LG Chem, Ltd. and Subsidiaries

Consolidated Financial Statements
December 31, 2012 and 2011

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Report of Independent Auditors

To the Board of Directors and Shareholders of
LG Chem, Ltd.

We have audited the accompanying consolidated statements of financial position of LG Chem, Ltd. and its subsidiaries (collectively the "Company") as of December 31, 2012 and 2011, and the related consolidated statements of income, comprehensive income, changes in equity and cash flows for the years then ended, expressed in Korean won. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We did not audit the financial statements of Ningbo LG Yongxing Chemical Co., Ltd. and certain other consolidated subsidiaries, whose financial statements represent 18% of the Company's consolidated total assets as of December 31, 2012 (2011: 19%), and represent 19% of the Company's consolidated total revenue for the year ended December 31, 2012 (2011: 19%). These financial statements were audited by other auditors whose reports have been furnished to us, and our opinion, insofar as it relates to the amounts included for these subsidiaries, is based solely on the reports of the other auditors.

We conducted our audits in accordance with auditing standards generally accepted in the Republic of Korea. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits and the reports of the other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the reports of other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of LG Chem, Ltd. and its subsidiaries as of December 31, 2012 and 2011, and their financial performance and cash flows for the years then ended, in conformity with International Financial Reporting Standards as adopted by the Republic of Korea ("Korean IFRS").

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Auditing standards and their application in practice vary among countries. The procedures and practices used in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries. Accordingly, this report is for use by those who are informed about Korean auditing standards and their application in practice.

Samil PricewaterhouseCoopers

Seoul, Korea
March 7, 2013

This report is effective as of March 7, 2013, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

LG Chem, Ltd. and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2012 and 2011

(in millions of Korean won)	**Notes**	**2012**	**2011**
Assets			
Current assets			
Cash and cash equivalents	3, 5, 6	720,767	1,379,379
Trade receivables	3, 5, 7, 33	3,131,051	3,117,239
Other receivables	3, 5, 7, 33	772,746	133,915
Prepaid income taxes		7,314	17,848
Other financial assets	3, 5, 8, 10	2,352	-
Other current assets	15	190,778	132,598
Inventories	11	2,627,930	2,475,233
Total current assets		7,452,938	7,256,212
Non-current assets			
Other receivables	3, 5, 7	20,718	33,657
Other financial assets	3, 5, 8, 9	21,811	5,973
Investments in associates and joint ventures	1, 12, 35	405,068	328,408
Deferred income tax assets	30	57,525	32,211
Property, plant and equipment	13	8,348,178	7,375,955
Intangible assets	14	233,893	207,172
Other non-current assets	15	41,022	45,966
Total non-current assets		9,128,215	8,029,342
Total assets		16,581,153	15,285,554
Liabilities and equity			
Liabilities			
Current liabilities			
Trade payables	3, 5, 33	1,522,395	1,503,106
Other payables	3, 5, 33	766,231	950,168
Borrowings	3, 5, 16	1,751,781	1,837,637
Other financial liabilities	3, 5, 8, 10	154	536
Provisions	17	1,943	7,229
Current income tax liabilities	30	142,901	289,460
Other current liabilities	5, 19	152,607	135,768
Total current liabilities		4,338,012	4,723,904
Non-current liabilities			
Other payables	3,5	15,070	41,329
Borrowings	3,5,16	1,195,126	689,081
Other financial liabilities	3, 5, 8, 10	-	146
Provisions	17	11,263	2,314
Defined benefit liability	18	105,901	60,777
Deferred income tax liabilities	30	150,426	60,324
Total non-current liabilities		1,477,786	853,971
Total liabilities		5,815,798	5,577,875

LG Chem, Ltd. and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2012 and 2011

(in millions of Korean won)	**Notes**	**2012**	**2011**
Equity			
Equity attributable to owners of the parent			
Share capital	1, 21	369,500	369,500
Capital surplus		1,157,772	1,157,772
Other components of equity	23	(15,699)	(15,699)
Accumulated other comprehensive income		(86,977)	(11,398)
Retained earnings	22	9,204,703	8,053,307
		10,629,299	9,553,482
Non-controlling interests		136,056	154,197
Total equity		10,765,355	9,707,679
Total liabilities and equity		16,581,153	15,285,554

The accompanying notes are an integral part of these consolidated financial statements.

LG Chem, Ltd. and Subsidiaries
Consolidated Statements of Income
Years Ended December 31, 2012 and 2011

(in millions of Korean won, except per share amounts)	**Notes**	**2012**	**2011**
Revenue	33, 35	23,263,019	22,675,593
Cost of sales	25,33	(19,955,076)	(18,594,862)
Gross profit		3,307,943	4,080,731
Selling, general and administrative expenses	24, 25, 33	(1,397,620)	(1,261,973)
Operating profit	35	1,910,323	2,818,758
Finance income	5, 27, 35	99,990	194,859
Finance expenses	5, 27, 35	(153,938)	(217,909)
Share of profit of associates and joint ventures	12, 35	12,420	15,266
Other non-operating income	5, 28, 35	371,853	452,744
Other non-operating expenses	5, 29, 35	(360,150)	(467,120)
Profit before income tax	34, 35	1,880,498	2,796,598
Income tax expense	30	(374,153)	(626,928)
Profit for the year		1,506,345	2,169,670
Attributable to:			
Owners of the parent		1,494,487	2,137,926
Non-controlling interests		11,858	31,744
Earnings per share for profit attributable to owners of the parent (in won)	31		
Basic and diluted earnings per ordinary share for profit for the year		20,318	29,069
Basic and diluted earnings per preferred share for profit for the year		20,368	29,118

The accompanying notes are an integral part of these consolidated financial statements.

LG Chem, Ltd. and Subsidiaries
Consolidated Statements of Comprehensive Income
Years Ended December 31, 2012 and 2011

(in millions of Korean won)	Notes	2012	2011
Profit for the year		1,506,345	2,169,670
Other comprehensive income			
Actuarial loss on defined benefit liability	18	(62,237)	(53,541)
Currency translation differences		(74,458)	49,572
Cash flow hedges		527	4,682
Others		(9,853)	5,658
Income tax effect relating to components of other comprehensive income		15,261	11,680
Other comprehensive income for the year, net of tax		(130,760)	18,051
Total comprehensive income for the year		1,375,585	2,187,721
Attributable to:			
Owners of the parent		1,371,658	2,147,961
Non-controlling interests		3,927	39,760

The accompanying notes are an integral part of these consolidated financial statements.

LG Chem, Ltd. and Subsidiaries
Consolidated Statements of Changes in Equity
Years Ended December 31, 2012 and 2011

(in millions of Korean won)		Attributable to owners of the parent							
	Notes	**Share capital**	**Capital surplus**	**Other components of equity**	**Accumulated other comprehensive income**	**Retained earnings**	**Total**	**Non-controlling interests**	**Total equity**
Balance at January 1, 2011		369,500	1,157,772	(15,699)	(62,017)	6,253,917	7,703,473	140,362	7,843,835
Comprehensive income:									
Profit for the year		-	-	-	-	2,137,926	2,137,926	31,744	2,169,670
Actuarial loss on defined benefit liability	18	-	-	-	-	(40,584)	(40,584)	-	(40,584)
Currency translation differences		-	-	-	41,232	-	41,232	8,016	49,248
Cash flow hedges		-	-	-	3,735	-	3,735	-	3,735
Others		-	-	-	5,652	-	5,652	-	5,652
Total comprehensive income		-	-	-	50,619	2,097,342	2,147,961	39,760	2,187,721
Transactions with owners:									
Dividends	32	-	-	-	-	(294,520)	(294,520)	(25,225)	(319,745)
Others		-	-	-	-	(3,432)	(3,432)	(700)	(4,132)
Total transactions with owners		-	-	-	-	(297,952)	(297,952)	(25,925)	(323,877)
Balance at December 31, 2011		369,500	1,157,772	(15,699)	(11,398)	8,053,307	9,553,482	154,197	9,707,679
Balance at January 1, 2012		369,500	1,157,772	(15,699)	(11,398)	8,053,307	9,553,482	154,197	9,707,679
Comprehensive income:									
Profit for the year		-	-	-	-	1,494,487	1,494,487	11,858	1,506,345
Actuarial loss on defined benefit liability	18	-	-	-	-	(47,175)	(47,175)	-	(47,175)
Currency translation differences		-	-	-	(66,242)	-	(66,242)	(7,931)	(74,173)
Cash flow hedges		-	-	-	399	-	399	-	399
Others		-	-	-	(9,736)	(75)	(9,811)	-	(9,811)
Total comprehensive income		-	-	-	(75,579)	1,447,237	1,371,658	3,927	1,375,585
Transactions with owners:									
Dividends	32	-	-	-	-	(294,520)	(294,520)	(21,627)	(316,147)
Others		-	-	-	-	(1,321)	(1,321)	(441)	(1,762)
Total transactions with owners		-	-	-	-	(295,841)	(295,841)	(22,068)	(317,909)
Balance at December 31, 2012		369,500	1,157,772	(15,699)	(86,977)	9,204,703	10,629,299	136,056	10,765,355

The accompanying notes are an integral part of these consolidated financial statements.

LG Chem, Ltd. and Subsidiaries
Consolidated Statements of Cash Flows
Years Ended December 31, 2012 and 2011

(in millions of Korean won)	Notes	2012	2011
Cash flows from operating activities			
Cash generated from operations	34	2,270,359	2,985,906
Interest received		25,699	29,185
Interest paid		(99,505)	(88,036)
Dividends received		1,560	1,860
Income taxes paid		(432,404)	(688,576)
Net cash generated from operating activities		1,765,709	2,240,339
Cash flows from investing activities			
Decrease in other receivables		178,411	103,562
Decrease in non-current other receivables		381	12,651
Decrease in non-current other financial assets		-	13
Proceeds from disposal of property, plant and equipment		9,267	4,917
Proceeds from disposal of intangible assets		1,999	-
Increase in other receivables		(812,724)	(110,591)
Increase in non-current other receivables		-	(25,297)
Increase in non-current other financial assets		(15,850)	(1,817)
Acquisition of investments in associates and joint ventures		(75,565)	(41,381)
Acquisition of property, plant and equipment		(1,907,427)	(2,195,418)
Acquisition of intangible assets		(33,100)	(27,089)
Net cash used in investing activities		(2,654,608)	(2,280,450)
Cash flows from financing activities			
Proceeds from borrowings		1,013,942	1,376,356
Repayments of borrowings		(451,684)	(987,321)
Dividends paid		(316,159)	(318,645)
Payment on settlement of derivatives		-	(7,378)
Net cash provided by financing activities		246,099	63,012
Net increase(decrease) in cash and cash equivalents		(642,800)	22,901
Cash and cash equivalents at the beginning of year		1,379,379	1,368,034
Exchange losses on cash and cash equivalents		(15,812)	(11,556)
Cash and cash equivalents at the end of year		720,767	1,379,379

The accompanying notes are an integral part of these consolidated financial statements.

1. General information

General information about LG Chem, Ltd. (the “Parent Company”) and its subsidiaries (collectively “the Company”) is as follows:

1.1 The Parent Company

The Parent Company was spun off on April 1, 2001, from LG Chem Investment Ltd. (formerly LG Chemical Ltd.), to engage in the petrochemicals, industrial materials, and information and electronic materials business. It completed its registration process on April 3, 2001. The Parent Company’s shares have been listed on the Korea Stock Exchange since April 25, 2001.

The Parent Company merged with LG Daesan Petrochemical Ltd. on January 1, 2006, and with LG Petrochemical Co., Ltd. on November 1, 2007. The Parent Company also spun off its Industrial Materials segment to LG Hausys, Ltd. on April 1, 2009, and merged with LG Polycarbonate Ltd. on April 1, 2011.

As of December 31, 2012, the Parent Company has its manufacturing facilities in Yeosu, Daesan, Ochang, Cheongju, Ulsan, Naju, Iksan, Paju and Gimcheon.

The Parent Company is authorized to issue 292 million shares of ordinary shares with par value of ₩5,000 per share. As of December 31, 2012, the Parent Company has issued 66,271,100 ordinary shares (₩331,356 million) and 7,628,921 preferred shares (₩38,144 million). The largest shareholder of the Parent Company is LG Corp., which owns 33.53% of the Parent Company’s ordinary shares. Preferred shareholders have no voting rights but are entitled to receive dividends at a rate 1% more than those paid to ordinary shareholders.

1.2 Business overview

The Company is engaged in petrochemicals business, information and electronic materials, and batteries business. The petrochemical business includes production of olefin petrochemicals such as ethylene, propylene, butadiene from Naphtha and aromatic petrochemicals such as benzene, xylene, toluene, and production of synthetic resin, synthetic rubber, and synthetic components from olefin and aromatic petrochemicals. This business is regarded as important as it provides primary materials to other industries and bears characteristics of large-volume process industry. The Company’s major products are ethylene, polyethylene, propylene, synthetic rubber, polyvinyl chloride (PVC), plasticizer, acrylate, acrylonitrile -butadiene-styrene (ABS), epoxy resin, and others.

The information and electronic materials business manufactures and supplies electronic materials such as optical material including 3D FPR, sensitized material, OLED-related materials and PCB materials. The Company is also preparing the mass production of Liquid Crystal Display Glass based on the source technology licensed from SCHOTT Solar, Inc., a Germany-based company, combining with its high-quality production techniques.

The batteries business manufactures and supplies batteries ranging from small batteries for portable media devices such as laptop computers, camcorders, mobiles and PDA to battery for electric vehicles and batteries for energy storage system. Currently, the battery division for electronic vehicles is in its position to supply or get ready to supply to major domestic/foreign car manufacturing companies. To maintain its dominant position in the North American battery market, the Company is currently constructing new manufacturing facilities in North America which will manufacture batteries for hybrid electric vehicle / electric vehicle.

1.3 Consolidated subsidiaries, associates and joint ventures

	December 31, 2012			
	Percentage of ownership (%)	Business location	Fiscal year-end	Business activities
Consolidated subsidiaries				
Tianjin LG Dagu Chemical Co.,Ltd.	75	China	December 31	PVC manufacturing and sales
Ningbo LG Yongxing Chemical Co.,Ltd.[1]	75	China	December 31	ABS/SBL manufacturing and sales
LG Chem HK Ltd.	100	Hong Kong	December 31	Sales and trading
LG Chem America, Inc.	100	USA	December 31	Sales and trading
LG Chemical India Pvt. Ltd. [2]	100	India	December 31	Syntetic resins manufacturing and sales
LG Polymer India Pvt. Ltd. [2]	100	India	December 31	PS manufacturing
LG Chemical (Guangzhou) Engineering Plastics Co.,Ltd.	100	China	December 31	EP manufacturing and sales
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	100	China	December 31	Battery/ Polarizer Manufacturing and sales
LG Chem (Taiwan), Ltd.	100	Taiwan	December 31	Polarizer manufacturing and sales
LG Chem Display Materials (Beijing) Co.,Ltd.	100	China	December 31	Polarizer manufacturing
Tianjin LG Bohai Chemical Co.,Ltd.	75	China	December 31	VCM, EDC manufacturing and sales
LG Chem (China) Investment Co.,Ltd.	100	China	December 31	China holding company
LG Chem (Tianjin) Engineering Plastics Co.,Ltd.	100	China	December 31	ABS/EP manufacturing and sales
LG Chem Europe GmbH	100	Germany	December 31	Sales and trading
LG Chem Poland Sp. z.o.o	100	Poland	December 31	Polarizer manufacturing
LG Chem Michigan Inc.	100	USA	December 31	Medium&Large sized battery research and manufacturing
LG Chem Power Inc.	100	USA	December 31	Medium&Large sized battery research
Tianjin LG Botian Chemical Co.,Ltd.	56	China	December 31	SBS manufacturing and sales
Ningbo Zhenhai LG Yongxing trade Co.,Ltd. [1]	100	China	December 31	ABS sales
Associates and Joint ventures				
LG Vina Chemical Co.,Ltd.	40	Vietnam	December 31	DOP production and sales
HL Greenpower Co.,Ltd.	49	Korea	December 31	Battery manufacturing for electric automobile
LG Holdings (HK) Ltd.	26	Hong Kong	December 31	Sales and trading
TECWIN Co.,Ltd.	20	Korea	December 31	Environment solution and Construction of chemical plant
SEETEC Co.,Ltd.	50	Korea	December 31	Plant utility and Distribution, research assistance service
LG Chem Brasil INTERMEDICAO DE NEGOCIOS DO SETOR QUIMICO LTDA. [3]	100	Brazil	December 31	Sales and trading
CNOOC & LG Petrochemicals Co.,Ltd.	50	China	December 31	ABS manufacturing and sales
KLPE Limited Liability Partnership [4]	50	Kazakhstan	December 31	PE manufacturing and sales

[1] As of December 31, 2012, Ningbo LG Yongxing Chemical Co.,Ltd. owns 100% of Ningbo Zhenhai LG Yongxing Trade Co.,Ltd. shares. During the year, the Company disposed all of LG Yongxing International Trading Co.,Ltd. shares.

[2] As of December 31, 2012, LG Chemical India Pvt. Ltd. owns 100% of LG Polymer India Pvt. Ltd. shares.

[3] Classified as an investment in associate due to its small scale.

[4] During the year, Ammonia Production and Distribution Limited Liability Partnership changed its name to KLPE Limited Liability Partnership.

1.4 Summarized financial information of subsidiaries, associates and joint ventures

Summarized financial information(before elimination of intercompany transactions) of subsidiaries, associates and joint ventures is as follows:

(in millions of Korean won)	December 31, 2012				
	Assets	**Liabilities**	**Equity**	**Revenue**	**Profit(loss) for the year**
Consolidated subsidiaries					
Tianjin LG Dagu Chemical Co.,Ltd.	206,570	125,990	80,580	423,628	(6,292)
Ningbo LG Yongxing Chemical Co.,Ltd.	753,128	426,398	326,730	1,862,728	56,436
LG Chem HK Ltd.	150,860	136,736	14,124	615,340	1,453
LG Chem America, Inc.	124,318	113,329	10,989	576,090	2,233
LG Chemical India Pvt. Ltd.	32,577	117	32,460	1,824	134
LG Polymer India Pvt. Ltd.	89,400	40,331	49,069	214,108	6,545
LG Chemical (Guangzhou) Engineering Plastics Co.,Ltd.	81,606	43,177	38,429	145,145	4,134
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	1,158,794	706,676	452,118	1,587,822	38,334
LG Chem (Taiwan), Ltd.	153,824	97,504	56,320	308,017	6,777
LG Chem Display Materials (Beijing) Co.,Ltd.	22,583	1,756	20,827	15,885	1,710
Tianjin LG Bohai Chemical Co.,Ltd.	397,646	177,923	219,723	484,948	11,862
LG Chem (China) Investment Co.,Ltd.	86,121	7,130	78,991	32,005	4,067
LG Chem (Tianjin) Engineering Plastics Co.,Ltd.	76,712	44,679	32,033	113,645	4,474
LG Chem Europe GmbH	57,335	46,442	10,893	159,585	3,470
LG Chem Poland Sp. z.o.o	30,400	16,392	14,008	32,455	(3,199)
LG Chem Michigan Inc.	163,941	122,925	41,016	-	(8,554)
LG Chem Power Inc.	15,673	15,599	74	21,684	(2,227)
Tianjin LG Botian Chemical Co.,Ltd.	83,719	86,961	(3,242)	162,216	(10,235)
Ningbo Zhenhai LG Yongxing trade Co.,Ltd.	2,356	1,025	1,331	14,272	150
Associates and joint ventures					
LG Vina chemical Co.,Ltd.	26,357	17,169	9,188	80,224	3,271
HL Greenpower Co.,Ltd.	93,676	61,925	31,751	107,647	2,686
LG Holdings (HK) Ltd.	374,780	151,013	223,767	40,267	8,454
TECWIN Co.,Ltd.	51,890	24,790	27,100	99,792	3,780
SEETEC Co.,Ltd.	373,833	40,532	333,301	488,218	12,436
LG Chem Brasil INTERMEDICAO DE NEGOCIOS DO SETOR QUIMICO LTDA.	361	217	144	1,375	55
CNOOC & LG Petrochemicals Co.,Ltd.	90,572	12,085	78,487	-	(1,260)
KLPE Limited Liability Partnership	141,258	485	140,773	-	(1,792)

(in millions of Korean won)	December 31, 2011				
	Assets	**Liabilities**	**Equity**	**Revenue**	**Profit(loss) for the year**
Consolidated subsidiaries					
Tianjin LG Dagu Chemical Co.,Ltd.	211,132	119,098	92,034	483,857	(2,074)
Ningbo LG Yongxing Chemical Co.,Ltd.	847,188	486,969	360,219	1,791,155	95,976
LG Chem HK Ltd.	111,387	97,657	13,730	593,380	1,036
LG Chem America, Inc.	106,447	96,887	9,560	506,985	2,140
LG Chemical India Pvt. Ltd.	32,533	72	32,461	1,520	3,129
LG Polymer India Pvt. Ltd.	103,899	55,984	47,915	195,185	5,165
LG Chemical (Guangzhou) Engineering Plastics Co., Ltd.	82,324	45,698	36,626	153,713	2,191
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	914,327	529,565	384,762	1,250,442	80,491
LG Chem (Taiwan), Ltd.	147,635	94,963	52,672	396,461	14,918
LG Chem Display Materials (Beijing) Co.,Ltd.	21,469	2,038	19,431	16,442	3,027
Tianjin LG Bohai Chemical Co.,Ltd.	410,685	173,645	237,040	516,667	55,414
LG Chem (China) Investment Co.,Ltd.	94,865	24,006	70,859	23,056	(64)
LG Chem (Tianjin) Engineering Plastics Co.,Ltd.	66,563	37,032	29,531	104,465	1,546
LG Chem Europe GmbH	43,089	35,123	7,966	130,066	1,492
LG Chem Poland Sp. z.o.o	29,494	12,726	16,768	14,985	1,232
LG Chem Michigan Inc.	167,949	114,945	53,004	500	(1,735)
LG Chem Power Inc.	14,766	12,403	2,363	24,803	(7,236)
Tianjin LG Botian Chemical Co.,Ltd.	86,557	79,684	6,873	125,720	(12,981)
Ningbo Zhenhai LG Yongxing trade Co.,Ltd.	3,709	2,450	1,259	24,877	328
Associates and joint ventures					
LG Vina chemical Co.,Ltd	23,553	13,778	9,775	83,647	3,269
HL Greenpower Co.,Ltd.	46,963	17,936	29,027	60,506	1,872
LG Holdings (HK) Ltd.	407,284	177,950	229,334	35,315	18,165
TECWIN Co.,Ltd.	58,243	35,516	22,727	89,763	3,496
SEETEC Co.,Ltd.	368,722	47,671	321,051	441,443	13,948
LG Chem Brasil INTERMEDICAO DE NEGOCIOS DO SETOR QUIMICO LTDA.	190	69	121	1,416	11
LG Yongxing International Trading Co.,Ltd	176	11	165	-	(5)
CNOOC & LG Petrochemicals Co.,Ltd.	84,677	1,016	83,661	-	(3,848)
KLPE Limited Liability Partnership	1	-	1	-	-

2. Summary of significant accounting policies

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

2. 1 Basis of preparation

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

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

The Company's financial statements for the annual period beginning on January 1, 2010, have been prepared in accordance with Korean IFRS. These are the standards, subsequent amendments and related interpretations issued by the International Accounting Standards Board ("IASB") that have been adopted by the Republic of Korea.

The preparation of the consolidated financial statements requires the use of certain critical accounting estimates. It also requires management to exercise judgment in the process of applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 4.

2. 2 Changes in accounting policy and disclosures

(1) New and amended standards adopted by the Company

The Company changed its accounting policy to present the operating income after deducting cost of sales, and selling and administrative expenses from revenue, in accordance with the amendment of Korean IFRS 1001, *Presentation of Financial Statements.*

The Company applies the accounting policy retroactively in accordance with the amended standards and the comparative consolidated statement of the comprehensive income is restated by reflecting adjustments resulting from the retrospective application. As a result of the changes in the accounting policy, other operating income and expenses of ₩371,520 million and ₩335,824 million, respectively, for the year ended December 31, 2012 (2011: ₩452,744 million and ₩436,078 million, respectively), which include gain or loss on disposal of property, plant and equipment and others, classified as operating profit under the previous standard, were excluded from the operating profit. Consequently, operating profit for the years ended December 31, 2012 and 2011, was lower by ₩35,696 million and ₩16,666 million, respectively, as compared to the amounts under the previous standard. However, there is no material impact on net income and earnings per share for the years ended December 31, 2012 and 2011.

(2) New standards and interpretations not yet adopted

New standards, amendments and interpretations issued but not effective for the financial year beginning January 1, 2012, and not early adopted by the Company are as follows:

- Amendment of Korean IFRS 1001, *Presentation of Financial Statements*

Korean-IFRS 1001, *Presentation of Financial Statements*, requires other comprehensive income items to be presented into two groups on the basis of whether they are potentially reclassifiable to profit or loss subsequently. This is effective for annual periods beginning on or after July 1, 2012, with early adoption permitted. The Company expects that the application of this amendment would not have a material impact on its consolidated financial statements.

- Amendments to Korean IFRS 1019, *Employee Benefits*

According to the amendments to Korean IFRS 1019, *Employee Benefits*, the use of a 'corridor' approach is no longer permitted, and therefore all actuarial gains and losses incurred are immediately recognized in other comprehensive income. All past service costs incurred from changes in pension plan are immediately recognized, and expected returns on interest costs and plan assets that used to be separately calculated are now changed to calculating net interest expense (income) by applying discount rate used in measuring defined benefit obligation in net defined benefit liabilities (assets). This amendment will be effective for annual periods beginning on or after January 1, 2013, and the Company expects that the application of this enactment would not have a material impact on its consolidated financial statements.

- Enactment of Korean IFRS 1113, *Fair Value Measurement*

Korean IFRS 1113, *Fair Value Measurement*, aims to improve consistency and reduce complexity by providing a precise definition of fair value and a single source of fair value measurement and disclosure requirements for use across Korean IFRSs. Korean IFRS 1113 does not extend the use of fair value accounting but provides guidance on how it should be applied where its use is already required or permitted by other standards within the Korean IFRSs. This amendment will be effective for annual periods beginning on or after January 1, 2013, and the Company expects that the application of this enactment would not have a material impact on its consolidated financial statements.

- Enactment of Korean IFRS 1110, *Consolidated Financial Statements*

Korean IFRS 1110, Consolidated Financial Statements, builds on existing principles by identifying the concept of control as the determining factor in whether an entity should be included in the consolidated financial statements of the Parent Company. An investor 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. The standard provides additional guidance to assist in the determination of control where this is difficult to assess. This enactment will be effective for annual periods beginning on or after January 1, 2013, and the Company is reviewing the impact of this standard.

- Enactment of Korean IFRS 1111, *Joint Arrangements*

Korean IFRS 1111, *Joint Arrangements*, aims to reflect the substance of joint arrangements by focusing on the contractual rights and obligations that each party to the arrangement has rather than its legal form. Joint arrangements are classified as either joint operations or joint ventures. A joint operation is when joint operators have rights to the assets and obligations for the liabilities, and account for the assets, liabilities, revenues and expenses, while parties to the joint venture have rights to the net assets of the arrangement and account for their interest in the joint venture using the equity method. This enactment will be effective for annual periods beginning on or after January 1, 2013, and the Company is reviewing the impact of this standard.

- Enactment of Korean IFRS 1112, *Disclosures of Interests in Other Entities*

Korean IFRS 1112, *Disclosures of Interests in Other Entities*, provides the disclosure requirements for all forms of interests in other entities, including a subsidiary, a joint arrangement, an associate, a consolidated structured entity and an unconsolidated structured entity. This enactment will be effective for annual periods beginning on or after January 1, 2013, and the Company is reviewing the impact of this standard.

2.3 Consolidation

The Company has prepared the consolidated financial statements in accordance with Korean IFRS 1027, 'Consolidated and separate financial statements'.

(1) Subsidiaries

Subsidiaries are all entities (including special purpose entities) over which the Company has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the Company controls another company. Subsidiaries are fully consolidated from the date on which control is transferred to the Company. They are de-consolidated from the date that control ceases.

The Company applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, liabilities incurred to the former owners of the acquiree and the equity interests issued by the Company. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The Company recognizes any non-controlling interest in the acquire on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets.

Acquisition-related costs are expensed as incurred.

If the business combination is achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date and the resulting gain or loss is recognized in profit or loss.

Any contingent consideration to be transferred by the Company is recognized at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognized in accordance with Korean IFRS 1039, either in profit or loss or as a change to other comprehensive income. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity.

Goodwill is initially measured as the excess of the aggregate of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree held by the Company over the fair value of the net identifiable assets acquired and liabilities assumed. If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognized in profit or loss.

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

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

Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions, that is, as transactions with the owners in their capacity as owners. The difference between the fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

(3) Disposal of subsidiaries

When the Company ceases to have control any retained interest in the entity is re-measured to its fair value at the date when control is lost, with the change in carrying amount recognized in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of that entity are accounted for as if the Company had directly disposed of the related assets or liabilities. This may mean that amounts previously recognized in other comprehensive income are reclassified to profit or loss.

(4) Associates

Associates are all entities over which the Company has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting and are initially recognized at cost. The Company's investment in associates includes goodwill identified on acquisition, net of any accumulated impairment loss (Note 2.17).

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognized in other comprehensive income is reclassified to profit or loss where appropriate.

The Company's share of its associates' post-acquisition profits or losses is recognized in the statement of income, and its share of post-acquisition movements in other comprehensive income is recognized in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the Company's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Company does not recognize further losses, unless it has incurred obligations or made payments on behalf of the associate.

The Company determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the Compnay calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognizes the amount as 'impairment loss on investment in an associate' in the statement of income.

Unrealized gains on transactions between the Company and its associates are eliminated to the extent of the Company's interest in the associates. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with policies adopted by the Company. Dilution gains and losses arising in investments in associates are recognized in the statement of income.

(5) Joint venture

A joint venture is a contractual arrangement whereby two or more parties (co-venturers) undertake an economic activity that is subject to joint control. As with associates, investments in jointly controlled entities are accounted for using the equity method of accounting and are initially recognized at cost. The Company's investment in jointly controlled entities includes goodwill identified on acquisition, net of any accumulated impairment loss (Note 2.16). The Company does not recognize its share of profits or losses from the joint venture that result from the Company's purchase of assets from the joint venture until it re-sells the assets to an independent party. However, a loss on the transaction is recognized immediately if the loss provides evidence of a reduction in the net realizable value of current assets, or an impairment loss.

2.4 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Corporate Management Committee that makes strategic decisions.

2.5 Foreign currency translation

(1) Functional and presentation currency

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

(2) Transactions and balances

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

Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented in the statement of income within 'finance income or expenses'. All other foreign exchange gains and losses are presented in the statement of income within 'other non-operating income or expenses'.

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

Translation differences on non-monetary financial assets and liabilities, such as equities held at fair value through profit or loss, are recognized in the statement of income as part of the fair value gain or loss. Translation differences on non-monetary financial assets, such as equities classified as available-for-sale, are included in other comprehensive income.

(3) Consolidated companies

The results and financial position of all consolidated entities that have a functional currency different from the presentation currency are translated as follows:

i) Assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
ii) Income and expenses for each statement of income are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of the transactions); and
iii) All resulting exchange differences are recognized in other comprehensive income.

Exchange differences arising from the translation of the net investment in foreign operations, and of borrowings and other currency instruments designated as hedges of such investments, are recognized in other comprehensive income. When foreign operations are wholly or partially sold, exchange differences recognized in equity are transferred to profit or loss in the statement of income. When the Company ceases to control the subsidiary, exchange differences that were recorded in equity are recognized in the statement of income as part of the gain or loss on sale.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

2.6 Cash and cash equivalents

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

2.7 Financial instruments

2.7.1 Classification

The Company classifies its financial instruments in the following categories: financial assets and liabilities at fair value through profit or loss, loans and receivables, available-for-sale financial assets, held-to-maturity investments, and other financial liabilities at amortized cost. The classification depends on the purpose for which the financial instruments were acquired and the nature of the instruments. Management determines the classification of its financial instruments at initial recognition.

(1) Financial assets and liabilities at fair value through profit or loss

Financial assets and liabilities at fair value through profit or loss are financial instruments held for trading. Financial assets and liabilities are classified in this category if acquired or incurred principally for the purpose of selling or repurchasing it in the near term. Derivatives including bifurcated derivatives from financial instruments containing embedded derivatives are also categorized as held-for-trading unless they are designated as hedges. The Company classifies non-derivative financial assets and liabilities as current assets ad current liabilities.

(2) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for maturities greater than 12 months after the end of the reporting period. These are classified as non-current assets. The Company's loans and receivables are presented as 'cash and cash equivalents', 'trade receivables' and 'other receivables' in the statement of financial position.

(3) Held-to-maturity financial assets

Held-to-maturity financial assets are non-derivative financial assets with fixed or determinable payments and fixed maturities that the Company's management has the positive intention and ability to hold to maturity. Held-to-maturity financial assets are included in non-current assets, except for those with maturities less than 12 months from the end of the reporting period, which are classified as current assets.

(4) Available-for-sale financial assets

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless the investment matures or management intends to dispose of it within 12 months of the end of the reporting period. The Company's available-for-sale financial assets are included in 'other financial assets' in the statement of financial position.

(5) Financial liabilities measured at amortized cost

The Company classifies non-derivative financial liabilities, except for financial liabilities at fair value through profit or loss, financial guarantee contracts and financial assets that arise when a transfer of financial assets does not qualify for derecognition, as financial liabilities carried at amortized cost and as 'trade payables', 'borrowings', and 'other payables' in the statement of financial position. Financial liabilities carried at amortized cost are included in non-current liabilities, except for liabilities with maturities within 12 months after the end of the reporting period, which are classified as current liabilities.

2.7.2 Recognition and measurement

Regular purchases and sales of financial assets are recognized on the trade date, the date on which the Company commits to purchase or sell the asset. Investments are initially recognized at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Financial assets carried at fair value through profit or loss is initially recognized at fair value, and transaction costs are expensed in the statement of income. Financial assets are derecognized when the rights to receive cash flows from the investments have been expired or have been transferred and the Company has transferred substantially all risks and rewards of ownership. Available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. Loans and receivables are subsequently carried at amortized cost using the effective interest method.

Gains or losses arising from changes in the fair value of the financial assets at fair value through profit or loss category are presented in the statement of income within 'finance income or expenses' in the period in which they arise. Dividend income from financial assets at fair value through profit or loss is recognized in the statement of income when the Company's right to receive payments is established.

Changes in the fair value of monetary and non-monetary securities classified as available-for-sale financial assets are recognized in 'other comprehensive income'. When securities classified as available-for-sale financial assets are sold or impaired, the accumulated fair value adjustments recognized in equity are recognized in the statement of income.

Interest on available-for-sale financial assets calculated using the effective interest method is recognized in the statement of income as part of 'finance income'. Dividends on available-for-sale equity instruments are recognized in the statement of income as part of 'finance income' when the Company's right to receive payments is established.

2.7.3 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount is reported in the statement of financial position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously.

2.7.4 Derecognition

Financial assets are derecognized when the contractual rights to receive cash flows from the investments have expired or have been transferred and the Company has substantially transferred all risks and rewards of ownership. If the risk and rewards of ownership of transferred assets have not been substantially transferred, the Company reviews the level of control retained over that asset and the extent of its continuing involvement to determine if transfers do not qualify for derecognition.

Collaterals (trade receivables and other) provided in transactions of discount and factoring of trade receivables do not meet the requirements for asset derecognition if risks and rewards do not substantially transfer in the event the debtor defaults. Financial liabilities recognized in relation to these transactions are included as 'borrowings' in the statement of financial position.

2.8 Impairment of financial assets

(1) Assets carried at amortized cost

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

The criteria that the Company uses to determine that there is objective evidence of an impairment loss include:

- Significant financial difficulty of the issuer or obligor;
- A breach of contract, such as a default or delinquency in interest or principal payments;
- 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 becomes 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 portfolio of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the portfolio, including:
  1) Adverse changes in the payment status of borrowers in the portfolio; and
  2) National or local economic conditions that correlate with defaults on the assets in the portfolio.

Impairment loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted using the initial effective interest rate. The carrying amount of the asset is reduced by the impairment loss amount and the amount of the loss is recognized in the statement of income. In practice, the Company may measure impairment loss based on the fair value of the financial asset using an observable market price.

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 (such as an improvement in the debtor's credit rating), the reversal of the previously recognized impairment loss is recognized in the statement of income.

(2) Assets classified as available for sale

The Company assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. For debt securities, the Company uses the criteria provided in (1) above. In the case of equity investments classified as available-for-sale financial assets, a significant or prolonged decline in the fair value of the security below its cost is also evidence that the assets are impaired. If such evidence exists for available-for-sale financial assets, the cumulative loss-measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognized in profit or loss, is removed from equity and recognized in the statement of income. Impairment losses recognized in the statement of income on equity instruments are not reversed through the statement of income. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale financial assets 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 through the statement of income.

2.9 Derivative financial instruments

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The resulting gain or loss is recognized in the statement of income within 'other operating income and expenses' or 'finance income or expenses' depending on the nature of transactions.

The Company documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Company also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the statement of income within 'other non-operating income or expenses' or 'finance income or expenses'.

Amounts accumulated in equity are reclassified as profit or loss in the periods when the hedged item affects profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the statement of income within 'other non-operating income or expenses' or 'finance income or expenses'.

2.10 Trade receivables

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

Trade receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method, less provision for impairment.

2.11 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using weighted average cost method except goods in transit which is determined using the specific identification method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related production overheads based on normal operating capacity. It excludes borrowing costs. Net realizable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses.

2.12 Property, plant and equipment

All property, plant and equipment are stated at historical cost or deemed cost less depreciation. Historical cost or deemed cost includes expenditure that is directly attributable to the acquisition of the items.

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

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate their cost less residual values over their estimated useful lives, as follows:

Buildings	25 - 50 years
Structures	15 - 50 years
Machinery	6 - 15 years
Others	1 - 6 years

The assets' depreciation method, residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (Note 2.17). Gains or losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized within 'other non-operating income or expenses' in the statement of income.

2.13 Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

2.14 Government grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Company will comply with all attached conditions.

Government grants relating to property, plant and equipment are presented as a deduction of related assets and are credited to depreciation over the expected lives of the related assets.

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

2.15 Intangible assets

(1) Goodwill

Goodwill is measured as explained in Note 2.3(1). Goodwill arising on the acquisition of subsidiaries and business is included in intangible assets and goodwill arising on the acquisition of associates is included in investments in associates. Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

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

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

(2) Industrial property rights

Industrial property rights are shown at historical cost. Industrial property rights have a finite useful life and are carried at cost less accumulated amortization. Amortization is calculated using the straight-line method to allocate the cost of industrial property rights over their estimated useful lives of 5 to 15 years.

(3) Other intangible assets

Other intangible assets such as software which meet the definition of an intangible asset are amortized using the straight-line method over their estimated useful lives of 6 to 20 years when the assets are available for use. Membership rights are regarded as intangible assets with indefinite useful lives and not amortized as there is no foreseeable limit to the period over which the asset is expected to be utilized. All membership rights are tested annually for impairment and stated at cost less accumulated impairment losses.

2.16 Research and development

Costs associated with research are recognized as an expense as incurred. Costs that are identifiable, controllable and directly attributable to development projects are recognized as intangible assets when the following criteria are met:

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

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

2.17 Impairment of non-financial assets

Assets that have an indefinite useful life, for example goodwill, are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Non-financial assets other than goodwill that suffered impairment are reviewed for possible reversal of the impairment at each reporting date.

2.18 Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities.

Trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

2.19 Borrowings

Borrowings are recognized initially at fair value, net of transaction costs incurred. Borrowings are subsequently carried at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized as 'financial expenses' in the statement of income over the borrowing period using the effective interest method.

Borrowings are classified as current liabilities unless the Company has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

2.20 Current and deferred income tax

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

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at reporting date in the countries where the Company operates and generates taxable income. The Company periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognized on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. It represents future tax consequences that will arise when recovering or settling the carrying amount of its assets and liabilities. However, the deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred income tax liabilities are provided on temporary differences arising on investments in subsidiaries, joint ventures, and associates, except for deferred income tax liability where the timing of the reversal of the temporary difference is controlled by the Company and it is probable that the temporary difference will not be reversed in the foreseeable future. Deferred income tax assets arising from these assets are recognized only to the extent that it is probable that the temporary difference will be reversed in the foreseeable future and taxable profit will be available against which the temporary difference can be utilised.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the taxable entity or different taxable entities where there is an intention either to settle the balances on a net basis or to realise the asset and settle the liability simultaneously.

2.21 Provisions

Provisions are recognized when: the Company has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Provisions are not recognized for future operating losses.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognized as interest expense.

2.22 Employee benefits

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

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

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

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to other comprehensive income in the period in which they arise. Actuarial gains and losses recognized in other comprehensive income are immediately recognized in retained earnings and are not recognized in profit or loss in a subsequent period.

2.23 Share capital

Ordinary shares and preferred shares without mandatory redemption obligation are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Where any consolidated company purchases the Company’s equity share capital, the consideration paid, including any directly attributable incremental costs is deducted from equity attributable to the Company’s equity holders until the shares are cancelled or reissued. Where such shares are subsequently reissued, any consideration received is included in equity attributable to the Company’s equity holders.

2.24 Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods in the ordinary course of the Company’s activities. Revenue is shown net of value-added tax, returns, rebates and discounts and after eliminating sales within the Company.

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

(a) Sales of goods

Sales of goods are recognized upon delivery of products to customers. Delivery does not occur until the products have been delivered to the specified location, the risks of obsolescence and loss have been transferred to the customer, and either the customer has accepted the products in accordance with the sales contract, the acceptance provisions have lapsed, or the Company has objective evidence that all criteria for acceptance have been satisfied. The Company recognizes provisions for product warranties and sales returns based on reasonable expectation reflecting warranty obligation and sales return rates incurred historically.

(b) Interest income

Interest income is recognized using the effective interest method. When a loan and receivable is impaired, the Company reduces the carrying amount to its recoverable amount, and continues unwinding the discount as interest income. Interest income on impaired receivables is recognized using the original effective interest rate.

(c) Dividend income

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

2.25 Leases

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lesser) are charged to the statement of income on a straight-line basis over the lease term.

Leases of property, plant and equipment where the Company has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalized at the lease's commencement at the lower of the fair value of the leased property and the present value of the minimum lease payments.

Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the finance balance outstanding. The corresponding rental obligations, net of finance charges, are recognized as 'borrowings'. The interest element of the finance cost is charged to the statement of income over the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant and equipment acquired under finance leases are depreciated over the shorter of the useful life of the asset and the lease term (Note 16).

2.26 Dividend distribution

Dividend liability is recognized in the financial statements when the dividends are approved by the Company's shareholders.

3. Financial risk management

3.1 Financial risk factors

The Company's activities expose it to a variety of financial risks: market risk, credit risk and liquidity risk. The Company's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance. The Company uses derivative financial instruments to hedge certain exposures.

Risk management is carried out by the Company's finance team under policies approved by the Corporate Management Committee. The finance team identifies, evaluates and hedges financial risks in close co-operation with the Company's operating units. The Corporate Management Committee 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 investment of surplus liquidity.

(1) Market risk

1) Foreign exchange risk

The Company operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar. Foreign exchange risk arises from future commercial transactions and recognized assets and liabilities.

Management has set up a policy to require consolidated companies to manage their foreign exchange risk against their functional currency. Each consolidated entity manages its foreign exchange risk arising from future commercial transactions and recognized assets and liabilities through foreign currency denominated borrowings and derivative instruments such as forward contracts in co-operation with finance team. Foreign exchange risk arises when future commercial transactions or recognized assets or liabilities are denominated in a currency other than the Company's functional currency.

The Company manages maximum loss for currency risk exposures within acceptable range by using currency risk management model and hires employees who are exclusively responsible for currency risk management.

The Company has certain investments in foreign operations, whose net assets are exposed to foreign currency translation risk. Currency exposure arising from the net assets of the Company's foreign operations is managed primarily through borrowings denominated in the relevant foreign currencies.

As of December 31, 2012 and 2011, the Company's monetary assets and liabilities denominated in currencies other than its functional currency, are as follows:

(in millions of Korean won)	**2012**		**2011**	
	Assets	**Liabilities**	**Assets**	**Liabilities**
USD	1,887,144	2,437,724	2,003,470	2,357,283
EUR	48,383	69,940	41,212	71,013
GBP	1,400	1,244	6,995	2,055
JPY and others	26,164	152,596	20,913	715,298

As of December 31, 2012 and 2011, if the Company's functional currency had weakened / strengthened by 10% against the US dollar with all other variables held constant, profit for the year would have been affected as follows:

(in millions of Korean won)	**2012**		**2011**	
	10% Increase	**10% Decrease**	**10% Increase**	**10% Decrease**
USD	(55,058)	55,058	(35,381)	35,381

The above sensitivity analysis has been performed for monetary assets and liabilities denominated in foreign currencies other than the Company's functional currency at the reporting date.

2) Cash flow and fair value interest rate risk

The Company's interest rate risk arises from borrowings. Borrowings issued at variable rates expose the Company to cash flow interest rate risk which is partially offset by financial assets held at variable rates.

The Company analyzes its interest rate exposure on a dynamic basis. Various scenarios are simulated taking into consideration refinancing, renewal of existing positions, alternative financing and hedging. Based on these scenarios, the Company calculates the impact on profit and loss of a defined interest rate shift. For each simulation, the same interest rate shift is used for all currencies. The scenarios are run only for liabilities that represent the major interest-bearing positions.

Based on the simulations performed, the impact on profit for the year of a 0.1% shift would be a maximum increase of ₩2,120 million (2011: ₩1,919 million) or decrease of ₩2,120 million (2011: ₩1,919 million), respectively.

Based on the various scenarios, the Company manages its cash flow 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 Company raises long-term borrowings at floating rates and swaps them into fixed rates that are lower than those available if the Company borrowed at fixed rates directly. Under the interest rate swaps, the Company agrees with other parties to exchange, at specified intervals, the difference between fixed contract rates and floating-rate interest amounts calculated by reference to the agreed notional amounts.

(2) Credit risk

Credit risk is managed on a group basis. Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions.

As of December 31, 2012 and 2011, the maximum degrees of credit exposures are as follows :

(in millions of Korean won)	**2012**			**2011**		
	Before impairment	**Accumulated impairment loss**	**After impairment (maximum exposure)**	**Before impairment**	**Accumulated impairment loss**	**After impairment (maximum exposure)**
Loans and receivables (excluding cash on hand)	4,653,130	(10,110)	4,643,020	4,666,481	(5,072)	4,661,409
Financial assets at fair value through profit or loss	2,352	-	2,352	-	-	-
Total	4,655,482	(10,110)	4,645,372	4,666,481	(5,072)	4,661,409

In addition, details of financial guarantees provided by the Company are disclosed in Notes 3.1.(3) and 20.

The Company has established the following policies and procedures to manage credit risks.

To manage credit risks relating to trade receivables, the Company evaluates the credit rating of customers and determines credit limit for each customer based on the information provided by credit rating agencies and other available financial information before commencing business with customers. The credit risks relating to trade receivables are also mitigated by insurance contracts, collaterals as well as payment guarantees.

The Company has entered into export insurance contracts with Korea Trade Insurance Corporation to mitigate credit risks relating to export trade receivables to overseas customers. The Company is also provided with collaterals by customers depending on their credit rating or payment guarantees from the customers' financial institutions as necessary.

The Company has deposited its cash and cash equivalent and other long-term deposits in several financial institutions such as Woori Bank and Shinhan Bank. The Company has also entered into derivative contracts with several financial institutions. The Company maintains business relationship with those financial institutions with high credit ratings evaluated by independent credit rating agencies and accordingly, credit risks associated with these financial institutions are limited.

(3) Liquidity risk

Cash flow forecasting is performed by consolidated subsidiaries and aggregated by corporate finance team. Finance team monitors rolling forecasts of the Company's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times so that the Company does not breach borrowing limits or covenants on any of its borrowing facilities. Such forecasting takes into consideration the Company's debt financing plans, covenant compliance, compliance with internal statement of financial position ratio targets and, if applicable external regulatory or legal requirements - for example, currency restrictions.

The Company's finance team invests surplus cash in interest-bearing current accounts, time deposits, and money market deposits, choosing instruments with appropriate maturities or sufficient liquidity to provide sufficient head-room as determined by the above-mentioned forecasts.

1) The table below analyzes the Company's non-derivative financial liabilities into relevant maturity groupings based on the remaining period at the reporting date to the contractual maturity date.

(in millions of Korean won)	**December 31, 2012**			
	Less than 1 year	**1 to 2 years**	**2 to 5 years**	**Over 5 years**
Borrowings (excluding finance lease liabilities)	1,770,631	496,794	801,771	284
Finance lease liabilities	2,481	3,195	-	-
Trade and other payables	2,288,782	15,652	-	-
Total	4,061,894	515,641	801,771	284

(in millions of Korean won)	**December 31, 2011**			
	Less than 1 year	**1 to 2 years**	**2 to 5 years**	**Over 5 years**
Borrowings (excluding finance lease liabilities)	1,860,238	151,473	593,718	590
Finance lease liabilities	2,481	2,481	3,195	-
Trade and other payables	2,453,274	41,329	-	-
Total	4,315,993	195,283	596,913	590

2) The table below analyzes the Company's derivative financial liabilities into relevant maturity groupings based on the remaining period at the reporting date to the contractual maturity date.

(in millions of Korean won)		December 31, 2012			
		Less than 1 year	**1 to 2 years**	**2 to 5 years**	**Over 5 years**
Net-settled derivative financial liabilities	**Hedging**				
	Net-cash flow	(154)	-	-	-
	Subtotal	(154)	-	-	-
Gross-settled derivative financial liabilities	**Trading**				
	Inflow	173,728	-	-	-
	Outflow	(171,376)	-	-	-
	Subtotal	2,352	-	-	-
	Total	2,198	-	-	-

(in millions of Korean won)		December 31, 2011			
		Less than 1 year	**1 to 2 years**	**2 to 5 years**	**Over 5 years**
Net-settled derivative financial liabilities	**Hedging**				
	Net-cash flow	(540)	(147)	-	-
	Total	(540)	(147)	-	-

3) The table below analyzes the Company's financial guarantee contracts into relevant maturity groupings based on the remaining period at the reporting date to the contractual maturity date.

(in millions of Korean won)	December 31, 2012			
	Less than 1 year	**1 to 2 years**	**2 to 5 years**	**Over 5 years**
Financial guarantee contracts[1]	60,121	132	470	571

(in millions of Korean won)	December 31, 2011			
	Less than 1 year	**1 to 2 years**	**2 to 5 years**	**Over 5 years**
Financial guarantee contracts[1]	150,109	60,121	433	741

[1] The Company and LG Hausys Ltd. have provided the joint guarantee for obligations outstanding as of April 1, 2009, the spin-off date. The amounts represent the maximum amount of the guarantee allocated to the earliest period in which the guarantee could be called.

3.2 Capital risk management

The Company's capital objectives are to safeguard the Company'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.

Consistent with others in the industry, the Company monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings less cash and cash equivalents. Total capital is calculated as 'equity' as shown in the consolidated statement of financial position plus net debt.

The gearing ratio and debt to equity ratio as of December 31, 2012 and 2011, are as follows:

(in millions of Korean won, except for ratios)	**2012**	**2011**
Total borrowings (Note 16) (A)	2,946,907	2,526,718
Less: cash and cash equivalents (B)	(720,767)	(1,379,379)
Net debt (C=A+B)	2,226,140	1,147,339
Total liabilities (D)	5,815,798	5,577,875
Total equity (E)	10,765,355	9,707,679
Total capital (F=C+E)	12,991,495	10,855,018
Gearing ratio (C/F)	17.1%	10.6%
Debt to equity ratio (D/E)	54.0%	57.5%

3.3 Fair value estimation

The table below analyzes financial instruments carried at fair value, by valuation method. The different levels have been defined 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 (e.g., as prices) or indirectly (e.g., derived from prices).
Level 3	:	Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

(1) The following tables present the Company's financial assets and liabilities that are measured at fair value as of December 31, 2012 and 2011:

(in millions of Korean won)	**2012**			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets				
Other current financial assets	-	2,352	-	2,352
Total financial assets	-	2,352	-	2,352
Financial liabilities				
Other current financial liabilities	-	154	-	154
Total financial liabilities	-	154	-	154

(in millions of Korean won)	**2011**			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets				
Other current financial assets	-	-	-	-
Total financial assets	-	-	-	-
Financial liabilities				
Other current financial liabilities	-	536	-	536
Other non-current financial liabilities	-	146	-	146
Total financial liabilities	-	682	-	682

All other non-current financial assets of the Company consist of available-for-sale equity securities and are measured at cost (December 31, 2012: ₩ 21,811 million; December 31, 2011: ₩ 5,973 million) as the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed. These are not included in the analysis above (Note 9). The Company does not have any plans to dispose these available-for-sale equity securities in the near future.

The fair value of financial instruments traded in active markets is based on quoted market prices at the reporting date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, an entity in the same industry, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Company is the current bid price. These instruments are included in level 1.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Company uses various techniques and makes judgments based on current market conditions. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

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

Specific valuation techniques used to value financial instruments include:

- Quoted market prices or dealer quotes for similar instruments.
- The fair value of interest rate swaps is calculated as the present value of the estimated future cash flows based on observable yield curves.
- Other techniques, such as discounted cash flow analysis, are used to determine fair value for the remaining financial instruments.

4. Critical accounting estimates and assumptions

The Company makes estimates and assumptions concerning the future. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities after the end of the reporting period are addressed below.

(1) Estimated impairment of goodwill

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

(2) Income taxes

The Company is subject to income taxes in numerous jurisdictions. Significant judgment is required in determining the worldwide provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain. The Company recognizes liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the current and deferred income tax assets and liabilities in the period in which such determination is made.

(3) Fair value of financial instruments

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

(4) Provisions

The Company recognizes provisions for product warranties and sales return as of the reporting date as described in Note 17. The amounts are estimated based on historical data.

(5) Defined benefit liability

The present value of the defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for pensions include the discount rate. Any changes in these assumptions will impact the carrying amount of the defined benefit liability. The Company determines the appropriate discount rate at the end of each year. This is the interest rate that is used to determine the present value of estimated future cash outflows expected to be required to settle the defined benefit liability. In determining the appropriate discount rate, the Company considers the interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension liability. Other key assumptions for defined benefit liability are based in part on current market conditions. Additional information is disclosed in Note 18.

5. Financial instruments by category

Categorizations of financial instruments are as follows:

(in millions of Korean won)	**December 31, 2012**			
Financial assets	**Loans and receivables**	**Assets at fair value through profit or loss**	**Assets classified as available-for-sale**	**Total**
Cash and cash equivalents	720,767	-	-	720,767
Trade receivables	3,131,051	-	-	3,131,051
Other receivables	772,746	-	-	772,746
Other current financial assets	-	2,352	-	2,352
Other non-current receivables	20,718	-	-	20,718
Other non-current financial assets	-	-	21,811	21,811
Total	4,645,282	2,352	21,811	4,669,445

(in millions of Korean won)	**December 31, 2012**		
Financial liabilities	**Hedging derivatives**	**Liabilities at amortized cost**	**Total**
Trade payables	-	1,522,395	1,522,395
Other payables	-	766,231	766,231
Borrowings (current)	-	1,751,781	1,751,781
Other financial liabilities	154	-	154
Other current liabilities	-	1,115	1,115
Other non-current payables	-	15,070	15,070
Borrowings (non-current)	-	1,195,126	1,195,126
Total	154	5,251,718	5,251,872

(in millions of Korean won)	**December 31, 2011**			
Financial assets	**Loans and receivables**	**Assets at fair value through profit or loss**	**Assets classified as available-for-sale**	**Total**
Cash and cash equivalents	1,379,379	-	-	1,379,379
Trade receivables	3,117,239	-	-	3,117,239
Other receivables	133,915	-	-	133,915
Other non-current receivables	33,657	-	-	33,657
Other non-current financial assets	-	-	5,973	5,973
Total	4,664,190	-	5,973	4,670,163

(in millions of Korean won)	**December 31, 2011**		
Financial liabilities	**Hedging derivatives**	**Liabilities at amortized cost**	**Total**
Trade payables	-	1,503,106	1,503,106
Other payables	-	950,168	950,168
Borrowings (current)	-	1,837,637	1,837,637
Other financial liabilities	536	-	536
Other current liabilities	-	1,143	1,143
Other non-current payables	-	41,329	41,329
Borrowings (non-current)	-	689,081	689,081
Other non-current financial liabilities	146	-	146
Total	682	5,022,464	5,023,146

Net gains(losses) on financial instruments by category are as follows:

(in millions of Korean won)	**2012**	**2011**
Assets at fair value through profit or loss		
Loss on valuation/ disposal	7,470	(29,431)
Hedging derivatives		
Gain on valuation/ disposal	-	8,914
Gain on valuation recognized in other comprehensive expenses	527	4,682
Interest expense	(740)	(12,198)
Assets classified as available-for-sale		
Loss on valuation/ disposal	-	(2)
Dividend income	157	159
Loans and receivables		
Interest income	30,099	27,393
Gain(loss) on foreign currency translation	(31,440)	5,366
Gain(loss) on foreign exchange	(129,223)	22,514
Liabilities at amortized cost		
Interest expense	(102,517)	(77,488)
Gain on foreign currency translation	41,159	12,708
Gain(loss) on foreign exchange	114,331	(18,731)

6. Cash and cash equivalents

Details of cash and cash equivalents are as follows:

(in millions of Korean won)	**December 31, 2012**	**December 31, 2011**
Bank deposits and cash on hand	282,039	324,364
Financial deposits, others	438,728	1,055,015
Total	720,767	1,379,379

As of December 31, 2012, other non-current receivables amounting to ₩38 million are restricted from withdrawal in connection with maintaining checking accounts and customs duty (2011: ₩40 million). As of December 31, 2012, cash and cash equivalents include deposits with banks of ₩4,079 million held by a subsidiary which are not freely remissible to the Parent Company because of currency exchange restrictions.

7. Trade and other receivables

Trade and other receivables, net of allowance for doubtful accounts, are as follows:

(in millions of Korean won)	December 31, 2012			December 31, 2011		
	Original amount	**Less : allowance for doubtful accounts**	**Carrying amount**	**Original amount**	**Less : allowance for doubtful accounts**	**Carrying amount**
Trade receivables[1]	3,141,161	(10,110)	3,131,051	3,122,311	(5,072)	3,117,239
Other current receivables	772,746	-	772,746	133,915	-	133,915
Other non-current receivables	20,718	-	20,718	33,657	-	33,657
Total	3,934,625	(10,110)	3,924,515	3,289,883	(5,072)	3,284,811

[1] As of December 31, 2012, trade receivables transferred to financial institutions but not fully derecognized are as follows (Note 16):

(in millions of Korean won)	**Loans and receivables (trade receivables collateralized borrowings)**	
	December 31, 2012	**December 31, 2011**
Carrying amount of transferred assets	994,295	927,555
Carrying amount of related liabilities	(994,295)	(927,555)
For those liabilities that have recourse only to the transferred assets:		
Fair value of transferred assets	994,295	927,555
Fair value of related liabilities	(994,295)	(927,555)
Net position	-	-

Details of other receivables are as follows:

(in millions of Korean won)	**December 31, 2012**	**December 31, 201**
Current		
Non-trade receivables	99,107	111,466
Financial deposits	642,616	12,477
Accrued income	7,664	2,230
Deposits	23,359	7,742
	772,746	133,915
Non-current		
Financial deposits	38	40
Loans	150	705
Deposits	20,530	32,912
	20,718	33,657
Total	793,464	167,572

The aging analysis of these trade and other receivables is as follows:

(in millions of Korean won)	**December 31, 2012**		**December 31, 2011**	
	Trade receivables	**Other receivables**	**Trade receivables**	**Other receivables**
Receivables not past due	2,554,612	787,580	2,626,703	161,585
Past due but not impaired	581,221	5,884	492,196	5,987
Up to 3 months	556,605	4,973	482,580	4,324
3 to 6 months	21,322	432	6,613	243
Over 6 months	3,294	479	3,003	1,420
Impaired receivables	5,328	-	3,412	-
	3,141,161	793,464	3,122,311	167,572

The movements in bad debt allowance for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**				**2011**			
	Trade receivables		**Other receivables**		**Trade receivables**		**Other receivables**	
	Current	**Non-current**	**Current**	**Non-current**	**Current**	**Non-current**	**Current**	**Non-current**
Beginning balance	5,072	-	-	-	7,293	-	-	-
Additions	6,147	-	-	-	130	-	-	-
Reversals	-	-	-	-	(2,150)	-	-	-
Write-off	(826)	-	-	-	(202)	-	-	-
Exchange differences	(283)	-	-	-	1	-	-	-
Ending balance	10,110	-	-	-	5,072	-	-	-

The carrying amounts of trade and other receivables approximate their fair values.

8. Other financial assets and liabilities

Details of other financial assets and liabilities are as follows:

(in millions of Korean won)	**December 31, 2012**	**December 31, 2011**
Other financial assets		
Derivatives (Note 10)	2,352	-
Available-for-sale (Note 9)	21,811	5,973
Less: current portion	(2,352)	-
Total	21,811	5,973
Other financial liabilities		
Derivatives (Note 10)	154	682
Less: current portion	(154)	(536)
Total	-	146

9. Financial assets classified as available-for-sale

The movements in financial assets classified as available-for-sale for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	2012	2011
Beginning balance	5,973	4,183
Exchange differences	(12)	(12)
Additions	15,850	1,817
Disposals	-	(15)
Ending balance	21,811	5,973

Financial assets classified as available-for-sale consist of unlisted equity securities. The unlisted equity securities are measured at cost as the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed.

No impairment losses were recognized for financial assets classified as available-for-sale during the years ended December 31, 2012 and 2011.

10. Derivative financial instruments

Details of derivative financial assets and liabilities are as follows:

(in millions of Korean won)	December 31, 2012		December 31, 2011	
	Assets	Liabilities	Assets	Liabilities
Current				
Cash flow hedges	-	154	-	536
Held-for-trading	2,352	-	-	-
	2,352	154	-	536
Non-current				
Cash flow hedges	-	-	-	146

Details of derivative financial contracts are as follows:

	December 31, 2012				
Classification	**Contractor**	**Contract date**	**Contract amount (in thousands)**	**Contract period**	**Contract terms**
Forward exchange	BOA and 13 other banks	2012.10.10, others	US$ 10,000, others	2013.01.03 ~ 2013.02.22, etc	₩ 1119.32, $, others
Interest rate swap	HSBC	2006.10.11	₩ 3,000,000	2006.10.11 ~ 2013.09.05	Received: 3 month CD, Paid: 4.61%
	HSBC	2007.06.15	US$ 4,500	2007.06.15 ~ 2013.09.05	Received: 3 month Libor Paid: 5.59%

	December 31, 2011				
Classification	**Contractor**	**Contract date**	**Contract amount (in thousands)**	**Contract period**	**Contract terms**
Interest rate swap	HSBC	2006.10.11	₩ 7,000,000	2006.10.11 ~ 2013.09.05	Received: 3 month CD, Paid: 4.61%
	HSBC	2007.06.15	US$ 10,500	2007.06.15 ~ 2013.09.05	Received: 3 month Libor Paid: 5.59%

Trading derivative financial instrument is classified as a current asset or liability. Hedging derivative financial instrument is classified as a non-current asset or liability if the remaining maturity of the hedged item is more than 12 months and, as a current asset or liability, if the remaining maturity of the hedged item is less than 12 months.

There was no ineffective portion of cash flow hedges

11. Inventories

Details of inventories are as follows:

	December 31, 2012			December 31, 2011		
(in millions of Korean won)	**Original amount**	**Valuation allowance**	**Carrying amount**	**Original amount**	**Valuation allowance**	**Carrying amount**
Merchandise	87,584	(917)	86,667	89,527	(303)	89,224
Finished products	1,136,794	(20,168)	1,116,626	1,163,744	(10,911)	1,152,833
Semi-finished products	298,794	-	298,794	317,357	-	317,357
Work-in-process	363	-	363	3,508	-	3,508
Raw materials	762,954	(1,300)	761,654	634,518	(1,178)	633,340
Supplies	78,517	-	78,517	71,598	-	71,598
Materials-in-transit	285,309	-	285,309	207,373	-	207,373
Total	2,650,315	(22,385)	2,627,930	2,487,625	(12,392)	2,475,233

The cost of inventories recognized as expense and included in 'Cost of Sales' amounted to ₩16,688,614 million (2011: ₩15,751,577 million).

12. Investments in associates and joint ventures

Changes in the carrying amount of investments in associates and joint ventures for the years ended December 31, 2012 and 2011, are as follows:

	2012						
(in millions of Korean won)	**Beginning balance**	**Acquisitions**	**Dividends**	**Share of profit(loss) of associates**	**Share of other comprehensive income of associates**	**Others**	**Ending balance**
LG Vina chemical Co.,Ltd	3,911	-	(1,373)	1,434	(297)	-	3,675
HL Greenpower Co.,Ltd.	14,250	-	-	1,289	-	18	15,557
LG Holdings (HK) Ltd.	61,459	-	-	2,198	(3,645)	-	60,012
TECWIN Co.,Ltd.	4,570	13	(33)	858	-	-	5,408
SEETEC Co.,Ltd.	147,423	-	-	7,712	-	(93)	155,042
LG Chem Brasil INTERMEDICAO DE NEGOCIOS DO SETOR QUIMICO LTDA.	258	-	-	-	-	-	258
LG Yongxing International Trading Co.,Ltd	82	(82)	-	-	-	-	-
CNOOC & LG Petrochemicals Co.,Ltd.	40,969	-	-	(175)	(1,550)	-	39,244
KLPE Limited Liability Partnership[1]	55,486	75,565	-	(896)	(4,283)	-	125,872
Total	328,408	75,496	(1,406)	12,420	(9,775)	(75)	405,068

[1] The Company has recognized ₩15,910 million as other payable and ₩10,129 million as non-current other payable as of December 31, 2012, for the unpaid consideration in the acquisition of KLPE Limited Liability Partnership.

(in millions of Korean won)	2011					
	Beginning balance	**Acquisitions**	**Dividends**	**Share of profit(loss) of associates**	**Share of other comprehensive income of associates**	**Ending balance**
LG Vina chemical Co.,Ltd.	3,387	-	(1,695)	2,170	49	3,911
HL Greenpower Co.,Ltd.	13,354	-	-	896	-	14,250
LG Holdings (HK) Ltd.	53,731	-	-	4,723	3,005	61,459
TECWIN Co.,Ltd.	3,892	-	(34)	717	(5)	4,570
SEETEC Co.,Ltd.	138,793	-	-	8,684	(54)	147,423
LG Chem Brasil INTERMEDICAO DE NEGOCIOS DO SETOR QUIMICO LTDA.	258	-	-	-	-	258
LG Yongxing International Trading Co.,Ltd.	157	-	-	-	(75)	82
CNOOC & LG Petrochemicals Co.,Ltd.	-	40,230	-	(1,924)	2,663	40,969
KLPE Limited Liability Partnership[1]	-	55,486	-	-	-	55,486
Total	213,572	95,716	(1,729)	15,266	5,583	328,408

[1] The Company has recognized ₩27,621million as other payable and ₩26,714 million as non-current other payable as of December 31, 2012, for the unpaid consideration in the acquisition of KLPE Limited Liability Partnership.

13. Property, plant and equipment

Changes in the carrying amounts of property, plant and equipment for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	2012									
	Land	**Buildings**	**Structures**	**Machinery**	**Vehicles**	**Tools**	**Equipment**	**Others**	**Construction -in-progress**	**Machinery-in-transit**	**Total**
Beginning balance	604,869	1,473,258	361,886	2,777,041	12,844	202,042	67,120	115,292	1,455,847	305,756	7,375,955
Cost	604,869	1,765,429	663,417	7,540,031	41,219	473,328	200,374	186,155	1,490,643	305,756	13,271,221
Accumulated depreciation	-	(292,165)	(301,524)	(4,753,396)	(28,375)	(267,254)	(133,153)	(70,863)	-	-	(5,846,730)
Accumulated impairment	-	(6)	(7)	(9,594)	-	(4,032)	(101)	-	(34,796)	-	(48,536)
Acquisitions/ Transfer	107,541	234,527	161,191	1,412,172	2,211	113,595	46,532	20,619	1,603,381	281,623	3,983,392
Disposals/ Transfer	(26)	(429)	(217)	(5,255)	(1,377)	(1,489)	(622)	(250)	(1,702,982)	(367,134)	(2,079,781)
Exchange differences	(146)	(13,965)	(4,003)	(36,250)	(54)	(1,581)	(957)	-	(16,076)	-	(73,032)
Depreciation	-	(45,892)	(30,984)	(643,301)	(3,375)	(62,795)	(22,540)	(47,367)	-	-	(856,254)
Impairment	-	-	(1,965)	(82)	-	(26)	(29)	-	-	-	(2,102)
Ending balance	712,238	1,647,499	485,908	3,504,325	10,249	249,746	89,504	88,294	1,340,170	220,245	8,348,178
Cost	712,238	1,981,069	814,135	8,819,666	38,873	570,364	230,923	197,705	1,374,966	220,245	14,960,184
Accumulated depreciation	-	(333,565)	(327,929)	(5,306,272)	(28,624)	(316,586)	(141,309)	(109,411)	-	-	(6,563,696)
Accumulated impairment	-	(5)	(298)	(9,069)	-	(4,032)	(110)	-	(34,796)	-	(48,310)

(in millions of Korean won)	2011										
	Land	**Buildings**	**Structures**	**Machinery**	**Vehicles**	**Tools**	**Equipment**	**Others**	**Construction -in-progress**	**Machinery-in-transit**	**Total**
Beginning balance	443,411	1,212,290	353,777	2,529,794	8,454	145,096	57,894	61,651	890,720	168,953	5,872,040
Cost	443,411	1,475,425	632,000	6,928,120	34,440	374,325	179,962	94,668	925,516	168,953	11,256,820
Accumulated depreciation	-	(258,901)	(278,216)	(4,372,096)	(25,986)	(225,197)	(121,967)	(33,017)	-	-	(5,315,380)
Accumulated impairment	-	(4,234)	(7)	(26,230)	-	(4,032)	(101)	-	(34,796)	-	(69,400)
Acquisitions/ Transfer	162,175	293,245	32,780	781,560	8,464	109,902	28,221	93,889	1,891,465	282,656	3,684,357
Disposals/ Transfer	-	(1,010)	(99)	(4,916)	(238)	(2,610)	(353)	-	(1,340,674)	(145,854)	(1,495,754)
Exchange differences	(717)	8,165	3,255	31,264	-	326	473	-	14,336	1	57,103
Depreciation	-	(39,432)	(27,827)	(560,661)	(3,836)	(50,672)	(19,115)	(40,248)	-	-	(741,791)
Ending balance	604,869	1,473,258	361,886	2,777,041	12,844	202,042	67,120	115,292	1,455,847	305,756	7,375,955
Cost	604,869	1,765,429	663,417	7,540,031	41,219	473,328	200,374	186,155	1,490,643	305,756	13,271,221
Accumulated depreciation	-	(292,165)	(301,524)	(4,753,396)	(28,375)	(267,254)	(133,153)	(70,863)	-	-	(5,846,730)
Accumulated impairment	-	(6)	(7)	(9,594)	-	(4,032)	(101)	-	(34,796)	-	(48,536)

During the year ended December 31, 2012, the Company capitalized ₩30,265 million of borrowing costs (2011: ₩22,555 million) to property, plant and equipment.

As of December 31, 2012, certain property, plant and equipment have been pledged as collaterals for certain bank loans for up to a maximum of ₩8,787 million (2011: ₩8,787 million).

The Company has a finance lease agreement on certain property, plant and equipment at the MTBE factory. The carrying amount of leased assets and depreciation are as follows:

(in millions of Korean won)	**December 31, 2012**	**December 31, 2011**
Carrying amount	12	41
Depreciation	29	2,182

The said agreement is non-cancellable finance lease agreements and the lease term is 15 years.

Depreciation of property, plant and equipment was classified as follows:

(in millions of Korean won)	**2012**	**2011**
Cost of sales	799,532	692,536
Selling, general and administrative expenses	54,980	48,451
Others[1]	1,742	804
Total	856,254	741,791

[1] Amounts capitalized to development costs are included.

14. Intangible assets

Changes in the carrying amount of intangible assets for the years ended December 31, 2012 and 2011, are as follows:

	2012					
(in millions of Korean won)	**Development costs**	**Industrial property rights**	**Goodwill**	**Memberships**	**Others**	**Total**
Beginning balance	34,018	61,856	33,415	51,110	26,773	207,172
Acquisitions/ Transfer	24,445	21,040	-	2,582	8,713	56,780
Disposals/ Transfer	(6,825)	(854)	-	(1,968)	(699)	(10,346)
Exchange differences	(70)	-	-	(32)	(585)	(687)
Amortization	(9,158)	(3,432)	-	-	(6,436)	(19,026)
Ending balance	42,410	78,610	33,415	51,692	27,766	233,893

	2011					
(in millions of Korean won)	**Development costs**	**Industrial property rights**	**Goodwill**	**Memberships**	**Others**	**Total**
Beginning balance	25,798	55,708	33,415	49,243	15,951	180,115
Acquisitions/ Transfer	15,608	8,915	-	1,842	15,763	42,128
Disposals/ Transfer	-	(8)	-	-	(2)	(10)
Exchange differences	45	(228)	-	25	778	620
Amortization	(7,433)	(2,531)	-	-	(5,717)	(15,681)
Ending balance	34,018	61,856	33,415	51,110	26,773	207,172

Amortization of intangible assets was classified as follows:

(in millions of Korean won)	**2012**	**2011**
Cost of sales	6,221	4,835
Selling, general and administrative expenses	12,805	10,846
Total	19,026	15,681

Impairment tests for goodwill

Goodwill is allocated to the Company's cash-generating units (CGUs) identified according to operating segment. The carrying amounts of allocated goodwill by CGUs are as follows:

(in millions of Korean won)

CGUs	Carrying amount
Goodwill arising on the acquisition of LG Petrochemical Co.,Ltd.	
NCC	4,724
PO	977
Special resin	255
Synthetic rubber	600
Petrochemistry BPA	1,637
	8,193
Goodwill arising on the acquisition of SAP business	
Acrylic business	25,222
Total	33,415

The recoverable amounts of CGUs have been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management covering a four-year period. Cash flows beyond the four-year period are estimated using 0% of expected growth rate.

Management determined pre-tax cash flow based on past performance and its expectations of market development. The discount rate used is pre-tax and reflect specific risks relating to the relevant operating segments. Discount rate used for value-in-use calculations for the current year is 12.82%. The recoverable amounts based on value-in-use calculations exceeded carrying amounts and accordingly, no impairments were recognized for the year ended December 31, 2012.

15. Other current and non-current assets

Details of other current and non-current assets are as follows:

(in millions of Korean won)	December 31, 2012	December 31, 2011
Current		
Prepayments to suppliers	48,552	40,353
Prepaid expenses	21,353	21,869
Prepaid value added tax	69,449	56,061
Others	51,424	14,315
Total	190,778	132,598
Non-current		
Long-term prepaid expenses	40,997	45,939
Other investment assets	25	27
Total	41,022	45,966

16. Borrowings

The carrying amount of borrowings are as follows:

(in millions of Korean won)	December 31, 2012	December 31, 2011
Current		
Short-term borrowings	1,666,662	1,451,823
Current maturities of bank loans	82,959	233,914
Current maturities of debentures	-	149,922
Current maturities of finance lease liabilities	2,160	1,978
	1,751,781	1,837,637
Non-current		
Bank loans	594,018	385,122
Debentures	598,034	298,725
Finance lease liabilities	3,074	5,234
	1,195,126	689,081
Total	2,946,907	2,526,718

Details of borrowings are as follows:

Current borrowings

(in millions of Korean won)	Bank	Latest maturity date	Annual interest rate (%) at December 31, 2012	Carrying Amount December 31, 2012	Carrying Amount December 31, 2011
Notes discounted[1]	Woori Bank, others	2013.01.05	3Libor+1.00, various	994,295	927,555
Bank loans	China Bank, others	2013.12.27	3Libor+0.50~4.00, various	672,367	524,268
Total				1,666,662	1,451,823

[1] As of December 31, 2012, trade receivables transferred to financial institutions but not derecognized are accounted for as collateralized borrowing transaction (Note 7).

Non-current borrowings

(in millions of Korean won)

	December 31, 2012					
	Bank	**Annual interest rate (%)**	**Latest maturity date**	**Total amount**	**Current maturities**	**Long-term debts**
Won currency borrowings	Kookmin Bank	3.00	2018.07.14	819	122	697
	Kookmin Bank	3.00	2020.03.21	850	90	760
	Korea Development Bank	3.53	2015.07.19	200,000	-	200,000
	BTMU	3CD + 0.60	2013.09.05	7,500	7,500	-
Foreign currency borrowings	Shanghai Pudong Development Bank	5.76	2015.09.15	3,008	-	3,008
	Sumitomo Mitsui Banking Corporation	3Libor + 0.60	2013.09.05	4,820	4,820	-
	Sumitomo Mitsui Banking Corporation	3Libor + 0.85	2014.07.12	10,711	-	10,711
	Sumitomo Mitsui Banking Corporation	3Libor + 0.85	2014.07.18	6,427	-	6,427
	Sumitomo Mitsui Banking Corporation	3Libor + 0.85	2014.07.29	4,284	-	4,284
	Standard Chartered Bank	4.50	2013.06.10	21,607	21,607	-
	Standard Chartered Bank	3Libor + 2.20	2015.12.15	10,804	-	10,804
	Agricultural Bank of China	5.90	2015.10.15	17,180	-	17,180
	China Minsheng Bank	6Libor + 3.30	2013.01.15	1,200	1,200	-
	China Merchants Bank	6.21	2015.05.17	5,156	-	5,156
	ANZ Bank	3Libor + 2.10	2013.07.07	16,205	8,102	8,103
	ANZ Bank	3Libor + 2.10	2014.07.07	16,205	8,103	8,102
	ANZ Bank	3Libor + 2.80	2013.04.12	4,822	4,822	-
	ANZ Bank	3Libor + 2.80	2013.10.11	4,822	4,822	-
	Bank of America	6Libor + 1.50	2014.10.24	32,411	-	32,411
	Bank of America	3Libor + 1.68	2014.08.29	43,214	-	43,214
	BTMU	6Libor + 2.60	2013.04.26	8,103	8,103	-
	BTMU	6Libor + 2.10	2013.06.21	8,103	8,103	-
	BTMU	3Libor + 1.54	2015.07.20	53,555	-	53,555
	HSBC	3Libor + 0.60	2013.09.05	2,410	2,410	-
	HSBC	3Libor + 0.75	2014.09.19	43,214	-	43,214
	HSBC	3Libor + 2.25	2015.05.25	21,607	-	21,607
	Mizuho Banking Corporation	3Libor + 0.60	2013.09.05	3,213	3,213	-
	Mizuho Banking Corporation	3Libor + 0.65	2014.05.31	64,266	-	64,266
	Nordea Bank	1Wibor+1.00	2014.06.30	6,964	-	6,964
	Nova Scotia Bank	3Libor + 1.54	2015.07.20	53,555	-	53,555
	Less: discount on borrowings			(58)	(58)	-
Total				676,977	82,959	594,018

(in millions of Korean won)

	December 31, 2011					
	Bank	**Annual interest rate (%)**	**Latest maturity date**	**Total amount**	**Current maturities**	**Long-term debts**
Won currency borrowings	Kookmin Bank	3.00	2018.07.14	931	112	819
	Kookmin Bank	3.00	2020.03.21	932	82	850
	BTMU	3CD+0.60	2013.09.05	17,500	10,000	7,500
Foreign currency borrowings	Shanghai Pudong Development Bank	6.65	2015.06.20	4,209	-	4,209
	Sumitomo Mitsui Banking Corporation	3Libor+0.60	2013.09.05	12,110	6,920	5,190
	Sumitomo Mitsui Banking Corporation	3Libor+0.85	2014.07.29	23,066	-	23,066
	Standard Chartered Bank	4.50	2013.06.10	23,000	-	23,000
	Woori Bank	6Libor+1.50	2012.12.11	23,000	23,000	-
	China Construction Bank	6Libor+1.40~2.50	2012.06.08	23,000	23,000	-
	China Construction Bank	6Libor+3.00	2013.01.17	23,000	-	23,000
	Bank of Communications	3Libor+1.50	2012.04.30	21,850	21,850	-
	Agricultural Bank of China	6.80	2015.10.15	23,726	-	23,726
	China Minsheng Bank	6Libor+3.30	2013.01.15	6,389	5,111	1,278
	Bank of China	6Libor+1.20	2012.03.01	33,430	34,430	-
	China Merchants Bank	6.65	2015.05.17	9,125	-	9,125
	Korea Development Bank	3Libor+0.36	2012.01.10	57,665	57,665	-
	ANZ Bank	3Libor+2.80	2013.10.11	20,530	10,265	10,265
	ANZ Bank	3Libor+2.10	2014.07.07	34,499	-	34,499
	Bank of America	3Libor+1.65	2013.11.18	28,833	-	28,833
	Bank of America	3Libor+1.68	2014.08.29	45,999	-	45,999
	Bank of America	3Libor+1.87	2014.10.24	34,499	-	34,499
	BTMU	6Libor+2.60	2013.06.21	25,874	17,249	8,625
	BTMU	6Libor+2.60	2013.04.26	25,874	17,249	8,625
	HSBC	3Libor+0.60	2013.09.05	6,055	3,460	2,595
	HSBC	3Libor+1.20	2014.09.19	45,999	-	45,999
	Mizuho Banking Corporation	3Libor+0.65	2014.05.31	34,599	-	34,599
	Mizuho Banking Corporation	3Libor+0.60	2013.09.05	8,073	4,613	3,460
	Nordea Bank	1Wibor+1.00	2014.06.30	5,418	-	5,418
	Less: discount on borrowings			(149)	(92)	(57)
Total				619,036	233,914	385,122

Certain property, plant and equipment have been pledged as collaterals for the above non-current borrowings (Note 13).

Debentures

(in millions of Korean won)	December 31, 2012					
	Financial institution	**Annual interest rate (%)**	**Latest maturity date**	**Total amount**	**Current maturities**	**Long-term debts**
Won currency debentures	Woori Security	3.83	2014.12.05	200,000	-	200,000
	Woori Security	4.03	2016.12.05	100,000	-	100,000
	Woori Security	3.96	2015.03.29	100,000	-	100,000
	Woori Security	4.11	2017.03.29	200,000	-	200,000
	Less: discount on debentures			(1,966)	-	(1,966)
Total				598,034	-	598,034

(in millions of Korean won)	December 31, 2011					
	Financial institution	**Annual interest rate (%)**	**Latest maturity date**	**Total amount**	**Current maturities**	**Long-term debts**
Won currency debentures	Woori Security	4.85	2012.04.29	150,000	150,000	-
	Woori Security	3.83	2014.12.05	200,000	-	200,000
	Woori Security	4.03	2016.12.05	100,000	-	100,000
	Less: discount on debentures			(1,353)	(78)	(1,275)
Total				448,647	149,922	298,725

Finance lease liabilities

(in millions of Korean won)	December 31, 2012				
Bank	**Annual interest rate (%)**	**Latest maturity date**	**Total amount**	**Current maturities**	**Long-term debts**
Hyundai Oil Bank	9.00	2014.10.29	5,234	2,160	3,074

(in millions of Korean won)	December 31, 2011				
Bank	**Annual interest rate (%)**	**Latest maturity date**	**Total amount**	**Current maturities**	**Long-term debts**
Hyundai Oil Bank	9.00	2014.10.29	7,212	1,978	5,234

The finance lease liabilities are liabilities associated with sales and leaseback arrangements of property, plant and equipment of the MTBE factory (Note 13).

Lease liabilities are effectively secured as the rights to the leased assets revert to the lessor in the event of default.

Carrying amounts and fair values of non-current borrowings are as follows:

(in millions of Korean won)	**December 31, 2012**		**December 31, 2011**	
	Carrying amount	**Fair value**[1]	**Carrying amount**	**Fair value**[1]
Bank loans	594,018	590,654	385,122	385,838
Debentures	598,034	616,213	298,725	300,675
Finance lease liabilities	3,074	3,031	5,234	5,052
Total	1,195,126	1,209,898	689,081	691,565

[1] Fair values are based on cash flows discounted using Korean won currency note yield in the same credit grade with the Company(AA+), and borrowing rate quoted by People's Bank of China and others.

The present value of finance lease liabilities is as follows:

(in millions of Korean won)	**December 31, 2012**			**December 31, 2011**		
	Minimum lease payments	**Future finance costs**	**Present value**	**Minimum lease payments**	**Future finance costs**	**Present value**
Within 1 year	2,481	321	2,160	2,481	503	1,978
1 to 5 years	3,195	121	3,074	5,676	442	5,234

17. Provisions

Changes in the carrying amount of provisions for the years ended December 31, 2012, and 2011, are as follows:

	2012		
(in millions of Korean won)	**Sales returns** [1]	**Warranty** [2]	**Total**
Beginning balance	2,800	6,743	9,543
Additions	6,648	9,394	16,042
Used amount	(7,825)	(509)	(8,334)
Reversals	-	(4,045)	(4,045)
Ending balance	1,623	11,583	13,206
Less : current portion	(1,623)	(320)	(1,943)
Total	-	11,263	11,263

	2011		
(in millions of Korean won)	**Sales returns** [1]	**Warranty** [2]	**Total**
Beginning balance	2,822	2,127	4,949
Additions	8,678	9,003	17,681
Used amount	(8,700)	(4,387)	(13,087)
Reversals	-	-	-
Ending balance	2,800	6,743	9,543
Less : current portion	(2,800)	(4,429)	(7,229)
Ending balance	-	2,314	2,314

[1] Sales return provisions have been accrued for the estimated sales return determined based on historical experience.

[2] Warranty provisions have been accrued for the estimated warranty service costs to be incurred based on the terms of warranty and historical experience. Further, the Company purchased insurance policies to meet such obligations.

18. Defined benefit liability

The amounts recognized in the statements of financial position are as follows:

(in millions of Korean won)	**December 31, 2012**	**December 31, 2011**
Present value of obligations[1]	367,567	253,396
Fair value of plan assets	(261,666)	(192,619)
Liability in the statement of financial position	105,901	60,777

[1] The present value of retirement benefit obligations is net of existing contributions to the National Pension Plan of ₩945 million as of December 31, 2012 (2011: ₩979 million).

The amounts recognized in the statements of income for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Current service cost[1]	51,746	42,145
Interest cost	12,093	8,629
Expected return on plan assets	(7,475)	(6,764)
Total, included in employee benefit expenses	56,364	44,010

[1] The above amounts excluded ₩1,224 million (2011: ₩582 million) of expenses capitalized to construction in progress and development costs.

Severance costs recognized for defined contribution plan for the year ended December 31, 2012, amounted to ₩951 million (2011: ₩522 million).

The amounts recognized in the statement of income for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Cost of sales	38,603	29,994
Selling, general and administrative expenses	18,712	14,538
Total	57,315	44,532

Actuarial gains and losses recognized as other comprehensive income for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Actuarial losses before tax	(62,237)	(53,541)
Income tax effect	15,062	12,957
Actuarial losses after tax	(47,175)	(40,584)

As of December 31, 2012, ₩111,892 million (2011: ₩64,717 million) of accumulated actuarial losses are included in other comprehensive income.

Changes in the carrying amount of defined benefit obligations for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Beginning balance	253,396	162,363
Transfer in	2,019	886
Current service cost	52,970	42,727
Interest expense	12,093	8,629
Actuarial losses(before tax)	62,304	53,926
Benefits paid	(15,550)	(15,437)
Exchange differences	335	302
Ending balance	367,567	253,396

Changes in the fair value of plan assets for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Beginning balance	192,619	154,227
Transfer in	-	430
Expected return on plan assets	7,475	6,764
Actuarial gains/(losses) (before tax)	67	385
Employer contributions	70,000	40,000
Benefits paid	(8,495)	(9,187)
Ending balance	261,666	192,619

The actual return on plan assets for the year ended December 31, 2012, was ₩7,542 million (2011: ₩7,149 million).

The principal actuarial assumptions used are as follows:

	December 31, 2012	**December 31, 2011**
Discount rate	3.7%	4.9%
Expected return on plan assets	3.9%	4.3%
Future salary increase	5.1%	4.8%

The sensitivity analysis for changes in key actuarial assumptions is as follows:

(in millions of Korean won)	**Increase by 1%**	**Decrease by 1%**
Discount rate:		
Increase(decrease) of defined benefit obligations	(35,748)	42,495

Plan assets consist of:

(in millions of Korean won)	**December 31, 2012**		**December 31, 2011**	
	Amount	**Proportion**	**Amount**	**Proportion**
Equity instruments	36,128	14%	35,973	19%
Time deposits	88,858	34%	66,377	34%
Insurance contracts with guaranteed yield	136,680	52%	90,269	47%
Total	261,666	100%	192,619	100%

The amounts of experience adjustments on the defined benefit obligations and the plan assets are as follows:

(in millions of Korean won)	**December, 31 2012**	**December, 31 2011**	**December, 31 2010**	**December, 31 2009**
Present value of defined benefit obligations	367,567	253,396	162,363	219,256
Fair value of plan assets	(21,666)	(192,619)	(154,227)	(164,867)
Deficit in the plan	105,901	60,777	8,136	54,389
Experience adjustments on plan liabilities	(13,616)	(25,232)	(20,393)	(4,674)
Experience adjustments on plan assets	67	385	(1,002)	2,068

19. Other current liabilities

Other current liabilities consist of:

(in millions of Korean won)	**December 31, 2012**	**December 31, 2011**
Advances from customers	37,457	21,718
Dividends payable	1,115	1,143
Withholding	44,968	44,993
Unearned revenues	12,248	12,398
Others	56,819	55,516
Total	152,607	135,768

20. Commitments and contingencies

(1) The Parent Company and the newly established company, LG Hausys Ltd., are jointly liable for the obligations outstanding as of April 1, 2009, the spin-off date.

(2) As of December 31, 2012 and 2011, the Parent Company has been provided with guarantees from the Seoul Guarantee Insurance for the execution of supply contracts.

(3) As of December 31, 2012, the Parent Company has provided one blank promissory note to the Korea National Oil Corporation as collateral in relation to petroleum import surcharges.

(4) As of December 31, 2012, the Parent Company and certain overseas subsidiaries have various specific line of credit agreements with several financial institutions, as follows: The Company also entered into credit line agreements with other financial institutions relating to trade finance and import/export amounting to ₩200,000 million and US$ 410 million.

(*unit: Korean won in millions, foreign currencies in millions*)

Classification	The Company		Certain Overseas Subsidiaries				
	KRW	USD	USD	CNY	EUR	INR	PLN
Limit of bank overdraft	104,000	50	125	210	15	685	32
Limit of the letter of credit	64,000	247	5	-	-	675	-
Limit of discount of notes from export	-	1,454	-	-	-	-	-
Limit of guaranteed payments in other foreign currency	-	5	-	-	-	-	-
Limit of loan arrangements	-	-	1,247	3,932	3	1,895	20

(5) As of December 31, 2012, the Parent Company has B2B purchase arrangements with several financial institutions amount to ₩270,000 million.

(6) As of December 31, 2012, the Parent Company and certain overseas subsidiaries have been named as a plaintiff in 2 and 20 nine legal actions involving ₩200 million and ₩6,999 million in claims, respectively, and as a defendant in six and two legal actions with ₩1,598 million and ₩161 million in claims, respectively. The ultimate outcome of these cases cannot be determined at the reporting date.

(7) As of December 31, 2012, the Parent Company and certain overseas subsidiaries have been investigated by U.S. Department of Justice in relation to price fixing of small secondary batteries. However, this case would not have a material effect on its consolidated financial statements.

(8) As of December 31, 2012, the Parent Company has technology license agreements with STYRON EUROPE GmbH and other companies for the production of Polycarbonate products. Further, the Company has entered into manufacture and production technical contracts with Exxon Mobile and others.

(9) The Parent Company has entered into a license agreement with LG Corp. to use trademarks on the products that the Company manufactures and sells, and on the services the Company provides in relation to its business.

(10) As of December 31, 2012, the Parent Company has a long-term purchase contract for certain raw materials and the supplier has made US$ 132 million of credit guarantee contract with financial institutions. Further, as of December 31, 2012, the Parent Company has a contract of US$ 3 million and US$ 80 million guarantees with financial institutions in regard to a delivery contract for certain products and a purchase contract for certain raw materials, respectively.

(11) As of December 31, 2012, the Parent Company has guaranteed the repayment of various obligations of its subsidiaries and associates. The outstanding balance of such guarantees as of December 31, 2012, amounts to US$ 235 million, EUR 3 million and PLN 52 million (total equivalent to ₩274,898 million) (2011: US$ 214 million, EUR 3 million and PLN 52 million, total equivalent to ₩268,650 million). Details of guarantees provided as of December 31, 2012 and 2011, are as follows:

(in millions of Korean won)

		2012		
Guarantor	**Guarantee beneficiary**	**Financial institution**	**Amount of guarantee**	**Outstanding loan amount**
The Parent Company	LG Chem (Nanjing) Information & Electronics Materials Co., Ltd.	HSBC	64,821	64,821
	〃	Bank of America	32,411	32,411
	LG Chem Poland Sp. z o.o.	Nordea Bank	18,107	9,325
	LG Chem Europe GmbH	Shinhan Bank	4,249	-
	LG Chem Michigan, Inc.	Bank of America	26,778	26,778
	〃	Mizuho Bank	64,266	64,266
	〃	Sumitomo Mitsui bank	42,844	28,920
	〃	JP Morgan	21,422	-
	LG Chem Power, Inc.	Comerica Bank	-	-
	Total		274,898	226,521

(in millions of Korean won)

		2011		
Guarantor	**Guarantee beneficiary**	**Financial institution**	**Amount of guarantee**	**Outstanding loan amount**
The Parent Company	LG Chem (Nanjing) Information & Electronics Materials Co., Ltd.	Bank of China	33,430	33,430
	〃	HSBC	45,999	45,999
	〃	Bank of America	34,499	34,499
	LG Chem Poland Sp. z o.o.	Nordea Bank	17,610	9,836
	LG Chem Europe GmbH	ShinHan Bank	4,482	-
	LG Chem Michigan, Inc.	Bank of America	28,833	28,833
	〃	Mizuho Bank	69,198	34,599
	〃	Sumitomo Mitsui bank	23,066	23,066
	〃	JP Morgan	-	-
	LG Chem Power, Inc.	Comerica Bank	11,533	-
	Total		268,650	210,262

(12) Capital expenditure contracted for as of the reporting date but not yet incurred is as follows:

(in millions of Korean won)	**December 31, 2012**	**December 31, 2011**
Property, plant and equipment	1,066,350	1,182,391

21. Equity

Changes in share capital and share premium are as follows:

(in millions of Korean won)	**Ordinary shares**		**Preferred shares**		
	Number of shares	**Amount**	**Number of shares**	**Amount**	**Share premium**
January 1, 2011	66,271,100	331,356	7,628,921	38,144	897,424
December 31, 2011	66,271,100	331,356	7,628,921	38,144	897,424
December 31, 2012	66,271,100	331,356	7,628,921	38,144	897,424

Changes in treasury shares are as follows:

(in millions of Korean won)	**Number of shares**			
	Ordinary shares	**Preferred shares**	**Carrying amount**	**Gain on sale of treasury shares**
January 1, 2011	359,781	5,519	15,484	13,855
Purchase of treasury shares	3	-	-	-
December 31, 2011	359,784	5,519	15,484	13,855
Purchase of treasury shares	6	-	-	-
December 31, 2012	359,790	5,519	15,484	13,855

The Company intends to sell its treasury shares in the near future.

22. Retained earnings

Details of retained earnings are as follows:

(in millions of Korean won)	**December 31, 2012**	**December 31, 2011**
Legal reserve [1]	260,113	212,843
Discretionary reserve [2]	7,107,800	5,444,028
Unappropriated retained earnings	1,836,790	2,396,436
Total	9,204,703	8,053,307

1 The Commercial Code of the Republic of Korea requires the Company to appropriate an amount equal to a minimum of 10% of its cash dividends as a legal reserve until such reserve equals 50% of its paid-in capital. This reserve is not available for the payment of cash dividends, but may be transferred to common stock or used to reduce accumulated deficit, if any.

2 Pursuant to the Special Tax Treatment Control Law, the Company is required to appropriate, as a reserve for business rationalization, a portion of retained earnings equal to tax

reductions arising from investment and other tax credits. This reserve may be distributed as dividends after reversal.

23. Other components of equity

Details of other components of equity are as follows:

(in millions of Korean won)	**December 31, 2012**	**December 31, 2011**
Treasury shares (Note 21)	(15,484)	(15,484)
Capital transactions within the Company [1]	(215)	(215)
Total	(15,699)	(15,699)

[1] Included gain(loss) from transactions with non-controlling interests and other reserves of subsidiaries net of deferred taxes.

24. Selling, general and administrative expenses

Selling, general and administrative expenses for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Wages and salaries	264,145	253,053
Pension costs (Note 18)	18,712	14,538
Welfare expense	68,832	57,269
Travel expense	29,641	23,007
Water & utilities	20,693	18,225
Packaging expense	4,783	4,522
Rental expense	91,932	93,913
Commission expense	186,763	178,577
Depreciation (Note 13)	54,980	48,451
Advertising expense	20,330	18,378
Freight expense	374,598	332,550
Training expense	12,250	11,329
Amortization (Note 14)	12,805	10,846
Sample expense	13,321	8,406
Others	223,835	188,909
Total	1,397,620	1,261,973

25. Expenses by nature

Expenses that are recorded by function as cost of sales and selling, general and administrative expenses in the statements of income for the years ended December 31, 2012 and 2011, consist of:

(in millions of Korean won)	**2012**	**2011**
Changes in inventories	60,472	(220,617)
Raw materials and consumables used	15,806,300	15,103,836
Purchase of merchandise	821,842	868,358
Employee benefit expense (Note 26)	984,353	892,083
Advertising expense	21,551	19,379
Transportation expense	401,676	357,081
Service fees	286,012	271,187
Depreciation, amortization and impairment	873,538	756,668
Operating lease payments	46,495	43,061
Other expenses	2,050,457	1,765,799
Total	21,352,696	19,856,835

26. Employee benefit expense

(in millions of Korean won)	**2012**	**2011**
Wages and salaries	838,078	776,297
Pension costs – Defined benefit plan (Note 18)	56,364	44,010
Pension costs – Defined contribution plan (Note 18)	951	522
Others	88,960	71,254
Total	984,353	892,083

27. Finance income and expense

Details of finance income and expense for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Finance income		
Interest income [1]	30,099	27,393
Dividend income	157	159
Foreign exchange gain	41,268	93,108
Gain on foreign currency translation	15,828	28,785
Gain on settlement of trading derivatives	10,286	36,500
Gain on settlement of hedging derivatives	-	8,914
Gain on valuation of trading derivatives	2,352	-
Total	99,990	194,859
Financial expense		
Interest expense [2]	72,992	67,131
Foreign exchange loss	66,757	75,851
Loss on foreign exchange translations	9,021	8,994
Loss on settlement of trading derivatives	5,168	65,931
Others	-	2
Total	153,938	217,909

[1] Details of interest income are as follows:

(in millions of Korean won)	**2012**	**2011**
Bank deposits	29,187	26,534
Other loans and receivables	912	859
Total	30,099	27,393

[2] Details of interest expense are as follows:

(in millions of Korean won)	**2012**	**2011**
Interest on bank overdraft and borrowings	61,593	51,921
Interest on finance lease liabilities	502	669
Interest on debentures	23,876	8,512
Other interest expenses	17,286	28,584
Capitalized interest for qualifying assets	(30,265)	(22,555)
Total	72,992	67,131

28. Other non-operating income

Details of other non-operating income for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Foreign exchange gain	301,291	385,512
Gain on foreign currency translation	33,551	21,585
Gain on disposal of property, plant and equipment	4,967	2,286
Gain on disposal of intangible assets	64	-
Others	31,980	43,361
Total	371,853	452,744

29. Other non-operating expenses

Detail of other non-operating expense for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Foreign exchange loss	290,694	398,986
Loss on foreign currency translation	30,639	23,302
Loss on disposal of property, plant and equipment	5,514	6,652
Loss on disposal of intangible assets	1,046	10
Impairment loss on property, plant and equipment	2,102	-
Donations	24,326	24,420
Others	5,829	13,750
Total	360,150	467,120

30. Income taxes

Details of income tax expense are as follows:

(in millions of Korean won)	**2012**	**2011**
Current tax on profit for the year	320,315	561,514
Adjustments in respect of prior years	(25,026)	(6,153)
Deferred tax	63,803	58,610
	359,092	613,971
Current tax charged directly to equity	15,061	12,957
Income tax expense	374,153	626,928

The income taxes charged directly to other comprehensive income during the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Current tax		
Actuarial loss on defined benefit liability	15,061	12,957
Deferred tax		
Other consolidated comprehensive income	-	(6)
Actuarial loss on defined benefit liability	(128)	-
Cash flow hedges	286	(946)
Currency translation differences	42	(325)
Total	200	(1,277)

The movements in deferred tax assets (liabilities) for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**				
		Increase (Decrease)			
	Beginning balance	**Profit for the year**	**Other comprehensive income**	**Exchange differences**	**Ending balance**
Defined benefit liability	46,139	26,692	-	-	72,831
Plan assets	(46,139)	(16,487)	-	-	(62,626)
Reserve for research and human resources development	(94,380)	(87,120)	-	-	(181,500)
Allowance for doubtful accounts	3,742	(871)	-	(51)	2,820
Property, plant and equipment	46,047	17,354	-	(1,005)	62,396
Investments in subsidiaries, associates and joint ventures[1]	(14,974)	9,245	-	-	(5,729)
Accrued income	(447)	(1,293)	-	-	(1,740)
Others	31,126	(13,820)	-	156	17,462
	(28,886)	(66,300)	-	(900)	(96,086)
Deferred tax charged directly to equity	(30)	-	200	(191)	(21)
Tax credits carryforwards	-	-	-	-	-
Tax loss carryforwards	803	2,497	-	(94)	3,206
Deferred income tax assets (liabilities)	(28,113)	(63,803)	200	(1,185)	(92,901)

(in millions of Korean won)	2011				
		Increase (Decrease)			
	Beginning balance	Profit for the year	Other comprehensive income	Exchange differences	Ending balance
Defined benefit liability	26,697	19,442	-	-	46,139
Plan assets	(31,904)	(14,235)	-	-	(46,139)
Reserve for research and human resources development	(59,562)	(34,818)	-	-	(94,380)
Allowance for doubtful accounts	7,240	(3,416)	-	(82)	3,742
Property, plant and equipment	35,322	9,656	-	1,069	46,047
Investments in subsidiaries, associates and joint ventures[1]	(3,390)	(11,584)	-	-	(14,974)
Accrued income	(954)	506	-	1	(447)
Others	47,485	(16,105)	-	(254)	31,126
	20,934	(50,554)	-	734	(28,886)
Deferred tax charged directly to equity	1,247	-	(1,277)	-	(30)
Tax credits carryforwards	7,525	(7,525)	-	-	-
Tax loss carryforwards	1,334	(531)	-	-	803
Deferred income tax assets (liabilities)	31,040	(58,610)	(1,277)	734	(28,113)

[1] Deferred tax liabilities of ₩3,136 million (2011: ₩12,041million) for the accumulated temporary differences of ₩147,916 million (2011: ₩176,571 million) relating to unremitted earnings of certain subsidiaries have not been recognized as such amounts are reinvested permanently.

The reconciliation between income tax expense and accounting profit is as follows:

(in millions of Korean won)	**2012**	**2011**
Profit before income tax	1,880,498	2,796,598
Tax calculated based on applicable tax rate [1]	453,143	705,160
Tax adjustments		
Income not subject to tax	(8)	(9,780)
Expenses not deductible for tax purposes	10,255	22,222
Unrecognized deferred income tax for temporary differences in the current year	(117)	(504)
Tax credit	(93,209)	(111,419)
Effect from change of tax rate	467	5,180
Others	3,622	16,069
Income tax expense	374,153	626,928
Effective tax rate(income tax expense/ profit before income tax)	19.90%	22.42%

[1] The weighted average applicable tax rate on profit before income tax for the year ended December 31, 2012, is 24.09% (2011: 25.21%).

Realization of the future tax benefits related to the deferred tax assets is dependent on many factors, including the Company's ability to generate taxable income within the period during which the temporary differences reverse, the outlook of the economic environment, and the overall future industry outlook. Management periodically considers these factors in reaching its conclusion. The Company did not recognize deferred income tax assets of ₩21,138 million (2011: ₩16,578 million) for the tax loss carryforwards of ₩69,730 million (2011: ₩53,649 million).

31. Earnings per share

Basic earnings per share is calculated by dividing the profit attributable to owners of the Parent Company by the weighted average number of shares in issue excluding shares purchased by the Parent Company and held as treasury shares. As of the reporting date, the Parent Company has no potential ordinary shares. Preferred shares have a right to participate in the profits of the Parent Company. These participation rights have been considered in presenting the EPS for ordinary shares and preferred shares.

Basic earnings per share attributable to the owners of the Parent Company for the years ended December 31, 2012 and 2011, is computed as follows:

(in millions of Korean won)	**2012**	**2011**
Profit attributable to ordinary shares [1]	1,339,211	1,915,945
Weighted average number of ordinary shares outstanding [2]	65,911,316	65,911,319
Basic earnings per ordinary share (in won)	20,318	29,069

(in millions of Korean won)	**2012**	**2011**
Profit attributable to preferred shares[1]	155,276	221,981
Weighted average number of preferred shares outstanding[2]	7,623,402	7,623,402
Basic earnings per preferred share (in won)	20,368	29,118

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

(in millions of Korean won)	**2012**	**2011**
Profit for the year attributable to owners of the Parent Company	1,494,487	2,137,926
Ordinary shares dividends (A)	263,645	263,645
Preferred shares dividends (B)	30,875	30,875
Undistributed earnings for the year	1,199,967	1,843,406
Undistributed earnings available for ordinary shares (C)	1,075,566	1,652,300
Undistributed earnings available for preferred shares (D)	124,401	191,106
Profit for the year attributable to ordinary shares (A+C)	1,339,211	1,915,945
Profit for the year attributable to preferred shares (B+D)	155,276	221,981

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

	2012			
Ordinary shares	**Period**	**Number of shares**	**Number of days**	**Number of shares x days**
Beginning	2012. 1. 1 ~ 2012.12.31	65,911,316	366	24,123,541,656
Purchase of treasury shares	2012.12.31 ~2012.12.31	(6)	1	(6)
Total				24,123,541,650

Weighted average number of ordinary shares outstanding: 24,123,541,650 / 366 = 65,911,316 shares

	2012			
Preferred shares	**Period**	**Number of shares**	**Number of days**	**Number of shares x days**
Beginning	2012. 1. 1 ~ 2012.12.31	7,623,402	366	2,790,165,132
Total				2,790,165,132

Weighted average number of preferred shares outstanding: 2,790,165,132 / 366 = 7,623,402 shares

	2011			
Ordinary shares	**Period**	**Number of shares**	**Number of days**	**Number of shares x days**
Beginning	2011. 1. 1 ~ 2011.12.31	65,911,319	365	24,057,631,435
Purchase of treasury shares	2011.12.31 ~2011.12.31	(3)	1	(3)
Total				24,057,631,432

Weighted average number of ordinary shares outstanding: 24,057,631,432 / 365 = 65,911,319 shares

	2011			
Preferred shares	**Period**	**Number of shares**	**Number of days**	**Number of shares x days**
Beginning	2011. 1. 1 ~ 2011.12.31	7,623,402	365	2,782,541,730
Total				2,782,541,730

Weighted average number of preferred shares outstanding: 2,782,541,730 / 365 = 7,623,402 shares

There were no dilutive potential outstanding ordinary shares at the reporting date. Accordingly, diluted earnings per share for profit attributable to owners of the Parent Company is identical to basic earnings per share.

32. Dividends

Details of dividends are as follows:

	2012	**2011**
Number of shares entitled to dividends: shares issued and outstanding (par value per share: ₩5,000)		
Ordinary shares	65,911,310	65,911,316
Preferred shares	7,623,402	7,623,402
Dividend per share (in won)		
Ordinary shares: cash	4,000 (80%)	4,000 (80%)
Preferred shares: cash	4,050 (81%)	4,050 (81%)
Cash dividends to distribute (in millions of Korean won)		
Ordinary shares	263,645	263,645
Preferred shares	30,875	30,875
	294,520	294,520

Dividend payout ratios for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2012**	**2011**
Dividends (A)	294,520	294,520
Profit for the year attributable to owners of the Parent Company (B)	1,494,487	2,137,926
Dividend payout ratio (A/B)	19.71%	13.78%

Dividend yield ratios for the years ended December 31, 2012 and 2011, are as follows:

	2012		**2011**	
(in Korean won)	**Ordinary shares**	**Preferred Shares**	**Ordinary shares**	**Preferred Shares**
Dividend per share (A)	4,000	4,050	4,000	4,050
Market value at the end of year (B)	330,000	102,000	317,500	107,500
Dividend yield ratio (A/B)	1.21%	3.97%	1.26%	3.77%

33. Related party transactions

Significant transactions, which occurred in the ordinary course of business with related parties for the years ended December 31, 2012 and 2011, and the related account balances as of December 31, 2012 and 2011, are summarized as follows:

(in millions of Korean won)	**2012**		**2011**	
	Sales	**Purchases**	**Sales**	**Purchases**
Entities with significant influence over the Company[1]	12	54,844	11	46,427
Associates and joint ventures	115,670	185,712	94,337	193,163
Key management	-	38,261	-	51,021
Others[2]	30,521	926,762	22,208	849,276
Total	146,203	1,205,579	116,556	1,139,887

(in millions of Korean won)	**2012**		**2011**	
	Receivables	**Payables**	**Receivables**	**Payables**
Entities with significant influence over the Company[1]	6,948	1,456	6,432	5,284
Associates and joint ventures	29,609	22,334	23,604	28,345
Key management	-	48,781	-	65,201
Others[2]	36,963	194,727	32,607	164,223
Total	73,520	267,298	62,643	263,053

1 The largest shareholder of the Company is LG Corp., which owns 33.53% of the Company's ordinary shares (Note 1).

2 Includes LG Corp.'s subsidiaries.

Compensation for key management of the Company for the years ended December 31, 2012 and 2011, consists of:

(in millions of Korean won)	**2012**	**2011**
Wages and salaries	36,909	35,895
Pension costs	1,352	2,638
Other long-term employee benefits	-	12,488
Total	38,261	51,021

Key management includes directors and audit committee members having duties and responsibilities over planning, operations and controlling of the Company's business activities.

The receivables from related parties are mainly from sales transactions. The receivables are unsecured in nature and bear no interest. There are no provisions held against receivables from related parties.

Details of the guarantees provided by the Company for related parties at the reporting date are disclosed in Note 20.

34. Cash generated from operations

Reconciliation between operating profit and net cash inflow (outflow) from operating activities for the years ended December 31, 2012 and 2011, is as follows:

(in millions of Korean won)	**2012**	**2011**
Profit before income tax	1,880,498	2,796,598
Adjustments for:		
Depreciation	854,512	740,987
Amortization	19,026	15,681
Pension costs	56,364	44,010
Finance income	(93,306)	(123,046)
Financial expense	116,294	165,359
Foreign exchange differences	(60,963)	8,365
Gain on disposal of property, plant and equipment	(4,967)	(2,286)
Loss on disposal of property, plant and equipment	5,514	6,652
Impairment loss on property, plant and equipment	2,102	-
Gain on disposal of intangible assets	(64)	-
Loss on disposal of intangible assets	1,046	10
Other expenses	13,497	(10,165)
Inventories	(220,875)	(275,593)
Trade receivables	(119,851)	(533,618)
Other receivables	(21,244)	(36,467)
Settlement of derivatives	5,118	(27,237)
Trade payables	92,830	172,451
Other payables	(161,401)	105,722
Defined benefit liability	(75,035)	(45,794)
Other cash flows from operations	(18,736)	(15,723)
Cash generated from operations	2,270,359	2,985,906

The principal non-cash transactions for the years ended December 31, 2012 and 2011, are as follows:

(in millions of Korean won)	**2011**	**2011**
Transfer of construction-in-progress	1,702,867	1,340,674
Transfer of machinery-in-transit	367,134	145,854
Reclassification of long-term borrowings into current maturities	136,910	378,045
Gain on valuation of derivatives recognized as other comprehensive income	527	4,682

35. Segment information

(1) General information about the Company's reportable segments is as follows:

Segment	Products or services	Major customers
Petrochemicals	ABS, PC, EP, PE, PP, Acrylic, Alcohol, SAP, PVC, Synthetic rubber, Specialty resin, BPA, Ethylene, Propylene and others	LG International Corp., LG Electronics Inc., Daewoo Electronics Inc., National Plastic Co. Ltd., Youl Chon Chemical Co. Ltd., OCI Company Co. Ltd., Mitsui & Co. Ltd., and others
Information & Electronic Materials	Polarizers, 3D FPR and others	LG Display Co., LG Electronics Inc., and others
Batteries	Portable batteries and batteries for vehicles	LG Electronics Inc., Nokia Corp., Apple Inc., Hewlett-Packard Co. and others
Common and others	General management, sales and R&D	

(2) The segment information on revenue and profit and loss for the years ended December 31, 2012 and 2011, is as follows:

(in millions of Korean won)	2012				
	Petro - Chemicals	**Information & Electronic Materials**	**Batteries**	**Common and others[4]**	**Total**
Total segment revenue	17,579,443	3,451,499	2,478,926	24,033	23,533,901
Inter-segment revenue[1]	65,160	180,782	907	24,033	270,882
Revenue from external customers[2]	17,514,283	3,270,717	2,478,019	-	23,263,019
Operating profit (loss)[3]	1,436,172	435,645	38,783	(277)	1,910,323
Finance income[2]	80,612	13,703	5,241	434	99,990
Financial expenses	117,785	19,979	16,917	(743)	153,938
Depreciation and amortization	450,792	195,235	226,709	802	873,538
Share of the profit of associate and joint ventures	9,269	1,583	1,568	-	12,420
Other non-operating income	176,063	89,215	109,380	(2,805)	371,853
Other non-operating expenses	184,786	73,389	101,781	194	360,150

Profit (loss) before tax	1,466,771	426,555	(10,731)	(2,097)	1,880,498

(in millions of Korean won)	2011				
	Petro - Chemicals	**Information & Electronic Materials**	**Batteries**	**Common and others[4]**	**Total**
Total segment revenue	17,324,733	3,343,219	2,268,563	1,343	22,937,858
Inter-segment revenue[1]	59,385	201,537	-	1,343	262,265
Revenue from external customers[2]	17,265,348	3,141,682	2,268,563	-	22,675,593
Operating profit (loss)[3]	2,329,058	374,347	117,524	(2,171)	2,818,758
Finance income[2]	152,139	30,939	17,282	(5,501)	194,859
Financial expenses	165,187	36,294	17,439	(1,011)	217,909
Depreciation and amortization	419,431	157,546	178,212	1,479	756,668
Share of the profit of associate and joint ventures	11,039	3,038	1,150	39	15,266
Other non-operating income	253,677	92,892	107,109	(934)	452,744
Other non-operating expenses	254,274	95,836	116,384	626	467,120
Profit (loss) before tax	2,389,076	353,222	62,757	(8,457)	2,796,598

1 Sales between segments are carried out at arm's length.
2 Revenue from external customers consists of sales of goods. Interest income and dividend income are included in finance income.
3 Management assesses the performance of the operating segments based on a measure of operating profit of segment.
4 Common and other segments include operating segments not qualifying as a reportable segment, supporting divisions as well as R&D divisions.

(3) The segment information on assets and liabilities as of December 31, 2012 and 2011, is as follows:

(in millions of Korean won)	December 31, 2012				
	Petro - chemicals	**Information & Electronic Materials**	**Batteries**	**Common and others**	**Total**
Total assets for the segment [1]	8,569,342	2,790,309	3,082,677	2,138,825	16,581,153
Investments in associates and joint ventures	169,529	-	14,210	221,329	405,068
Total liabilities for the segment [1]	2,678,198	597,202	1,102,513	1,437,885	5,815,798

(in millions of Korean won)	December 31, 2011				
	Petro - chemicals	**Information & Electronic Materials**	**Batteries**	**Common and others**	**Total**
Total assets for the segment [1]	7,792,664	2,287,111	2,867,562	2,338,217	15,285,554
Investments in associates and joint ventures	95,334	-	14,210	218,864	328,408
Total liabilities for the segment [1]	2,833,012	419,535	1,133,791	1,191,537	5,577,875

[1] Assets and liabilities are measured in a manner consistent with those in the financial statements and allocated on the basis of segment operation. Corporate assets and liabilities as of December 31, 2011, were reallocated in line with the current year allocation method.

(4) The external sales by geographical segments from continuing operations are as follows:

(in millions of Korean won)	**2012**	**2011**
Korea[1]	10,067,791	9,876,440
China	9,802,912	9,639,702
South East Asia	1,694,865	1,464,064
America	1,752,895	1,577,783
Western Europe	879,755	695,723
Others	3,015,968	2,910,444
Eliminations	(3,951,167)	(3,488,563)
Total	23,263,019	22,675,593

[1] Domestic sales include the exports made through local letters of credit.

(5) There is no external customer attributing to more than 10% of total revenue for the years ended December 31, 2012 and 2011.

36. Approval of financial statements

The consolidated financial statements for the year ended December 31, 2012, were approved by the Board of Directors on January 29, 2013.