (Step 1: Identify the contract(s) with a customer, Step 2: Identify the performance obligations in the contract, Step 3: Determine the transaction price, Step 4: Allocate the transaction price to the performance obligations in the contract, Step 5: Recognize revenue when the entity satisfied a performance obligation) is applied for all types of contracts or agreements.

The new standard will require the Group to revise its internal controls and accounting processing systems related to reporting revenue. The Group is preparing for changes and analyzing an assessment of the impact resulting from the application of K-IFRS 1115, and the Group expects to disclose additional quantitative information in the notes to the financial statements for the period ending December 31, 2017 after completion of its assessment by September 30, 2017. Expected impacts on the consolidated financial statements are generally categorized as follows:

(i) Identifying the performance obligations in the contract
The Group is engaged in the research and development, manufacture, distribution and sales of semiconductor products (DRAM and Nand flash and others), and the most of revenue generated from these operation.

Under K-IFRS 1115, the Group determines whether the goods and services per the contracts are distinct and identify separate performance obligations in the contracts such as (a) the software license; (b) an installation service; (c) software updates; and (d) technical support. Timing of revenue recognition would change depending on whether the each of the performance obligations are satisfied at a point of time or over time.

(ii) Variable consideration
As the contract allows a customer to return the products, the consideration received from the customer is variable. Under K-IFRS 1115, the Group estimates an amount of variable consideration by using the method the Group expects to better predict the amount of consideration to which it will be entitled. The Group includes an amount of variable consideration in the transaction price only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the return period expires. The Group recognize the amounts received or receivable for which the Group does not expect to be entitled as a refund liability.

(iii) Allocating the transaction price to performance obligations
In applying the K-IFRS 1115, the Group allocates the transaction price to each performance obligation on a relative stand-alone selling price basis. To estimate the stand-alone selling price, 'adjusted market assessment approach' will be used; however, for certain transactions, 'expected cost plus a margin approach' will be used exceptionally.

4. Geographic, Product and Customer Information

The Group has a single reportable segment that is engaged in the manufacture and sale of semiconductor products.

(1) Details of the Group's revenue for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015[1]
Sale of goods	₩	17,146,961	18,739,177
Sale of services		51,014	58,821
	₩	17,197,975	18,797,998

(2) Details of the Group's revenue by product and service types for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
DRAM	₩	12,340,767	14,045,339
NAND Flash		4,347,535	4,148,315
Other		509,673	604,344
	₩	17,197,975	18,797,998

4. Geographic, Product and Customer Information, Continued

(3) The Group's revenue information by region based on the location of selling entities for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Korea	₩	1,099,426	1,204,642
China		5,960,235	4,496,357
Taiwan		1,732,573	1,899,649
Asia (other than China and Taiwan)		2,165,201	2,536,009
U.S.A.		5,397,944	7,549,622
Europe		842,596	1,111,719
	₩	17,197,975	18,797,998

(4) The Group's non-current assets (excluding financial assets, loans and other receivables, equity-accounted investees and deferred tax assets) information by region based on the location of subsidiaries as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Korea	₩	18,078,337	15,648,779
China		2,805,712	3,208,908
Taiwan		6,835	7,007
Asia (other than China and Taiwan)		1,522	770
U.S.A.		364,188	365,024
Europe		9,374	8,874
	₩	21,265,968	19,239,362

(5) Revenue from customer A and B each constitutes more than 10% of the Group's consolidated revenue for the year ended December 31, 2016 amounts to ₩2,195,935 million (2015: ₩3,485,795 million) and ₩ 1,503,256 million (2015: ₩2,078,835 million), respectively.

5. Categories of Financial Instruments

(1) Categories of financial assets as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016			
		Financial assets at fair value through profit or loss	**Available-for-sale financial assets**	**Loans and receivables**	**Total**
Cash and cash equivalents	₩	-	-	613,786	613,786
Short-term financial instruments		1,570,172	-	1,951,721	3,521,893
Trade receivables		-	-	3,251,652	3,251,652
Loans and other receivables		-	-	65,101	65,101
Other financial assets		-	-	423	423
Available-for-sale financial assets		-	147,779	-	147,779
	₩	1,570,172	147,779	5,882,683	7,600,634

(In millions of won)

		2015			
		Financial assets at fair value through profit or loss	**Available-for-sale financial assets**	**Loans and receivables**	**Total**
Cash and cash equivalents	₩	-	-	1,175,719	1,175,719
Short-term financial instruments		1,047,277	-	2,568,277	3,615,554
Trade receivables		-	-	2,628,448	2,628,448
Loans and other receivables		-	-	124,532	124,532
Other financial assets		-	-	430	430
Available-for-sale financial assets		-	131,354	-	131,354
	₩	1,047,277	131,354	6,497,406	7,676,037

5. Categories of Financial Instruments, Continued

(2) Categories of financial liabilities as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016		
		Financial liabilities at fair value through profit or loss	**Financial liabilities measured at amortized cost**	**Total**
Trade payables	₩	-	696,144	696,144
Other payables		-	1,606,417	1,606,417
Other non-trade payables[1]		-	712,580	712,580
Borrowings		-	4,335,978	4,335,978
Other financial liabilities		288	-	288
	₩	288	7,351,119	7,351,407

(In millions of won)

		2015		
		Financial liabilities at fair value through profit or loss	**Financial liabilities measured at amortized cost**	**Total**
Trade payables	₩	-	791,373	791,373
Other payables		-	1,337,803	1,337,803
Other non-trade payables[1]		-	1,091,062	1,091,062
Borrowings		-	3,818,595	3,818,595
Other financial liabilities		683	-	683
	₩	683	7,038,833	7,039,516

[1] Details of other non-trade payables as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Current			
Accrued expenses	₩	685,154	1,001,171
Non-current			
Rent deposits payable		2,554	2,855
Long-term other payables		24,872	87,036
		27,426	89,891
	₩	712,580	1,091,062

5. Categories of Financial Instruments, Continued

(3) Details of gain and loss on financial assets and liabilities by category for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Loans and receivables			
Interest income	₩	34,174	40,715
Foreign exchange differences		167,736	300,163
Reversal of impairment		5,617	82
		207,527	340,960
Available-for-sale financial assets			
Dividend income		18	1,265
		18	1,265
Financial assets at fair value through profit or loss			
Gain on valuation		1,133	2,280
Gain on disposal		15,348	33,814
		16,481	36,094
Financial liabilities measured at amortized cost			
Interest expenses		(120,122)	(118,505)
Foreign exchange differences		(129,670)	(242,532)
		(249,792)	(361,037)
Financial liabilities at fair value through profit or loss			
Gain on valuation from derivative instruments		395	25
Loss on transaction from derivative instruments		(448)	(386)
		(53)	(361)
	₩	(25,819)	16,921

6. Financial Risk Management

(1) Financial risk management

The Group's activities are exposed to a variety of financial risks: market risk (including currency 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. The Group uses derivative financial instruments to hedge certain risk exposures.

Risk management is carried out by the Parent Company's corporate finance division in accordance with policies approved by the board of directors. The Parent Company's corporate finance division identifies, evaluates and hedges financial risks in close cooperation with the Group's operating units. The board of directors provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, and credit risk; use of derivative financial instruments and non-derivative financial instruments; and the investment of excess liquidity.

(a) Market risk

(i) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar, Euro and Japanese Yen. Foreign exchange risk arises from future commercial transactions; recognized assets and liabilities in foreign currencies; and net investments in foreign operations.

Monetary foreign currency assets and liabilities as of December 31, 2016 are as follows:

(In millions of won and millions of foreign currencies)

	Assets		Liabilities	
	Foreign currencies	**Korean won equivalent**	**Foreign currencies**	**Korean won equivalent**
USD	4,392	₩ 5,308,315	3,875	₩ 4,682,724
EUR	1	11	85	108,342
JPY	1,894	19,638	33,601	348,380

As of December 31, 2016, effects on profit before income tax as a result of change in exchange rate by 10% are as follows:

(In millions of won)

	If increased by 10%	**If decreased by 10%**
USD	₩ 62,559	(62,559)
EUR	(10,833)	10,833
JPY	(32,874)	32,874

6. Financial Risk Management, Continued

(ii) Interest rate risk

Interest rate risk of the Group is defined as the risk that the interest expenses arising from borrowings will fluctuate because of changes in future market interest rate. The interest rate risk mainly arises through floating rate borrowings, and is partially offset by interests received from floating rate financial assets.

The Group manages its interest rate risk by using floating-to-fixed interest rate swaps. Such interest rate swaps have the economic effect of converting borrowings from floating rates to fixed rates. Generally, the Group raises long-term borrowings at floating rates and swaps them into fixed rates. Under the interest rate swaps, the Group agrees with other parties to exchange, at specified intervals (primarily quarterly), the difference between interests of fixed rates and floating rates, which are calculated based on the agreed notional amounts.

As of December 31, 2016, the Group is partially exposed to a risk of increase in interest rates. If interest rates on borrowings were 100 basis points higher/lower with all other variables held constant, profit before income tax for the following year would be ₩22,277 million (2015: ₩17,771 million) lower/higher, mainly as a result of higher/lower interest expense on floating rate borrowings and interest income on floating rate financial assets.

(iii) Price risk

As of December 31, 2016, there are no available-for-sale equity securities measured at fair value held by the Group. Accordingly, the Group is not exposed to any equity securities price risk.

(b) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises mainly from operating and investing activities. In order to manage credit risk, the Group periodically evaluates the creditworthiness of each customer or counterparty through the analysis of its financial information, historical transaction records and other factors, based on which the Group establishes credit limits for each customer or counterparty.

(i) Trade and other receivables

For each new customer, the Group individually analyzes its credit worthiness before standard payment and delivery terms and conditions are offered. In addition, the Group is consistently managing trade and other receivables by reevaluating the customer's credit worthiness and securing collaterals in order to limit its credit risk exposure.

The Group reviews at the end of each reporting period whether trade and other receivables are impaired and maintains credit insurance policies to manage credit risk exposure from oversea customers. The maximum exposure to credit risk as of December 31, 2016 is the carrying amount of trade and other receivables.

(ii) Other financial assets

Credit risk also arises from other financial assets such as cash and cash equivalents; short-term financial instruments; and deposits with banks and financial institutions as well as short-term and long-term loans mainly due to the bankruptcy of each counterparty to those financial assets. The maximum exposure to credit risk as of December 31, 2016 is the carrying amount of those financial assets. The Group transacts only with banks and financial institutions with high credit ratings including Shinhan Bank, and accordingly management does not expect any losses from non-performance by these counterparties.

6. Financial Risk Management, Continued

(c) Liquidity risk

Liquidity risk is defined as the risk that the Group is unable to meet its short-term payment obligations on time due to deterioration of its business performance or inability to access financing. The Group forecasts its cash flow and liquidity status and sets action plans on a regular basis to manage liquidity risk proactively.

The Group invests surplus cash in interest-bearing current accounts, time deposits, demand deposits, marketable available-for-sale securities, choosing instruments with appropriate maturities or sufficient liquidity to provide sufficient head-room as determined by the above-mentioned forecasts.

Contractual maturities of financial liabilities as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016				
		Less than 1 year	**1 - 2 years**	**2 - 5 years**	**More than 5 years**	**Total**
Borrowings (other than finance lease liabilities)	₩	785,989	706,827	2,853,218	235,562	4,581,596
Finance lease liabilities		27,043	5,350	16,050	18,725	67,168
Trade payables		696,144	-	-	-	696,144
Other payables		1,610,757	-	-	-	1,610,757
Other non-trade payables		667,485	25,224	2,554	-	695,263
Derivatives		288	-	-	-	288
Financial guarantee contract		8	-	-	-	8
	₩	3,787,714	737,401	2,871,822	254,287	7,651,224

(In millions of won)

		2015				
		Less than 1 year	**1 - 2 years**	**2 - 5 years**	**More than 5 years**	**Total**
Borrowings (other than finance lease liabilities)	₩	1,012,385	735,424	2,025,522	156,995	3,930,326
Finance lease liabilities		98,927	26,654	16,050	24,075	165,706
Trade payables		791,373	-	-	-	791,373
Other payables		1,346,469	-	-	-	1,346,469
Other non-trade payables		1,001,077	83,536	10,877	-	1,095,490
Derivatives		683	-	-	-	683
Financial guarantee contract		8	-	-	-	8
	₩	4,250,922	845,614	2,052,449	181,070	7,330,055

6. Financial Risk Management, Continued

(c) Liquidity risk, Continued

The table above analyzes the Group's non-derivative financial liabilities and net-settled derivative financial liabilities into relevant maturity groups based on the remaining period at the statement of financial position date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows and includes estimated interest payments. The Group's derivative instruments have been included at their fair value of ₩288 million (2015: ₩683 million) within the less than one-year time bucket as of December 31, 2016. These contracts are managed on a net-fair value basis rather than by maturity date. Net settled derivatives comprise interest rate swaps used by the Group to manage the Group's interest rate risk.

(2) Capital management
The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends to shareholders, proceeds and repayments of borrowings, issue new shares or sell assets to reduce debt.

The debt-to-equity ratio and net borrowing ratio as of December 31, 2016 and 2015 are as follows:

(In millions of won)

	2016	2015
Total liabilities (A)	₩ 8,192,496	8,290,203
Total equity (B)	24,023,530	21,387,703
Cash and cash equivalents and short-term financial instruments (C)	4,135,679	4,791,273
Total borrowings (D)	4,335,978	3,818,595
Debt-to-equity ratio (A/B)	34%	39%
Net borrowing ratio (D-C)/B	1%	-5%

6. Financial Risk Management, Continued

(3) Fair value

(a) The following table presents the carrying amounts and fair values of financial instruments by categories, including their levels in the fair value hierarchy, as of December 31, 2016 and 2015:

(In millions of won)

		2016			
	Carrying amounts	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value					
Short-term financial instruments	₩ 1,570,172	-	1,570,172	-	1,570,172
	1,570,172	-	1,570,172	-	1,570,172
Financial assets not measured at fair value					
Cash and cash equivalents[1]	613,786	-	-	-	-
Short-term financial instruments[1]	1,951,721	-	-	-	-
Trade receivables[1]	3,251,652	-	-	-	-
Loans and other receivables[1]	65,101	-	-	-	-
Other financial assets[1]	423	-	-	-	-
Available-for-sale financial assets[1,2]	147,779	-	-	-	-
	6,030,462	-	-	-	-
Financial liabilities measured at fair value					
Other financial liabilities	288	-	288	-	288
	288	-	288	-	288
Financial liabilities not measured at fair value					
Trade payables[1]	696,144	-	-	-	-
Other payables[1]	1,606,417	-	-	-	-
Other non-trade payables[1]	712,580	-	-	-	-
Borrowings	4,335,978	-	4,366,234	-	4,366,234
	₩ 7,351,119	-	4,366,234	-	4,366,234

6. Financial Risk Management, Continued

(In millions of won)

		2015			
	Carrying amounts	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value					
Short-term financial instruments	₩ 1,047,277	-	1,047,277	-	1,047,277
	1,047,277	-	1,047,277	-	1,047,277
Financial assets not measured at fair value					
Cash and cash equivalents[1]	1,175,719	-	-	-	-
Short-term financial instruments[1]	2,568,277	-	-	-	-
Trade receivables[1]	2,628,448	-	-	-	-
Loans and other receivables[1]	124,532	-	-	-	-
Other financial assets[1]	430	-	-	-	-
Available-for-sale financial assets[1,2]	131,354	-	-	-	-
	6,628,760	-	-	-	-
Financial liabilities measured at fair value					
Other financial liabilities	683	-	683	-	683
	683	-	683	-	683
Financial liabilities not measured at fair value					
Trade payables[1]	791,373	-	-	-	-
Other payables[1]	1,337,803	-	-	-	-
Other non-trade payables[1]	1,091,062	-	-	-	-
Borrowings	3,818,595	-	3,869,536	-	3,869,536
	₩ 7,038,833	-	3,869,536	-	3,869,536

[1] Does not include fair values of financial assets and liabilities of which fair values have not been measured as carrying amounts are reasonable approximation of fair values.

[2] Equity instruments which do not have quoted price in an active market for the identical instruments (inputs for level 1) are measured at cost in accordance with K-IFRS No. 1039, 'Financial Instrument: Recognition and Measurement' as fair values of such equity instruments cannot be reliably measured using other valuation techniques.

6. Financial Risk Management, Continued

(b) Valuation Techniques
The valuation techniques of recurring and non-recurring fair value measurements and quoted prices classified as level 2 are as follows:

(In millions of won)

		Fair value	Level	Valuation Techniques
Short-term financial instruments:				
Financial assets at fair value through profit or loss	₩	1,570,172	2	The present value method
Derivative financial Liabilities:				
Interest swap		288	2	The present value method

(c) There was no transfer between fair value hierarchy levels for the year ended December 31, 2016.

7. Restricted Financial Instruments

Details of restricted financial instruments as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015	Description
Short-term financial instruments	₩	77,500	77,500	Restricted for supporting small business
		-	22,190	Pledged for borrowings
		6,220	5,832	Pledged for consumption tax
		-	2,843	Deposit for import duties
		83,720	108,365	
Other financial assets		308	308	Pledged for borrowings
		12	12	Bank overdraft guarantee deposit
		104	110	Others
		424	430	
	₩	84,144	108,795	

8. Trade Receivables and Loans and Other Receivables

(1) Details of loans and other receivables as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Current			
Other receivables	₩	11,571	37,427
Accrued income		9,732	18,126
Short-term loans		3,145	3,786
Short-term guarantee and other deposits		1,163	2,274
		25,611	61,613
Non-current			
Long-term other receivables		60	22,921
Long-term loans		6,008	6,104
Guarantee deposits		33,261	33,637
Long-term deposits		161	257
		39,490	62,919
	₩	65,101	124,532

(2) Trade receivables and loans and other receivables, net of provision for impairment, as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016		
		Gross amount	Provision for impairment	Carrying amount
Trade receivables	₩	3,253,489	(1,837)	3,251,652
Current loans and other receivables		26,982	(1,371)	25,611
Non-current loans and other receivables		40,966	(1,476)	39,490
	₩	3,321,437	(4,684)	3,316,753

(In millions of won)

		2015		
		Gross amount	Provision for impairment	Carrying amount
Trade receivables	₩	2,631,422	(2,974)	2,628,448
Current loans and other receivables		63,046	(1,433)	61,613
Non-current loans and other receivables		69,062	(6,143)	62,919
	₩	2,763,530	(10,550)	2,752,980

8. Trade Receivables and Loans and Other Receivables, Continued

(3) Details of provision for impairment
Movements in the provision for impairment of trade receivables for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Beginning balance	₩	2,974	2,919
Provision for receivables impairment		-	88
Unused amounts reversed		(836)	
Receivables written off during the year as uncollectible		(306)	-
Foreign exchange difference		5	(33)
Ending balance	₩	1,837	2,974

Movements in the provision for impairment of current loans and other receivables for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Beginning balance	₩	1,433	1,668
Unused amounts reversed		(62)	(234)
Foreign exchange difference		-	(1)
Ending balance	₩	1,371	1,433

Movements in the provision for impairment of non-current loans and other receivables for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Beginning balance	₩	6,143	6,034
Provision for receivables impairment		34	68
Unused amounts reversed		(4,753)	(4)
Receivables written off during the year as uncollectible		-	(6)
Foreign exchange difference		52	51
Ending balance	₩	1,476	6,143

8. Trade Receivables and Loans and Other Receivables, Continued

(4) The aging analyses of trade receivables and loans and other receivables as of December 31, 2016 and 2015 are as follows

(In millions of won)

		2016					
		Not impaired					
			Overdue				
		Not Past due	Less than 3 months	Over 3 months and less than 6 months	Over 6 months	Impaired	Total
Trade receivables	₩	3,252,891	598	-	-	-	3,253,489
Current loans and other receivables		25,692	-	-	-	1,290	26,982
Non-current loans and other receivables		40,864	-	-	-	102	40,966
	₩	3,319,447	598	-	-	1,392	3,321,437

(In millions of won)

		2015					
		Not impaired					
			Overdue				
		Not Past due	Less than 3 months	Over 3 months and less than 6 months	Over 6 months	Impaired	Total
Trade receivables	₩	2,606,603	24,819	-	-	-	2,631,422
Current loans and other receivables		61,753	-	-	-	1,293	63,046
Non-current loans and other receivables		43,953	-	-	-	25,109	69,062
	₩	2,712,309	24,819	-	-	26,402	2,763,530

9. Inventories

(1) Details of inventories as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016		
		Acquisition cost	**Inventory valuation allowance**	**Carrying amount**
Finished goods	₩	429,348	(37,845)	391,503
Work-in-process		1,153,100	(22,607)	1,130,493
Raw materials		264,402	(3,725)	260,677
Supplies		194,701	(23)	194,678
Goods in transit		48,847	-	48,847
	₩	2,090,398	(64,200)	2,026,198

(In millions of won)

		2015		
		Acquisition cost	**Inventory valuation allowance**	**Carrying Amount**
Finished goods	₩	667,060	(53,678)	613,382
Work-in-process		979,115	(130,916)	848,199
Raw materials		226,371	(3,629)	222,742
Supplies		164,179	(23)	164,156
Goods in transit		74,897	-	74,897
	₩	2,111,622	(188,246)	1,923,376

(2) The amount of the inventories recognized as cost of sales and loss on (reversal of) valuation allowance of inventories charged to (deducted from) cost of sales are as follows:

(In millions of won)

		2016	**2015**
Inventories recognized as cost of sales	₩	10,787,034	10,514,640
Loss on (reversal of) valuation allowance of inventories		(124,046)	119,718

10. Non-current assets held for sale

Details of changes in non-current assets held for sale for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Beginning balance	₩	-	27,661
Disposal[1]		-	(27,661)
Other		-	-
Ending balance	₩	-	-

[1] The Group disposed assets held for sale during the year ended December 31, 2015 and recognized loss on disposal of assets held for sale as other expenses for the amount of ₩5,844 million.

11. Other Current and Non-current Assets

Details of other current and non-current assets as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Current			
Advance payments	₩	1,853	2,033
Prepaid expenses		238,831	212,766
Value added tax refundable		148,756	131,673
Others		9,913	7,454
		399,353	353,926
Non-current			
Long-term prepaid expenses		568,907	558,058
Others		1,495	7,475
		570,402	565,533
	₩	969,755	919,459

12. Investments in Associates and Joint Ventures

(1) Details of investments in associates and joint ventures as of December 31, 2016 and 2015 are as follows:

(In millions of won)

Type	Investee	Ownership (%)		2016 Net asset value	2016 Carrying amount	2015 Carrying amount
Associate	Stratio, Inc.[1]	9.10	₩	151	2,151	2,171
	Gemini Partners Pte. Ltd.[2]	20.00		3,484	5,199	7,976
	TCL Fund[3]	11.06		2,219	2,219	7,976
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd. (HITECH)	45.00		121,447	121,447	112,462
			₩		131,016	122,609

[1] In 2015, the Parent Company acquired preferred shares of Stratio, Inc. and classified as an associate because the Parent Company has significant influence over Stratio, Inc.'s financial and operating policies through its right to appoint a member of the board of directors.

[2] In 2015, the Parent Company acquired 20% of shares of Gemini Partners Pte. Ltd. and classified it as an associate because the Parent Company has significant influence over Gemini Partners Pte. Ltd.

[3] In 2016, the Parent Company acquired 11.06% of shares of TCL Fund and classified it as an associate because the Parent Company has significant influence over Gemini Partners Pte. Ltd.'s financial and operating policies through its right to appoint a member of the board of directors.

(2) Changes in investments in associates and joint ventures for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016					
		Beginning balance	Acquisition (disposal)	Share of profit (loss)	Other equity movement	Dividend	Ending balance
Stratio, Inc.	₩	2,171	-	(24)	4	-	2,151
Gemini Partners Pte. Ltd.		7,976	-	(2,909)	132	-	5,199
TCL Fund		-	2,293	50	(124)	-	2,219
HITECH		112,462	-	25,635	4,076	(20,726)	121,447
	₩	122,609	2,293	22,752	4,088	(20,726)	131,016

(In millions of won)

		2015					
		Beginning balance	Acquisition (disposal)	Share of profit (loss)	Other equity movement	Dividend	Ending balance
Stratio, Inc.	₩	-	2,194	(35)	12	-	2,171
Gemini Partners Pte. Ltd.		-	7,976	-	-	-	7,976
HITECH		97,090	-	24,677	6,475	(15,780)	112,462
	₩	97,090	10,170	24,642	6,487	(15,780)	122,609

12. Investments in Associates and Joint Ventures, Continued

(3) Associate and joint venture's statements of financial position as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016			
		Current assets	**Non-current assets**	**Current liabilities**	**Non-current liabilities**
Stratio, Inc.	₩	998	686	27	-
Gemini Partners Pte. Ltd.		13,047	4,467	93	-
TCL Fund		16,388	3,993	329	-
HITECH		184,048	350,094	82,581	181,679

(In millions of won)

		2015			
		Current assets	**Non-current assets**	**Current liabilities**	**Non-current liabilities**
Stratio, Inc.	₩	962	921	-	1
Gemini Partners Pte. Ltd.		27,762	14,694	3,444	7,867
HITECH		270,959	314,464	89,034	246,478

(4) Associate and joint venture's statements of comprehensive income (loss) for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016		2015	
		Revenue	**Profit (loss) for the year**	**Revenue**	**Profit (loss) for the year**
Stratio, Inc.	₩	4	(198)	-	(385)
Gemini Partners Pte. Ltd.		-	(5,848)	-	(747)
TCL Fund		-	(4)	-	-
HITECH		566,893	55,346	677,284	54,835

13. Available-for-sale Financial Assets

(1) Details of available-for-sale financial assets as of December 31, 2016 and 2015 are as follows:

(In millions of won)

	2016			2015
	Ownership (%)/ Type	Acquisition cost	Book value	Book value
ProMOS	7.93	₩ 21,847	-	-
JNT Frontier Private Equity Unit	Certificate	971	971	1,213
SV M&A No.1 Equity Unit	Certificate	805	805	1,120
Daishin Aju IB Investment Co., Ltd. Equity Unit	Certificate	483	483	699
Seoul Investment Early & Green Venture Fund	Certificate	1,648	1,648	1,678
TS 2011-4 Technology Transfer & Business Equity Unit	Certificate	566	566	1,262
IMM Investment Equity Unit	Certificate	224	224	620
L&S Venture Capital Equity Unit	Certificate	1,170	1,170	1,849
KTC-NP-Growth Equity Unit	Certificate	2,956	2,956	2,271
Intellectual Discovery, Ltd.	7.05	4,000	4,000	4,000
SKY Property Mgmt. Ltd.	15.00	112,360	112,360	112,360
China Walden Venture Investments II	Certificate	6,188	6,188	3,573
Exnodes Inc.	Convertible Bond	716	716	-
Netspeed	6.07	3,083	3,083	-
Keyssa, Inc.	2.29	6,174	6,174	-
MEMS DRIVE, INC.	2.94	2,246	2,246	-
Equity investment in a construction guarantee association.	0.01	709	709	709
Information and communication guarantee association.	0.01	15	15	-
Starblaze	6.51	3,465	3,465	-
		₩ 169,805	147,779	131,354

(2) Changes in the carrying amount of available-for-sale financial assets for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

	2016	2015
Beginning balance	₩ 131,354	127,314
Acquisition	19,085	5,359
Disposal	(2,652)	(1,319)
Foreign exchange difference	(8)	-
Ending balance	₩ 147,779	131,354

14. Property, Plant and Equipment

(1) Changes in property, plant and equipment for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016							
		Land	**Buildings**	**Structures**	**Machinery**	**Vehicles**	**Others**	**Construction -in-progress**	**Total**
Beginning net book amount	₩	567,614	2,525,041	424,609	11,639,208	1,369	395,938	1,412,473	16,966,252
Changes during 2016									
Additions		567	35,972	116,419	4,690,241	54	131,975	1,221,974	6,197,202
Receipt of government grants		-	-	-	(133)	-	-	-	(133)
Disposals		(2,824)	(53)	(45)	(147,960)	-	(396)	(7,063)	(158,341)
Depreciation		-	(100,250)	(34,907)	(3,866,582)	(381)	(131,660)	-	(4,133,780)
Transfers		10,018	61,213	18,264	957,016	-	40,771	(1,087,282)	-
Impairments		-	(264)	(2,814)	(668)	-	-	-	(3,746)
Exchange differences		380	(7,283)	(5,381)	(74,614)	(1)	(985)	(2,168)	(90,052)
Ending net book amount	₩	575,755	2,514,376	516,145	13,196,508	1,041	435,643	1,537,934	18,777,402
Acquisition cost		575,755	3,287,424	909,991	43,439,176	3,555	1,085,379	1,537,934	50,839,214
Accumulated depreciation		-	(749,076)	(374,742)	(29,993,593)	(2,514)	(649,669)	-	(31,769,594)
Accumulated impairment		-	(23,698)	(19,104)	(243,540)	-	(59)	-	(286,401)
Government grants		-	(274)	-	(5,535)	-	(8)	-	(5,817)
	₩	575,755	2,514,376	516,145	13,196,508	1,041	435,643	1,537,934	18,777,402

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14. Property, Plant and Equipment, Continued

(In millions of won)

		2015							
		Land	Buildings	Structures	Machinery	Vehicles	Others	Construction -in-progress	Total
Beginning net book amount	₩	542,952	1,433,541	282,191	9,974,301	863	254,129	1,602,357	14,090,334
Changes during 2015									
Additions		-	-	907	48,005	94	11,030	6,699,838	6,759,874
Receipt of government grants		-	-	-	(378)	-	-	-	(378)
Disposals		(4)	(71)	(271)	(204,220)	-	(12,759)	(7,665)	(224,990)
Depreciation		-	(88,013)	(27,851)	(3,476,825)	(371)	(101,385)	-	(3,694,445)
Transfers[1]		23,908	1,198,576	167,970	5,271,980	783	243,497	(6,881,650)	25,064
Impairments		-	(22,050)	-	-	-	(5)	-	(22,055)
Exchange differences		758	3,058	1,663	26,345	-	1,431	(407)	32,848
Ending net book amount	₩	567,614	2,525,041	424,609	11,639,208	1,369	395,938	1,412,473	16,966,252
Acquisition cost		567,614	3,243,654	792,270	39,376,245	3,659	966,111	1,412,473	46,362,026
Accumulated depreciation		-	(672,563)	(348,493)	(27,479,837)	(2,290)	(568,466)	-	(29,071,649)
Accumulated impairment		-	(45,749)	(19,168)	(250,883)	-	(1,509)	-	(317,309)
Government grants		-	(301)	-	(6,317)	-	(198)	-	(6,816)
	₩	567,614	2,525,041	424,609	11,639,208	1,369	395,938	1,412,473	16,966,252

[1] ₩25,064 million was transferred from investment property during the year ended December 31, 2015.

(2) Details of depreciation expense allocation for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Cost of sales	₩	3,797,210	3,365,460
Selling and administrative expenses		276,969	263,938
Other expenses		5,307	8,050
Development costs and other		54,294	56,997
	₩	4,133,780	3,694,445

(3) Certain property, plant and equipment are pledged as collaterals for borrowings as of December 31, 2016 (note 33).

(4) In 2016, the Group capitalized borrowing costs amounting to ₩14,663 million (2015: ₩18,892 million) on qualifying assets. Borrowing costs were calculated using a capitalization rate of 3.59% (2015: 4.83%) for the year ended December 31, 2016.

14. Property, Plant and Equipment, Continued

(5) The Group leases certain machinery and others from ME Semiconductor Rental First L.L.C. and other under finance lease agreements.

The book value of the machinery and others subject to finance lease agreement amounted to: ₩ 67,245 million as of December 31, 2016 (as of December 31, 2015: ₩138,514 million). The machinery and others are pledged as collateral for the finance lease liabilities.

The Group leases certain machinery and others from Macquarie Capital and others under operating lease agreements. The payment schedule of minimum lease payments under operating lease agreements as of December 31, 2016 is as follows:

(In millions of won)

		Minimum lease payments
No later than 1 year	₩	155,110
Later than 1 year		206,023
	₩	361,133

(6) As of December 31, 2016, certain inventories; property, plant and equipment; and investment properties are insured and details of insured assets is as follows:

(In millions of won)

	Insured assets		Insured amount	Insurance Company
Package insurance	Property, plant and equipment, investment property, inventories and others			Hyundai Marine & Fire Insurance Co., Ltd. and others
	Business interruption	₩	53,572,053	
Fire insurance	Property, plant and equipment, investment property		88,960	
Erection all risks insurance	Property, plant and equipment		3,015,309	
		₩	56,676,322	

In addition to the assets stated above, vehicle and delivery equipment are insured by vehicle comprehensive insurance and liability insurance.

15. Intangible Assets

(1) Changes in intangible assets for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016				
		Goodwill	Industrial property rights	Development costs	Others	Total
Beginning net book amount	₩	720,755	89,787	483,330	411,024	1,704,896
Changes during 2016						
Internal development		-	-	352,022	-	352,022
Separate acquisition		-	28,269	-	150,352	178,621
Disposals		-	(5,208)	-	(1,595)	(6,803)
Amortization		-	(14,299)	(205,198)	(103,072)	(322,569)
Impairment		-	-	(272)	(98)	(370)
Exchange differences		9,449	414	-	(69)	9,794
Ending net book amount		730,204	98,963	629,882	456,542	1,915,591
Acquisition cost		730,204	171,873	1,797,606	718,765	3,418,448
Accumulated amortization and impairment		-	(72,910)	(1,167,724)	(227,262)	(1,467,896)
Government grants		-	-	-	(34,961)	(34,961)
	₩	730,204	98,963	629,882	456,542	1,915,591

(In millions of won)

		2015				
		Goodwill	Industrial property rights	Development costs	Others	Total
Beginning net book amount	₩	704,185	83,750	319,824	228,921	1,336,680
Changes during 2015						
Internal development		-	-	349,264	-	349,264
Separate acquisition		-	31,604	-	242,875	274,479
Disposals		-	(12,859)	-	(597)	(13,456)
Amortization		-	(12,800)	(184,167)	(61,111)	(258,078)
Impairment		-	(2)	(1,606)	(163)	(1,771)
Exchange differences		16,570	94	15	1,099	17,778
Ending net book amount		720,755	89,787	483,330	411,024	1,704,896
Acquisition cost		720,755	160,180	1,126,505	585,500	2,592,940
Accumulated amortization and impairment		-	(70,393)	(643,175)	(137,621)	(851,189)
Government grants		-	-	-	(36,855)	(36,855)
	₩	720,755	89,787	483,330	411,024	1,704,896

(2) Amortization of ₩28,877 million (2015: ₩12,811 million) is included in the cost of sales, ₩293,316 million (2015: ₩244,978 million) in selling and administrative expenses in the statements of comprehensive income for the year ended December 31, 2016. Amortization of ₩376 million (2015: ₩289 million) is capitalized as development cost.

15. Intangible Assets, Continued

(3) Among costs associated with development activities, ₩352,022 million (2015: ₩349,264 million) that met capitalization criteria, were capitalized as development cost for the year ended December 31, 2016. In addition, costs associated with research activities and other development expenditures that did not meet the criteria and amounted to ₩1,744,711 million (2015: ₩1,620,324 million) were recognized as expenses for the year ended December 31, 2016.

(4) Goodwill impairment tests
Goodwill impairment tests are undertaken annually. As the Group has only one CGU, goodwill was allocated to one CGU. Recoverable amount of the CGU was determined based on fair value less costs to sell, which was determined using the current stock price as of December 31, 2016. No impairment loss of goodwill was recognized since the recoverable amount is higher than carrying value of the CGU as of December 31, 2016.

16. Investment Property

Changes in investment property for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Beginning net book amount	₩	2,679	28,456
Changes for the year			
Depreciation		(106)	(713)
Transfer[1]		-	(25,064)
Ending net book amount		2,573	2,679
Acquisition cost		5,170	-
Accumulated depreciation		(2,597)	-
	₩	2,573	2,679

[1] Transfer to property, plant and equipment by ₩25,604 million during the year ended December 31, 2016

The depreciation expense of ₩106 million was charged to cost of sales for the year ended December 31, 2016 (2015: ₩713 million).

Rental income from investment property during the year ended December 31, 2016 was ₩500 million (2015: ₩2,627 million).

17. Borrowings

(1) Details of borrowings as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Current			
Short-term borrowings	₩	-	147,948
Current portion of long-term borrowings		384,124	465,561
Current portion of debentures		320,736	399,863
		704,860	1,013,372
Non-current			
Long-term borrowings		2,095,737	1,512,003
Debentures		1,535,381	1,293,220
		3,631,118	2,805,223
	₩	4,335,978	3,818,595

(2) Details of short-term borrowings as of December 31, 2016 and 2015 are as follows:

(In millions of won)

	Financial Institutions	Interest rate per annum in 2016 (%)		2016	2015
Borrowings on trade receivables collateral	Shinhan Bank and others	-	₩	-	1,160
	NongHyup Bank	-		-	1,916
Refinancing and others	China Construction Bank and others	-		-	144,872
			₩	-	147,948

17. Borrowings, Continued

(3) Details of long-term borrowings as of December 31, 2016 and 2015 are as follows:

(In millions of won)	Financial institutions	Interest rate per annum in 2016 (%)[1]		2016	2015
Local currency borrowings:					
Borrowings for childcare facilities	NongHyup Bank	2.00	₩	62	123
Funds for equipment	Korea Development Bank (formerly Korea Finance Corporation)	3.98		83,333	166,667
Funds for equipment[2]	KEB Hana Bank	CD (91days) +1.31		30,000	40,000
Funds for equipment	Korea Development Bank	2.02		200,000	-
Finance lease liabilities	Hansu Technical Service Ltd.	3.70		38,948	42,775
Finance lease liabilities	ME Semiconductor Rental First L.L.C.	5.00		8,688	74,898
				361,031	324,463
Foreign currency borrowings:					
General borrowings	Export-Import Bank of Korea	3M LIBOR + 1.00 ~ 3.15		825,808	488,333
General borrowings	Woori Bank	3M LIBOR + 1.25		120,850	-
		3M LIBOR + 0.98		181,275	175,800
Funds for equipment	Korea Development Bank	Exchange equalization fund rate + 0.60		120,850	117,200
		3M LIBOR + 0.95		181,275	175,800
		3M LIBOR + 1.25		241,700	-
Funds for equipment	KEB Hana Bank	Exchange equalization fund rate + 0.63		96,680	93,760
Funds for equipment	NongHyup Bank	Exchange equalization fund rate + 0.63		96,680	93,760
		3M LIBOR + 3.19		120,850	234,400
Finance lease liabilities	Goodmemory First L.L.C.	4.70		12,671	36,020
Funds for equipment	Standard Chartered Bank Korea Ltd.	3M LIBOR + 3.45		120,191	172,688
Syndicated loans	Development Bank of China and others	-		-	65,340
				2,118,830	1,653,101
				2,479,861	1,977,564
Less: Discount on present value					-
Current maturities				(384,124)	(465,561)
			₩	2,095,737	1,512,003

17. Borrowings, Continued

[1] As of December 31, 2016, the annual interest rates are as follows:

Type	Interest rate per annum as of December 31, 2016
Exchange equalization fund rate	1.33
CD (91 days)	1.52
3M LIBOR	1.00

[2] The Group entered into interest swap contracts with KEB Hana Bank to hedge interest rate risk from the local currency loans.

(4) Details of debentures as of December 31, 2016 and 2015 are as follows:

(In millions of won)

	Maturity date	Interest rate per annum in 2016 (%)		2016	2015
Unsecured notes in local currency:					
211th	May 6, 2016	6.20	₩	-	400,000
212th	May 30, 2019	5.35		450,000	450,000
213th	Sep. 4, 2017	3.72		200,000	200,000
214-1st	Aug. 26, 2020	2.27		210,000	210,000
214-2nd	Aug. 26, 2022	2.63		140,000	140,000
215-1st	Nov. 25, 2018	2.26		70,000	70,000
215-2nd	Nov. 25, 2020	2.56		100,000	100,000
215-3rd	Nov. 25, 2022	2.75		10,000	10,000
216-1st	Feb. 19, 2018	1.74		70,000	-
216-2nd	Feb. 19, 2021	2.22		180,000	-
216-3rd	Feb. 19, 2023	2.53		80,000	-
217-1st	May 27, 2018	1.73		80,000	-
217-2nd	May 27, 2021	2.30		150,000	-
Secured notes in foreign currency:					
Foreign 8th[1]	Jun. 20, 2017	3M LIBOR+2.85		120,850	117,200
				1,860,850	1,697,200
Less: Discounts on debentures				(4,733)	(4,117)
Current portion				(320,736)	(399,863)
			₩	1,535,381	1,293,220

[1] The Group is provided with USD 100 million of payment guarantee from Shinhan Bank as of December 31, 2016.

17. Borrowings, Continued

(5) Finance lease liability
Lease liabilities are effectively secured as the rights to the leased asset belong to the lessor.

Details of future minimum lease payments to the lessor as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Total minimum lease payment			
No later than 1 year	₩	27,043	98,927
Between 1 and 5 years		21,400	42,704
Later than 5 years		18,725	24,075
		67,168	165,706
Discount on present value		(6,861)	(12,013)
Net minimum lease payment			
No later than 1 year		26,603	96,116
Between 1 and 5 years		19,136	39,182
Later than 5 years		14,568	18,395
	₩	60,307	153,693

18. Other Current and Non-current Liabilities

Details of other current and non-current liabilities as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Current			
Advance receipts	₩	3,781	2,867
Unearned income		228	374
Withholdings		42,622	35,938
Deposits received		1,539	1,256
Others		2,328	4,008
		50,498	44,443
Non-current			
Other long-term employee benefits		61,883	61,149
	₩	112,381	105,592

19. Provisions

(1) Details of changes in provisions for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016					
		Beginning balance	Increase	Utilization	Reversal	Other	Ending balance
Warranty	₩	2,936	38,584	(38,523)	-	-	2,997
Sales returns		14,736	33,284	(34,703)	-	-	13,317
Legal claims		1,523	400	(1,097)	(426)	-	400
Emission allowances		6,081	21,366	(1,339)	-	-	26,108
	₩	25,276	93,634	(75,662)	(426)	-	42,822

(In millions of won)

		2015					
		Beginning balance	Increase	Utilization	Reversal	Other[1]	Ending balance
Warranty	₩	6,886	2,910	(4,346)	(2,514)	-	2,936
Sales returns		14,646	53,642	(53,552)	-	-	14,736
Legal claims		4,400	1,440	(4,370)	(30)	83	1,523
Emission allowances		-	6,081	-	-	-	6,081
	₩	25,932	64,073	(62,268)	(2,544)	83	25,276

[1] Others include foreign exchange rate differences.

(2) Provisions for warranty
The Group estimates the expected warranty costs based on historical results and accrues provisions for warranty.

(3) Provisions for sales returns
The Group estimates the expected sales returns based on historical results and adjusts sales and cost of sales, respectively. Accordingly, related gross profit and estimated expenses related to the return (such as transportation costs) are recorded as provisions for sales returns.

(4) Provisions for legal claims
The Group recognizes provisions for legal claims 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 the amount can be reliably estimated.

(5) Provision for emission allowances
The Group recognizes estimated future payment for the number of emission certificates required to settle the Group's obligation exceeding the actual number of certificates on hand as emission allowances according to the Act on Allocation and Trading of Greenhouse Gas Emission Permits.

20. Defined Benefit Liabilities

Under the defined benefit plan, the Group pays employee benefits to retired employees in the form of a lump sum that are based on their salaries and years of service at the time of their retirement. Accordingly, the Group is exposed to a variety of actuarial assumption risks such as risk associated with expected years of service, interest risk, and market (investment) risk.

(1) Details of defined benefit liabilities as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Present value of defined benefit obligations	₩	1,195,047	1,055,340
Fair value of plan assets		(888,559)	(570,363)
	₩	306,488	484,977

(2) Principal actuarial assumptions as of December 31, 2016 and 2015 are as follows:

	2016	2015
Discount rate for defined benefit obligations	3.09% ~ 4.10%	2.89% ~ 4.10%
Expected rate of salary increase	2.20% ~ 5.48%	2.20% ~ 5.52%

(3) Weighted average durations of defined benefit obligations as of December 31, 2016 and 2015 are 12.10 and 12.39 years, respectively.

(4) Changes in defined benefit obligations for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Beginning balance	₩	1,055,340	887,277
Current service cost		159,190	139,486
Past service cost		33,198	-
Interest cost		41,148	39,243
Transfer from associates		(2,440)	576
Remeasurements:			
Demographic assumption		-	(1,860)
Financial assumption		5,792	33,632
Adjustment based on experience		(53,609)	(18,561)
Benefits paid		(43,602)	(24,459)
Effect of movements in exchange rates		30	6
Ending balance	₩	1,195,047	1,055,340

20. Defined Benefit Liabilities, Continued

(5) Changes in plan assets for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Beginning balance	₩	570,363	421,927
Contributions		327,640	153,566
Interest income		20,204	18,545
Transfer from associates		(1,331)	123
Benefits paid		(19,151)	(15,137)
Remeasurements		(9,166)	(8,661)
Ending balance	₩	888,559	570,363

(6) The amounts recognized in profit or loss for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Current service cost	₩	159,190	139,486
Past service cost		33,198	-
Net interest expense		20,944	20,698
	₩	213,332	160,184

(7) The amounts in which defined benefit plan related expenses are included for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Cost of sales (manufacturing costs)	₩	136,744	88,415
Selling and administrative expenses		76,588	71,769
	₩	213,332	160,184

(8) Details of plan assets as of December 31, 2016 and December 31, 2015 are as follows:

(In millions of won)

		2016	2015
Deposits	₩	887,074	568,790
Other		1,485	1,573
	₩	888,559	570,363

Actual return on plan assets for the years ended December 31, 2016 and 2015 amounted to ₩11,038 million and ₩9,884 million, respectively.

20. Defined Benefit Liabilities, Continued

(9) As of December 31, 2016, the Group funded defined benefit obligations through insurance plans with Mirae Asset Life Insurance Co., Ltd. and other insurance companies. The Group's reasonable estimation of contribution to the plan assets for the year ending December 31, 2017 is ₩306,722 million under the assumption that the Group maintains the defined benefit plan.

(10) The sensitivity analysis of the defined benefit obligations as of December 31, 2016 to changes in the principal assumptions is as follows:

(In millions of won)

		Effects on defined benefit obligation	
		Increase of rate	**Decrease of rate**
Discount rate (if changed by 1%)	₩	(127,551)	149,704
Expected rate of salary increase (if changed by 1%)		149,789	(129,905)

The sensitivity analysis does not consider dispersion of all cash flows that are expected from the plan and provides approximate values of sensitivity for the assumptions used.

(11) Information about the maturity profile of the defined benefit obligation as of December 31, 2016 is as follows:

(In millions of won)

		2016				
		Less than 1 year	**1 - 5 years**	**5 - 10 years**	**10 - 20 years**	**Total**
Benefits paid	₩	35,432	250,323	660,051	2,703,924	3,649,730

Information about the maturity profile is based on undiscounted amount of defined benefit obligation and classified to employee's expected years of remaining services.

(12) The Group adopted defined contribution retirement pension for the employees subject to peak wage system. Contributions to defined contribution plans amounting to ₩12 million was recognized as cost of sales for the year ended December 31, 2016.

21. Deferred Income Tax

(1) Changes in deferred income tax assets and liabilities for the years ended December 31, 2016 and 2015 without taking into consideration the offsetting of balances within the same tax jurisdiction, are as follows:

(In millions of won)

		2016				
		January 1, 2016	**Profit or loss**	**Equity**	**Currency translation differences**	**Total**
Loss on valuation of inventories	₩	40,335	(23,388)	-	23	16,970
Valuation of equity-method investments		237,609	(23,641)	-	-	213,968
Accumulated depreciation		78,899	5,557	-	(1,262)	83,194
Defined benefits liabilities		92,709	(100,485)	68,171	-	60,395
Deemed investments and others		161,995	(4,547)	-	-	157,448
Available-for-sale financial assets		42,247	14	-	-	42,261
Employee benefits		24,660	3,138	-	-	27,798
Provisions		21,702	14,607	-	-	36,309
Advanced depreciation provision		(55,666)	-	-	-	(55,666)
Others		144,472	(95,648)	-	(5,096)	43,728
Deferred tax assets for temporary differences, net		788,962	(224,393)	68,171	(6,335)	626,405
Deferred tax assets not recognized		(597,648)	218,508	-	-	(379,140)
Tax credit carryforwards recognized		129,888	231,881	-	105	361,874
Tax loss carryforwards recognized		32,420	139,323	-	6,754	178,497
Deferred tax assets recognized	₩	353,622	365,319	68,171	524	787,636

21. Deferred Income Tax, Continued

(In millions of won)

		2015				
		January 1, 2016	**Profit or loss**	**Equity**	**Currency translation differences**	**Total**
Loss on valuation of inventories	₩	18,001	22,329	-	5	40,335
Valuation of equity-method investments		250,682	(17,550)	-	4,477	237,609
Accumulated depreciation		79,819	(757)	-	416	79,478
Defined benefits liabilities		89,725	2,968	-	16	92,709
Deemed investments and others		161,995	-	-	-	161,995
Available-for-sale financial assets		42,985	(738)	-	-	42,247
Employee benefits		23,801	859	-	-	24,660
Provisions		64,885	(43,183)	-	-	21,702
Advanced depreciation provision		(55,666)	-	-	-	(55,666)
Others		140,028	(5,953)	-	9,818	143,893
Deferred tax assets for temporary differences, net		816,255	(42,025)	-	14,732	788,962
Deferred tax assets not recognized		(750,313)	165,453	-	(12,788)	(597,648)
Tax credit carryforwards recognized		179,116	(49,440)	-	212	129,888
Tax loss carryforwards recognized		23,581	7,277	-	1,562	32,420
Deferred tax assets recognized	₩	268,639	81,265	-	3,718	353,622

21. Deferred Income Tax, Continued

(2) Deferred tax assets are recognized for deductible temporary differences, tax loss carryforwards and tax credit carryforwards to the extent that the realization of the related tax benefit through future taxable profits is probable. As of December 31, 2016 the Group did not recognize deferred tax assets of ₩379,140 million (2015: ₩597,648 million) associated with deductible temporary differences amounting to ₩1,567,088 million (2015: ₩2,469,626 million).

As of December 31, 2016, there were no unused tax credits carry- forwarded that were not recognized as deferred tax assets. (₩234,632 million in 2015).

22. Derivative Financial Instruments

(1) Details of derivative financial liabilities as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Current			
Interest rates swap	₩	288	-
Non-current			
Interest rates swap		-	683
	₩	288	683

(2) Details of gains and losses from derivative instruments for the years ended December 31, 2016 and 2015 are follows:

(In millions of won)

		2016			
		Gain on valuation	Loss on valuation	Gain on transaction	Loss on transaction
Interest rates swap	₩	395	-	1,077	1,525

(In millions of won)

		2015			
		Gain on valuation	Loss on valuation	Gain on transaction	Loss on transaction
Interest rates swap	₩	25	-	1,672	2,058

23. Capital Stock, Capital Surplus and Other Equity

(1) Details of capital stock, capital surplus and other equity as of December 31, 2015 and 2014 are as follows:

(In millions of won, thousands of shares)

		2016	2015
Authorized shares		9,000,000	9,000,000
Issued shares[1]		731,530	731,530
Capital stock:			
Common stock	₩	3,657,652	3,657,652
Capital surplus:			
Additional paid in capital		3,625,797	3,625,797
Others		517,939	517,939
		4,143,736	4,143,736
Other equity			
Acquisition cost of treasury shares	₩	(771,913)	(771,913)
Number of treasury shares		22,001	22,001

[1] As of December 31, 2016, the number of outstanding shares is 728,002 thousand shares, which differs from total issued shares due to the effect of stock retirement.

(2) Changes in number of outstanding shares as of December 31, 2016 and December 31, 2015 are as follows:

(In thousands of shares)

	2016	2015
Beginning	706,002	728,002
Acquisition of treasury shares	-	(22,000)
Ending	706,002	706,002

24. Accumulated Other Comprehensive Loss

(1) Details of accumulated other comprehensive loss as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Equity-accounted investees – share of other comprehensive income	₩	5,944	1,856
Foreign operations – foreign currency translation differences		(85,047)	(3,456)
	₩	(79,103)	(1,600)

(2) Changes in accumulated other comprehensive income (loss) for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016		
		Beginning	Change	Ending
Equity-accounted investees – share of other comprehensive income (loss)	₩	1,856	4,088	5,944
Foreign operations – foreign currency translation differences		(3,456)	(81,591)	(85,047)
	₩	(1,600)	(77,503)	(79,103)

(In millions of won)

		2015		
		Beginning	Change	Ending
Equity-accounted investees – share of other comprehensive income (loss)	₩	(4,631)	6,487	1,856
Foreign operations – foreign currency translation differences		(37,184)	33,728	(3,456)
	₩	(41,815)	40,215	(1,600)

25. Retained Earnings and Dividends

(1) Details of retained earnings as of December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Legal reserve[1]	₩	65,994	30,694
Discretionary reserve[2]		235,506	235,506
Unappropriated retained earnings		16,765,083	14,092,788
	₩	17,066,583	14,358,988

25. Retained Earnings and Dividends, Continued

[1] The Commercial Code of the Republic of Korea requires the Parent Company to appropriate for each financial year, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its issued capital stock. The reserve is not available for cash dividends payment, but may be transferred to capital stock or used to reduce accumulated deficit.

[2] Discretionary reserve is a reserve for technology development.

(2) Dividends of the Parent Company

(a) Details of dividends for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won and In thousands of shares)

		2016	2015
Type of dividends		Cash Dividends	Cash Dividends
Outstanding ordinary shares		706,002	706,002
Par value (in won)	₩	5,000	5,000
Dividend rate		12%	10%
Total dividends	₩	423,601	353,001

(b) Dividend payout ratio for the years ended December 31, 2016 and 2015 is as follows:

(In millions of won)

		2016	2015
Dividends	₩	423,601	353,001
Profit attributable to owners of the Parent Company		2,953,774	4,322,356
Dividend payout ratio		14.34%	8.17%

(c) Dividend yield ratio for the years ended December 31, 2016 and 2015 is as follows:

(In won)

		2016	2015
Dividends per share	₩	600	500
Closing stock price		44,700	30,750
Dividend yield ratio		1.34%	1.63%

26. Selling and Administrative Expenses

Selling and administrative expenses for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Selling and administrative expenses:			
Salaries	₩	348,571	385,281
Defined benefit plan related		30,135	25,499
Employee benefits		86,721	81,606
Commission		230,903	212,129
Depreciation		82,461	89,879
Amortization		282,392	239,227
Freight and custody charge		31,821	41,999
Legal cost		9,286	7,722
Rental		14,571	18,698
Taxes and dues		18,160	18,436
Training		19,503	20,314
Advertising		47,055	43,411
Utility		14,204	13,595
Supplies		56,067	51,630
Repair		6,185	9,629
Travel and transportation		10,459	12,854
Sales promotion cost		42,170	46,169
Product warranties		38,584	396
Other		20,131	7,747
		1,389,379	1,326,221
Research and development:			
Expenditure on research and development		2,096,733	1,969,588
Development cost capitalized		(352,022)	(349,264)
		1,744,711	1,620,324
	₩	3,134,090	2,946,545

27. Expenses by Nature

Nature of expenses for the years ended December 31, 2016 and 2015 is as follows:

(In millions of won)

		2016	2015[2]
Changes in finished goods and work-in-process	₩	(60,415)	(290,904)
Raw materials and consumables		3,386,007	3,503,378
Employee benefit		2,333,622	2,562,340
Depreciation and amortization		4,396,478	3,887,900
Royalty		229,422	210,902
Commission		985,869	895,991
Utilities		840,129	742,000
Repair		605,682	614,342
Outsourcing		785,755	982,457
Other		418,680	353,492
Total[1]	₩	13,921,229	13,461,898

[1] Total expenses consist of cost of sales and selling and administrative expenses.
[2] Expenses for the year ended December 31, 2015 were reclassified to conform with the classification for the year ended December 31, 2016.

28. Finance Income and Expenses

Finance income and expenses for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Finance income:			
Interest income	₩	34,174	40,715
Dividend income		18	1,265
Foreign exchange differences		762,747	766,981
Gain from derivative instruments		1,472	1,697
Gain on disposal of financial assets at fair value through profit or loss		15,348	33,814
Gain on valuation of financial assets at fair value through profit or loss		1,133	2,280
		814,892	846,752
Finance expenses:			
Interest expenses		120,122	118,505
Foreign exchange differences		724,681	709,350
Loss from derivative instruments		1,525	2,058
		846,328	829,913
Net finance income (expense)	₩	(31,436)	16,839

29. Other Income and Expenses

Other income for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Gain on disposal of property, plant and equipment	₩	13,167	16,554
Other		39,204	23,925
	₩	52,371	40,479

Other expense for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Loss on disposal of property, plant and equipment	₩	6,566	19,540
Loss on disposal of intangible assets		5,218	5,493
Loss on disposal of trade receivables		3,137	1,413
Loss on impairment of property, plant and equipment		3,746	22,055
Loss on impairment of intangible assets		98	1,771
Donation		51,629	55,131
Other		33,585	43,536
	₩	103,979	148,939

30. Income Tax Expense

(1) Income tax expense for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)		2016	2015
Current tax:			
Current tax on profits for the year	₩	543,594	1,026,791
Adjustments for the tax liability attributable to prior year, but recognized in current year		77,696	-
		621,290	1,026,791
Deferred tax:			
Origination and reversal of temporary differences, recognition of previously unrecognized tax credits and others		(365,319)	(81,265)
Income tax expense	₩	255,971	945,526

(2) The relationship between tax expense and accounting profit for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)		2016	2015
Profit before income tax	₩	3,216,454	5,269,121
Tax calculated at domestic tax rates applicable to profits in the respective countries		777,920	1,266,293
Tax effects of:			
Tax-exempt income		(2,669)	(24)
Non-deductible expenses		3,981	6,614
Tax credit		(101,843)	(104,425)
Change in unrecognized deferred tax assets		(453,140)	(252,088)
Adjustments for the tax liability attributable to prior year, but recognized in current year		77,696	-
Others		(45,974)	29,156
Income tax expense	₩	255,971	945,526

(3) Income taxes directly charged to equity for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)		2016	2015
Remeasurements of defined benefit liabilities	₩	68,171	-

31. Earnings per Share

(1) Basic earnings per share for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won, except for shares and per share information)

		2016	2015
Profit attributable to ordinary shareholders	₩	2,953,774	4,322,356
Weighted average number of outstanding ordinary shares[1]		706,001,795	720,143,294
Basic earnings per share	₩	4,184	6,002

[1] Weighted average number of outstanding ordinary shares is calculated as follows:

(In shares)

	2016	2015
Outstanding ordinary shares	728,002,365	728,001,795
Acquisition of treasury shares	(22,000,570)	(7,858,501)
Weighted average number of outstanding ordinary shares	706,001,795	720,143,294

(2) There is no potential ordinary shares with dilutive effect during the years ended December 31, 2016 and 2015. Accordingly, diluted earnings per share for the years ended December 31, 2016 and 2015 are the same as basic earnings per share.

32. Transactions with Related Parties and Others

(1) Details of related parties as of December 31, 2015 are as follows:

Type	Name of related parties
Associates	Stratio, Inc., Gemini Partners Pte. Ltd. TCL Fund
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.
Other related parties	SK Telecom Co., Ltd., which has significant influence over the Group, SK Holdings Co., Ltd., which has control over SK Telecom Co., Ltd., and their subsidiaries

(2) Significant transactions for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

	2016				
	Company	Operating revenue and others	Operating expense and others	Asset acquisition	Dividend income
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.	₩ 1,171	568,526	17,678	20,726
Other related parties	SK Telecom Co., Ltd.[1]	375	81,125	12,181	-
	SK Holdings Co., Ltd.[2]	907	133,441	146,823	-
	ESSENCORE Limited	571,639	-	-	-
	SK Engineering & Construction Co., Ltd.	2,512	21,838	659,312	-
	SK Energy Co., Ltd.	4,683	47,768	-	-
	SK Networks Co., Ltd.	-	4,747	-	-
	SK Materials Co., Ltd.	-	43,213	-	-
	SKC Solmics Co., Ltd.	-	34,433	432	-
	Chungcheong energy service Co., Ltd.	10	16,460	-	-
	HAPPYNARAE Co., Ltd.	30	173,948	13,595	-
	Others	432	125,662	17,528	-
		₩ 581,759	1,251,161	867,549	20,726

[1] Operating expense and others include dividend payments of ₩73,050 million.
[2] The Group entered into a contract with SK Holdings Co., Ltd. under which the Group pays royalty for the use of SK brand in proportion to sales amount. For the year ended December 31, 2016, royalty paid for the use of the SK brand amounted to ₩37,887 million.

32. Transactions with Related Parties and Others, Continued

(In millions of won)

		2015			
	Company	**Operating revenue and others**	**Operating expense and others**	**Asset acquisition**	**Dividend income**
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.	₩ 1,364	675,112	-	15,780
Other related parties	SK Telecom Co., Ltd.[1]	2,384	52,944	3,984	-
	SK Holdings Co., Ltd.[2,3]	199	81,997	76,398	-
	ESSENCORE Limited	147,992	-	-	-
	SK Engineering & Construction Co., Ltd.	1,923	1,378	1,084,554	-
	SK Energy Co., Ltd.	5,245	44,893	-	-
	SK Networks Co., Ltd.	-	3,627	-	-
	Ko-one energy service Co., Ltd.	-	2,685	7	-
	SKC Solmics Co., Ltd.	-	36,055	269	-
	Chungcheong energy service Co., Ltd.	-	24,292	-	-
	HAPPYNARAE Co., Ltd.	3,176	83,258	21,448	-
	Others	493	63,845	14,516	-
		₩ 162,776	1,070,086	1,201,176	15,780

[1] Operating expense and others include dividend payments of ₩43,830 million.
[2] The Group entered into a contract with SK Holdings Co., Ltd. under which the Group pays royalty for the use of SK brand in proportion to sales amount. For the year ended December 31, 2015, royalty paid for the use of the SK brand amounted to ₩34,597 million.
[3] Meanwhile, on August 1, 2015, SK C&C Co., Ltd. merged with SK Holdings Co., Ltd. and changed its name to SK Holdings Co., Ltd.

32. Transactions with Related Parties and Others, Continued

(3) The balances of significant transactions as of December 31, 2016 and 2015 are as follows:

(In millions of won)

	2016		
	Company	**Trade receivables and others**	**Other payables and others**
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.[1]	₩ -	99,328
Other related parties	SK Telecom Co., Ltd.	92	4,281
	SK Holdings Co., Ltd.	6,343	98,396
	ESSENCORE Limited	72,507	-
	SK Engineering & Construction Co., Ltd.	2,016	530,940
	SK Energy Co., Ltd.	417	6,544
	SK Materials Co., Ltd.	-	9,205
	SK Networks Co., Ltd.	-	1,143
	SKC Solmics Co., Ltd.	-	10,067
	Chungcheong energy service Co., Ltd.	-	1,804
	HAPPYNARAE Co., Ltd.	3	23,046
	Others	5	45,656
		₩ 81,383	830,410

32. Transactions with Related Parties and Others, Continued

(In millions of won)

	2015		
	Company	**Trade receivables and others**	**Other payables and others**
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.[1]	₩ 15,628	108,519
Other related parties	SK Telecom Co., Ltd.	155	2,797
	SK Holdings Co., Ltd.	103	98,798
	ESSENCORE Limited	142	-
	SK Engineering & Construction Co., Ltd.	1,049	236,875
	SK Energy Co., Ltd.	474	5,962
	SK Networks Co., Ltd.	-	954
	SKC Solmics Co., Ltd.	-	9,544
	Chungcheong energy service Co., Ltd.	-	1,425
	HAPPYNARAE Co., Ltd.	275	24,148
	Others	102	29,339
		₩ 17,928	518,361

[1] The Parent Company repaid remaining balance of borrowings from HITECH Semiconductor (Wuxi) Co., Ltd. in the amount of ₩22,552 million for the year ended December 31, 2015.

(4) Key management compensation

Key management includes the Parent Company's directors, members of the board of directors, chief financial officer, and internal auditors. The compensation paid to key management for employee services for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

Details	2016	2015
Salaries	₩ 68,504	60,024
Defined benefit plan related expenses	8,184	7,025
Others	21	15
	₩ 76,709	67,064

32. Transactions with Related Parties and Others, Continued

(5) The significant transactions between the Group and the companies that are in the same conglomerate group according to '*Fair Trade Lawt*' as of December 31, 2016 and 2015 are as follows. These entities are not related parties according to K-IFRS No. 1024, '*Related Party Disclosures*'.

(In millions of won)

	2016				
	Company	**Operating revenue and others**	**Operating expense and others**	**Asset acquisition**	**Dividend income**
Companies in the Conglomerate	SK Chemicals Co., Ltd.	₩ -	532	-	-

(In millions of won)

	2015			
	Company	**Operating revenue and others**	**Operating expense and others**	**Asset acquisition**
Companies in the Conglomerate	SK C&C Inc.[1]	₩ 232	34,144	67,569
	SKInfosec Co., Ltd.[1]	162	986	-
	SK Securities CO., Ltd.	5	-	-
	SK Chemicals Co., Ltd.	-	121	-
	Others	-	126	-
		₩ 399	35,377	67,569

[1] The details of significant transactions occurred before merge between SK C&C Inc. and SK Holdings Inc.

(6) The balances of significant transactions between the Group and the companies that are in the same conglomerate group designated by '*Fair Trade Law*'. The details of the balances as of December 31, 2016 and 2015 are as follows. These entities are not related parties according to K-IFRS No. 1024, '*Related Party Disclosures*'.

(In millions of won)

	2016		
	Company	**Trade receivables and others**	**Other payables and others**
Companies in the Conglomerate	SK Chemicals Co., Ltd.	₩ -	183

	2015		
	Company	**Trade receivables and others**	**Other payables and others**
Companies in the Conglomerate	SK Chemicals Co., Ltd.	₩ -	21

33. Commitments and Contingencies

(1) Significant pending litigations and claims of the Group as of December 31, 2016 are as follows:

(a) Lawsuit from Netlist, Inc.
Netlist, Inc. filed a lawsuit alleging infringement of multiple patents to the US District Court for the Central District of California, USA, on August 31, 2016 and to the US international Trade Commission on September 1, 2016 against SK Hynix, the Parent Company, and SK Hynix America Inc., SK Hynix memory solutions Inc., which are subsidiaries of the Parent Company. As of December 31, 2016, the patent infringement lawsuit filed by Netlist, Inc. in the US has not been finalized, and the final result cannot be predicted due to its early stage in the litigation.

(b) Other patent infringement claims and litigation
In addition to the above litigations, the Group has responded to various disputes related to intellectual property rights and has recognized a liability when it is probable that an outflow of resources will arise and a loss can be reliably estimated.

(2) Technology and patent license agreements
The Group has entered into a number of patent license agreements with several companies. The related royalties are paid on a lump-sum or running basis in accordance with the respective agreements. The lump-sum royalties are expensed over the contract period using the straight-line method.

(3) Contract for supply of industrial water
The Group has entered into a contract with Veolia Water Industrial Development Co., Ltd. ("VWID") under which the Group purchases industrial water from VWID by March 2018. According to the contract, the Group is obligated to pay base service charges which are predetermined and additional service charges which are variable according to the amount of water used.

(4) Post- process service contract with HITECH
The Group has entered into an agreement with HITECH to be provided with post-process service by HITECH. The conditions of the service provided includes package, package test, modules and others. According to the agreement, the Group is liable to guarantee a certain level of margin to HITECH.

(5) Assets provided as collateral
Details of assets provided as collateral as of December 31, 2016 are as follows:

(In millions of won)

		Book value	Pledged amount	Remark
Land	₩	44,561		
Buildings		103,977	1,609,053	Borrowings for equipment and others
Machinery		1,232,762		
	₩	1,381,300	1,609,053	

Other than the above assets provided as collateral, the finance lease assets of the Group are pledged as collateral for the finance lease liabilities in accordance with the finance lease contracts.

33. Commitments and Contingencies, Continued

(6) Financing agreements
Details of credit lines with financial institutions as of December 31, 2016 are as follows:

(In millions of won and millions of foreign currencies)

	Financial Institution	Commitment	Currency	Amount
The Parent Company	KEB Hana Bank and others	Import finance including usance	USD	275
		Export finance including bills bought	USD	350
		Comprehensive limit contract for import and export	USD	1,080
SK Hynix Semiconductor (China) Ltd. (SKHYCL)	Agricultural Bank of China and others	Import finance including usance	RMB	1,300
			USD	267
SK Hynix America Inc. (SKHYA) and other sales entities	Citibank and others	Accounts receivable factoring contracts which have no right to recourse	USD	315
Domestic subsidiaries	KEB Hana Bank	Export finance including bills bought	KRW	2,000
		Guarantee	KRW	1,000
		Agent contract for procurement payment	KRW	11,000

The Group has entered into trade receivables discounting agreements with several financial institutions. There were no outstanding discounted trade receivables as of December 31, 2016 (as of December 2015: ₩3,076 million). The Group is obliged to redeem discounted receivables to financial institutions in case of the default of the counterparties and accordingly, accounted for the above transactions as collateralized borrowings.

(7) Details of guarantees provided to others as of December 31, 2016 are as follows:

(In millions of won)

	Amount	Remark
Employees	₩ 8	Guarantees for employees' borrowings relating to employee stock ownership

(8) Capital commitments
As of December 31, 2016, the Group has ₩293,730 million (as of December 31, 2015: ₩300,041 million) of commitments in relation to the capital expenditures on fixed assets.

34. Cash Generated from Operating Activities

(1) Reconciliations between profit for the year and net cash inflow from operating activities for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Profit for the year	₩	2,960,483	4,323,595
Adjustment			
Income tax expense		255,971	945,526
Defined benefit plan related expenses		213,332	160,184
Depreciation		4,133,780	3,694,445
Depreciation of investment property		106	713
Amortization		322,569	258,078
Loss on impairment of property, plant and equipment		3,746	22,055
Loss on foreign currency translation		116,500	143,768
Interest expense		120,122	118,505
Gain on foreign currency translation		(106,840)	(58,658)
Interest income		(34,174)	(40,715)
Loss on derivative instruments, net		53	361
Gain on equity method investments, net		(22,752)	(24,642)
Others, net		(17,069)	(18,231)
Changes in operating assets and liabilities			
Decrease (increase) in trade receivables		(470,792)	1,260,172
Decrease in loans and other receivables		62,758	724,149
Increase in inventories		(110,769)	(414,830)
Increase in other assets		(55,760)	(177,316)
Decrease in trade payables		(208,439)	(156,074)
Decrease in other payables		(23,558)	(60,252)
Decrease in other non-trade payables		(328,871)	(147,392)
Increase (decrease) in provisions		17,521	(6,889)
Increase (decrease) in other liabilities		5,018	(29,327)
Payment of defined benefit liabilities		(18,514)	(6,392)
Contribution to plan assets		(327,640)	(153,566)
Cash generated from operating activities	₩	6,486,781	10,357,267

(2) Details of significant transactions without inflows and outflows of cash for the years ended December 31, 2016 and 2015 are as follows:

(In millions of won)

		2016	2015
Increase in other payables related to acquisition of property, plant and equipment	₩	224,412	-