



SAMSUNG ELECTRONICS Co., Ltd.
2016 Business Report
For the year ended December 31, 2016

Certain statements in the document, other than purely historical information, including estimates, projections, statements relating to our business plans, objectives and expected operating results, and the assumptions upon which those statements are based, are “forward-looking statements.” Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties which may cause actual results to differ materially from the forward-looking statements. A detailed discussion of risks and uncertainties that could cause actual results and events to differ materially from such forward-looking statements is included in our financial reports available on our website.

See, also, 『Note on Forward-Looking Statements』 in preamble of 『II. Business Overview』.

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Certification

Letter of Certification

We, Oh-Hyun Kwon and Sang-Hoon Lee, as CEO and executive of the company in charge of reporting, certify that we have reviewed the annual business report of Samsung Electronics Co., Ltd. for the year ended December 31, 2016.

Based on our knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary that would be misleading with respect to the period covered by this report.

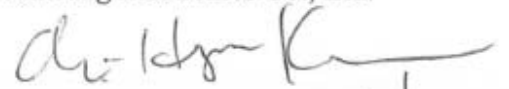
Based on our knowledge, the financial statements, and other financial information included in the report, fairly present in all materials respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report.

We confirm that Samsung Electronics operates an Internal Accounting Management System, responsible for establishing and maintaining disclosure controls and procedures and internal controls over financial reporting, as defined in Article 2.2 and 2.3 of the External Audit Act. We have disclosed our most recent evaluation of internal controls over financial reporting to the Company's auditors and to the audit committee of the Company's board of directors.

Date: 2017. 4. 28

Oh-Hyun Kwon (signature)

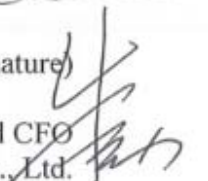
Vice Chairman and CEO,
Samsung Electronics Co., Ltd.



Executive responsible for reporting:

Sang-Hoon Lee (signature)

President and CFO
Samsung Electronics Co., Ltd.



I. Corporate Overview

1. Overview

A. Legal, Commercial Name:

- Samsung Electronics Co., Ltd.

B. Date of Establishment:

- Samsung Electronics Co., Ltd. (“SEC”) was established as Samsung Electronics Industry Co., Ltd. on January 13, 1969, and held an initial public offering on June 11, 1975.
- SEC changed its name from Samsung Electronics Industry Co., Ltd. to Samsung Electronics Co., Ltd. following a resolution passed at the Annual General Meeting of Shareholders on February 28, 1984.

C. Address, Phone Number, and English Language Website of the Corporate Headquarter

- Address: 129, Samsung-ro, Yeongtong-gu, Suwon, Gyeonggi-do, Korea
- Phone Number: 82-31-200-1114
- Website: [http:// www.samsung.com/sec](http://www.samsung.com/sec)

D. The Company is not subject to Article 2 of the Framework Act on Small and Medium Enterprises.

E. Core Businesses

- The Company (defined below) separately oversees three independent self-determining divisions (each a “**Division**”), CE (Consumer Electronics), IM (Information Technology & Mobile Communications), and DS (Device Solutions).

Products in each Division are presented below:

Division	Products
CE	TV, Monitor, Refrigerator, Washing Machine, Air Conditioner, Medical Devices, etc.
IM	HHP, Network System, Computer, etc.
DS	DRAM, NAND Flash, Mobile AP, LCD panel, OLED panel, etc.

The Company is a global electronics company comprised of the headquarters in Korea and 169 subsidiaries (SEC and its subsidiaries collectively, “Samsung Electronics” or the “Company”) across the world including nine (9) regional headquarters for the CE and IM Divisions and five (5) regional headquarters for the DS Division.

[CE Division]

The CE Division is leading the global digital era by continuously offering new products with innovative technology, unique design, and enhanced value propositions.

TV is the core product of CE. The Company has maintained its market leadership position for the past eleven (11) consecutive years by leveraging competitive advantages in hardware such as LCD/LED TVs as well as software driven product features within our Smart TV product portfolio.

[IM Division]

The IM Division is at the forefront of mobile lifestyle innovation with consumer-friendly products such as the premium ‘GALAXY’ series, while driving the paradigm shift in the market beyond mobile convergence to focus on software.

The IM Division is focused on meeting market demand by enhancing mobile product differentiation through seamless integration of key features from various product categories.

The IM Division expects increased convergence of mobile phones, digital media devices and personal computers, cameras and other devices in smartphones and tablets, with both serving as replacements for certain devices. As a result, the IM Division has made, and will continue to make, significant investments in research and development of new technologies, products and services.

In addition to handheld phone (“HHP”) products including smartphones, the IM Division is also leading technological development and standardization in the global networks system market including Long Term Evolution (“LTE”).

[DS Division]

The DS Division is comprised of the semiconductor sub-division and the display panel business. The semiconductor sub-division (“Semiconductor Sub-Division”) is further divided into the memory business and the system LSI business. The Company’s memory business unit (“Memory” or “Memory Business Unit”) manufactures and sells DRAM and NAND products. The Company’s system LSI business unit (“System LSI”) manufactures mobile application processors (“Mobile APs” or “APs”) and customized logic products. The display business (“DP Business Unit”) manufactures and sells display panels (“DP”).

The Company is constantly working to increase its influence on end-product manufacturers and create new demand by developing high quality components and through technological breakthroughs, as it has done with high-end 3D TV panels and in memory components like DRAM by increasing capacity by increasing density.

The Memory Business Unit produces differentiated products and has maintained the top position in the global memory market by continuously applying the latest advanced process technology ahead of the competition with each technological iteration. The system LSI market is shifting from PCs to mobile devices and like its sibling, the System LSI business unit plans to stay at the forefront of this market by offering differentiated products created using the latest advanced process technology and through efficient inventory management.

The Company’s TFT-LCD business has been maintaining its position as a leader in the global flat panel display market by developing evermore higher resolution panels that are more energy efficient and by producing these panels more cost efficiently with a higher yield rate.

OLED is increasingly and rapidly replacing TFT-LCD in smart phones and other IT devices. The Company is also a market leader in the OLED displays, reaping the benefits of its continued investment and technological breakthroughs.

☞ See 『II. Businesses Overview』, for more details about each Division.

F. Affiliates

SEC is an affiliate of the Samsung group as defined under Korea's Monopoly Regulation and Fair Trade Act ("Samsung Group").

As of December 31, 2016, Samsung Group had a total of fifty-eight (58) domestic affiliates, reduction of seven (7) affiliates (Nuri Solution, Samsung Fine Chemicals, S-EnPol, Hantok Chemicals, SDI-Chemical Co., Ltd., Jeongahm Wind Power, Allat) and addition of three (3) affiliates (Samsung Fire & Marine Insurance Financial Service, SDI-Chemical Co., Ltd., S-Printing Solution Co., Ltd.) when compared to December 31, 2015. Among the Samsung Group's fifty-eight (58) domestic affiliates, sixteen (16) affiliates including Samsung Electronics are listed, and forty-two (42) affiliates are unlisted.

[As of December 31, 2016]

	No. of affiliates	Name of affiliates
Listed	16	Samsung C&T, Samsung Electronics, Samsung SDI, SEMCO, Samsung Fire & Marine Insurance, Samsung Heavy Industries, Samsung Life Insurance, MULTICAMPUS, Samsung Securities, Samsung SDS, Samsung Card, Samsung Engineering, S1, Cheil Worldwide, Hotel Shilla, Samsung Biologics
Unlisted	42	Seoul Lakeside CC, Samwoo Architects & Engineers, CVnet Corporation, Samsung Bioepis, Samsung Display, Samsung Corning Advanced Glass, SU Materials, STECO, SEMES, Samsung Electronics Service, Samsung Electronics Sales, Samsung Electronics Logitech, Suwon Samsung Bluewings FC, Samsung Medison, Samsung Claim Adjustment Service, Samsung Fire & Marine Insurance Service, Samsung Fire & Marine Insurance Financial Service, Daejung Offshore Wind Power Co., Ltd., Samsung Futures, Samsung Asset Management, Saengbo, Samsung Life Service, Samsung SRA Asset Management, Samsung Life Financial Service, SD Flex, Cheil Fashion Retail Co., Ltd., Natural9, Samsung Welstory, S-Printing Solution, SECUI, STM, S-Core, OpenHands, Miracom, Samsung Card Customer Service, Human TSS, S-1CRM, Shilla Stay, HDC Shilla Duty Free LTD, SERI, Samsung Lions, Samsung Venture Investment Corporation
Total	58	

※ Effective March 11, 2016, CREDU changed its name to Multicampus Co., Ltd.

※ Effective April 1, 2016, Colombo Korea changed its name to Cheil Fashion Retail Co., Ltd.

※ Effective December 15, 2016, Allat was excluded from the Company group (sold its shares on September 30, 2016)

☞ See 『IX. Affiliates and Subsidiaries』 for more details about domestic and overseas affiliates.

G. Subsidiaries Subject to Consolidated Financial Statements

As of December 31, 2016, Samsung Electronics' consolidated subsidiaries totaled 169 with the addition of twenty (20) newly established or acquired subsidiaries and the subtraction of ten (10) subsidiaries when compared to December 31, 2015. Below is the list of consolidated subsidiaries.

(Unit: KRW million)

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2015 Assets	% ownership	Classified as major subsidiary (Y/N)
Samsung Electronics America Inc.	1978.07	Sale of electronic goods	14,875,687	Over 50%	Y
NexusDX Inc.	2009.07	Medical equipment	9,513	Over 50%	N
NeuroLogica Corp.	2004.02	Medical equipment	210,095	Over 50%	Y
Samsung Receivables Corporation	1998.03	Receivable management	2,627,030	Over 50%	Y
Dacor Holdings, Inc.	1998.12	Holding Company	21,928	Over 50%	N
Dacor	1965.03	Production and sale of home appliances	21,603	Over 50%	N
Dacor Canada Co.	2001.06	Sale of home appliances	515	Over 50%	N
EverythingDacor.com, Inc.	2006.06	Sale of home appliances	313	Over 50%	N
Distinctive Appliances of California, Inc.	2014.06	Sale of home appliances	389	Over 50%	N
Quietside LLC	2001.07	Sale of Air-conditioner	23,837	Over 50%	N
SmartThings, Inc.	2012.04	Sale of smart-home devices	214,616	Over 50%	Y
Samsung Oak Holdings, Inc.	2016.06	Holding company	0	Over 50%	N
Joyent, Inc.	2005.03	Cloud services	12,583	Over 50%	N
Samsung Pay, Inc.	2006.03	Develop and provide mobile payment services	300,278	Over 50%	Y
Stellus Technologies, Inc.	2015.11	Production and sales of storage systems	0	Over 50%	N
Prismview, LLC (formerly YESCO Electronics LLC)	2007.10	LED display panel production and sales	47,294	Over 50%	N
Samsung Semiconductor Inc.	1983.07	Sale of semiconductors and display panels	8,288,391	Over 50%	Y
Samsung Electronics Canada Inc.	1980.07	Sale of electronic goods	465,801	Over 50%	Y
PrinterOn Inc.	2000.04	Sale of printing solutions	6,773	Over 50%	N
PrinterOn America Corporation	1986.04	Sale of printing solutions	74	Over 50%	N
AdGear Technologies Inc.	2010.08	Digital advertising platform	5,585	Over 50%	N
Viv Labs, Inc.	2012.09	Artificial Intelligence platform	24,582	Over 50%	N
NewNet Communication Technologies(Canada), Inc.	2009.07	Develop text messaging services	4,756	Over 50%	N
RT SV CO-INVEST, LP	2014.02	Investment in venture firms	13,557	Over 50%	N
Samsung Research America, Inc	1988.10	R&D	274,403	Over 50%	Y
Samsung Next LLC	2016.08	Holding company	0	Over 50%	N
Samsung Next Fund LLC	2016.08	Investment in venture firms and new technologies	0	Over 50%	N
Samsung International Inc.	1983.10	Production of TVs and monitors	51,164	Over 50%	N
Samsung Mexicana S.A. de C.V	1988.03	Production of electronic goods	884,512	Over 50%	Y
Samsung Austin Semiconductor LLC.	1996.02	Production of semiconductors	6,179,289	Over 50%	Y

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2015 Assets	% ownership	Classified as major subsidiary (Y/N)
Samsung Electronics Mexico S.A. De C.V.	1995.07	Sale of electronic goods	1,030,161	Over 50%	Y
SEMES America Inc.	1998.10	Semiconductor equipment	1,050	Over 50%	N
Samsung Electronics Digital Appliance Mexico, SA de CV	2012.12	Production of electronic goods	435,513	Over 50%	Y
Samsung Electronics Latinoamerica Miami, Inc.	1995.05	Sale of electronic goods	194,088	Over 50%	Y
Samsung Electronics Latinoamerica (Zona Libre)	1989.04	Sale of electronic goods	318,028	Over 50%	Y
Samsung Electronics Venezuela, C.A.	2010.05	Marketing and services	4,599	Over 50%	N
Samsung Electronica Colombia S.A.	1997.03	Sale of electronic goods	376,453	Over 50%	Y
Samsung Electronics Panama. S.A.	2012.07	Consulting	9,529	Over 50%	N
Samsung Electronica da Amazonia Ltda.	1995.01	Production and sale of electronic goods	3,114,334	Over 50%	Y
Simpres Comercio, Locacao e Servicos S.A.	2005.02	Sale of printing solutions	130,007	Over 50%	Y
Samsung Electronics Argentina S.A.	1996.06	Marketing and services	40,459	Over 50%	N
Samsung Electronics Chile Limitada	2002.12	Sale of electronic goods	345,850	Over 50%	Y
Samsung Electronics Peru S.A.C.	2010.04	Sale of electronic goods	206,571	Over 50%	Y
Beijing Integrated Circuit Industry International Fund, L.P	2014.12	Investment in venture firms	18,707	Over 50%	N
Samsung Electronics (UK) Ltd.	1995.07	Sale of electronic goods	1,125,885	Over 50%	Y
Samsung Electronics(London) Ltd.	1999.01	Holding company	7,627	Over 50%	N
Samsung Electronics Holding GmbH	1982.02	Holding company	383,777	Over 50%	Y
Samsung Semiconductor Europe GmbH	1987.12	Sale of semiconductors and display panels	904,359	Over 50%	Y
Samsung Electronics GmbH	1984.12	Sale of electronic goods	1,820,922	Over 50%	Y
Samsung Electronics Iberia, S.A.	1989.01	Sale of electronic goods	642,393	Over 50%	Y
Samsung Electronics France S.A.S	1988.01	Sale of electronic goods	908,971	Over 50%	Y
Samsung Electronics Hungarian Private Co. Ltd.	1989.10	Production and sale of electronic goods	1,254,673	Over 50%	Y
Samsung Electronics Czech and Slovak s.r.o.	2010.01	Sale of electronic goods	133,947	Over 50%	Y
Samsung Electronics Italia S.P.A.	1991.04	Sale of electronic goods	768,278	Over 50%	Y
Samsung Electronics Europe Logistics B.V.	1991.05	Logistics	1,894,614	Over 50%	Y
Samsung Electronics Benelux B.V.	1995.07	Sale of electronic goods	1,264,497	Over 50%	Y
Samsung Display Slovakia s.r.o.	2007.03	Display panel processing	156,256	Over 50%	Y
Samsung Electronics Romania LLC	2007.09	Sale of electronic goods	188,451	Over 50%	Y
Samsung Electronics Polska, SP.Zo.o	1996.04	Sale of electronic goods	457,516	Over 50%	Y
Samsung Electronics Portuguesa S.A.	1982.09	Sale of electronic goods	155,940	Over 50%	Y
Samsung Electronics Nordic Aktiebolag	1992.03	Sale of electronic goods	701,525	Over 50%	Y
Samsung Semiconductor Europe Ltd.	1997.04	Sale of semiconductors and display panels	90,287	Over 50%	Y
Samsung Electronics Austria GmbH	2002.01	Sale of electronic goods	289,807	Over 50%	Y
Samsung Electronics Switzerland GmbH	2013.05	Sale of electronic goods	145,143	Over 50%	Y
Samsung Electronics Slovakia s.r.o	2002.06	Production of TVs and monitors	1,888,341	Over 50%	Y

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2015 Assets	% ownership	Classified as major subsidiary (Y/N)
Samsung Electronics Baltics SIA	2001.10	Sale of electronic goods	69,023	Over 50%	N
Samsung Electronics Europe Holding Cooperatief U.A.	2008.10	Holding company	6,989,207	Over 50%	Y
Samsung Electronics Poland Manufacturing SP.Zo.o	2010.02	Production of home appliances	317,465	Over 50%	Y
Samsung Electronics Greece S.A.	2010.04	Sale of electronic goods	93,625	Over 50%	Y
Samsung Nanoradio Design Center	2004.02	R&D	24,043	Over 50%	N
Samsung Denmark Research Center ApS	2012.09	R&D	20,389	Over 50%	N
Samsung France Research Center SARL	2012.10	R&D	20,653	Over 50%	N
Samsung Cambridge Solution Centre Limited	2012.09	R&D	129,225	Over 50%	Y
PrinterOn Europe Limited	2013.11	Sale of printing solutions	76	Over 50%	N
Joyent Ltd.	2014.04	Cloud services	107	Over 50%	N
Samsung Electronics Overseas B.V.	1997.01	Sale of electronic goods	105,859	Over 50%	Y
Samsung Electronics Rus LLC	1999.03	Marketing	7,104	Over 50%	N
Samsung Electronics Rus Company LLC	2006.10	Sale of electronic goods	598,708	Over 50%	Y
Samsung Electronics Ukraine LLC	2004.01	Marketing	0	Over 50%	N
Samsung Electronics Ukraine Company LLC	2008.09	Sale of electronic goods	107,816	Over 50%	Y
Samsung R&D Institute Rus LLC	2011.11	R&D	10,121	Over 50%	N
Samsung Electronics Central Eurasia LLP	2008.09	Sale of electronic goods	82,420	Over 50%	Y
Samsung Electronics Caucasus Co., Ltd.	2014.10	Marketing	2,237	Over 50%	N
Samsung Electronics Rus Kaluga LLC	2007.07	Production of TVs	608,200	Over 50%	Y
Samsung Electronics West Africa	2010.03	Marketing	48,471	Over 50%	N
Samsung Electronics East Africa	2011.12	Marketing	40,347	Over 50%	N
Samsung Gulf Electronics Co., Ltd.	1995.05	Sale of electronic goods	952,236	Over 50%	Y
Samsung Electronics Egypt S.A.E	2012.07	Production and sale of electronic goods	539,155	Over 50%	Y
Samsung Electronics Israel Ltd.	2012.09	Marketing	5,377	Over 50%	N
Samsung Electronics Tunisia S.A.R.L	2012.09	Marketing	2,637	Over 50%	N
Samsung Electronics Pakistan(Private) Ltd.	2012.11	Marketing	2,492	Over 50%	N
Samsung Electronics South Africa(Pty) Ltd.	1994.06	Sale of electronic goods	603,300	Over 50%	Y
Samsung Electronics South Africa Production (pty) Ltd.	2014.07	Production of TV and monitors	38,848	Over 50%	N
Samsung Electronics Turkey	1984.12	Sale of electronic goods	578,873	Over 50%	Y
Samsung Semiconductor Israel R&D Center, Ltd.	2007.10	R&D	37,860	Over 50%	N
Samsung Electronics Levant Co.,Ltd.	2009.07	Sale of electronic goods	365,939	Over 50%	Y
Samsung Electronics Maghreb Arab	2009.11	Sale of electronic goods	100,686	Over 50%	Y
Samsung Japan Corporation	1975.12	Sale of electronic goods	656,101	Over 50%	Y
Samsung R&D Institute Japan Co. Ltd	1992.08	R&D	157,461	Over 50%	Y
Samsung Electronics Japan Co., Ltd.	2008.09	Sale of electronic goods	301,514	Over 50%	Y

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2015 Assets	% ownership	Classified as major subsidiary (Y/N)
Samsung Electronics Display (M) Sdn. Bhd.	1995.03	Production and sale of electronic goods	246,755	Over 50%	Y
Samsung Medison India Private Ltd.	2009.01	Medical equipment	32	Over 50%	N
Samsung Electronics (M) Sdn. Bhd.	1989.09	Production of home appliances	117,879	Over 50%	Y
Samsung Vina Electronics Co., Ltd.	1995.01	Sale of electronic goods	350,158	Over 50%	Y
Samsung Asia Private Ltd.	2006.07	Sale of electronic goods	4,227,798	Over 50%	Y
Samsung India Electronics Private Ltd.	1995.08	Production and sale of electronic goods	3,723,127	Over 50%	Y
Samsung R&D Institute India-Bangalore Private Ltd.	2005.05	R&D	147,149	Over 50%	Y
Samsung Electronics Australia Pty. Ltd.	1987.11	Sale of electronic goods	431,714	Over 50%	Y
Samsung Electronics New Zealand Limited	2013.09	Sale of electronic goods	53,454	Over 50%	N
PT Samsung Electronics Indonesia	1991.08	Production and sale of electronic goods	964,021	Over 50%	Y
PT Samsung Telecommunications Indonesia	2003.03	Sale of telecom systems and services	2,011	Over 50%	N
Thai Samsung Electronics Co., Ltd.	1988.10	Production and sale of electronic goods	1,889,410	Over 50%	Y
Laos Samsung Electronics Sole Co., Ltd	2016.09	Marketing	0	Over 50%	N
Samsung Electronics Philippines Corporation	1996.03	Sale of electronic goods	197,197	Over 50%	Y
Samsung Display Vietnam Co., Ltd	2014.07	Display panel production	961,730	Over 50%	Y
Samsung Malaysia Electronics (SME) Sdn. Bhd.	2003.05	Sale of electronic goods	312,263	Over 50%	Y
Samsung R&D Institute BanglaDesh	2010.08	R&D	8,242	Over 50%	N
Samsung Electronics Vietnam Co., Ltd.	2008.03	Production of electronic goods	7,829,507	Over 50%	Y
Samsung Electronics Vietnam THAINGUYEN Co., Ltd.	2013.03	Production of telecom products	6,571,798	Over 50%	Y
Samsung Electronics HCMC CE Complex Co. Ltd.,	2015.02	Production and sale of electronic goods	415,465	Over 50%	Y
Samsung Display Dongguan Co., Ltd.	2001.11	Display panel production	1,276,263	Over 50%	Y
Samsung Display TianJin Co., Ltd.	2004.06	Display panel production	958,820	Over 50%	Y
Samsung Electronics Hong Kong Co., Ltd.	1988.09	Sale of electronic goods	948,800	Over 50%	Y
Suzhou Samsung Electronics Co., Ltd.	1995.04	Production of home appliances	637,485	Over 50%	Y
Samsung Suzhou Electronics Export Co., Ltd.	1995.04	Production of home appliances	385,732	Over 50%	Y
Samsung (CHINA) Investment Co., Ltd.	1996.03	Sale of electronic goods	12,748,395	Over 50%	Y
Samsung Mobile R&D Center, China-Guangzhou	2010.01	R&D	52,046	Over 50%	N
Samsung Tianjin Mobile Development Center	2010.08	R&D	24,628	Over 50%	N
Samsung R&D Institute China-Shenzhen	2013.03	R&D	12,014	Over 50%	N
Samsung Electronics Suzhou Semiconductor Co., Ltd.	1994.12	Semiconductor processing	836,562	Over 50%	Y
SEMES (XIAN) Co., Ltd.	2013.07	Semiconductor equipment	1,001	Over 50%	N
Samsung Electronics (Shandong) Digital Printing Co., Ltd.	1993.03	Production of printers	853,982	Over 50%	Y
Samsung Electronics Huizhou Co., Ltd.	1992.12	Production of electronic goods	6,192,974	Over 50%	Y
Tianjin Samsung Electronics Co., Ltd.	1993.04	Production of TV and monitors	858,675	Over 50%	Y
Samsung Electronics Taiwan Co., Ltd.	1994.11	Sale of electronic goods	1,253,480	Over 50%	Y

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2015 Assets	% ownership	Classified as major subsidiary (Y/N)
Beijing Samsung Telecom R&D Center	2000.09	R&D	65,595	Over 50%	N
Tianjin Samsung Telecom Technology Co., Ltd.	2001.03	Production of telecom products	2,075,123	Over 50%	Y
Shanghai Samsung Semiconductor Co., Ltd.	2001.10	Sale of semiconductor and display panels	3,792,437	Over 50%	Y
Samsung Electronics Suzhou Computer Co., Ltd.	2002.09	Production of electronic goods	886,593	Over 50%	Y
Samsung Suzhou Module Co., Ltd	2002.09	Display panel processing	684,646	Over 50%	Y
Samsung Suzhou LCD Co., Ltd	2011.07	Display panel production	2,784,122	Over 50%	Y
Shenzhen Samsung Electronics Telecommunication Co., Ltd.	2002.02	Sale of telecom products	118,697	Over 50%	Y
Samsung Semiconductor (China) R&D Co., Ltd.	2003.04	R&D	24,818	Over 50%	N
Samsung Electronics China R&D Center	2004.05	R&D	35,644	Over 50%	N
Samsung (China) Semiconductor Co., Ltd.	2012.09	Production of semiconductors	9,742,388	Over 50%	Y
Samsung Semiconductor Xian	2016.04	Sale of semiconductor and display panels	0	Over 50%	N
Samsung Electronics (Beijing) Service Company Limited	2005.01	Services	160,151	Over 50%	Y
Tianjin Samsung LED Co., Ltd.	2009.05	LED production	349,963	Over 50%	Y
Tianjin Samsung Opto-Electronics Co., Ltd.	1994.02	Camera/camcorder production	125,762	Over 50%	Y
Samsung Display	2012.04	Production and sale of display panels	39,225,460	Over 50%	Y
SU Materials	2011.08	Production of display panel component	26,131	Over 50%	N
STECO	1995.06	Production of semiconductor component	73,744	Over 50%	N
SEMES	1993.01	Semiconductor/FPD manufacturing equipment	717,229	Over 50%	Y
Samsung Electronics Service	1998.10	Electronics goods repair services	296,104	Over 50%	Y
Samsung Electronics Sales	1996.07	Sales of electronic goods	550,655	Over 50%	Y
Samsung Electronics Logitech	1998.04	Total logistics services	146,052	Over 50%	Y
Samsung Medison	1985.07	Medical equipment	315,073	Over 50%	Y
S-Printing Solution Co., Ltd.	2016.11	Sale of printing solutions	0	Over 50%	N
Mirero System	1994.01	Semiconductor S/W	17,446	Over 50%	N
SVIC #20 Venture Capital Union	2011.03	Investment in venture firms and new technologies	24,852	Over 50%	N
SVIC #21 Venture Capital Union	2011.11	Investment in venture firms and new technologies	181,200	Over 50%	Y
SVIC #22 Venture Capital Union	2011.11	Investment in venture firms and new technologies	163,503	Over 50%	Y
SVIC #23 Venture Capital Union	2012.10	Investment in venture firms and new technologies	29,364	Over 50%	N
SVIC #26 Venture Capital Union	2014.11	Investment in venture firms and new technologies	105,021	Over 50%	Y
SVIC #27 Venture Capital Union	2014.09	Investment in venture firms and new technologies	16,567	Over 50%	N
SVIC #28 Venture Capital Union	2015.02	Investment in venture firms and new technologies	64,453	Over 50%	N
SVIC #29 Venture Capital Union	2015.04	Investment in venture firms and new technologies	5,291	Over 50%	N
SVIC #32 Venture Capital Union	2016.08	Investment in venture firms and new technologies	0	Over 50%	N
SVIC #33 Venture Capital Union	2016.11	Investment in venture firms and new technologies	0	Over 50%	N

* Companies with over KRW 75 billion in total assets as of December 31, 2015, are classified as major subsidiaries.

* See 『II. Businesses Overview』 for additional information about major business segments.

(Changes in Subsidiaries)

	AMER	Europe/ MEA/ CIS	Asia	China	Domestic	Total	Increase	Decrease
Dec 31, 2011	26	51	25	30	24	156		
Dec 31, 2012	30	61	23	32	20	166	<p>[Domestic: 2] Samsung Display Co., Ltd., SVIC #23 Venture Capital Union</p> <p>[Americas: 8] Samsung LED AMERICA, Inc., mSpot Inc., Nanoradio Inc., Samsung Electronics Panama. S.A, Samsung Electroncis Corporative SA de CV, Samsung Electronics Digital Appliance, Mexico SA de CV, Nvelo, Inc., Newton Sub. Corp.</p> <p>[Europe/MEA/CIS: 11] Samsung LED Europe GmbH, Samsung Nanoradio Design Center, Nanoradio Hellas AE, General RF Modules AB, Samsung Cambridge Solution Centre Limited, Samsung Denmark Research Center ApS, Samsung Electronics Egypt S.A.E, Samsung Electronics Tunisia S.A.R.L, Samsung Electronics Israel, Samsung France Research Center SARL, Samsung Electronics Pakistan(Private) Ltd.</p> <p>[China: 2] Tianjin Samsung LED Co., Ltd., Samsung (China) Semiconductor Co., Ltd.</p>	<p>[Domestic: 6] Medison Healthcare, Samsung Mobile Display Co., Ltd., S-LCD Co., Ltd., SVIC #7 Venture Capital Union Prosonic Co., Ltd., SEHF Korea Co., Ltd.</p> <p>[Americas: 4] Samsung LED AMERICA, Inc., HX Diagnostics, Inc., HX Reagents, Inc., Nanoradio Inc.</p> <p>[Europe/MEA/CIS: 1] Samsung LED Europe GmbH</p> <p>[Asia: 2] Samsung Asia Private Ltd., Samsung Medison Japan Co., Ltd.</p>
Dec 31, 2013	25	55	22	33	18	153	<p>[Americas: 2] NeuroLogica Corp., Intellectual Keystone Technology LLC.</p> <p>[Europe/MEA/CIS: 1] Samsung Electronics Switzerland GmbH</p> <p>[Asia: 2] Samsung Electronics Vietnam THANGUYEN Co., Ltd., Samsung Electronics New Zealand Ltd.</p> <p>[China: 3] Samsung Network R&D Center China-Shenzhen, Samsung R&D Institute China-Xian, SEMES (XIAN) Co., Ltd.</p>	<p>[Domestic: 2] Secron, GES</p> <p>[Americas: 7] Newton Sub. Corp., mSpot, Inc., Deltapoint Cardiac Diagnostics, Inc., Samsung Medison America, Inc., Intellectual Keystone Technology LLC., Samsung Medison Brasil Ltda., Samsung Electronics Corporativo, SA de CV</p> <p>[Europe/MEA/CIS: 7] Samsung Telecoms (UK) Ltd., Samsung LCD Netherlands R&D Center B.V, Samsung LCD Netherlands R&D Center (UK) Limited, General RF Modules AB, Samsung Medison France S.A.S., Samsung Opto-Electronics GmbH, Samsung Medison Italia S.r.l.</p> <p>[Asia: 3] Samsung Electronic Philippines Manufacturing Corp., Batino Realty Corporation, TNP Small/Medium Size & Venture Enterprises Growth Promotion Investment Limited Partnership(TSUNAMI)</p> <p>[China: 2] Samsung LCD Netherlands R&D Center (HK)Limited, Medison (shanghai) Co., Ltd.</p>
Dec 31, 2014	30	56	22	32	18	158	<p>[Domestic : 2] SVIC #26 Venture Capital Union SVIC #27 Venture Capital Union</p> <p>[America: 6] RT SV CO-INVEST, LP, Quietside LLC, SmartThings, Inc., PrinterOn Inc., PrinterOn America Corporation, 1397011 Ontario Ltd.</p> <p>[Europe/MEA/CIS: 3] PrinterOn Europe Limited, Samsung Electronics South Africa Production(pty) Ltd., Samsung Electronics Caucasus Co., Ltd.</p> <p>[Asia : 1] Samsung Display Bac Ninh</p>	<p>[Domestic: 2] Samsung Blue Wings, World Cyber Games</p> <p>[America: 1] 1397011 Ontario Ltd.</p> <p>[Europe: 2] Samsung Medison Europe B.V Nanogen Recognomics GmbH</p> <p>[Asia: 1] Medison Medical Systems India Private Ltd.</p> <p>[China: 1] Medison Medical Equipment Shanghai Co., Ltd..</p>

Dec 31, 2015	33	55	24	30	17	159	<p>[Domestic : 2] SVIC #28 Venture Capital Union SVIC #29 Venture Capital Union [America: 6] Simpres Comercio, Locacao e Servicos S.A., Samsung Pay, Inc. (formerly LooPay, Inc.), YESCO Electronics LLC, Paymate Global, Inc., Beijing Integrated Circuit Industry International Fund, Stellus Technologies [Asia: 2] Samsung Electronics HCMC CE Complex Co. Ltd. Future Technology & Service</p>	<p>[Domestic: 3] RAY High Pioneer Private Investment Trust #1, SVIC #6 Venture Capital Union [America: 3] Samsung Telecommunications America LLC., Paymate Global, Inc., Nvelo, Inc. [China: 2] Samsung Electronics Hainan Fiberoptics Co.,Ltd Samsung Medison Shanghai Medical Instrument Co., Ltd [Europe: 1] Nanoradio Hellas AE</p>
Dec 31, 2016	44	53	23	29	20	169	<p>[Domestic : 4] SVIC #32 Venture Capital Union SVIC #33 Venture Capital Union Mirero System, S-Printing Solution Co., Ltd. [America: 13] Samsung Oak Holdings, Inc., Joyent, Inc., Joyent Canada, Inc., AdGear Technologies Inc., Samsung Next LLC, Samsung Next Fund LLC, Dacor Holdings, Inc., Dacor, Dacor Canada Co., EverythingDacor.com, Inc., Distinctive Appliances of California, Inc., Viv Labs, Inc., NewNet Communication Technologies(Canada), Inc. [Europe: 1] Joyent Ltd. [Asia: 1] Laos Samsung Electronics Sole Co., Ltd [China: 1] Samsung SemiConductor Xian</p>	<p>[Domestic : 1] SVIC #14 Venture Capital Union [America: 2] Grandis, Inc., Joyent Canada, Inc. [Europe/CIS: 3] Samsung Russia Service Centre, SonoAce Deutschland GmbH Samsung Electronics Kazakhstan LLP [Asia: 2] Samsung Telecommunications Malaysia, Future Technology & Service [China: 2] Samsung R&D Institute China-Xian, Samsung Electronics Shanghai Telecommunication Co., Ltd.</p>

※ AMER = America; MEA = Middle East and Africa, CIS = Commonwealth of Independent States

H. Credit Rating

SEC's credit rating is assessed by two external credit ratings agencies. As of December 31, 2016, SEC's credit ratings are: "A1" and investment outlook is stable, as rated by Moody's; and "A+" and investment outlook is stable, as rated by S&P.

Date	Securities	Ratings	Credit Rating Agency	Rating Range	Note
'14.08	Corporate bond	A+	S&P (USA)	(AAA ~ D)	Annual Review
'14.10	Corporate bond	A1	Moody's (USA)	(Aaa ~ C)	
'15.05	Corporate bond	A1	Moody's (USA)	(Aaa ~ C)	
'15.09	Corporate bond	A+	S&P (USA)	(AAA ~ D)	
'16.07	Corporate bond	A+	S&P (USA)	(AAA ~ D)	
'16.08	Corporate bond	A1	Moody's (USA)	(Aaa ~ C)	

2. Company History

(The Information disclosed below outlines major changes to the Company such as asset transfers, M&A, and security offerings)

2011.01.01	Merged with Samsung Electronics Gwangju
2011.02.16	Acquired shares of Prosonic (100%) and Medison (43.5%)
2011.04.29	Acquired additional shares of Medison (22.3%)
2011.07.01	Transferred solar cell business to Samsung SDI
2011.07.22	Samsung Information System America ("SISA"), a subsidiary of SEC, acquired shares of Grandis (100%)
2012.01.19	Acquired remaining shares of S-LCD Corporation (50%) from SONY
2012.04.01	Separated LCD business (established Samsung Display)
2012.04.01	Merged Samsung LED into SEC
2012.04.10	Samsung Electronics America ("SEA"), a subsidiary of SEC, issued USD \$1 billion of corporate bonds.
2012.07.01	Samsung Mobile Display merged with S-LCD (a subsidiary of Samsung Display)
2012.09.01	Samsung Medison, a subsidiary of SEC, merged with Prosonic
2012.12.01	Merged SEHF Korea into SEC
2013.01.01	Merged SECRON with GES (a subsidiary of SEMES)
2013.01.28	SEA acquired shares of NeuroLogica (100%)
2014.01.15	Samsung Display disposed of stock of Samsung Corning Precision Materials and purchased convertible preferred shares of Corning Incorporated
2014.08.18	SEA acquired shares of SmartThings (100%)
2015.01.01	SEA merged with Samsung Telecommunications America LLC ("STA")
2015.02.23	SEA acquired shares of LoopPay (100%)
2016.01.28	Sold shares of Samsung Card (37.5%)
2016.06.24	SEA acquired shares of Joyent (100%)
2016.09.07	SEA acquired shares of Dacor (100%)
2016.10.07	SEA acquired shares of Viv Labs (100%)
2016.11.01	Spun-off printing solutions business (established S-Printing Solution Co., Ltd.)

※ The Samsung Electronics Headquarters Address is: 129, Samsung-ro (Maetan-dong), Yeongtong-gu, Suwon-si, Gyeonggi-do

(Important Changes in Management Executives)

Following the annual general meeting of shareholders on March 16, 2012, of the three Executive Directors with expiring terms (Gee-Sung Choi, Yoon-Woo Lee, Ju-Hwa Yoon), Yoon-Woo Lee retired and Gee-Sung Choi and Ju-Hwa Yoon were re-appointed. Oh-Hyun Kwon was newly appointed as Executive Director. In addition, of the three Independent Directors with expiring terms (Dong-Min Yoon, Jae-Woong Lee, Oh-Soo Park), Jae-Woong Lee and Oh-Soo Park retired and Dong-Min Yoon was re-appointed. Han-Joong Kim and Byeong-Gi Lee were newly appointed as Independent Directors.

On June 8, 2012, Oh-Hyun Kwon succeeded Gee-Sung Choi as CEO.

On February 7, 2013, Independent Director Dong-Min Yoon retired (deceased).

On March 14, 2013, Executive Directors Gee-Sung Choi and Ju-Hwa Yoon resigned.

Following the shareholders' meeting on March 15, 2013, Boo-Keun Yoon, Jong-Kyun Shin, and Sang-Hoon Lee were newly appointed as Executive Directors. Independent Director In-Ho Lee was reappointed, and Kwang-Soo Song and Eun-Mee Kim were newly appointed as Independent Directors.

On March 15, 2013, SEC appointed Executive Directors Boo-Keun Yoon and Jong-Kyun Shin as CEOs to serve alongside incumbent CEO Oh-Hyun Kwon as co-CEOs.

On March 13, 2015, Executive Director Oh-Hyun Kwon and Independent Directors Han-Joong Kim and Byeong-Gi Lee were reappointed at the annual general meeting of shareholders.

On March 11, 2016, Executive Directors Boo-Keun Yoon, Jong-Kyun Shin and Sang-Hoon Lee were reappointed at the annual general meeting of shareholders. Of the three Independent Executive Directors with expiring terms (In-Ho Lee, Kwang-Soo Song and Eun-Mee Kim), Eun-Mee Kim retired, and In-Ho Lee, Kwang-Soo Song were reappointed. Jae-Wan Bahk was newly appointed as an Independent Director.

On October 27, 2016, Jae-Yong Lee was newly appointed as Executive Director at the Extraordinary General Meeting of Shareholders and Executive Director Sang-Hoon Lee resigned.

As of April 28, 2017, (the "Reporting Date"), SEC's BOD is comprised of four Executive Directors (Oh-Hyun Kwon, Boo-Keun Yoon, Jong-Kyun Shin, Jae-Yong Lee) and five Independent Directors (In-Ho Lee, Han-Joong Kim, Kwang-Soo Song, Byeong-Gi Lee and Jae-Wan Bahk).

(Changes in Organizational Structure)

In December 2012, following an organizational change, CE and IM businesses were upgraded to individual Division status, and the IT Solution business was divided into Printing Solution and Computer businesses. The Printing Solution business was incorporated into the CE Division and the Computer business was converted to a team unit and integrated into the Mobile business under the IM Division. The Medical Device business team was upgraded to a business unit within the CE Division.

In December 2013, the Digital Imaging business was reorganized as a team unit, and then was integrated with the Mobile business unit. In December 2015, the LED business was reorganized as a team unit.

In November 2016, the Company spun off its printing solutions business and established S-Printing Solution Co., Ltd.

[As of December 2012]

	Before	After
Business organization	DMC Division (CE: Visual display, Digital appliances) (IM: Mobile, IT solution, Network, Digital imaging)	CE Division (Visual display, Digital appliances, Printing solution, Medical devices)
		IM Division (Mobile, Network, Digital imaging)
	DS Division (Memory, SYS.LSI, LCD, LED)	DS Division (Memory, SYS.LSI, DP, LED)
Regional headquarters	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa
	Americas(DS), Europe(DS), China(DS), Southeast Asia(DS), Japan(DS)	Americas(DS), Europe(DS), China(DS), Southeast Asia(DS), Japan (DS)

[As of December 2013]

	Before	After
Business organization	CE Division (Visual display, Digital appliances, Printing solution, Medical devices)	CE Division (Visual display, Digital appliances, Printing solution, Medical devices)
	IM Division (Mobile, Network, Digital imaging)	IM Division (Mobile, Network)
	DS Division (Memory, SYS.LSI, DP, LED)	DS Division (Memory, SYS.LSI, DP, LED)
Regional headquarters	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa
	Americas(DS), Europe(DS), China(DS), Southeast Asia(DS), Japan(DS)	Americas(DS), Europe(DS), China(DS), Southeast Asia(DS), Japan (DS)

[As of December 2015]

	Before	After
Business organization	CE Division (Visual display, Digital appliances, Printing solution, Medical devices)	CE Division (Visual display, Digital appliances, Printing solution, Medical devices)
	IM Division (Mobile, Network)	IM Division (Mobile, Network)
	DS Division (Memory, SYS.LSI, DP, LED)	DS Division (Memory, SYS.LSI, DP)
Regional headquarters	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa
	Americas(DS), Europe(DS), China(DS), Southeast Asia(DS), Japan(DS)	Americas(DS), Europe(DS), China(DS), Southeast Asia(DS), Japan (DS)

[As of December 2016]

	Before	After
Business organization	CE Division (Visual display, Digital appliances, Printing solution, Medical devices)	CE Division (Visual display, Digital appliances, Medical devices)
	IM Division (Mobile, Network)	IM Division (Mobile, Network)
	DS Division (Memory, SYS.LSI, DP)	DS Division (Memory, SYS.LSI, DP)
Regional headquarters	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa
	Americas(DS), Europe(DS), China(DS), Southeast Asia(DS), Japan(DS)	Americas(DS), Europe(DS), China(DS), Southeast Asia(DS), Japan (DS)

3. Changes in Paid-in Capital

No changes were reported during the past five (5) consecutive years.

4. Stock Information

A. Total Number of Shares

The total number of authorized shares according to the articles of incorporation is 500,000,000 (par value per share: KRW 5,000). As of December 31, 2016, SEC has issued 140,679,337 shares of registered common stock and 20,513,427 shares of registered preferred stock without voting rights (excluding canceled shares). SEC has cumulatively canceled 14,930,000 shares of common stock and 3,380,000 shares of preferred stock in accordance with the resolution of the board of directors.

As of December 31, 2016, the number of floating common stock is 122,697,651 shares and the number of floating preferred stock is 17,283,734 shares, excluding treasury shares (of 17,981,686 shares of common stock and 3,229,693 shares of preferred stock).

[As of December 31, 2016]

(Unit: Shares)

Classification	Type of Stocks			Note
	Common	Preferred	Total	
I. Number of authorized shares	400,000,000	100,000,000	500,000,000	-
II. Number of shares issued	155,609,337	23,893,427	179,502,764	-
III. Number of shares decreased	14,930,000	3,380,000	18,310,000	-
1. Capital Reduction	-	-	-	-
2. Number of shares canceled	14,930,000	3,380,000	18,310,000	Cancellation of treasury shares
3. Redemption of redeemable shares	-	-	-	-
4. Others	-	-	-	-
IV. Number of outstanding shares (II-III)	140,679,337	20,513,427	161,192,764	-
V. Treasury shares	17,981,686	3,229,693	21,211,379	-
VI. Number of floating shares (IV-V)	122,697,651	17,283,734	139,981,385	-

※ Shares of SEC's common stock carry voting rights but preferred stock do not carry voting rights.

B. Treasury Shares

In 2016, Samsung Electronics acquired 4,699,197 shares of common stock and 1,264,099 shares of preferred stock for enhancing shareholder return, and retired 6,620,000 shares of common stock and 2,320,000 shares of preferred stock.

As of December 31, 2016, SEC holds 17,981,686 shares of common stock and 3,229,693 shares of preferred stock as treasury shares.

On Oct 29, 2015, SEC announced plans for a KRW 11.3 trillion share buyback program for purposes of enhancing shareholder return. The first stage of the repurchase program, which amounts to KRW 4.3 trillion, was completed in January 2016. The second stage, which was approximately KRW 3.1 trillion, was completed in April 2016 and SEC repurchased shares worth approximately KRW 2.1 trillion in the third stage in July. The fourth stage, which was approximately KRW 1.9 trillion, was completed in September 2016.

[As of December 31, 2016]

(Unit: Shares)

Acquisition method	Share type	Period-beginning shares	Change			Period-end shares
			Acquisition (+)	Disposal (-)	Cancellation (-)	
Intra-market direct acquisition (Within dividend related capital gains limit)	Common	19,902,489	4,699,197	-	6,620,000	17,981,686
	Preferred	4,285,594	1,264,099	-	2,320,000	3,229,693
Total	Common	19,902,489	4,699,197	-	6,620,000	17,981,686
	Preferred	4,285,594	1,264,099	-	2,320,000	3,229,693

C. Types of Registered Stock

SEC has two types of registered equity securities: 1) common stock; 2) non-voting and non-cumulative preferred stock.

The shareholders of preferred stock are entitled to dividend payments of an additional 1% of par value compared to shareholders of common stock. As of December 31, 2016, the total number of outstanding preferred stock is 20,513,427 shares.

5. Voting Shares

SEC has 140,679,337 shares of common stock outstanding, which represents 28.1% of the total number of authorized shares of 500 million (500,000,000). There are 20,513,427 shares of preferred stock outstanding (with no voting rights). SEC holds 17,981,686 shares of common stock (with no voting rights) in its treasury, and 12,506,577 shares of common stock are held by SEC's affiliates and have limited voting rights under applicable laws. Thus, the total number of shares with voting rights is 110,191,074.

[As of December 31, 2016]

(Unit: Shares)

Classification	Share type	Number of shares	Note
Number of outstanding shares (A)	Common	140,679,337	-
	Preferred	20,513,427	-
Shares with no voting rights (B)	Common	17,981,686	Treasury stock according to Korean Commercial Act
Shares with no voting rights according to Articles of Incorporation (C)	Preferred	20,513,427	3,229,693 shares of preferred treasury stock included
Shares with limited voting rights under relevant laws (D)	Common	12,479,184	Restricted by the Monopoly Regulation and Fair Trade Act: 10,622,814 shares held by Samsung Life Insurance & 1,856,370 shares held by Samsung Fire & Marine Insurance
	Common	27,393	Restricted by the Insurance Business Act: Shares held by Samsung Life Insurance in certain special accounts
Shares with voting rights (F = A - B - C - D)	Common	110,191,074	-
	Preferred	-	-

※ Pursuant to Korea's Monopoly Regulation and Fair Trade Act, shareholders with limited voting rights (D) can exercise certain rights in accordance with related laws, including the right to vote on agendas such as the appointment or dismissal of directors and revisions to the Articles of Incorporation.

6. Shareholder Return

As a part of the Company's shareholder return policy, a portion of the profits have been returned to shareholders by way of dividends and shareholder value has been increased through open market purchases of floating shares (share repurchase). The Company carefully considers strategic investments for sustainable growth, business performance, and cash flows in determining the level of total shareholder return.

Dividends paid in the most recent three (3) fiscal years are as follows:

(Unit: Shares / %)

Classification		2016	2015	2014
Par value per share (won)		5,000	5,000	5,000
Net profit (million won)		22,415,655	18,694,628	23,082,499
EPS (won)		157,967	126,305	153,105
Total cash dividend (million won)		3,991,892	3,068,737	2,999,972
Total stock dividend (million won)		-	-	-
Dividend payout ratio (%)		17.8	16.4	13.0
Cash dividend yield (%)	Common	1.6	1.6	1.5
	Preferred	2.0	1.9	1.9
Stock dividend yield (%)	Common	-	-	-
	Preferred	-	-	-
Cash dividend per share (won)	Common	28,500	21,000	20,000
	Preferred	28,550	21,050	20,050
Stock dividend per share (share)	Common	-	-	-
	Preferred	-	-	-

※ June quarterly dividend of 2016 is KRW 141,539 million (KRW 1,000 per share), and paid as interim dividends of previous years. Interim dividends of 2015 and 2014 are KRW 148,916 million (KRW 1,000 per share) and KRW 75,408 million (KRW 500 per share), respectively.

※ EPS denotes basic earnings per common share.

※ For further information relating to the calculation of basic EPS, see Earnings Per Share in 『2. Note to Consolidated Financial Statements』 in 『III. Financial Affairs』.

II. Businesses Overview

1. Overview

Note on Forward-Looking Statements

This report includes forward-looking statements that relate to future events and can be generally identified by phrases containing words such as “believes,” “expects,” “anticipates,” “foresees,” “forecasts,” “estimates” or other words or phrases of similar meaning. These forward-looking statements are not guarantees of future performance and may involve known and unknown risks, uncertainties and other factors that may affect the Company’s actual results, performance, achievements or financial position, making them materially different from the actual future results, performance, achievements or financial position expressed or implied by these forward-looking statements.

Uncertain events that could positively or negatively affect the Company’s management condition and financial performance include:

- *Trends of financial markets domestically and abroad, including changes in exchange rates and interest rates*
- *The Company’s strategic decision making, including disposals and purchases of businesses*
- *Unexpected sudden changes in core businesses such as CE, IM, Semiconductor, and DP*
- *Other changes domestically and abroad that can affect management condition and financial performance*

The Company assumes no obligation to revise or update this report to reflect risks or uncertainties that arise after the reporting period.

A. Business Overview by Division

In addition to our headquarters in Korea, Samsung Electronics is comprised of 169 subsidiaries across the world responsible for sales and production. There are also nine (9) regional headquarters for Consumer Electronics (“CE”) and Information Technology & Mobile Communications (“IM”) Divisions and five (5) regional headquarters for Device Solutions (“DS”) Division.

The Company’s business Divisions are organized in a two-pronged business framework of set (brand products) and component businesses. The set business is comprised of the CE and IM Divisions, and the component business is comprised of the DS Division. The CE Division is responsible for the production and sales of TVs, monitors, refrigerators and washing machines, and the IM Division focuses on the production and sales of handheld phones (such as smartphones), network systems, and computers. The DS Division is comprised of the Semiconductor business which manufactures and sells DRAM, Mobile APs, and other semiconductor and semiconductor-related products, and the Display Panel (“DP Business Unit”) business which manufactures and sells TFT-LCD and OLED panels for TVs, monitors, notebook PCs, and mobile devices.

<Major Products by Business Division>

Business Division		Major Products
CE Division		TV, Monitor, Refrigerator, Washing Machine, Air Conditioner, Medical Device, etc.
IM Division		HHP, Network System, Computer, etc.
DS Division	Semiconductor (Sub-Division)	DRAM, NAND Flash, Mobile AP, etc.
	DP Business Unit	TFT-LCD, OLED, etc.

The Company maintains its corporate headquarters and twenty (20) consolidated domestic subsidiaries in Korea.

The Company's corporate headquarters in Korea is divided along Divisions and/or businesses, and are situated at the following 5 locations: Suwon (CE Division and R&D Center); Gumi (IM Division); Giheung and Hwasung (Semiconductor business); and Gwangju (Home Appliance business). The Company's consolidated domestic subsidiaries include Samsung Display for display panel production, Samsung Electronics Sales for domestic retail sales, Samsung Electronics Service for after service care, and Samsung Electronics Logitech for logistics.

We have 149 overseas subsidiaries for product manufacturing, sales, and R&D.

In the Americas, we have 44 subsidiaries including SEA (New Jersey, United States) which is responsible for sales of set products such as HHPs, SAMEX (Tijuana, Mexico) which is responsible for manufacturing TVs, and SAS (Austin, United States) which is responsible for manufacturing semiconductor products.

In Europe, we operate 31 subsidiaries. This includes SEUK (UK) which is responsible for sales of set products in UK, SEF (France), SEG (Germany), SEI (Italy), which are regional sales offices, SESK (Slovakia), SEH (Hungary) which are TV manufacturing sites, and SEPM (Poland), which is responsible for manufacturing home appliances such as refrigerators.

In Asia, we have 23 overseas subsidiaries, including SAPL (Singapore), SEAU (Australia), SEPCO (Philippines), and SME (Malaysia), which are responsible for regional sales. In addition, we operate numerous production sites including SEV·SEVT (Vietnam) for HHPs, SEHC (Vietnam) for TVs, and SIEL (India) for both TVs and HHPs.

We operate 29 subsidiaries in China, including regional sales operations in SCIC (Beijing) and SEHK (Hong Kong). We also operate production and processing facilities sites in Tianjin and Suzhou (TSTC, SSEC, and SESS).

In addition, we have 22 production and sales subsidiaries across Africa, the Middle East and the CIS regions.

[CE Division]

□ Industry Overview

Since the first public demonstration of a true television system in 1926 and subsequent mass production of Color TVs, technological developments have led to products such as the Trinitron CRT (1967) and the flat CRT (1996). As the penetration rate in major countries reached over 90%, the CRT TV business became stagnant. The industry regained strong growth momentum following the launch of Flat Panel TVs (LCDs, PDPs), especially with the expansion of digital broadcasting (UK/US 1998~).

Flat panel TVs (“FPTVs”) replaced the CRT driven by enhanced product performance with respect to design, picture quality, etc., and a sharp decline in prices. In addition, 3D TVs were launched in 2010, and the rise of internet video services (OTT, OVER-THE-TOP) along with increased consumer interest in smart devices from 2011 to 2012 led to the birth of the Smart TV market.

In 2013, UHD TV, an innovative product with significantly enhanced resolution and picture quality, was launched, and in 2014, a new form factor Curved TV was released, indicating a constantly evolving TV market.

In 2016, overall TV demand was 222.74 million units, a 1.5% decline from the previous year. The demand in Latin America decreased by approximately 23%, impacted by the expiration of a sales agreement with the Mexican government, while Asian markets including China witnessed approximately 4% growth in demand. By product, LCD-TV (including LED-TV) sold 221.50 million units, a decrease of 1.3% year-on-year, but UHD TV sales increased by 79% to reach 57 million units and large-size TVs (55-inches and above) sold 43 million units, a 42% growth from the previous year, due to an increasing demand for high-resolution and large-size TVs. This trend also increased the average size of TVs sold to 41.5-inches, exceeding 40-inches for the first time. (Source: February '17 IHS)

□ Market Condition

The trend towards large-size and high-resolution screens is accelerating due to intensified competition between manufacturers. Accordingly, the market share of major manufacturers with high-quality products and brand power is increasing. In addition, as consumer demand for high-resolution and slim design increases, LED TVs, with eco-friendly LED back light units (“BLU”) which increases brightness and contrast as well as energy efficiency, has become the mainstream of the market.

The Company has focused on smart TV sales based on forecasts that consumers’ desire to acquire internet information from TVs will increase. The concentrated effort resulted in the launch of Smart TV in 2010 with various available applications and resulted in strong market leadership. In 2012, the Company introduced a new market trend with the introduction of the Smart Interaction™ system based on voice commands and command gestures for convenient interaction with its proprietary Samsung Smart TVs. In 2013, the Company introduced a system that recommends TV programs based on the user’s viewing history. In 2014, with the goal of enhancing the viewing experience of its Smart TVs, the Company focused on increasing its usability, securing access to content, and strengthening the platform.

The Company recently saw the increasing need for TV as a comprehensive entertainment center that connects various entertainment devices in the house due to the changing nature of content on TV. Accordingly, the Company achieved an innovation in smart UX, enabling consumers to enjoy live broadcasts, OTT VOD service, cloud games and other services in an easily accessible manner. In 2016, Smart TVs can automatically recognize connected devices, and control the peripheral devices with a single remote. Also, they allow consumers to utilize even more diverse entertainment sources on one screen in an easily accessible manner, providing users with an easier viewing experience.

< Market Share of the CE Division’s Main Product >

Product	2016	2015	2014
TV	21.6%	21.0%	22.6%

※ 2014, 2015 and 2016 market share data is from research firm, IHS (global market share in quantity).

□ Business Condition

We have maintained the top position in the overall TV market, FPTVs, and LCD TVs (in terms of market share) for eleven consecutive years since 2006.

In 2009, we created the world's first LED TV (LED BLU, ultra-slim/ultra-light, eco-friendly). In the first quarter of 2010, we launched the world's first 3D Total Solution that provides 3D TV/BDP/glasses/BD Title all-in-one, taking the lead in the 3D TV market.

In addition, we launched "Samsung Apps," the world's first App Store for Smart TVs in 2010, and constantly added various smart services in 2011, such as "Your Video", "Social TV", "Search All" and "Web Browser" services, to consolidate Samsung's leadership position in the Smart TV market. In 2012, by developing content in which new input methods based on voice/gesture (Smart Interaction) is applied, we improved fitness and education services that every member of family can enjoy. Samsung's competitive edge in the Smart TV market has been further strengthened, driven by the enhanced "All Share" function that allows the device to connect with other digital devices more easily.

In 2013, we released OLED and UHD TVs, which offer superior image quality and resolution compared to previous models. Also, by launching a new Curved TV form factor in 2014 and the first nano-crystal technology (also as known as quantum dot) SUHD TV in 2015, we continued to maintain our leading position in the industry with innovative premium products.

In 2016, we released the 2nd-gen Quantum dot TV which offers excellent image quality and clear viewing even in bright light by displaying one billion colors and emitting bright pure light. We also launched the SUHD TV which comes with HDR 1000 technology that supports incredibly realistic and detailed images, as well as UHD TV equipped with Active crystal color technology for bright, life-like images and expanded color range. Furthermore, we expanded shipments of Curved TVs, which use our own curved form factor and increased the premium value, and enhanced our competitiveness in image quality and design through bezel-less and 360-degree design for streamlined and clean back. Through these efforts, we have maintained our leading position in the TV market during challenging economic conditions.

[IM Division]

□ Industry Overview

In 2017, approximately 78% of the world's population is expected to own a mobile phone, from 76% in 2016. (Source: December '16 Strategy Analytics)

The mobile phone industry started with the first generation analogue phones in the early 1980s. It evolved to second generation digital, and to third generation mobile communication standards such as WCDMA. Today, fourth generation LTE mobile communication technology with ultra-high-speed data transmission is becoming commonplace in the market, and fifth generation mobile communication service is being prepared for commercialization. Also, as the market demand is increasingly focused on smartphones, the competitive software and services including contents/service, application, UX, Mobile Payment, A.I. is becoming more important, in addition to competitive hardware like high-performance AP, AMOLED Display, high-resolution camera, sensor, and waterproof & dustproof feature.

□ Market Condition

In 2017, the global shipments of smartphones is expected to reach 1.54 billion units, increased by 6% from 1.45 billion in 2016. The tablet market is expected to decrease by 10%, declining to 190 million units in 2017 from 210 million units in 2016. (Source: Strategy Analytics. December '16 data for Smartphone, March '17 data for Tablet)

< Market share of the IM Division's Main Product >

Product	2016	2015	2014
HHP	19.2%	20.7%	22.4%

※ 2014, 2015 and 2016 market share data are from the research firm, *Strategy Analytics* (global market share in quantity).

□ Business Condition

SEC aims to further consolidate its leadership position in the mobile device market. To this end, the Company is working tirelessly to reinforce competitiveness of its products, service and B2B for future growth. For the smartphone business, the Company is maintaining its no.1 position in the industry by constantly strengthening its diverse product lineups from premium to mass market models. Going forward, the Company will solidify its market leadership in the premium smartphone segment through new form factors such as flexible displays, differentiated designs and UX, and at the same time, actively respond to the mid-range and entry level smartphone markets to increase overall market share. Furthermore, the Company will actively address various consumer demands with wearable devices such as the Gear S3 and Gear VR, as well as with accessories that improve user experience.

In addition, the Company will strive to enhance its status in the global market by constantly offering new value to its customers based on the industry's best R&D capabilities, and constantly making investments in mobile payment systems such as our exclusive Samsung Pay service, and in future growth engines including cloud, Intelligence, and mobile B2B services.

Based on the lessons we learned from the Galaxy Note 7 quality issue, we will continue to ensure that consumer safety is our highest priority while pursuing innovation. To prevent a similar incident from occurring again, we have implemented multi-layer safety measures and a thorough safety-check process, and formed an organization devoted to safety verification. We will take this experience as a valuable lesson and work hard to enhance consumer trust.

[DS Division]

- Semiconductor

□ Industry Overview

In general, semiconductor is divided into memory semiconductor that stores information and system LSI (non-memory semiconductor) that logically processes information. Memory semiconductor is divided into RAM products that can be written on and read, and ROM products that can only read. RAM is called volatile memory as the information is deleted when the power is turned off. It is used for temporary loading and storage of application programs.

There are various types of system LSI products for various applications. CPUs (Central Processing Units) for PCs and servers is the biggest market. System LSI products are used in many product categories such as household electronics, telecommunications, network, and games. The Company manufactures Mobile APs for smartphone and tablets, image sensors, and other customized system LSI semiconductor products.

The growth of these semiconductor market is expected to be negatively impacted by slowing demand for mobile devices, such as the low growth rate of the smartphone market and negative growth of the tablet market. However, the memory market is expected to enjoy continuous growth fueled by increasing shipments of high-density information storage devices like servers. Also, we expect future demand will grow rapidly from newly emerging markets, including IoT and automotive applications. Supply and demand volatility is expected to decrease as the demand base becomes diversified.

□ Market Condition

The oversupply situation in the DRAM market has turned into a supply shortage, mainly due to increasing demand for new mobile products and delays in the tech migration of suppliers. Meanwhile, concentrated demand on the Company is likely remain in the short term as other manufacturers are experiencing delays in the stabilization of leading-edge process and the development of high-performance and high-reliability products. Demand for NAND is expected to increase as more NAND (in terms of gigabytes of installed memory) is included in new smartphones and the ever-increasing adoption of solid state drives (“SSDs”) continues, but the chip market is expected to experience a prolonged supply shortage as suppliers are close to the limits in migrating to the finer processes of Planar NAND and competitors are slow in expanding Vertical NAND production.

< Market share of the Semiconductor Business' Main Product >

Product	2016	2015	2014
DRAM	48.0%	45.3%	39.6%

※ 2014, 2015 and 2016 market share data is from research firm, *DRAMeXchange* (global market share in amount).

□ Business Condition

In the fourth quarter of 2016, the Company launched the world's first 10nm-class DRAM products, and we are securing a competitive position at least a year ahead of competitors. Furthermore, the Company is solidifying its leadership position in the DRAM market by developing differentiated 10nm-class products and accelerating efforts to develop next-generation DRAM. For NAND products, the Company is mass producing both planar and vertical NANDs, while addressing customer demand for various NAND products in a timely manner. In particular, the Company is entering the premium market by using technology that is ahead of its competitors to mass-produce 3rd generation 48-layer vertical NAND and applying the product to high-performance SSDs. The Company is also expanding production of high-quality 3bit MLC products to maximize cost competitiveness.

In 2017, as the growth in the memory semiconductor market is expected to continue, the Company will expand into differentiated products based on advanced processes and address each market segment with diverse product lineups to continue to lead the market as the No.1 memory maker.

- DP Business Unit

□ Industry Overview

Display products include TFT-LCD (Thin Film Transistor Liquid Crystal Display) and OLED (Organic Light Emitting Diode) panels.

OLED panels use organic materials which offer sharp contrast and color, high color gamut, and fast response rates. Such differentiating features provide advantages in smartphone products, and as a result the market demand for under 10" small-to-medium size OLED displays is growing sharply. Now the use of OLED is expanding to larger format displays such as TVs and transparent displays.

A TFT-LCD panel is a liquid crystal based display that features a thinner and lighter profile, while maintaining high resolution. It has a wide range of potential applications in devices of all sizes and functionality, from portable mobile devices to large-size TVs featuring high resolution and brightness. The large panel TFT-LCD market grew rapidly from first mainly being used in laptops, then monitors, and then TVs. However, the market growth rate has slowed recently due to the high saturation rate of monitors and TVs.

The TFT-LCD and OLED businesses have high barriers to entry as they are capital intensive and require large-scale production to realize economies of scale. These types of businesses are generally sensitive to business fluctuations. Therefore, even if demand continuously increases, supply and demand balance tends to change regularly due to competitive investment in facilities by producers. As such, when production capacity sharply increases, the average selling price ("ASP") of panels may decrease. In contrast, when supply cannot meet increasing demand, ASP may increase.

□ Market Condition

Most major display panel producers are based in Asia as indicated below:

- Korea: Samsung Display, LG Display, etc.
- Japan: Sharp, Japan Display, etc.
- Taiwan: AU Optronics, Innolux, etc.
- China: BOE, CSOT, Tianma, CEC Panda, etc.

The demand for OLED panels continued to grow, as major smartphone customers who pursue product differentiation increasingly adopted OLED panels. Also, the trend towards using higher resolution and large panels lasted throughout the year. This trend is expected to continue in 2017, and product categories will further expand to new technologies such as flexible OLED.

Meanwhile, with regards to large-size panels, the UHD TV market grew last year and the trend toward large-size panels continued under stabilizing ASPs from improved supply-demand conditions. Although some risks remain such as intense competition among competitors, the market conditions are projected to remain favorable for an extended period of time.

< Market Share of the DP Business' Main Product >

Product	2016	2015	2014
Display Panel	17.1%	21.1%	20.9%

※ 2014, 2015 and 2016 market share data is from research firm, *IHS* (global market share, large-size panel in amount).

□ **Business Condition**

The Company is constantly upgrading technologies and improving productivity to strengthen business competitiveness. For the mid to small-size OLED business, the Company is working to consolidate its leading position in the market by actively responding to major customers' demands, improving product mix, and expanding the customer base. For the large-size LCD business, the Company aims to improve profitability by reinforcing competitiveness of high-end panels such as ultra large-sized and UHD panels, and expanding shipments of differentiated products such as Frameless/Curved.

In 2017, we expect our smartphone manufacturing customers will increasingly adopt OLED panels in their products. Accordingly, we will expand our flexibility in the supply of various products by reinforcing our technological leadership and securing required capacity in accordance with the market demand.

B. Financial Summary by Division

(Unit: KRW million, %)

Division	Classification	2016		2015		2014		
		Amount	Portion	Amount	Portion	Amount	Portion	
CE	Total sales	109,672,506	22.8%	120,688,835	24.5%	124,916,892	25.3%	
	Internal sales	62,627,083	22.4%	73,793,424	25.2%	74,733,757	25.9%	
	Net sales	47,045,423	23.3%	46,895,411	23.4%	50,183,135	24.3%	
	Operating profit	2,638,002	9.0%	1,254,187	4.7%	1,184,325	4.7%	
	Total asset	49,675,022	13.6%	45,998,007	12.8%	43,116,374	12.8%	
IM	Total sales	211,523,973	43.9%	222,023,600	45.0%	236,438,979	47.9%	
	Internal sales	111,221,861	39.7%	118,469,345	40.5%	124,674,435	43.3%	
	Net sales	100,302,112	49.7%	103,554,255	51.6%	111,764,544	54.2%	
	Operating profit	10,807,569	37.0%	10,142,022	38.4%	14,562,885	58.2%	
	Total asset	111,574,049	30.5%	98,463,323	27.4%	94,227,108	27.9%	
DS	Semi-conductor	Total sales	99,527,926	20.6%	90,600,806	18.4%	75,058,071	15.2%
		Internal sales	48,370,924	17.3%	43,014,054	14.7%	35,328,169	12.3%
		Net sales	51,157,002	25.3%	47,586,752	23.7%	39,729,902	19.3%
		Operating profit	13,595,004	46.5%	12,787,297	48.4%	8,776,442	35.1%
		Total asset	102,251,069	28.0%	98,989,253	27.6%	87,567,196	25.9%
	DP Business Unit	Total sales	55,884,739	11.6%	55,120,243	11.2%	52,227,615	10.6%
		Internal sales	28,956,095	10.3%	27,633,382	9.4%	26,500,446	9.2%
		Net sales	26,928,644	13.3%	27,486,861	13.7%	25,727,169	12.5%
		Operating profit	2,226,626	7.6%	2,295,367	8.7%	660,181	2.6%
		Total asset	57,240,065	15.6%	50,147,263	14.0%	46,826,533	13.8%
	Total	Total sales	159,473,455	33.1%	149,974,731	30.4%	131,459,756	26.6%
		Internal sales	81,325,252	29.0%	74,948,617	25.6%	65,669,950	22.8%
		Net sales	78,148,203	38.7%	75,026,114	37.4%	65,789,806	31.9%
		Operating profit	15,850,986	54.2%	14,887,262	56.4%	9,430,915	37.7%
		Total asset	183,951,625	50.3%	174,264,841	48.5%	160,138,321	47.4%

※ Net sales reported here includes inter-divisional sales.

Cumulative net sales for 2016 were KRW 201,867 billion. By Division, CE reported net sales of KRW 47,045 billion (23.3%) and IM reported net sales of KRW 100,302 billion (49.7%). The DS Division contributed approximately 38.7% of net sales: KRW 51,157 billion (25.3%) by the Semiconductor Sub-Division and KRW 26,929 billion (13.3%) by the DP Business Unit.

Cumulative operating profit for 2016 was KRW 29,241 billion. The CE Division accounted for 9.0% with KRW 2,638 billion, the IM Division accounted for 37.0% with KRW 10,808 billion and the DS Division accounted for 54.2% with KRW 15,851 billion.

Reasonable Allocation of Common SG&A (Selling General & Administrative) Expenses and Assets

(1) For common SG&A expenses, specific expenses that are allocable to a specific product/model are allocated to such product/model. However, common expenses that cannot be attributed to a specific product/model category are reasonably allocated throughout the Company based on an allocation standard (expense-to-sales ratio, number of personnel, etc.).

(2) For common assets, assets that can be directly allocated (inventory assets, fixed assets, investment assets, etc.) are allocated to the corresponding organizational unit. Assets that are commonly managed are allocated to each Division based on an allocation standard (expense-to-sales ratio, pre-tax profit, etc.).

2. Key Products and Services

A. Revenue

In 2016, the CE Division's revenue of KRW 47,045 billion accounted for 23.3% of the total net revenue; the IM Division accounted for 49.7% with KRW 100,302 billion; and the DS Division accounted for 38.7% with KRW 78,148 billion.

The Company's net revenue by Division as of December 31, 2016 is as follows:

(Unit: KRW 100 million, %)

Division		Major Products	Net Revenue	Portion
CE		TV, monitor, refrigerator, washing machine, air conditioner, medical equipment, etc.	470,454	23.3%
IM		HHP, network system, computer, etc.	1,003,021	49.7%
DS	Semiconductor	DRAM, NAND flash, Mobile AP, etc.	511,570	25.3%
	DP Business Unit	TFT-LCD, OLED, etc.	269,286	13.3%
	Sub-Total		781,482	38.7%
Others		-	-236,290	-11.7%
		Total	2,018,667	100.0%

※ Includes sales between Divisions (on consolidated basis).

☞ See 『5. Sales and Distribution』 for sales by each product.

B. Average Selling Price (ASP) Changes

In 2016, the ASP of TVs declined by 5.1% compared to the previous year, and the ASP of memory products also declined. The ASPs of HHPs increased by 1.3% compared to the previous year, but the ASP of display panels is on the decline as companies increase their capacity, causing oversupply in the market.

3. Key Raw Materials

(On consolidated basis as of December 31, 2016)

(Unit: KRW 100 million, %)

Division	Type	Item	Specific usage	Purchase price	Portion	Note (supplier)
CE	Raw material	Display panel	Color picture signaler	54,331	25.1%	AUO, BOE, etc.
	Raw material	Others		162,040	74.9%	
	Division Total			216,371	100.0%	
IM	Raw material	Baseband Chip	CPU	34,821	10.3%	Qualcomm, etc.
	Raw material	Camera Module	Mobile phone camera	34,432	10.2%	Samsung Electro-Mechanics, etc.
	Raw material	Mobile display panel	Color picture signaler	19,503	5.8%	Iljin Display, etc.
	Raw material	Others		249,998	73.8%	
	Division Total			338,754	100.0%	
DS	Raw material	Window	Tempered glass	21,204	10.4%	BIEL, etc.
	Raw material	POL	Polarizer plate	15,942	7.8%	Dongwoo Fine-Chem, NITTO, etc.
	Raw material	Glass	Glass substrate for display	14,090	6.9%	Corning Precision Materials, etc.
	Raw material	Others		153,150	74.9%	
	Division Total			204,386	100.0%	
Others				316	-	
Total				759,827	-	

※ Samsung Electro-Mechanics, the Camera module supplier, is an affiliate of Samsung Group.

For the CE Division, key raw materials include display panels for TVs and monitors and PDP modules. For the IM Division, key raw materials include display panels, camera modules and baseband chips for mobile devices. For the DS Division, key raw materials include glass, polarizers (“POL”) and window glass.

Large display panels for TVs and monitors are supplied by AU Optronics (AUO) and BOE (among others), mobile display panels are supplied by Iljin Display and others, camera modules from Samsung Electro-Mechanics, and baseband chips are supplied by Qualcomm and others. The Company manufactures display panels with glass and POLs supplied by Corning Precision Materials and Dongwoo Fine-Chem.

(Raw Materials Price Trends)

The price of TV and monitor display panels, which are the major raw materials for the CE Division, declined 13% on average since 2015. For the IM Division, since 2015, the price of mobile display panels have increased by 3%, and the price of baseband chips have decreased by 12%. For the DS Division, the price of wafers, which is one of its major raw materials, has increased by around 8%, and the price of glass for display panels has increased by 1% since the previous year.

4. Production and Facilities

A. Production Capacity, Output, Utilization Rate

(Capacity)

(Unit: 1,000)

Division	Item	2016	2015	2014
		Quantity	Quantity	Quantity
CE	TV	52,308	50,450	62,990
IM	HHP	447,200	497,050	523,750
DS	Memory	415,026,000	268,630,000	173,506,000
	Display Panel	10,028	9,459	9,185

※ Global production capacity for major product categories

The CE and IM Divisions' production capacity, by major product, is calculated as follows:

The average number of lines (x) the average output per hour (x) the average operation hours per day (x) the days of operation

Memory production capacity for the DS Division is calculated as follows:

Converted output (1GB equivalent) ÷ the utilization rate.

Display panel production capacity is calculated as follows:

The total producible panel surface area ÷ the dimensions of eighth generation glass (2200x2500mm)

(Output)

(Unit: 1,000)

Division	Item	2016	2015	2014
		Quantity	Quantity	Quantity
CE	TV	47,428	45,821	55,066
IM	HHP	389,838	423,058	439,520
DS	Memory	415,026,000	268,630,000	173,506,000
	Display Panel	8,307	8,284	8,252

※ Global output for major product categories

In 2016, the CE Division's output of TVs was 47,428 thousand units (major production sites: Korea, China, Mexico, Brazil, and Hungary). The IM Division's output of HHPs was 389,838 thousand units (major production sites: Korea, China, Vietnam, and Brazil). The DS Division's memory output (1GB equivalent) was 415,026 million (major production sites: Korea and China). The DS Division's output of display panels was 8,307 thousand units (major production sites: Korea, China, and Slovakia).

(Utilization Rate)

(Unit: 1,000)

Division	Item	2016 Production capacity	2016 Actual output	Utilization Rate
CE	TV	52,308	47,428	90.7%
IM	HHP	447,200	389,838	87.2%

In 2016, CE and IM utilization rates were calculated as actual output relative to production capacity. The utilization rates were 90.8% for TVs and 87.2% for HHPs.

(Unit: hours)

Division	Item	2016 Potential Production Time	2016 Actual Production Time	Utilization Rate
DS	Memory	52,560	52,560	100.0%
	Display Panel	82,944	82,944	100.0%

The DS Division operates memory and display panel production in three shifts (24 hours a day). Cumulative operating days in 2016 including holidays were 366 days. The utilization rate was calculated as actual hours [366 days (x) number of production lines (x) 24 hours] relative to production capacity.

B. Production Facilities and Investment

(1) Key facilities for production and operation

The Company's operational activities include manufacturing, development, marketing, and sales in Korea – including operations in Seocho, Seoul, Suwon, Gumi, Giheung, Onyang, Gwangju – and 9 regional headquarters under the CE and IM Divisions and 5 under the DS Division in North America, Europe, and China.

[Operations]

Region	Headquarters	Location
Korea (11)	Seocho	Seoul, Korea
	Woomyeon	Seoul, Korea
	Suwon	Suwon, Korea
	Gumi1	Gumi, Korea
	Gumi2	Gumi, Korea
	Giheung	Yongin, Korea
	Onyang	Asan, Korea
	Hwaseong	Hwaseong, Korea
	Gwangju	Gwangju, Korea
	Cheonan	Cheonan, Korea
	Asan	Asan, Korea
Overseas (9 Regional Headquarters for CE and IM Divisions)	North America	New Jersey, US
	Europe	London, UK
	China	Beijing, China
	Southeast Asia	Singapore, Singapore
	Southwest Asia	New Delhi, India
	CIS	Moscow, Russia
	Middle East	Dubai, UAE
	Africa	Johannesburg, Republic of South Africa
	Latin America	Sao Paulo, Brazil
Overseas (5 Regional Headquarters for DS Division)	Americas	San Jose, US
	Europe	Eschborn, Germany
	China	Shanghai, China
	Southeast Asia	Singapore, Singapore
	Japan	Tokyo, Japan

The Company's property, plant and equipment include land, buildings and structures, machinery and equipment, and construction in progress. As of December 31, 2016, their total book value is KRW 91,473 billion, which is an increase of KRW 4,996 billion from year-end 2015. In 2016, new acquisitions of KRW 25,494 billion and depreciation of KRW 19,313 billion were recorded.

(Unit: KRW million)

Classification		Land	Buildings and Structures	Machinery and Equipment	Construction in -progress	Others	Total
At 1 January 2016	Book value	7,848,432	22,453,296	43,077,879	10,970,052	2,127,451	86,477,110
	Acquisition cost	7,848,432	32,850,110	147,315,096	10,970,052	6,303,834	205,287,524
	Accumulated depreciation (Including accumulated impairment loss)	-	(10,396,814)	(104,237,217)	-	(4,176,383)	(118,810,414)
Increase (Decrease)	General acquisition and capital expenditure	37,735	3,482,228	12,769,230	8,230,900	974,275	25,494,368
	Acquisition as a result of business combination	-	-	4,492	240	2,271	7,003
	Depreciation	-	(1,631,089)	(16,814,751)	-	(866,680)	(19,312,520)
	Disposal/Discard	(28,331)	(26,384)	(80,552)	(5)	(66,684)	(201,956)
	Impairment	-	(2,805)	(370,574)	-	(1,731)	(375,110)
	Re-classification to assets held-for-sale	-	(11,922)	(20,131)	(7,660)	(45,156)	(84,869)
	Others	11,843	112,502	(263,538)	(419,541)	27,749	(530,985)
Balance at 31 Dec 2016	Book value	7,869,679	24,375,826	38,302,055	18,773,986	2,151,495	91,473,041
	Acquisition cost	7,869,679	36,474,462	155,285,378	18,773,986	6,769,149	225,172,654
	Accumulated depreciation (Including accumulated impairment loss)	-	(12,098,636)	(116,983,323)	-	(4,617,654)	(133,699,613)

- ※ Others: Includes effects of changes in FX rates and effects of reduction in government subsidy.
- ※ Market value of major tangible assets is omitted as objective assessment is difficult.
- ※ Property, plant, and equipment above is presented on a consolidated basis.

(2) CAPEX

In 2016, the Company invested KRW 25.5 trillion in CAPEX, including upgrading production lines of the Semiconductor Sub-Division and the DP Business Unit. The total CAPEX for 2017 is yet to be finalized, as the Company is still in the process of considering many variables with respect to business environment and market conditions.

[CAPEX by Division]

(Unit: KRW 100 million)

Business	Purpose	Period	Assets	Investment in 2016
Semiconductor	Establishment, addition, upgrade	Jan '16 ~ Dec '16	Buildings, facilities	131,513
DP Business Unit	Establishment, addition, upgrade	Jan '16 ~ Dec '16	Buildings, facilities	98,313
Other	Other	Jan '16 ~ Dec '16	Buildings, facilities	25,118
Total				254,944

5. Sales and Distribution

A. Sales

In 2016, the Company recorded KRW 201,867 billion of total revenue, an increase of 0.6% compared to the prior year. By Division, when compared to 2015, CE Division's revenue increased by 0.3%, IM Division's revenue decreased by 3.1% and DS Division's revenue increased by 4.2%.

(Unit: KRW 100 million)

Division		Sales types	Product categories	2016	2015	2014
CE		Goods Products Service Others	TV, monitor, air conditioner, refrigerator, washing machine, medical equipment, etc.	470,454	468,954	501,831
IM		Goods Products Service Others	HHP, Network System, Computer, etc.	1,003,021	1,035,543	1,117,645
DS	Semiconductor	Goods Products Service Others	DRAM, NAND Flash, Mobile AP, etc.	511,570	475,868	397,299
	DP Business Unit	Goods Products Service Others	TFT-LCD, OLED, etc.	269,286	274,869	257,272
	Division total			781,482	750,261	657,898
Others		Other revenue	-	-236,290	-248,223	-215,314
Total				2,018,667	2,006,535	2,062,060

※ Includes internal sales between Divisions.

□ Sales by Major Product

(Unit: KRW 100 million)

Classification	2016	2015	2014
TV	287,241	292,194	324,486
Mobile Devices	977,494	1,005,117	1,074,149
Memory	378,594	342,917	293,244
Display Panel	269,286	274,869	257,272

※ Including internal sales between Divisions.

□ Sales by Type

(Unit: KRW 100 million)

Classification	2016	2015	2014
Products	2,006,326	1,988,452	2,036,716
Service and other Sales	12,341	18,083	25,344
Total	2,018,667	2,006,535	2,062,060

※ Other sales consists of royalty income and etc.

□ Sales by Region (on a separate basis)

(Unit: KRW 100 million)

Classification	2016	2015	2014
Korea	140,656	145,908	153,247
Americas	426,448	425,042	433,940
Europe	170,850	173,583	208,982
Asia and Africa	281,021	291,473	298,140
China	320,497	316,044	283,946
Total	1,339,472	1,352,050	1,378,255

B. Sales Channels

□ Korea

Seller	Sales Channel	Consumer	
Manufacturer (Facility)	Retailer	Consumer	
	Distributor (General Merchandise Store, Discount Store, Department Store, Home-Shopping, Internet)		
	Retailer		Cooperative Joint Market, Sales Shop, Open Stores
	Telecommunication Service Provider (SKT, KT, LG U+)		
	Direct Sales		

□ Overseas

Seller	Sales Channel	Consumer			
Production Subsidiaries	Regional Sales Office	Retailer	Consumer		
		Dealer		Retailer	
		Distributor		Dealer	Retailer
		Telecommunication Service Provider			
	Regional Distribution Office	Regional Sales Office		Retailer	
				Dealer	Retailer
		Distributor		Dealer	Retailer
	Direct Sales				

□ Sales Ratio by Channel

Channel	Wholesale	Retail	Special/direct sale	Others
Ratio	28%	26%	41%	5%

※ On a global basis

C. Sales Methods and Conditions

Domestic

Classification	Channel	Collection	Incidental expense sharing
Exclusive	Agency	- Credit agreement (Cash, 30 day credit) (Credit applied within 100% of collateral)	- Case specific cost sharing as determined by mutual agreement
Distributor	General Merchandise Store, Discount Store, Department Store, Home Shopping, Internet	Case specific and contract specific	- Case specific cost sharing as determined by mutual agreement
Special/direct sale	Corporate Clients, etc.	Case specific and contract specific	N/A

Overseas

Classification	Channel	Collection	Incidental expense sharing
Retailer	Retail store	Case specific and contract specific	- Case specific cost sharing as determined by mutual agreement
Dealer	General merchandise store, Discount store, Department store	Case specific and contract specific	- Case specific cost sharing as determined by mutual agreement
Distributor	Direct sales to local distributors	Case specific and contract specific	- Case specific cost sharing as determined by mutual agreement
B2B	Corporate Clients, etc.	Case specific and contract specific	N/A

D. Sales Strategy

- Expand market leadership based on smart devices
- Provide differentiated value to customers through brand, products, and service
- Strengthen operational capabilities for customer/market
- Enhance sales capabilities

E. Major Customers

In 2016, major customers included Apple, BestBuy, Deutsche Telekom, Sprint and Verizon (in alphabetical order). Sales to our five major customers accounted for approximately 13% of total sales.

6. Long-term Contracts

As of December 31, 2016, there are no long-term contracts that have a significant impact on the Company's financial statement.

7. Financial Risk Management

The Company's financial risk management focuses on minimizing market risk, credit risk, and liquidity risk arising from operating activities. To mitigate these risks, the Company implements and operates a financial risk policy and program that closely monitors and manages such risks.

The finance team mainly carries out the Company's financial risk management. With the cooperation of the Company's Divisions, domestic and foreign subsidiaries, the finance team periodically measures, evaluates and hedges financial risks and also establishes and implements global financial risk management policies.

Financial team employees are dispatched to the regional headquarters of located in the US, UK, Singapore, China, Japan, Brazil and Russia to oversee application of global financial risk management policies at the local finance centers.

Financial assets subject to the Company's financial risk management are as follows: cash and cash equivalents, short-term financial instruments, available-for-sale financial assets, trade, and other receivables, and other financial assets. The Company's financial liabilities subject to financial risk management are as follows: trade and other payables, borrowings, debentures, and other financial liabilities.

A. Market Risk

(1) Foreign Exchange Risk

The Company experiences currency gains and losses based on the different functional currency of each entity due to global operations. As such, the Company is exposed to foreign currency volatility from exchange positions of currencies, especially the US Dollar, Euro, Japanese Yen, and Chinese Yuan.

To minimize foreign exchange risk arising from operating activities, the Company's foreign exchange management policy requires normal business transactions (including imports and exports) to be conducted in the local currency or for the cash-in currency to be matched with the cash-out currency. The Company's foreign exchange risk management policy also defines foreign exchange risk, measuring period, ownership responsibilities, management procedures, hedging period and hedge ratio.

The Company prohibits all speculative foreign exchange transactions. The Company has established a global foreign exchange system to manage exposures related to receivables and payables denominated in foreign currencies.

As of December 31, 2016, the Company's foreign currency exposure to its USD, Euro and Yen denominated financial assets and liabilities, based on a hypothetical 5% currency rate change against the Korean won (KRW), are presented below:

(Unit: KRW million)

Classification	Year-End 2016		Year-End 2015	
	Appreciation	Depreciation	Appreciation	Depreciation
USD	222,149	(222,149)	143,266	(143,266)
EUR	138,084	(138,084)	19,626	(19,626)
JPY	(61,294)	61,294	(15,120)	15,120

(2) Risk of Volatility in Equity Securities Held as Investment

The Company's investment portfolio consists of direct and indirect investments in equity securities and is classified as available-for-sale, which is in line with the Company's strategy.

As of December 31, 2016 and December 31, 2015, a price fluctuation in relation to marketable equity securities by 1% would result in changes in other comprehensive income (before income tax) of KRW 23,622 million and KRW 46,748 million, respectively.

(3) Interest Rate Risk

Risk of changes in interest rate for a floating interest rate financial instrument is defined as the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market interest rates and the risk that cash flows from investing/financing activities will fluctuate with changes in interest gain/loss. The Company is exposed to interest rate risk mainly through interest bearing liabilities and assets. The Company has policies to minimize uncertainty and expenses from changes in interest rates. In order to minimize interest rate related risks, the Company minimizes external borrowings by facilitating cash pooling systems on a regional and global basis. The Company manages its exposure to interest rate risks by regularly monitoring risk factors and timely resolution, and prevention, of issues.

(Unit: KRW million)

Classification	Year-End 2016		Year-End 2015	
	Interest Rate Increase	Interest Rate Decrease	Interest Rate Increase	Interest Rate Decrease
Financial Assets	64,803	(64,803)	81,962	(81,962)
Financial Liabilities	(9,123)	9,123	(22,314)	22,314
Net Effect	55,680	(55,680)	59,648	(59,648)

B. Credit Risk

Credit risk arises during the normal course of transactions and investing activities where clients or other parties fail to discharge an obligation. The Company actively monitors its credit risk on a regular basis and determines a counterparty's credit limit periodically based on the counterparty's financial conditions, default history, and other important factors.

Credit risk can arise from transactions with financial institutions which include financial instrument transactions such as cash and cash equivalents, savings, and derivative instruments. To minimize such risk, the Company transacts only with banks that have strong international credit ratings (S&P "A" and above), and all new transactions with financial institutions with no prior transaction history are approved, managed and monitored by the SEC's finance team and the local finance center. The Company normally enters into financial agreements that do not: require guarantees for payment, have restrictions on debt ratios or have acceleration provisions. The Company requires separate approval for contracts with such restrictive provisions.

The Company estimates that its maximum exposure to credit risk is the carrying value of its financial assets, net of impairment losses.

C. Liquidity Risk

Due to large investments made by the Company, maintaining adequate levels of liquidity is critical. The Company strives to achieve this goal by periodically forecasting its cash flow, estimating required cash levels, and managing income and expenses.

The Company manages its liquidity risk by periodically forecasting projected cash flows. If abnormal signs are identified, SEC works with the local finance center and provides liquidity support by utilizing its globally integrated finance structures such as cash pooling. In addition, the Company maintains a liquidity management process which provides additional financial support through the local finance center and the Company when necessary. The cash pooling program allows sharing of surplus funds among entities and contributes to minimizing liquidity risk and strengthening the Company's competitive position by reducing capital operating expenses and finance expenses.

In addition, the Company mitigates liquidity risk by contracting with financial institutions with respect to bank overdrafts and foreign trade finance and by providing payment guarantees to subsidiaries. For large scale facility investments, liquidity risk is minimized by utilizing internal reserves and long term borrowings according to the capital injection schedule.

As of year-end 2016, financial liabilities classified according to the term remaining from the Reporting Date until the due date are as follows:

(1) Year-End 2016

(Unit: KRW million)

	Under 3 mos.	~6 mos.	~1yr	1~5 yrs	Over 5 yrs
Financial Liabilities	40,918,912	1,588,798	150,744	4,346,200	50,073

(2) Year-End 2015

(Unit: KRW million)

	Under 3 mos.	~6 mos.	~1yr	1~5 yrs	Over 5 yrs
Financial Liabilities	32,275,387	412,196	1,331,166	3,057,099	476,432

The above financial liabilities were classified according to the term remaining from the Reporting Date until the due date. The cash flows included were not discounted at present value. Please note, as expiry of derivatives bought and sold is not necessary for understanding liquidity requirements in a given period, its fair value of KRW 74,697 million (year-end 2015: KRW 38,829 million) is included in the "under 3 mos." figure. These derivatives contracts are managed based on their fair value rather than expiration. Cash-settled derivatives are composed of currency forwards used for managing the Company's exchange rate risk.

The maximum amount of liquidity risk exposure due to payment guarantee and performance guarantee of affiliates (**other than** the financial liabilities set forth above) is KRW 59,016 million (*cf.* year-end 2015: KRW 67,017 million).

D. Capital Risk Management

The purpose of capital management is to maintain a healthy capital structure. The Company uses debt ratio as an indicator and measure of an appropriate capital structure. The debt ratio is calculated by dividing total liabilities by total equity in the consolidated financial statements.

The Company's capital risk management policy has not changed since the fiscal year ended December 31, 2015. The Company has maintained "A+ " and "A1" credit ratings from S&P and Moody's, respectively.

The total liabilities to equity ratio as of year-end 2016 and year-end 2015 are as follows:

(Unit: KRW million)

	December 31, 2016	December 31, 2015
Total liabilities	69,211,291	63,119,716
Total equity	192,963,033	179,059,805
Total liabilities to equity ratio	35.9%	35.3%

E. Fair Value Measurement

- Carrying amounts and fair values of financial instruments by category as of December 31, 2016 and December 31, 2015 are as follows:

(Unit: KRW million)

Classification	December 31, 2016		December 31, 2015	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Cash and cash equivalents	32,111,442	(1)	22,636,744	(1)
Short-term financial instruments	52,432,411	(1)	44,228,800	(1)
Short-term available-for-sale financial assets	3,638,460	3,638,460	4,627,530	4,627,530
Trade and other receivables	24,279,211	(1)	25,168,026	(1)
Long-term available-for-sale financial assets ⁽²⁾	6,804,276	5,826,507	8,332,480	8,225,687
Other ⁽³⁾	3,459,863	919,071	3,546,434	1,070,839
Total Financial assets	122,725,663		108,540,014	
Financial liabilities				
Trade payables	6,485,039	(1)	6,187,291	(1)
Short-term borrowings	12,746,789	(1)	11,155,425	(1)
Other payables	10,225,271	(1)	7,625,490	(1)
Current portion of long-term borrowings	1,232,817	(1)	221,548	(1)
Debentures	58,542	76,129	1,230,448	1,261,783
Long-term borrowings	1,244,238	1,225,455	266,542	242,603
Long-term other payables	3,009,659	3,022,821	2,719,674	2,581,985
Other ⁽³⁾	11,942,469	74,697	7,947,398	38,829
Total Financial liabilities	46,944,824		37,353,816	

¹ Assets and liabilities whose carrying amounts are reasonable approximations of their fair value are excluded from the fair value disclosures.

² Amount measured at cost (2016: KRW 977,769 million and 2015: KRW 106,793 million) is excluded, as the range of reasonable fair value estimates are significant and the probabilities of the various estimates cannot be reasonably assessed.

³ Assets of KRW 2,452,118 million (2015: KRW 2,349,454 million) and liabilities of KRW 11,867,772 million (2015: KRW 7,908,569 million) are excluded from the fair value disclosures, as the carrying amounts are reasonable approximations of their fair values.

The following table presents the fair value of assets and liabilities, by Level (as defined below), measured as of the dates indicated:

(In millions of Korean won)	As of December 31, 2016			
	Level 1	Level 2	Level 3	Total balance
Assets				
Short-term available-for-sale financial assets	-	3,638,460	-	3,638,460
Long-term available-for-sale financial assets ¹	2,362,235	-	3,464,272	5,826,507
Other	-	919,071	-	919,071
Liabilities				
Debentures	-	76,129	-	76,129
Long-term borrowings	-	1,225,455	-	1,225,455
Long-term other payables	-	2,680,119	342,702	3,022,821
Other	-	74,697	-	74,697

(In millions of Korean won)	December 31, 2015			
	Level 1	Level 2	Level 3	Total balance
Assets				
Short-term available-for-sale financial assets	-	4,627,530	-	4,627,530
Long-term available-for-sale financial assets ¹	4,674,753	78,189	3,472,745	8,225,687
Other	-	1,055,240	15,599	1,070,839
Liabilities				
Debentures	-	1,261,783	-	1,261,783
Long-term borrowings	-	242,603	-	242,603
Long-term other payables	-	2,269,247	312,738	2,581,985
Other	-	38,829	-	38,829

The levels of the fair value hierarchy (based on characteristics of the input variables) and its application to financial assets and liabilities are described below.

- Level 1: Quoted market prices (unadjusted) for identical assets or liabilities
- Level 2: Fair valuation based on inputs that are observable in the market
(Other than quoted prices included within Level 1)
- Level 3: Fair valuation based on inputs that are unobservable in the market

The fair value of financial instruments traded in active markets is based on quoted market prices at the statement of financial position date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, 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. Instruments in Level 1 include listed equity investments classified as trading securities or available-for-sale financial assets.

The fair value of financial instruments that are not traded on an active market (for example, over-the-counter derivatives) is determined using valuation models. These valuation models maximize the use of observable market data where it is

available and rely as little as possible on entity specific information. If all significant inputs required to measure the fair value of an instrument are observable, the instrument is included in Level 2.

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

The Company performs fair value measurements required for financial reporting purposes, including Level 3 fair values, and discusses valuation processes and results at least once every quarter in line with SEC's quarterly reporting dates. The Company recognizes changes in Levels at the end of the reporting period, if corresponding events or changes in circumstances necessitating such reclassification have occurred.

Specific valuation methods used to value financial instruments include:

- Quoted market prices or dealer quotes for similar instruments.
- The fair value of foreign exchange forward contracts is determined using, among other things, forward exchange rates at the statement of financial position date, with the resulting value discounted back to present value.

Other methods, such as discounted cash flow analysis, are used to determine fair value for the remaining financial instruments. For trade and other receivables, the book value approximates a reasonable estimate of fair value.

- Valuation Methods and Inputs

- The Company utilizes a present value method to discount future cash flows at a proper interest rate for corporate bonds, government and public bonds, and bank debentures that are classified as Level 2 in the fair value hierarchy.
- The following table presents the valuation methods and inputs used for major financial instruments classified as Level 3.

(In millions of Korean won)				
Classification	Fair Value	Valuation Technique	Level 3 Inputs	Input Range (Weighted Average)
Long-term available-for-sale financial assets				
Maltani (formerly Taewon Electric)	16,270	Discounted cash flow	Permanent growth rate Weighted average cost of capital	-1.00% ~ 1.00% (0%) 7.45% ~ 9.45% (8.45%)
Samsung Venture Investment	7,515	Discounted cash flow	Permanent growth rate Weighted average cost of capital	-1.00% ~ 1.00% (0%) 21.31% ~ 23.31% (22.31%)
Coming Incorporated convertible preferred shares	3,440,487	Trinomial model	Risk adjusted discount rate Price volatility	5.74% ~ 7.74% (6.74%) 27.8% ~ 33.8% (30.80%)
Long-term other payables				
Contingent liabilities	342,702	Discounted cash flow	Discount rate	3.81% ~ 4.65% (4.23%)

- Changes in Level 3 Instruments:

(In millions of Korean won)	2016	2015
Balance as of January 1	3,488,344	3,548,095
Purchases	-	119,297
Disposals	(14,805)	(55,986)
Amount recognized in profit or loss	(795)	3,530
Amount recognized in other comprehensive income	695,631	(304,012)
Other	(704,103)	177,420
Balance as of September 30	3,464,272	3,488,344

(In millions of Korean won)	2016	2015
Balance as of January 1	312,738	-
Amount recognized in profit or loss	29,964	312,738
Balance as of September 30	342,702	312,738

- Sensitivity Analysis for Recurring Fair Value Measurements Categorized within Level 3

Sensitivity analysis of financial instruments is performed to measure favorable and unfavorable changes in the fair value of financial instruments which are affected by inputs that are unobservable in the market, using a statistical technique. When the fair value is affected by two or more input variables, such fair value is calculated using the most favorable or most unfavorable input values.

The results of the sensitivity analysis for the effect on profit or loss from changes in inputs for each type of financial instrument, which is categorized within Level 3 and subject to sensitivity analysis, are as follows:

(In millions of Korean won) Classification	Favorable Changes		Unfavorable Changes	
	Profit or Loss	Equity	Profit or Loss	Equity
Long-term available for sale financial assets ¹	-	194,732	-	(227,857)
Long-term other payables ²	1,920	1,920	(1,932)	(1,932)
Total	1,920	196,652	(1,932)	(229,789)

¹ For equity securities, changes in fair value have been calculated by increasing or decreasing the correlation between growth ratio (-1% ~ 1%) and the discount rate, which are significant unobservable inputs.

² For long-term other payables, changes in fair value have been calculated by increasing or decreasing the discount rate by 10%, which are major variables that cannot be observed.

8. Derivative Instruments and Put Options

(A) The value of derivative instruments of the Company and its subsidiaries as of December 31, 2016 is presented below:

(Unit: KRW million)

	Asset	Liabilities	Valuation Gain	Valuation Loss
Put options	-	-	-	794
Total	-	-	-	794

※ The option values were calculated using appropriate valuation methodologies, including the Black-Scholes model

The Company and its subsidiaries hold convertible preferred shares of Corning Incorporated and its value as of December 31, 2016 is as follows.

(Unit: KRW million)

	Purchasing Price	Fair Value	Valuation Gain	Valuation Loss
Convertible Preferred Shares	2,434,320	3,440,487	1,006,167	-

※ Fair value is determined using Trinomial Tree model; valuation gain is reflected in equity (under other components of equity).

(B) To manage foreign exchange risk, SEC's subsidiaries hedge their foreign currency positions by trading currency forward contracts of such currencies. Overseas subsidiaries buy or sell currency forwards with less than one year maturity through a bank to minimize such risks.

(C) As of December 31, 2016, the Company has 1,609 currency forward contracts involving 37 foreign currencies including USD/EUR/JPY. Currency forwards as of December 31, 2016 are as follows.

(Unit: KRW million)

	Asset	Liabilities	Valuation Gain	Valuation Loss
Currency forwards	63,014	74,678	52,389	66,645
Total	63,014	74,678	52,389	66,645

9. Major Contracts

Account	Item	Contents
Ericsson	Contract type	Patent cross-license agreement
	Contract date	2014.01.25
	Purpose and contents	Secure operational advantage through mutual patent licensing
Google	Contract type	Patent cross-license agreement
	Contract date and period	2014.01.25 / indefinite term
	Purpose and contents	Secure business freedom through mutual patent licensing
	Others	Permanent license contract (including patent applications in the next 10 years)
Cisco	Contract type	Patent cross-license agreement
	Contract date	2014.01.23
	Purpose and contents	Secure business freedom through mutual patent licensing
Global Foundries Inc.	Contract type	Process technology license contract
	Contract date	2014.02.28
	Purpose and contents	Expand customer base of 14nm process
InterDigital	Contract type	Patent license agreement
	Contract date	2014.06.03
	Purpose and contents	Secure business freedom through patent licensing
Sharp	Contract type	Patent cross-license agreement
	Contract date	2015.01.01
	Purpose and contents	Secure operational advantage through mutual patent licensing
Microsoft	Contract type	Settlement Agreement
	Contract date	-
	Purpose and contents	End dispute over royalty payment
Nokia	Contract type	Patent license agreement
	Contract date	2016.07.12
	Purpose and contents	Secure business flexibility through patent licensing

HP	Contract type	Sales of printing solutions business
	Contract date	2016.09.12
	Purpose and contents	Concentrate on our core competencies and advance business structure
	Others	Transaction value: USD 1.05 billion
Harman	Contract type	Acquisition of shares
	Contract date	2016.11.14
	Purpose and contents	Strengthen business capabilities by acquiring the company's shares
	Others	Transaction value: USD 8.02 billion

※ Information that may be referenced or used in other IP disputes, including contract amount, is not included.

10. Research and Development Activities

A. Summary of Activities and R&D Expenditures

The Company is leading the global market by continuously developing creative and innovative products and the future technology through shifting its way of thinking and understanding customer demand.

The Company is currently developing creative and innovative products and doing its utmost to cement its position in the global IT industry and become a worldwide leader in industrial technology by creating and securing next-generation technology.

[R&D expenses]

(Unit: KRW million)

		2016	2015	2014
Total R&D expenditure		14,792,343	14,848,754	15,325,507
Accounting	Capitalization of development expenses (intangible asset)	680,962	1,143,059	940,001
	R&D costs (expenses)	14,111,381	13,705,695	14,385,506
R&D expenses/sales Ratio		7.3%	7.4%	7.4%

※ On a consolidated basis (in conformity with K-IFRS)

As of December 31, 2016, the Company's R&D expenses were KRW 14,792 billion. The Company capitalized KRW 681 billion and recognized KRW 14,111 billion as current expenditure.

B. R&D Organization and Operations

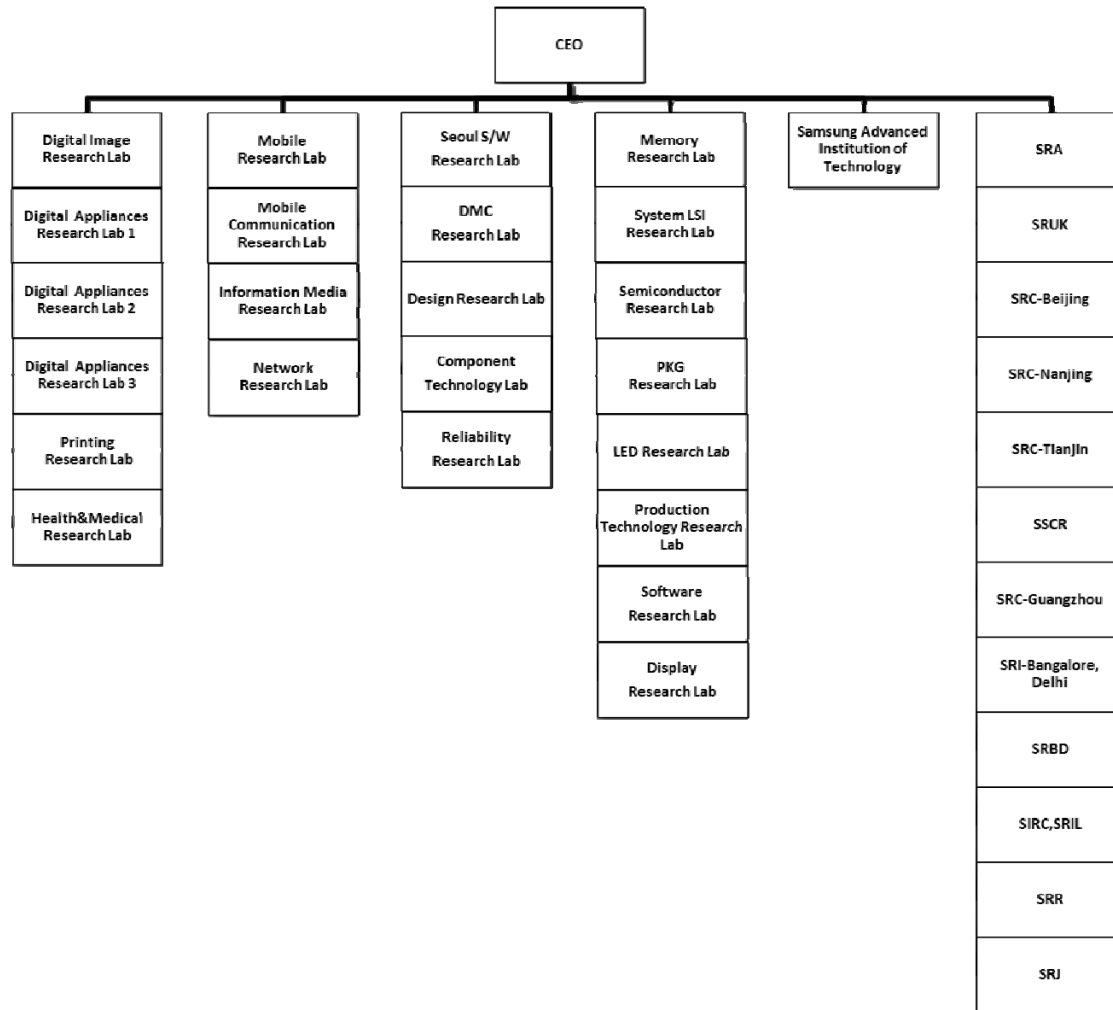
Korea

The Company operates three levels of R&D organizations; a business unit development team under each Division that develops market ready technologies with a 1-2 year outlook, a research institute under each business unit that develops mid-to-long term technology with a 3-5 year outlook, and the Samsung Advanced Institute of Technology that develops core technology as seeds for future growth engines.

Samsung Advanced Institute of Technology is the central research institute of Samsung Electronics that has been established to lead the Company into the future and serve as an incubator of cutting-edge technology. It has a creative R&D system and provides R&D direction for promising growth sectors at the Company level, exploring future growth engines and strengthening technological competitiveness of core businesses.

Overseas

The Company operates R&D organizations in the US (SRA), the UK (SRUK), Russia (SRR), Israel (SRIL and SIRC), India (SRI-Bangalore and SRI-Delhi), Japan (SRJ), China (SSCR, SRC-Beijing, SRC-Nanjing, SRC-Tianjin, and SRC-Guangzhou) to carry out research activities for product development and basic technological research.



※ As of December 31, 2016

※ Refer to 『G. Subsidiaries subject to consolidation』 in 『I. Corporate Overview』 for more details about overseas R&D organizations.

C. R&D Results

Research Project	Research Results and Expected Effect	In case applied to a product, name of the product and application
Develop new smart card product	<ul style="list-style-type: none"> □ Launched NFC with internal flash memory (e-flash) - First to Use 45nm e-flash logic process, which improves density and power efficiency compared to 90nm products - Miniaturized products by supporting smallest antenna solution - Enabled mobile POS through NFC chip as the first in the industry ※ POS (Point of Sales): point of sale information management system 	<ul style="list-style-type: none"> □ Region : Global □ Launch: Jan '14 □ Name : S3FWRN5
High-resolution low power consumption Tablet product technology	<ul style="list-style-type: none"> □ Mass produce high-resolution Tablet panel □ Achieved low power consumption of tablet products and higher rate of production by enhancing transmissivity 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Feb '14
Mass produce 20nm 4GB DDR3 DRAM for server	<ul style="list-style-type: none"> □ First in the world to mass produce ultra-fine 20nm 4GB DDR3 DRAM - Applied independently developed high-density/high-speed/low-power consumption technology - Enhanced productivity by 30% compare to 25nm □ PC and server full line-up to be launched with 20nm 4GB DRAM - Enhance competitiveness by launching the whole line-up including mobile in the future 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Feb '14 □ Name : 4GB DDR3 DRAM
Develop new ISOCELL image sensor	<ul style="list-style-type: none"> □ Launched new 1600 megapixel ISOCELL image sensor - Clear image even in dark places - 16 megapixel / 30pfs per second (first in the industry) - 16:9 aspect ratio FullHD resolution 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Mar '14 □ Name : S5K2P2
Develop new Mobile AP product with HMP solution	<ul style="list-style-type: none"> □ Launched new Exynos 5 Octa (5422) product - Enhance power efficiency by combining and utilizing 8 high-capacity/low-power consumption cores through applying HMP solution - Support WQHD and WQXGA ultra-high resolution - Strengthen low-power consumption capacity by using automatic conversion to power save mode and mobile video compression technology □ Launched new Exynos 5 Hexa (5250) product - Enhance power efficiency by combining and utilizing 6 high-capacity/low power consumption cores through applying HMP solution - Support WQXGA ultra-high resolution 	<ul style="list-style-type: none"> □ Region : Global □ Launch: Jan/Mar '14 □ Name : Exynos5250/ Exynos5422
UHD TV HU9000	<ul style="list-style-type: none"> □ Ultimate Curved UHD TV that provides perfect immersive experience - Adopted ergonomic Curved LED Panel □ Clear differentiation values compare to competitors - Smart Hub function with Multi-Link Screen added - The only Evolutionary UHD TV □ Premium design - Ergonomic Curved Design - eEnhance premium image through Immersive Viewing Experience 	<ul style="list-style-type: none"> □ Region : Global □ Launch: Mar '14 □ Inch : 55"/65"
Mass produce 2 nd generation V-NAND based 1TB SSD for PC	<ul style="list-style-type: none"> □ First in the world to mass produce 2nd generation 3D V-NAND based 1TB SSD - Opened up 'the era of popularized 3D memory' with 2nd generation V-NAND - Target PC market after creating server market last year □ Launched high-reliability, high-capacity, low-power consumption V-NAND SSD line-up - Increased life by twofold and reduced power consumption by 20% compare to existing SSD - Launch 'V-NAND SSD' in 53 nations around the world starting in July 	<ul style="list-style-type: none"> □ Region : Global □ Launch : May '14 □ Name : 1TB, V-NAND SSD
Develop new ISOCELL Image sensor	<ul style="list-style-type: none"> □ Develop 13 megapixel stacked ISOCELL image sensor - Smaller chip size and wider circuit range by applying stacked structure - Diversification of exposure with smart WDR function improves color in backlight 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jun '14 □ Name : S5K3M2
Develop new Mobile AP product	<ul style="list-style-type: none"> □ Launched new Exynos 5 Octa (5430) product - Increased power efficiency by applying 20nm low-power consumption HKMG process - Enhanced performance by applying HMP solution and can work individually depending on low power core needs - Enhanced low power consumption property by using automatic conversion to power save mode and mobile video compression technology - Support WQHD and WQXGA ultra high-resolution 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jun '14 □ Name : Exynos 5430

Research Project	Research Results and Expected Effect	In case applied to a product, name of the product and application
UHD TV (UN105S9WAF)	<ul style="list-style-type: none"> □ Product Concept <ul style="list-style-type: none"> - Wide Curved(21:9) 105" UHD TV - Need to solidify market leadership by introducing ultra-large size 105" UHD TV as the first in the world □ Spec and effects <ul style="list-style-type: none"> - Adopted SDC 4200R 105" Wide Curved Panel - Applied Golf-AP/MP Platform - Provide the ultimate immersive and realistic viewing experience 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jul '14 □ Inch: 105"
LFD QMD	<ul style="list-style-type: none"> □ Introduced Premium UHD Line Up <ul style="list-style-type: none"> - Introduced high resolution UHD LFD lineup - Applied SE13U Platform - Applied spec to respond to LFD Usage - Reduced additional investment costs by sharing TV HU7K design □ Main functions <ul style="list-style-type: none"> - Support full HD screen split in 4 (2/3/4 splits) - DP 1.2 and SBB applicable 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Aug '14 □ Inch: 85"
Mass produce PC/server 32 layer 3bit 3D V-NAND	<ul style="list-style-type: none"> □ Mass produced the world's first 3bit 3D V-NAND based 1TB SSD <ul style="list-style-type: none"> - Opened up the era of "popularized V-NAND SSD" with 3bit V-NAND - Target the standard SSD market with V-NAND that has 50% higher productivity □ Reinforced highly reliable, high-performance, low energy consuming V-NAND SSD lineup <ul style="list-style-type: none"> - Launched mSATA and M.2 SSD lineups in addition to the existing 2.5" - Launched '850 EVO SSD' in 53 nations around the world in Dec 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Oct '14 □ Inch: 128Gb 3bit 3D V-NAND (850 EVO SSD)
Bendable TV Nov (UN78S9BAF)	<ul style="list-style-type: none"> □ World's first Bendable UHD TV <ul style="list-style-type: none"> - Secured technology leadership □ Design <ul style="list-style-type: none"> - Adopted Timeless Gallery Design - Becomes an aesthetic object when power is off 	<ul style="list-style-type: none"> □ Region : Domestic □ Launch : Nov '14 □ Inch: 78"
Mass produce mobile 20nm 8Gb LPDDR4 DRAM	<ul style="list-style-type: none"> □ Mass produced the world's first ultrafine 20nm 8Gb LPDDR4 DRAM <ul style="list-style-type: none"> - Applied "highly integrated/ultrahigh speed/high-density" solution developed by the Company - Created the world's first 4GB market and took the lead □ Led growth of the DRAM market by expanding 20nm DRAM lineup <ul style="list-style-type: none"> - Plan to take the lead in the market by expanding next-generation lineups(8/6/4Gb) in the future 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Dec '14 □ Inch: 8Gb LPDDR4 DRAM
Launch new Mobile AP product	<ul style="list-style-type: none"> □ Industry's first 14nm FinFET process-based Mobile AP <ul style="list-style-type: none"> - Compared to 20nm process, 14nm process has enhanced performance by 20%, reduced power consumption by 30%, and improved productivity by 35% 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jan '15 □ Name: Exynos 7 Octa
Launch new NFC product	<ul style="list-style-type: none"> □ 4th generation NFC solution with enhanced RF performance <ul style="list-style-type: none"> - Compared to 3rd generation products, doubled card mode and enhanced reader mode by 20% □ Support mobile POS in smartphone environment <ul style="list-style-type: none"> - Applied 45nm embedded flash process - Reduced customers' product development and certification period 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jan '15 □ Name: S3FWRN5P
Mass produce 10nm-class 128GB UFS for mobile	<ul style="list-style-type: none"> □ Mass produced the world's first 128GB UFS memory for mobile <ul style="list-style-type: none"> - Performance was enhanced by 12 times compared to memory card and 2.7 times compared to eMMC □ Lead the growth of the premium market by expanding the high-density memory market <ul style="list-style-type: none"> - Launched high-density line up with twice the density (128/64/32GB) 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Feb '15 □ Name: 128GB UFS (Internal memory card)Lau
Launch SUHD TV	<ul style="list-style-type: none"> □ Curved SUHD TV : Provide the ultimate immersive experience <ul style="list-style-type: none"> ※ S: Spectacular, Smart, Stylish, Superb □ Design : Chamfer Design (Real Metal) 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Mar '15 □ Inch: 65"/78"/88"

Research Project	Research Results and Expected Effect	In case applied to a product, name of the product and application
Mass produce NAND-based 10nm-class 512GB M.2 NVMe SSD for PC	<ul style="list-style-type: none"> □ Mass produced world's first 512GB M.2 NVMe SSD for the next generation PC <ul style="list-style-type: none"> - Read speed of 2,260MB/s, 4 times faster than SATA SSD - Took the lead in the mobile workstation and slim PC markets □ Led the premium market by expanding the ultra-high speed, high-density SSD market <ul style="list-style-type: none"> - Plan to target PC market in earnest by launching V- NAND based line ups in the future 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Apr '15 □ Name: 512GB M.2 NVMe SSD (SM951 SSD)
HAV(WAA) WAM5500/ZA	<ul style="list-style-type: none"> □ Ambient Audio <ul style="list-style-type: none"> Defined a new audio category with differentiated sound quality and sensible design (Blending, conventional design) - Provide the same sound quality through Wireless Audio 360 and Ring Radiator Tech - Expand multi-room audio usability through compatibility with TV/AV products - Provide sensible user experience by applying Analog Wheel - Easy to understand setting information through Voice AUI - Provide visual experience by applying OLED 	<ul style="list-style-type: none"> □ Region : Americas □ Launch : Aug '15
Launch new CMOS image sensor	<ul style="list-style-type: none"> □ Industry's first 1.0um 16 mega-pixel mobile image sensor <ul style="list-style-type: none"> - Provide the same image quality with 1.12um pixels by applying ISOCELL - With camera module of under 5mm in height, mobile device design became slimmer - Compared to 1.12um pixel sensor, module height decreased by 20% 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jul '15 □ Name: S5K3P3
Mass produce 3rd generation(48-layer) 256Gb 3D V-NAND for SSD	<ul style="list-style-type: none"> □ Mass produced world's first 3rd generation(48-layer) 3D V-NAND <ul style="list-style-type: none"> - Began mass producing 256Gb in earnest, which has twice the degree of integration than 128Gb - Took the lead in the PC, enterprise server, and datacenter SSD markets □ Led 'popularization of Tera SSD' by expanding ultra-high-speed SSD line ups <ul style="list-style-type: none"> - Target the market by expanding 3rd generation V-NAND based line ups 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Aug '15 □ Name: 256Gb 3D V-NAND (3G 48-layer)
Mass produce 20nm DRAM-based 12Gb LPDDR4 mobile DRAM for mobile	<ul style="list-style-type: none"> □ Mass produced world's first next generation 12Gb LPDDR4 DRAM for mobile <ul style="list-style-type: none"> - First to achieve 4,266Mbps, which is twice the speed of PC DRAM - Took the lead in not only mobile but also PC, consumer electronics, and automobile markets □ Led the premium DRAM market by taking the lead in the ultra-high-speed DRAM market <ul style="list-style-type: none"> - Plan to target the next generation DRAM market in the future by launching 6GB line ups 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Sep '15 □ Name: 12Gb LPDDR4 Mobile DRAM (20nm DRAM)
LFD OHD	<ul style="list-style-type: none"> □ Product Concept <ul style="list-style-type: none"> - Satisfied market demand with accelerated digitization of outdoor Signage. - Varied its sizes from 46" to 46"/55" - Improved brightness to 2,500nit from 1,500nit and applied new panels which withstand high-temperature □ Specification <ul style="list-style-type: none"> - Outdoor Kit product with Power Box - Can operate in a wide range of temperature, from -30°C to +50°C (fans and heating films are applied) 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Oct '15 □ Inch: 46"/55"
Mass produce 20nm DRAM-based 12GB 3D TSV DDR4 RDIMM for server	<ul style="list-style-type: none"> □ First to mass produce next-generation 128GB 3D TSV RDIMM for server <ul style="list-style-type: none"> - 3D TSV technology doubled up the speed while reducing electricity consumption by 50% - Surpassed the limit of DRAM module density for server (RDIMM/LRDIMM) □ Leading the premium DRAM market with the next-generation line-up <ul style="list-style-type: none"> - Will create new market by launching HBM2, following the TSV LRDIMM 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Nov '15 □ Name: 12GB 3D TSV DDR4 RDIMM (20nm DRAM)
System Air-Conditioner (CAC) AC9000K	<ul style="list-style-type: none"> □ Product features <ul style="list-style-type: none"> - Developed the world-first Bladeless 360 Cassette-type air-conditioner - Provides even distribution of air and minimized untouched area with circular air wave - Increased space coverage to 83% from 44% - Cold Draft Free (reduced sensory temperature gap to 0.2°C from 7.9°C) 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Dec '15
System Air-Conditioner (DVM) AM7500K	<ul style="list-style-type: none"> □ Product features <ul style="list-style-type: none"> - Has the biggest capacity at the same size level - Provided in Compact Size & improved installation and service (the width is 940mm, the smallest in the market) - Provides highest efficiency (increased China's 12HP IPLV by 17%) 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Dec '15
Mass produce all-in-one Bio-Processor Chip	<ul style="list-style-type: none"> □ Mass produced the industry's first all-in-one Bio-Processor Chip <ul style="list-style-type: none"> - Its all-in-one chip took up every steps from capturing signals to processing, by including AEF, MCU, DSP, eFlash and PMIC - Equipped with five AFEs and measures five different biometric signals: BIA (body fat), PPG (heartbeat rate), ECG (electrocardiogram), skin temperature, and GSR (stress level) 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Dec '15 □ Name: S3FBP5A

Research Project	Research Results and Expected Effect	In case applied to a product, name of the product and application
Mass produce 20nm DRAM-based 4GB HBM2 DRAM for HPC	<ul style="list-style-type: none"> □ Mass produced the world's first next-generation 4GB HBM2 DRAM for HPC <ul style="list-style-type: none"> - Improved system speed by 3.6x, board space savings of up to 97% - Exceeded speed limitation through TSV technology with 37x higher density □ Lead the growth of premium memory market with the launch of 8GB HBM2 <ul style="list-style-type: none"> - Continue to stay ahead in the network market, as well as graphic and HPC markets 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jan '16 □ Name: 4GB HBM2 DRAM (20nm DRAM)
LFD DCE	<ul style="list-style-type: none"> □ Specification and Effects <ul style="list-style-type: none"> - Slim design though common use of mechanical engineering and panels of DBE model / Provide light MagicInfo-E Solution by applying NT14 platform - Slim Design: Bezel 9.5mm, Depth 49.9mm - Provide USB Contents Player through MagicInfo-E Solution - Strengthened controlling functions such as RJ45/RS232C 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jan '16 □ Inch: 32"/40"/48"/55"
LFD TC2	<ul style="list-style-type: none"> □ Specification and Effects <ul style="list-style-type: none"> - Enhanced competitiveness by upgrading CPU specifications <ul style="list-style-type: none"> ※ 1.0GHZ Dual Core → 2.2GHz Dual Core - Provides more OS options by introducing 64bit WES7 - Added USB port (Serial Port → USB x 2) <ul style="list-style-type: none"> ※ Replaced the existing serial port with USB to Serial Adapter 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jan '16 □ Inch: 22"/24"
DVM System Air-Conditioner AM9100K	<ul style="list-style-type: none"> □ Product features <ul style="list-style-type: none"> - Made an entrance into high-efficiency Inverter chiller market - Efficiency (Europe): EER : 3.4 / ESEER: 5.7 (40% higher than competitor) - Installment: 1.38m² (39% smaller than competitors) - Operate in a wider range of temperature, from -25°C to +48°C (competitor: -15°C to +43°C) 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Jan '16
Mass produce 3 rd Generation (48-layer) V-NAND based 256GB UFS	<ul style="list-style-type: none"> □ Mass produced the world's first next-generation 256GB UFS for smartphone <ul style="list-style-type: none"> - High-performance: up to 9 times faster than uSD card, twice as fast as SSD - Provides high-speed, high-density solution with sub-micro size □ Strengthen memory competitiveness though 256GB UFS market expansion <ul style="list-style-type: none"> - Constantly lead high growth of UFS in internal storage market 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Feb '16 □ Name: 256GB UFS (3rd generation 48-layer 256Gb V-NAND)
Mass produce 3 rd Generation (48-layer) V-NAND based 15.36TB SAS SSD	<ul style="list-style-type: none"> □ Mass produced the world's first next-generation 15.36TB SAS SSD for server <ul style="list-style-type: none"> - Provide 15.36TB SSD for the first time in the world through application of 256Gb V-NAND - The highest density among single form factor storage devices □ Focus on SAS market by constantly expanding high-density line-ups <ul style="list-style-type: none"> - Expand enterprise market significantly following data center market 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Feb '16 □ Name: 15.36TB SAS SSD (3rd generation 48-layer 256Gb V-NAND)
Mass produce 10nm-class (1x) 8Gb DDR4 DRAM for PC/server	<ul style="list-style-type: none"> □ Mass produced the world's first 10nm-class 8Gb DDR4 DRAM <ul style="list-style-type: none"> - Enhanced productivity and speed by above 30% compared to 20nm, save electricity by up to 20% - Exceeded limitation of migration, with our three distinctive innovative technology □ Lead the market growth through high-density DRAM line-up expansion <ul style="list-style-type: none"> - Continue to strengthen its dominance in the mobile market as well as PC and server markets 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Feb '16 □ Name: 8Gb DDR4 DRAM (10nm-class DRAM)
LM CF59	<ul style="list-style-type: none"> □ Specifications and Effects <ul style="list-style-type: none"> - Circuits: Provides triple Interface (1 D-Sub/1HDMI/1DP) - Mechanical Engineering: The 3-side bezel less technique gave birth to distinctive design and provides seamless usage through multi-display - Panel: Curved panel with a curvature of 1800R (4000R in 2015) 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Feb '16 □ Inch: 27"
FDR Refrigerator RF9500KF	<ul style="list-style-type: none"> □ Product features <ul style="list-style-type: none"> - Create new demand and take leadership in the smart home appliances market by providing new user experience which meets new consumer needs in IOT era - Applied 21.5" LCD - Provides Smart Things and Sticki Shopping features that all family members can share to achieve a Smart Home. 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Feb '16
Exynos 8 Octa	<ul style="list-style-type: none"> □ 14nm 2nd generation process-based premium mobile SOC <ul style="list-style-type: none"> - Enhanced performance and energy-saving effect - Applied distinctive custom CPU core technology - The first integrated one-chip solution with highest-specification LTE modem 	<ul style="list-style-type: none"> □ Region : Global □ Launch : Mar '16 □ Name: S5E8990

Research Project	Research Results and Expected Effect	In case applied to a product, name of the product and application
Exynos 7	<input type="checkbox"/> Industry's first 14nm based mid to low-end mobile SOC - Applied 14nm derivative process - Enhanced energy-efficiency by 30%, compared to the existing 28nm products with same performance level	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Mar '16 <input type="checkbox"/> Name: S5E7870
Mobile Image Sensor	<input type="checkbox"/> 1.2 megapixel mobile image sensor with dual pixel technology - Phase-detection AF in all resolutions at high speed - Auto-focus feature that is quick and accurate even in darker environments - Maximized functions with Samsung isocell technology	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Mar '16 <input type="checkbox"/> Name: S5K2L1
LFD OHE	<input type="checkbox"/> Specification and Effects - Applied the existing outdoor specifications - 110°C TNI Panel made outdoor usage possible - Internalized Quad-Core SoC to provide PC-less Solution - Provides optimized brightness level through automatic illumination sensor, saving energy-consumption and maximizing product life	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Mar '16 <input type="checkbox"/> Inch: 24"
LM CF39	<input type="checkbox"/> Specification and Effects - 16:9 ratio, the most optimal curvature of 1800R - Offers distinctive design by applying round-type stand base and simple single hinge - Simple and sensational design even on the back, maximizing the beauty of curved design	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Mar '16 <input type="checkbox"/> Inch: 24"/27"
SUHD TV (KS9000)	<input type="checkbox"/> Curved SUHD TV <input type="checkbox"/> Design: Dignity, Bezel-less, Screw-less, Axis Stand <input type="checkbox"/> Specification and Effects - Platform (H/W, S/W): Jazz-M, Tizen OS - Image quality: UHD 120Hz, Curved, QD, Local Dimming - Feature: Live and OTT combined Home helps easy access to TV content/service and improves consumer experience	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Mar '16 <input type="checkbox"/> Inch: 49"/55"/65"
SUHD TV (KS8000)	<input type="checkbox"/> Flat SUHD TV <input type="checkbox"/> Design : Dignity, Bezel-less, Screw-less, Axis Stand <input type="checkbox"/> Specification and Effects - Platform (H/W,S/W): Jazz-M, Tizen OS - Image quality: UHD 120Hz, Flat, QD, Local Dimming - Feature: Live and OTT combined Home helps easy access to TV content/service and improves consumer experience	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Mar '16 <input type="checkbox"/> Inch: 49"/55"/65"
SUHD TV (KS7500/KS7000)	<input type="checkbox"/> Curved SUHD TV <input type="checkbox"/> Design : Triumph, Bezel-less, Screw-less, Branch Stand <input type="checkbox"/> Specification and Effects - Platform (H/W,S/W): Jazz-M, Tizen OS - Image quality: UHD 120Hz, Curved, QD, Local Dimming - Feature: Live and OTT combined Home helps easy access to TV content/service and improves consumer experience	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Mar '16 <input type="checkbox"/> Inch: 43"/49"/55"/65"
UHD TV (KU6500/KU6400)	<input type="checkbox"/> UHD Curved TV <input type="checkbox"/> Design : Metal Design, Bolt-less Clean Back, Ultimate Slim Design <input type="checkbox"/> Specification and Effects - Platform (H/W,S/W): Jazz-M, Tizen OS - Image quality: Wide Color Gamut - Feature: Live and OTT combined Home helps easy access to TV content/service and improves consumer experience	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Mar '16 <input type="checkbox"/> Inch: 40"/43"/49"/55"/65"
UHD TV (KU6000)	<input type="checkbox"/> UHD Flat TV <input type="checkbox"/> Design : Minimalism Design, V-Shape stand <input type="checkbox"/> Specification and Effects - Platform (H/W,S/W): Jazz-M, Tizen OS - Image quality: UHD Upscaling, Auto Contrast Enhancer, PurColor - Feature: New Smart TV feature provides easier access to TV content/service and improved consumer experience	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Mar '16 <input type="checkbox"/> Inch: 40"/43"/50"/55"/60"/65"
FHD TV (K5100) (K4100)	<input type="checkbox"/> FHD Flat TV <input type="checkbox"/> Design : Louvre Design, Semi Edge Slim <input type="checkbox"/> Specification and Effects - Platform (H/W,S/W): XL1,NT14L,NT16L(Non-Smart) - Image quality: FHD image quality enable consumers to watch various contents - Feature: Sport mode, USB 2.0	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Apr '16 <input type="checkbox"/> Inch: 32"/40"/43"/49"/55"

Research Project	Research Results and Expected Effect	In case applied to a product, name of the product and application
SUHD TV (KS9800)	<input type="checkbox"/> Curved SUHD TV <input type="checkbox"/> Design : Dignity, Bezel-less, Screw-less, Axis Stand <input type="checkbox"/> Specification and Effects - Platform (H/W,S/W): Jazz-M, Tizen OS - Image quality: UHD 120Hz, Curved, QD, Local Dimming - Feature: Live and OTT combined Home helps easy access to TV content/service and improves consumer experience	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : May '16 <input type="checkbox"/> Inch: 65"/78"/88"
UHD TV (KU6300)	<input type="checkbox"/> UHD Curved TV <input type="checkbox"/> Design : Minimalism Design, V-Shape stand <input type="checkbox"/> Specification and Effects - Platform (H/W,S/W): Jazz-L, Tizen OS - Image quality: UHD Upscaling, Auto Contrast Enhancer, PurColor, etc. - Feature: New Smart TV feature provides easier access to TV content/service and improves user experience	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Jun '16 <input type="checkbox"/> Inch: 40"/49"/55"/65"
HD-TV (HE690)	<input type="checkbox"/> Product Concept - To penetrate the market by providing solutions and customized products for each market segment - Premium Smart TV for four to five-starred hotels <input type="checkbox"/> Specification and Effects - HMS, SINC, REACH, H.Browser, Bluetooth Music Player, Ethernet Bridge(32"↑), Swivel Stand	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Aug '16 <input type="checkbox"/> Inch: 22"/24"/28"/32"/40"/49"/55"
Exynos 7 Quad	<input type="checkbox"/> Connectivity integrated mobile SoC - Increased performance by 70% and power efficiency by 30% vs. the previous 28nm products - Reduced the size by 20% by integrating major features such as the modem, connectivity and PMIC.	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Aug '16 <input type="checkbox"/> Name: S5E7570
Dishwasher (DW9900M)	<input type="checkbox"/> Product Concept - 2 nd Generation WaterWall technology - Improved Zone booster - Wi-Fi application and differentiated Rack feature - Sump & New Filter System - Hidden control, Touch Type display	<input type="checkbox"/> Region : North America <input type="checkbox"/> Launch : Dec '16
Residential Air-conditioner (AR5500M)	<input type="checkbox"/> Product Concept - Adopt environment-friendly (Low-GWP) R32 refrigerant to respond to market trends - Applied S-Inv to strengthened the competitiveness of Inv-type products - N-PFC, R32 8-pole compressor	<input type="checkbox"/> Region : Global <input type="checkbox"/> Launch : Dec '16

11. Other Information

A. Intellectual Property Rights

In 2016, the Company invested KRW 14.8 trillion and registered 5,629 domestic and 15,193 overseas patents, including approval for 5,518 US patents. As a result, the Company maintained second place in terms of numbers of patents registered in US amongst global technology companies for eleven (11) consecutive years since 2006.

<Number of Patents Registered in Each Country (as of December 31, 2016, cumulative)>

(Unit: # of Patents)

	Korea	US	Europe	China	Japan	Others
<i>Number</i>	27,471	43,806	16,744	10,242	6,770	8,813

The Company registered its first US patent in 1984, and now holds 110,145 patents around the world.

<Number of Patent Registrations Per Year>

(Unit: # of Patents)

	'16	'15	'14	'13	'12	'11	'10	'09
<i>Korea</i>	3,452	2,984	3,970	2,762	2,013	1,610	1,612	1,485
<i>US</i>	5,518	5,072	4,952	4,676	5,081	4,894	4,551	3,611

These patents are mostly related to smartphone, smart TV, flash memory, and system LSI products for the Company's strategic business products or for future use. These patents not only protect the Company's business but also play a role in keeping similar technology and patents, as well as competitors, in check. Additionally, the Company is focusing on securing early patents in new technologies ahead of others, in order to protect opportunities and have the freedom to operate when entering new businesses.

The Company has also been focusing on securing design patents to protect its original design applied to smartphones and LED TVs. In 2016, the Company acquired 1,635 US patents, in part for the aforementioned purposes.

B. Environmental regulations

The Company strictly abides by environmental regulations on products and in the workplace, as prescribed by law. In addition, in accordance with "the low carbon green growth policy" of the Korean government, the Company reports "the amount of CO2 emission and energy use" to the government and provides related information to stakeholders by providing various reports, including the Samsung Sustainability Report.

(See 『9. Green Management』 of 『XI. Other Information』 for more details about Green Technology Certification.)

(Environmental Regulation of Products)

Environmental regulation of products are becoming stricter, reflecting the concerns of governments and regulators about potential direct and indirect impact of products to consumers' health and safety as consumers. Accordingly, the Company is working to minimize the environmental impact throughout the entire life cycle of products from the development stage of components and products to manufacturing, distribution, use, and disposal. The Company offers "Eco-Partner Certification" to suppliers for components free of harmful substances, and runs an "eco-design evaluation" system to reflect eco-friendly elements on products (reduced use of resources, energy and harmful substances, and the use of eco-friendly materials) at the development stage, and operates a "waste electronics collection recycle system" in Europe, North America, Korea, and India for collecting and recycling waste electronics. These activities are in line with domestic and foreign environmental laws on electronics and are a differentiation factor for the Company and its products.

Relevant laws are as follows:

1. law on collection and recycle of waste electronics (e.g., EU WEEE Directive)
2. limit on the use of harmful substances (e.g., EU RoHS Directive, REACH Regulation)
3. regulation on energy efficiency (e.g., EU ErP Directive)

(Environmental Regulations in the Workplace)

The Company operates environmental pollution prevention facilities to reduce air pollution, water pollution, and waste disposal, and to minimize the discharge of pollutants, thereby minimizing impact on the surrounding environment.

Environmental management of workplace is supervised by the relevant government authorities. All production facilities, domestic and overseas, have acquired the International Occupational Health and Safety Management System Certification (ISO 14001, OHSAS18001) to strengthen compliance.

Major Relevant Domestic and International Laws are as follows:

1. Regulations related to emission of pollutants: Water Quality and Ecosystem Conservation Act, Clean Air Conservation Act, Wastes Control Act, Noise and Vibration Control Act, Environmental Impact Assessment Act
2. Management of greenhouse gas emission: Act on Allocation and Trading of Greenhouse Gas Emission, Framework Act on Low Carbon, Green Growth
3. Others: Toxic Chemicals Control Act, Act on the Registration and Evaluation, etc. of Chemical Substances, Odor Control Law, Soil Environment Conservation Act

(Greenhouse gas emission and energy consumption management)

The Company is a “controlled entity” according to Article 42 of Korea’s “Framework Act on Low Carbon, Green Growth.” Thus, the Company has been reporting the amount of greenhouse gas emission and energy consumption, verified by a third-party, to the authorities and disclosing it to stakeholders according to Article 44 of the same Act since May 2011.

The reported amount of greenhouse gas emission and energy use are provided below:

	2016	2015	2014
Greenhouse gas (Unit: tCO ₂ e)	6,885,300	6,729,419	6,775,019
Energy (Unit: TJ)	107,740	111,166	101,386

- ※ Domestic manufacturing facilities, office buildings, buildings owned by the Company, leased buildings, etc.
- ※ Reported Greenhouse gas emission excludes ozone depletion substances (ODS).
- ※ DP business was excluded from the calculation as Samsung Display was spun off from Samsung Electronics in 2012.

From 2015, in accordance with the Article 8 of the Act on the Allocation and Trading of Greenhouse-Gas Emission Permits, the Company is an eligible business entity under the Act.

- ※ See 『9. Green Management』 in 『XI. Other Information』 for Green Technology Certifications.

III. Financial Affairs

1. Consolidated Financial Statements

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	December 31, 2016 KRW	December 31, 2015 KRW	December 31, 2016 USD	December 31, 2015 USD
Assets					
Current assets					
Cash and cash equivalents	4, 6, 7, 31	32,111,442	22,636,744	27,686,236	19,517,225
Short-term financial instruments	5, 6, 7, 31	52,432,411	44,228,800	45,206,818	38,133,728
Short-term available-for-sale financial assets	6, 9, 31	3,638,460	4,627,530	3,137,052	3,989,820
Trade receivables	6, 7, 10, 31	24,279,211	25,168,026	20,933,347	21,699,677
Non-trade receivables	10	3,521,197	3,352,663	3,035,949	2,890,640
Advances		1,439,938	1,706,003	1,241,503	1,470,903
Prepaid expenses		3,502,083	3,170,632	3,019,469	2,733,694
Inventories	11	18,353,503	18,811,794	15,824,248	16,219,383
Other current assets		1,315,653	1,035,460	1,134,346	892,765
Assets held-for-sale	36	835,806	77,073	720,625	66,452
Total current assets		141,429,704	124,814,725	121,939,593	107,614,287
Non-current assets					
Long-term available-for-sale financial assets	6, 9, 31	6,804,276	8,332,480	5,866,594	7,184,200
Investment in associates and joint ventures	12	5,837,884	5,276,348	5,033,378	4,549,226
Property, plant and equipment	13	91,473,041	86,477,110	78,867,346	74,559,893
Intangible assets	14	5,344,020	5,396,311	4,607,573	4,652,657
Long-term prepaid expenses		3,834,831	4,294,401	3,306,362	3,702,599
Net defined benefit assets	17	557,091	-	480,320	-
Deferred income tax assets	28	5,321,450	5,589,108	4,588,113	4,818,886
Other non-current assets		1,572,027	1,999,038	1,355,388	1,723,555
Total assets		262,174,324	242,179,521	226,044,667	208,805,303

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	December 31, 2016 KRW	December 31, 2015 KRW	December 31, 2016 USD	December 31, 2015 USD
Liabilities and Equity					
Current liabilities					
Trade payables	6, 31	6,485,039	6,187,291	5,591,350	5,334,634
Short-term borrowings	6, 8, 15, 31	12,746,789	11,155,425	10,990,183	9,618,121
Other payables	6, 31	11,525,910	8,864,378	9,937,550	7,642,798
Advances received		1,358,878	1,343,432	1,171,614	1,158,297
Withholdings		685,028	992,733	590,626	855,927
Accrued expenses		12,527,300	11,628,739	10,800,941	10,026,208
Income tax payable		2,837,353	3,401,625	2,446,344	2,932,855
Current portion of long-term liabilities	6, 15, 16, 31	1,232,817	221,548	1,062,925	191,017
Provisions	18	4,597,417	6,420,603	3,963,857	5,535,794
Other current liabilities		351,176	287,135	302,781	247,565
Liabilities held-for-sale	36	356,388	-	307,275	-
Total current liabilities		54,704,095	50,502,909	47,165,446	43,543,216
Non-current liabilities					
Debentures	6, 16, 31	58,542	1,230,448	50,474	1,060,883
Long-term borrowings	6, 15, 31	1,244,238	266,542	1,072,772	229,810
Long-term other payables	6, 31	3,317,054	3,041,687	2,859,938	2,622,519
Net defined benefit liabilities	17	173,656	358,820	149,725	309,372
Deferred income tax liabilities	28	7,293,514	5,154,792	6,288,411	4,444,422
Provisions	18	358,126	522,378	308,773	450,390
Other non-current liabilities		2,062,066	2,042,140	1,777,899	1,760,717
Total liabilities		69,211,291	63,119,716	59,673,438	54,421,329

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	December 31, 2016 KRW	December 31, 2015 KRW	December 31, 2016 USD	December 31, 2015 USD
Equity attributable to owners of the parent					
Preferred stock	20	119,467	119,467	103,004	103,004
Common stock	20	778,047	778,047	670,826	670,826
Share premium		4,403,893	4,403,893	3,797,002	3,797,002
Retained earnings	21	193,086,317	185,132,014	166,477,524	159,619,385
Other components of equity	23	(11,934,586)	(17,580,451)	(10,289,907)	(15,157,728)
Accumulated other comprehensive income attributable to assets held-for-sale	36	(28,810)	23,797	(24,841)	20,517
		186,424,328	172,876,767	160,733,608	149,053,006
Non-controlling interests		6,538,705	6,183,038	5,637,621	5,330,968
Total equity		192,963,033	179,059,805	166,371,229	154,383,974
Total liabilities and equity		262,174,324	242,179,521	226,044,667	208,805,303

CONSOLIDATED STATEMENTS OF INCOME

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	For the year ended December 31,			
		2016	2015	2016	2015
		KRW	KRW	USD	USD
Revenue	32	201,866,745	200,653,482	174,047,940	173,001,874
Cost of sales	24	120,277,715	123,482,118	103,702,512	106,465,323
Gross profit		81,589,030	77,171,364	70,345,428	66,536,551
Selling and administrative expenses	24, 25	52,348,358	50,757,922	45,134,348	43,763,086
Operating profit		29,240,672	26,413,442	25,211,080	22,773,465
Other non-operating income	26	3,238,261	1,685,947	2,792,003	1,453,610
Other non-operating expense	26	2,463,814	3,723,434	2,124,281	3,210,316
Share of profit of associates and joint ventures	12	19,501	1,101,932	16,814	950,077
Financial income	27	11,385,645	10,514,879	9,816,615	9,065,847
Financial expense	27	10,706,613	10,031,771	9,231,159	8,649,315
Profit before income tax		30,713,652	25,960,995	26,481,072	22,383,368
Income tax expense	28	7,987,560	6,900,851	6,886,812	5,949,860
Profit for the year		22,726,092	19,060,144	19,594,260	16,433,508
Profit attributable to owners of the parent		22,415,655	18,694,628	19,326,604	16,118,363
Profit attributable to non-controlling interests		310,437	365,516	267,656	315,145
Earnings per share for profit attributable to owners of the parent (in Korean Won, in US dollars)	29				
- Basic		157,967	126,305	136.2	108.9
- Diluted		157,967	126,303	136.2	108.9

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	For the year ended December 31,			
		2016	2015	2016	2015
		KRW	KRW	USD	USD
Profit for the year		22,726,092	19,060,144	19,594,260	16,433,508
Other comprehensive income					
Items not to be reclassified to profit or loss subsequently:					
Remeasurement of net defined benefit liabilities, net of tax	17, 23	963,602	263,978	830,810	227,600
Shares of other comprehensive income of associates and joint ventures, net of tax	12, 23	50,438	24,069	43,487	20,752
Items to be reclassified to profit or loss subsequently:					
Changes in value of available-for-sale financial assets, net of tax	9, 23	(23,839)	(414,961)	(20,554)	(357,776)
Share of other comprehensive loss of associates and joint ventures, net of tax	12, 23	(130,337)	(65,330)	(112,376)	(56,327)
Foreign currency translation, net of tax	23	1,131,536	268,315	975,603	231,339
Other comprehensive income for the year, net of tax		1,991,400	76,071	1,716,970	65,588
Total comprehensive income for the year		24,717,492	19,136,215	21,311,230	16,499,096
Comprehensive income attributable to :					
Owners of the parent		24,310,814	18,804,189	20,960,595	16,212,826
Non-controlling interests		406,678	332,026	350,635	286,270

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In millions of Korean won)

2015 KRW	Notes	Preferred stock	Common stock	Share premium	Retained earnings	Other components of equity	Accumulated other comprehensive income attributable to assets held-for-sale	Equity attributable to owners of the parent	Non-controlling interests	Total
Balance as at January 1, 2015		119,467	778,047	4,403,893	169,529,604	(12,729,387)	80,101	162,181,725	5,906,463	168,088,188
Profit for the year		-	-	-	18,694,628	-	-	18,694,628	365,516	19,060,144
Changes in value of available-for-sale financial assets, net of tax	9, 23	-	-	-	-	(348,068)	(24,750)	(372,818)	(42,143)	(414,961)
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	12, 23	-	-	-	-	12,686	(54,118)	(41,432)	171	(41,261)
Foreign currency translation, net of tax	23	-	-	-	-	266,061	(1,233)	264,828	3,487	268,315
Remeasurement of net defined benefit liabilities, net of tax	17, 23	-	-	-	-	258,983	-	258,983	4,995	263,978
Classified as held-for-sale	36	-	-	-	-	(23,797)	23,797	-	-	-
Total comprehensive income (loss)		-	-	-	18,694,628	165,865	(56,304)	18,804,189	332,026	19,136,215
Dividends	22	-	-	-	(3,073,481)	-	-	(3,073,481)	(54,603)	(3,128,084)
Capital transaction under common control		-	-	-	-	(5,314)	-	(5,314)	423	(4,891)
Changes in consolidated entities		-	-	-	-	-	-	-	(152)	(152)
Acquisition of treasury stock	23	-	-	-	-	(5,015,112)	-	(5,015,112)	-	(5,015,112)
Disposal of treasury stock	23	-	-	-	-	3,406	-	3,406	-	3,406
Stock option activities	23	-	-	-	-	(806)	-	(806)	-	(806)
Others		-	-	-	(18,737)	897	-	(17,840)	(1,119)	(18,959)
Total transactions with owners		-	-	-	(3,092,218)	(5,016,929)	-	(8,109,147)	(55,451)	(8,164,598)
Balance as at December 31, 2015		119,467	778,047	4,403,893	185,132,014	(17,580,451)	23,797	172,876,767	6,183,038	179,059,805

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In thousands of US dollars (Note 2.3))

2015 USD	Notes	Preferred stock	Common stock	Share premium	Retained earnings	Other components of equity	Accumulated other comprehensive income attributable to assets held-for-sale	Equity attributable to owners of the parent	Non-controlling interests	Total
Balance as at January 1, 2015		103,004	670,826	3,797,002	146,167,108	(10,975,179)	69,063	139,831,824	5,092,507	144,924,331
Profit for the year		-	-	-	16,118,363	-	-	16,118,363	315,145	16,433,508
Changes in value of available-for-sale financial assets, net of tax	9, 23	-	-	-	-	(300,102)	(21,339)	(321,441)	(36,335)	(357,776)
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	12, 23	-	-	-	-	10,938	(46,660)	(35,722)	147	(35,575)
Foreign currency translation, net of tax	23	-	-	-	-	229,398	(1,065)	228,333	3,006	231,339
Remeasurement of net defined benefit liabilities, net of tax	17, 23	-	-	-	-	223,293	-	223,293	4,307	227,600
Classified as held-for-sale	36	-	-	-	-	(20,518)	20,518	-	-	-
Total comprehensive income (loss)		-	-	-	16,118,363	143,009	(48,546)	16,212,826	286,270	16,499,096
Dividends	22	-	-	-	(2,649,932)	-	-	(2,649,932)	(47,078)	(2,697,010)
Capital transaction under common control		-	-	-	-	(4,582)	-	(4,582)	365	(4,217)
Changes in consolidated entities		-	-	-	-	-	-	-	(131)	(131)
Acquisition of treasury stock	23	-	-	-	-	(4,323,991)	-	(4,323,991)	-	(4,323,991)
Disposal of treasury stock	23	-	-	-	-	2,937	-	2,937	-	2,937
Stock option activities	23	-	-	-	-	(695)	-	(695)	-	(695)
Others		-	-	-	(16,154)	773	-	(15,381)	(965)	(16,346)
Total transactions with owners		-	-	-	(2,666,086)	(4,325,558)	-	(6,991,644)	(47,809)	(7,039,453)
Balance as at December 31, 2015		103,004	670,826	3,797,002	159,619,385	(15,157,728)	20,517	149,053,006	5,330,968	154,383,974

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In millions of Korean won)

2016 KRW	Notes	Preferred stock	Common stock	Share premium	Retained earnings	Other components of equity	Accumulated other comprehensive income attributable to assets held-for-sale	Equity attributable to owners of the parent	Non-controlling interests	Total
Balance as at January 1, 2016		119,467	778,047	4,403,893	185,132,014	(17,580,451)	23,797	172,876,767	6,183,038	179,059,805
Profit for the period		-	-	-	22,415,655	-	-	22,415,655	310,437	22,726,092
Changes in value of available-for-sale financial assets, net of tax	9, 23	-	-	-	-	(87,706)	(23,797)	(111,503)	87,664	(23,839)
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	12, 23	-	-	-	-	(80,146)	212	(79,934)	35	(79,899)
Foreign currency translation, net of tax	23	-	-	-	-	1,160,316	-	1,160,316	(28,780)	1,131,536
Remeasurement of net defined benefit liabilities, net of tax	17, 23	-	-	-	-	926,280	-	926,280	37,322	963,602
Reclassification to assets held-for-sale	36	-	-	-	-	29,022	(29,022)	-	-	-
Total comprehensive income (loss)		-	-	-	22,415,655	1,947,766	(52,607)	24,310,814	406,678	24,717,492
Dividends	22	-	-	-	(3,061,361)	-	-	(3,061,361)	(65,161)	(3,126,522)
Capital transaction under common control		-	-	-	-	(37)	-	(37)	12,272	12,235
Changes in consolidated entities		-	-	-	-	-	-	-	1,790	1,790
Acquisition of treasury stock	23	-	-	-	-	(7,707,938)	-	(7,707,938)	-	(7,707,938)
Retirement of treasury stock	23	-	-	-	(11,399,991)	11,399,991	-	-	-	-
Others		-	-	-	-	6,083	-	6,083	88	6,171
Total transactions with owners		-	-	-	(14,461,352)	3,698,099	-	(10,763,253)	(51,011)	(10,814,264)
Balance as at December 31, 2016		119,467	778,047	4,403,893	193,086,317	(11,934,586)	(28,810)	186,424,328	6,538,705	192,963,033

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In thousands of US dollars (Note 2.3))

2016 USD	Notes	Preferred stock	Common stock	Share premium	Retained earnings	Other components of equity	Accumulated other comprehensive income attributable to assets held-for-sale	Equity attributable to owners of the parent	Non-controlling interests	Total
Balance as at January 1, 2016		103,004	670,826	3,797,002	159,619,385	(15,157,728)	20,517	149,053,006	5,330,968	154,383,974
Profit for the period		-	-	-	19,326,604	-	-	19,326,604	267,656	19,594,260
Changes in value of available-for-sale financial assets, net of tax	9, 23	-	-	-	-	(75,619)	(20,518)	(96,137)	75,583	(20,554)
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	12, 23	-	-	-	-	(69,101)	183	(68,918)	29	(68,889)
Foreign currency translation, net of tax	23	-	-	-	-	1,000,415	-	1,000,415	(24,812)	975,603
Remeasurement of net defined benefit liabilities, net of tax	17, 23	-	-	-	-	798,631	-	798,631	32,179	830,810
Reclassification to assets held-for-sale	36	-	-	-	-	25,023	(25,023)	-	-	-
Total comprehensive income (loss)		-	-	-	19,326,604	1,679,349	(45,358)	20,960,595	350,635	21,311,230
Dividends	22	-	-	-	(2,639,481)	-	-	(2,639,481)	(56,182)	(2,695,663)
Capital transaction under common control		-	-	-	-	(32)	-	(32)	10,581	10,549
Changes in consolidated entities		-	-	-	-	-	-	-	1,543	1,543
Acquisition of treasury stock	23	-	-	-	-	(6,645,724)	-	(6,645,724)	-	(6,645,724)
Retirement of treasury stock	23	-	-	-	(9,828,984)	9,828,984	-	-	-	-
Others		-	-	-	-	5,244	-	5,244	76	5,320
Total transactions with owners		-	-	-	(12,468,465)	3,188,472	-	(9,279,993)	(43,982)	(9,323,975)
Balance as at December 31, 2016		103,004	670,826	3,797,002	166,477,524	(10,289,907)	(24,841)	160,733,608	5,637,621	166,371,229

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions of Korean won, in thousands of US dollars (Note 2.3))

For the year ended December 31,

	Notes	2016	2015	2016	2015
		KRW	KRW	USD	USD
Cash flows from operating activities					
Profit for the period		22,726,092	19,060,144	19,594,260	16,433,508
Adjustments	30	30,754,471	29,610,971	26,516,267	25,530,350
Changes in assets and liabilities arising from operating activities	30	(1,180,953)	(4,682,032)	(1,018,209)	(4,036,812)
Cash flows from operating activities		52,299,610	43,989,083	45,092,318	37,927,046
Interest received		1,405,085	2,151,741	1,211,453	1,855,215
Interest paid		(443,838)	(748,256)	(382,674)	(645,141)
Dividends received		256,851	266,369	221,455	229,661
Income tax paid		(6,132,064)	(5,597,176)	(5,287,018)	(4,825,842)
Net cash generated from operating activities		47,385,644	40,061,761	40,855,534	34,540,939
Cash flows from investing activities					
Net increase in short-term financial instruments		(6,780,610)	(5,762,783)	(5,846,189)	(4,968,627)
Proceeds from disposal of short-term available-for-sale financial assets		3,010,003	2,143,384	2,595,201	1,848,009
Acquisition of short-term available-for-sale financial assets		(2,129,551)	(509,349)	(1,836,082)	(439,157)
Proceeds from disposal of long-term financial instruments		789,862	3,999,710	681,013	3,448,519
Acquisition of long-term financial instruments		(1,741,547)	(132,733)	(1,501,548)	(114,441)
Proceeds from disposal of long-term available-for-sale financial assets		2,010,356	200,502	1,733,313	172,871
Acquisition of long-term available-for-sale financial assets		(1,498,148)	(232,530)	(1,291,692)	(200,486)
Proceeds from disposal of associates and joint ventures		2,280,203	278,009	1,965,973	239,697
Acquisition of associates and joint ventures		(84,306)	(137,917)	(72,688)	(118,911)
Disposal of property, plant and equipment		270,874	357,154	233,545	307,935
Purchases of property, plant and equipment		(24,142,973)	(25,880,222)	(20,815,884)	(22,313,726)
Disposal of intangible assets		6,944	1,083	5,987	934
Purchases of intangible assets		(1,047,668)	(1,501,881)	(903,291)	(1,294,910)
Cash outflows from business combinations		(622,050)	(411,445)	(536,327)	(354,745)
Others		19,936	421,231	17,190	363,183
Net cash used in investing activities		(29,658,675)	(27,167,787)	(25,571,479)	(23,423,855)

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions of Korean won, in thousands of US dollars (Note 2.3))

For the year ended December 31,

Notes	2016	2015	2016	2015
	KRW	KRW	USD	USD
Cash flows from financing activities				
Net increase(decrease) in short-term borrowings	1,351,037	3,202,416	1,164,854	2,761,098
Acquisition of treasury stock	(7,707,938)	(5,015,112)	(6,645,724)	(4,323,991)
Disposal of treasury stock	-	3,034	-	2,616
Proceeds from long-term borrowings and debentures	1,041,743	192,474	898,183	165,950
Repayment of long-term borrowings and debentures	(252,846)	(1,801,465)	(218,002)	(1,553,209)
Payment of dividends	(3,114,742)	(3,129,544)	(2,685,506)	(2,698,269)
Net increase(decrease) in non-controlling interests	13,232	(25,312)	11,407	(21,823)
Net cash used in financing activities	(8,669,514)	(6,573,509)	(7,474,788)	(5,667,628)
Effect of exchange rate changes on cash and cash equivalents	417,243	(524,487)	359,744	(452,209)
Net increase in cash and cash equivalents	9,474,698	5,795,978	8,169,011	4,997,247
Cash and cash equivalents				
Beginning of the period	22,636,744	16,840,766	19,517,225	14,519,978
End of the period	32,111,442	22,636,744	27,686,236	19,517,225

2. Notes to Consolidated Financial Statements

1. General Information

1.1 Company Overview

Samsung Electronics Co., Ltd. (the “Company”) was incorporated under the laws of the Republic of Korea in 1969 and listed its shares on the Korea Stock Exchange in 1975.

The Company and its subsidiaries (collectively referred to as the “Company”) operate three business divisions: Consumer Electronics (“CE”), Information technology & Mobile communications (“IM”), and Device Solutions (“DS”). The CE division includes digital TVs, monitors, air conditioners and refrigerators and the IM division includes mobile phones, communication systems, and computers. The DS division includes products such as memory and system LSI in the semiconductor business (“Semiconductor”), and LCD and OLED panels in the display business (“DP”). The Company is domiciled in the Republic of Korea and the address of its registered office is Suwon, the Republic of Korea.

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards as adopted by the Republic of Korea (“Korean IFRS”) 1110, *Consolidated Financial Statements*. The Company, as the controlling company, consolidates its 169 subsidiaries, including Samsung Display and Samsung Electronics America (Note 1.2). The Company also applies the equity method of accounting to its 38 affiliates, including Samsung Electro-Mechanics.

1.2 Consolidated Subsidiaries

(A) The consolidated subsidiaries as at December 31, 2016 are as follows:

Area	Subsidiaries	Industry	Percentage of ownership ¹
Domestic	Samsung Display (SDC)	Manufacture and sale of display panels	84.8
	SU Materials	Manufacture of LCD components	50.0
	STECO	Manufacture of semiconductor components	70.0
	SEMES	Manufacture of semiconductor/FPD	91.5
	Samsung Electronics Service	Repair services for electronic devices	99.3
	Samsung Electronics Sales	Sale of electronic devices	100.0
	Samsung Electronics Logitech	General logistics agency	100.0
	Samsung Medison	Medical equipment	68.5
	Samsung Venture Capital Union #20	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #21	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #22	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #23	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #26	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #27	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #28	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #29	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #32	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #33	Technology business, Venture capital investments	99.0
	Mirero System	Quality control system of semiconductor	74.7
	S-Printing Solution	Business of printing solutions	100.0

Area	Subsidiaries	Industry	Percentage of ownership ¹
	Samsung Electronics America (SEA)	Sale of electronic devices	100.0
	NexusDX (Nexus)	Medical equipment	100.0
	Samsung Receivables (SRC)	Credit management	100.0
	NeuroLogica	Medical equipment	100.0
	Samsung Semiconductor (SSI)	Sale of semiconductor/LCD	100.0
	Samsung Electronics Canada (SECA)	Sale of electronic devices	100.0
	Samsung Research America (SRA)	R&D	100.0
	Samsung Mexicana (SAMEX)	Manufacture of electronic devices	100.0
	Samsung International (SII)	Manufacture of TV/monitors	100.0
	Samsung Austin Semiconductor (SAS)	Manufacture of semiconductor	100.0
	Samsung Electronics Mexico (SEM)	Sale of electronic devices	99.9
	SEMES America (SEMESA)	Semiconductor equipment	100.0
	Samsung Electronics Digital Appliance Mexico (SEDAM)	Manufacture of electronic devices	99.9
	Samsung Electronics Latinoamerica Miami (SEMI)	Sale of electronic devices	100.0
	Samsung Electronics Latinoamerica (SELA)	Sale of electronic devices	100.0
	Samsung Electronics Venezuela (SEVEN)	Marketing and services	100.0
	Samsung Electronica Colombia (SAMCOL)	Sale of electronic devices	100.0
	Samsung Electronics Panama (SEPA)	Consulting	100.0
	Samsung Electronica da Amazonia (SEDA)	Manufacture and sale of electronic devices	100.0
	Samsung Electronics Argentina (SEASA)	Marketing and services	100.0
	Samsung Electronics Chile (SECH)	Sale of electronic devices	100.0
	Samsung Electronics Peru (SEPR)	Sale of electronic devices	100.0
America	RT SV CO-INVEST (RT-SV)	Technology business, Venture capital investments	99.9
	Quietside	Sale of heating and cooling products	100.0
	SmartThings	Sale of smart home electronics	100.0
	PrinterOn	Sale of printing solutions	100.0
	PrinterOn America	Sale of printing solutions	100.0
	Simpres	Sale of printing solutions	100.0
	Samsung Pay	Develop and provide mobile payment service	100.0
	Prismview (formerly YESCO Electronics)	Manufacture and sale of LED displays	100.0
	Beijing Integrated Circuit Industry International Fund (Beijing Fund)	Venture capital investments	61.4
	Stellus Technologies	Manufacture and sale of server semiconductor storage system	100.0
	Samsung Oak Holdings (SHI)	Holding company	100.0
	AdGear Technologies	Digital advertising platforms	100.0
	Joyent	Cloud Services	100.0
	Samsung Next	Holding Company	100.0
	Samsung Next Fund	Technology business, Venture capital investments	100.0
	Dacor Holdings	Holding Company	100.0
	Dacor	Manufacture and sale of Home appliances	100.0
	Dacor Canada	Sale of Home appliances	100.0
	EverythingDacor.com	Sale of Home appliances	100.0
	Distinctive Appliances of California	Sale of Home appliances	100.0
	Viv Labs	Research of AI technology	100.0
	NewNet Communication Technologies Canada	RCS (Rich Communication Service)	100.0

Area	Subsidiaries	Industry	Percentage of ownership ¹
Europe/CIS	Samsung Electronics (UK) (SEUK)	Sale of electronic devices	100.0
	Samsung Electronics Holding (SEHG)	Holding Company	100.0
	Samsung Semiconductor Europe GmbH (SSEG)	Sale of semiconductor/LCD	100.0
	Samsung Electronics GmbH (SEG)	Sale of electronic devices	100.0
	Samsung Electronics Iberia (SESA)	Sale of electronic devices	100.0
	Samsung Electronics France (SEF)	Sale of electronic devices	100.0
	Samsung Electronics Hungarian (SEH)	Manufacture and sale of electronic devices	100.0
	Samsung Electronics Czech and Slovak (SECZ)	Sale of electronic devices	100.0
	Samsung Electronics Italia (SEI)	Sale of electronic devices	100.0
	Samsung Electronics Europe Logistics (SELS)	Logistics	100.0
	Samsung Electronics Benelux (SEBN)	Sale of electronic devices	100.0
	Samsung Display Slovakia (SDSK)	Toll processing of LCD	100.0
	Samsung Electronics Romania (SEROM)	Sale of electronic devices	100.0
	Samsung Electronics Overseas (SEO)	Sale of electronic devices	100.0
	Samsung Electronics Polska (SEPOL)	Sale of electronic devices	100.0
	Samsung Electronics Portuguesa (SEP)	Sale of electronic devices	100.0
	Samsung Electronics Nordic (SENA)	Sale of electronic devices	100.0
	Samsung Semiconductor Europe (SSEL)	Sale of semiconductor/LCD	100.0
	Samsung Electronics Austria (SEAG)	Sale of electronic devices	100.0
	Samsung Electronics Slovakia (SESK)	Manufacture of TV/monitors	100.0
	Samsung Electronics Europe Holding (SEEH)	Holding Company	100.0
	Samsung Electronics Poland Manufacturing (SEPM)	Manufacture of home appliances	100.0
	Samsung Electronics Greece (SEGR)	Sale of electronic devices	100.0
	Samsung Nanoradio Design Center (SNDC)	R&D	100.0
	Samsung Electronics Rus (SER)	Marketing	100.0
	Samsung Electronics Rus Company (SERC)	Sale of electronic devices	100.0
	Samsung Electronics Ukraine (SEU)	Marketing	100.0
	Samsung Electronics Baltics (SEB)	Sale of electronic devices	100.0
	Samsung Electronics Ukraine Company (SEUC)	Sale of electronic devices	100.0
	Samsung R&D Institute Rus (SRR)	R&D	100.0
	Samsung Electronics Central Eurasia (SECE)	Sale of electronic devices	100.0
	Samsung Electronics Rus Kaluga (SERK)	Manufacture of TV	100.0
	Samsung Electronics (London) Limited (SEL)	Holding Company	100.0
	Samsung Denmark Research Center (SDRC)	R&D	100.0
	Samsung France Research Center (SFRC)	R&D	100.0
	Samsung Cambridge Solution Centre (SCSC)	R&D	100.0
	Samsung Electronics Switzerland GmbH (SESG)	Sale of electronic devices	100.0
	PrinterOn Europe	Sale of printing solutions	100.0
	Samsung Electronics Caucasus (SECC)	Marketing	100.0
	Joyent(UK)	Cloud services	100.0

Area	Subsidiaries	Industry	Percentage of ownership ¹
Middle East and Africa	Samsung Electronics West Africa (SEWA)	Marketing	100.0
	Samsung Electronics East Africa (SEEA)	Marketing	100.0
	Samsung Gulf Electronics (SGE)	Sale of electronic devices	100.0
	Samsung Electronics Egypt (SEEG)	Manufacture and sale of electronic devices	100.0
	Samsung Electronics Israel (SEIL)	Marketing	100.0
	Samsung Electronics Tunisia (SETN)	Marketing	100.0
	Samsung Electronics Pakistan (SEPAK)	Marketing	100.0
	Samsung Electronics South Africa (SSA)	Sale of electronic devices	100.0
	Samsung Electronics Turkey (SETK)	Sale of electronic devices	100.0
	Samsung Semiconductor Israel R&D Center (SIRC)	R&D	100.0
	Samsung Electronics Levant (SELV)	Sale of electronic devices	100.0
	Samsung Electronics Maghreb Arab (SEMAG)	Sale of electronic devices	100.0
	Samsung Electronics South Africa Production (SSAP)	Manufacture of TV/monitors	100.0
Asia (Except China)	Samsung Japan (SJC)	Sale of electronic devices	100.0
	Samsung R&D Institute Japan (SRJ)	R&D	100.0
	Samsung Electronics Japan (SEJ)	Sale of electronic devices	100.0
	Samsung Electronics Display (M) (SDMA)	Manufacture of electronic devices	100.0
	Samsung Electronics (M) (SEMA)	Manufacture of home appliances	100.0
	Samsung Vina Electronics (SAVINA)	Sale of electronic devices	100.0
	Samsung Asia Private (SAPL)	Sale of electronic devices	100.0
	Samsung India Electronics (SIEL)	Manufacture and sale of electronic devices	100.0
	Samsung R&D Institute India-Bangalore (SRI-B)	R&D	100.0
	Samsung Electronics Australia (SEAU)	Sale of electronic devices	100.0
	Samsung Electronics Indonesia (SEIN)	Manufacture and sale of electronic devices	100.0
	Samsung Telecommunications Indonesia (STIN)	Sale and services of communication systems	100.0
	Thai Samsung Electronics (TSE)	Manufacture and sale of electronic devices	91.8
	Samsung Electronics Philippines (SEPCO)	Sale of electronic devices	100.0
	Samsung Malaysia Electronics (SME)	Sale of electronic devices	100.0
	Samsung R&D Institute Bangladesh (SRBD)	R&D	100.0
	Samsung Electronics Vietnam (SEV)	Manufacture of electronic devices	100.0
	Samsung Electronics Vietnam THAINGUYEN (SEVT)	Manufacture and sale of communication equipment	100.0
	Samsung Medison India (SMIN)	Medical equipment	100.0
	Samsung Electronics New Zealand (SENZ)	Sale of electronic devices	100.0
Samsung Display Vietnam (SDV)	Manufacture of LCD	100.0	
Samsung Electronics HCMC CE Complex (SEHC)	Manufacture and sale of electronic devices	100.0	
Laos Samsung Electronics Sole(LSE)	Marketing	100.0	

Area	Subsidiaries	Industry	Percentage of ownership ¹
China	Samsung Display Dongguan (SDD)	Manufacture of LCD	100.0
	Samsung Display Tianjin (SDT)	Manufacture of LCD	95.0
	Samsung Electronics Hong Kong (SEHK)	Sale of electronic devices	100.0
	Suzhou Samsung Electronics (SSEC)	Manufacture of home appliances	88.3
	Samsung Suzhou Electronics Export (SSEC-E)	Manufacture of home appliances	100.0
	Samsung (China) Investment (SCIC)	Sale of electronic devices	100.0
	Samsung Mobile R&D Center China-Guangzhou (SRC-Guangzhou)	R&D	100.0
	Samsung Tianjin Mobile Development Center (STMC)	R&D	100.0
	Samsung R&D Institute China-Shenzhen(SRC-Shenzhen)	R&D	100.0
	Samsung Electronics Suzhou Semiconductor (SESS)	Toll processing of semiconductor	100.0
	Samsung Electronics (Shandong) Digital Printing (SSDP)	Manufacture of printers	100.0
	Samsung Electronics Huizhou (SEHZ)	Manufacture of electronic devices	99.9
	Tianjin Samsung Electronics (TSEC)	Manufacture of TV/monitors	91.2
	Samsung Electronics Taiwan (SET)	Sale of electronic devices	100.0
	Beijing Samsung Telecom R&D Center (BST)	R&D	100.0
	Tianjin Samsung Telecom Technology (TSTC)	Manufacture of communication equipment	90.0
	Shanghai Samsung Semiconductor (SSS)	Sale of semiconductor/LCD	100.0
	Samsung Electronics Suzhou Computer (SESC)	Manufacture of electronic devices	100.0
	Samsung Suzhou Module (SSM)	Toll processing of LCD	100.0
	Samsung Suzhou LCD (SSL)	Manufacture of LCD	60.0
	Shenzhen Samsung Electronics Telecommunication (SSET)	Manufacture of communication equipment	95.0
	Samsung Semiconductor (China) R&D (SSCR)	R&D	100.0
	Samsung Electronics China R&D Center (SCRC)	R&D	100.0
	Samsung (China) Semiconductor (SCS)	Manufacture of semiconductor	100.0
	Samsung Electronics (Beijing) Service (SBSC)	Services	100.0
	Tianjin Samsung LED (TSLED)	Manufacture of LED	100.0
	Tianjin Samsung Opto-Electronics (TSOE)	Manufacture of cameras/camcorders	90.0
	SEMES (Xian)	Semiconductor equipment	100.0
	Samsung Semiconductor Xian (SSCX)	Sale of semiconductor/LCD	100.0

¹ Ownership represents the Company's ownership of voting rights in each entity.

(B) A summary of financial data of major consolidated subsidiaries is as follows:

(1) 2016

2016

<i>(In millions of Korean won)</i>	Assets		Liabilities		Sales	Net Income (Loss)		
Samsung Display (SDC)	₩	43,305,405	₩	8,361,256	₩	24,658,814	₩	1,498,628
Samsung Electronics America (SEA)		21,810,492		9,496,649		34,521,654		246,141
Samsung (China) Investment (SCIC)		13,632,938		11,672,755		8,792,750		298,373
Samsung (China) Semiconductor (SCS)		9,749,448		4,564,793		4,152,137		1,113,218
Samsung Electronics Vietnam (SEV)		9,134,023		1,258,948		19,426,334		2,046,280
Samsung Electronics Europe Holding (SEEH)		8,643,308		6,661,092		-		350,974
Samsung Semiconductor (SSI)		7,804,698		3,746,687		19,911,135		30,247
Samsung Electronics Vietnam THAINGUYEN (SEVT)		7,646,828		2,179,023		23,563,736		2,641,418
Samsung Electronics Huizhou (SEHZ)		6,174,579		1,106,633		12,971,475		764,426
Shanghai Samsung Semiconductor (SSS)		5,862,409		5,166,385		20,983,314		181,041
Samsung Asia Private (SAPL)		5,528,472		592,320		1,458,176		1,056,956
Samsung Electronica da Amazonia (SEDA)		5,200,799		1,510,972		6,092,245		966,821
Samsung Austin Semiconductor (SAS)		4,940,748		1,293,458		3,586,127		104,747
Samsung India Electronics (SIEL)		4,563,407		2,256,194		8,827,028		753,164
Samsung Display Vietnam (SDV)		3,165,239		3,437,791		5,230,581		(98,102)
Samsung Electronics Europe Logistics (SELS)		2,887,230		2,779,296		13,157,455		36,768
Samsung Suzhou LCD (SSL)		2,499,917		1,376,439		1,494,787		1,091
Thai Samsung Electronics (TSE)		2,079,865		364,518		4,069,078		198,980
Samsung Electronics Slovakia (SESK)		2,053,467		440,402		3,634,166		115,387
Samsung Electronics Taiwan (SET)		1,857,017		1,540,478		3,533,924		(36,178)
Samsung Electronics HCMC CE Complex (SEHC)		1,814,566		1,572,982		2,010,442		118,091
Samsung Electronics Hungarian (SEH)		1,743,979		633,975		2,441,881		89,712
Samsung Electronics GmbH (SEG)		1,621,827		1,618,305		6,257,480		2,187
Samsung Display Dongguan (SDD)		1,584,504		518,511		5,187,954		199,922
Samsung Electronics (UK) (SEUK)		1,526,879		1,103,579		4,731,464		107,243

(2) 2015

2015

<i>(In millions of Korean won)</i>	Assets		Liabilities		Sales	Net Income (Loss)		
Samsung Display (SDC)	₩	39,225,460	₩	6,586,259	₩	26,397,111	₩	1,673,165
Samsung Electronics America (SEA)		14,875,687		7,562,099		35,766,374		268,083
Samsung (China) Investment (SCIC)		12,748,395		11,040,055		11,461,304		(77,629)
Samsung (China) Semiconductor (SCS)		9,742,388		5,537,446		2,610,462		171,644
Samsung Semiconductor (SSI)		8,288,391		4,379,980		21,724,671		(32,056)
Samsung Electronics Vietnam (SEV)		7,829,507		1,155,075		18,431,838		1,948,071
Samsung Electronics Europe Holding (SEEH)		6,989,207		5,223,523		-		(31,925)
Samsung Electronics Vietnam THAINGUYEN (SEVT)		6,571,798		3,940,926		19,379,347		1,592,920
Samsung Electronics Huizhou (SEHZ)		6,192,974		1,738,095		17,949,623		722,700
Samsung Austin Semiconductor (SAS)		6,179,289		2,746,852		3,045,453		94,698
Samsung Asia Private (SAPL)		4,227,798		504,256		1,392,926		957,734
Shanghai Samsung Semiconductor (SSS)		3,792,437		3,207,942		14,372,358		141,232
Samsung India Electronics (SIEL)		3,723,127		2,204,333		8,008,884		326,462
Samsung Electronica da Amazonia (SEDA)		3,114,334		1,021,869		5,634,385		322,939
Samsung Suzhou LCD (SSL)		2,784,122		1,634,304		1,024,881		76,099
Tianjin Samsung Telecom Technology (TSTC)		2,075,123		778,133		6,963,943		146,972
Samsung Electronics Europe Logistics (SELS)		1,894,614		1,793,917		12,943,676		(7,745)
Thai Samsung Electronics (TSE)		1,889,410		416,382		3,949,756		179,527
Samsung Electronics Slovakia (SESK)		1,888,341		373,886		3,480,848		107,968
Samsung Electronics GmbH (SEG)		1,820,922		1,762,978		6,047,305		(1,630)
Samsung Display Dongguan (SDD)		1,276,263		384,963		4,649,277		130,635
Samsung Electronics Benelux (SEBN)		1,264,497		291,332		2,148,502		42,790
Samsung Electronics Hungarian (SEH)		1,254,673		231,785		3,029,047		97,474
Samsung Electronics Taiwan (SET)		1,253,480		918,482		4,258,650		44,025
Samsung Electronics (UK) (SEUK)		1,133,512		745,126		4,656,990		106,413

(C) Changes in scope of consolidation

(1) Subsidiaries newly included in the consolidation for the year ended December 31, 2016:

Area	Subsidiary	Description
Domestic	Samsung Venture Capital Union #32	Incorporation
	Samsung Venture Capital Union #33	Incorporation
	Mirero System	Acquisition of shares
	S-Printing Solution	Spin-off
America	Samsung Oak Holdings (SHI)	Incorporation
	AdGear Technologies	Acquisition of shares
	Joyent	Acquisition of shares
	Joyent Canada	Acquisition of shares
	Samsung Next	Incorporation
	Samsung Next Fund	Incorporation
	Dacor Holdings	Acquisition of shares
	Dacor	Acquisition of shares
	Dacor Canada	Acquisition of shares
	EverythingDacor.com	Acquisition of shares
	Distinctive Appliances of California	Acquisition of shares
	Viv Labs	Acquisition of shares
NewNet Communication Technologies Canada	Acquisition of shares	
Europe/CIS	Joyent (UK)	Acquisition of shares
Asia (Except China)	Laos Samsung Electronics Sole (LSE)	Incorporation
China	Samsung Semiconductor Xian (SSCX)	Incorporation

(2) Subsidiaries excluded from the consolidation for the year ended December 31, 2016:

Area	Subsidiary	Description
Domestic	Samsung Venture Capital Union #14	Liquidation
America	Grandis	Liquidation
	Joyent Canada	Liquidation
Europe/CIS	Samsung Russia Service Centre (SRSC)	Merger ¹
	SonoAce Deutschland (SDG)	Liquidation
	Samsung Electronics Kazakhstan(SEK)	Merger ⁴
Asia (Except China)	Samsung Telecommunications Malaysia (STM)	Liquidation
	Future Technology & Service	Liquidation
China	Samsung R&D Institute China-Xian (SRC-Xian)	Merger ²
	Samsung Electronics Shanghai Telecommunication (SSTC)	Merger ³

¹ Samsung Electronics Rus Company (SERC), a subsidiary of the Company, merged with Samsung Russia Service Centre (SRSC) on February 1, 2016.

² Samsung (China) Semiconductor (SCS), a subsidiary of the Company, merged with Samsung R&D Institute China-Xian (SRC-Xian) in July, 2016.

³ Samsung (China) Investment (SCIC), a subsidiary of the Company, merged with Samsung Electronics Shanghai Telecommunication (SSTC) in September, 2016.

⁴ Samsung Electronics Central Eurasia (SECE), a subsidiary of the Company, merged with Samsung Electronics Kazakhstan (SEK) in December, 2016.

2. Summary of Significant Accounting Policies

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

2.1 Basis of Presentation

The Company maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with 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 consolidated financial statements of the Company presented have been prepared in accordance with Korean IFRS. International Financial Reporting Standards ("IFRS") have been adopted by the Korean Accounting Standards Board as Korean IFRS based on standards and interpretations published by the International Accounting Standards Board.

Korean IFRS permits the use of critical accounting estimates in the preparation of the financial statements and requires management judgments in applying accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in Note 3.

2.2 Changes in Accounting Policy and Disclosures

(A) New and amended standards adopted by the Company

The Company applied the following amended and enacted standards for the annual period beginning on January 1, 2016:

Amendment to Korean IFRS 1001, Presentation of Financial Statements

Korean IFRS 1001 Presentation of Financial Statements clarifies that materiality applies to the exclusion or inclusion or aggregation of the disclosures in the notes. The standard also clarifies that the share of OCI arising from equity-accounting should be presented in total for items which will and will not be reclassified to profit or loss. Additional amendments are made in relation to the particular ordering of the footnote disclosures. The adoption of this standard did not have a material impact on the financial statements.

(B) New and amended standards not adopted by the Company

The Company expects that new standards, amendments and interpretations issued but not effective for the financial year beginning January 1, 2016, and not early adopted, would not have a material impact on its consolidated financial statements.

Amendment to Korean IFRS 1007, Statement of Cash Flows

Amendments to *Korean IFRS 1007 Statement of Cash flows* requires disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes. The Company will apply this amendment for annual reporting periods beginning on or after January 1, 2017. The Company is in the process of determining the impact of adopting the new Standard.

Korean IFRS 1109, Financial Instruments

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

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

Korean IFRS 1109 Financial Instruments requires all financial assets to be classified and measured on the basis of the entity's business model for managing financial assets and the contractual cash flow characteristics of the financial assets. A new impairment model, an expected credit loss model, is introduced and any subsequent changes in expected credit losses will be recognized in profit or loss. Also, hedge accounting rules amended to extend the hedging relationship, which consists only of eligible hedging instruments and hedged items, qualifies for hedge accounting.

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

The Company has performed a preliminary assessment of the financial impacts of the implementation of *Korean IFRS 1109* to the 2016 financial statements based on current situation and available information as at December 31, 2016. The expected impact of application of the standard on the Company's financial statements are set out below. The Company will conduct further analysis of detailed financial impacts based on additional information in the future, and the result of the preliminary assessment may change depending on additional information available to the Company.

(a) Classification and Measurement of Financial Assets

When implementing *Korean IFRS 1109*, the classification of financial assets will be driven by the Company's business model for managing the financial assets and contractual terms of cash flow. The following table shows the classification of financial assets measured subsequently at amortized cost, at fair value through other comprehensive income reserve and at fair value through profit or loss. For hybrid (combined) instruments, if the Company is unable to measure an embedded derivative separately from its host contract, financial assets with embedded derivatives are classified in their entirety.

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

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

² A designation at fair value through other comprehensive income is allowed only if the financial instrument is the equity investment that are not held for trading (irrevocable).

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

As at December 31, 2016, the Company recognizes loan and trade receivables amounting to ₩112,219,719 million, financial assets available-for-sales amounting to ₩10,442,736 million.

According to *Korean IFRS 1109*, debt investments are measured at amortized cost if: a) the objective of the business model is to hold the financial assets for the collection of the contractual cash flows, and b) the contractual terms of cash flows solely represent payments of principal and interest. As at December 31, 2016, the Company recognized loan and trade receivables amounting to ₩112,219,719 million held at amortized costs.

According to the result of preliminary impact assessment, when applying *Korean IFRS 1109* to the financial assets as at December 31, 2016, under the terms and conditions of the contracts, most financial assets consist of cash flows solely representing payments of principal and interest on a due date. Where the Company holds the financial assets for the collection of the contractual cash flows, the financial assets are classified as accounts subsequently measured at amortized cost. In conclusion, it is expected that the financial impact on the financial statements will be immaterial.

Korean IFRS 1109 measures debt investments at fair value through other comprehensive income of which terms of cash flows solely represent payments of the principal and interest on a due date, where the purpose of holding debt investment is to collect contractual cash flows and trade. As at December 31, 2016, the Company has debt investments classified as available-for-sale financial assets amounting to ₩3,743,173 million.

According to the result of preliminary impact assessment, when applying *Korean IFRS 1109* to the debt investments classified as available-for-sale as at December 31, 2016, most of the investments will be classified as financial instruments measured at fair value through other comprehensive income.

According to *Korean IFRS 1109*, equity investments not being held for trading may be given an irrevocable election to be classified as financial instruments measured at fair value through other comprehensive income at initial recognition and the cumulative gain or loss previously recognized in other comprehensive income is not subsequently recycled from equity to profit or loss as a reclassification adjustment. As at December 31, 2016, the Company's equity investments classified as available-for-sale

financial assets amount to ₩6,699,563 million and the cumulative unrealized profit or loss on available-for-sale equity investments amounting to ₩631,601 million was recycled from equity to profit or loss as a reclassification adjustment for the 2016 fiscal year.

As a result of the preliminary impact assessment, the Company p will designate long-term investment equity investments, which account for most of the available-for-sale equity instruments, as financial instruments measured at fair value through other comprehensive income. Therefore, the financial impact to the financial statements is expected to be immaterial. As at December 31, 2016, the remaining cumulative profit or loss which is comprehensive income not subject to be subsequently recycled from equity to profit or loss is ₩1,390,624 million.

According to *Korean IFRS 1109*, debt investments of which the contractual term of cash flows are not solely representing payments of principal and interest or which are held for trading are classified as at fair value through profit or loss. Also equity investments not designated at fair value through comprehensive income are measured at fair value through profit or loss. As at December 31, 2016, the Company has no debt or equity investments classified as financial instruments at fair value through profit or loss.

According to the results of the preliminary impact assessment, as most of the financial assets held as at December 31, 2016 are recorded at fair value through the profit and loss for the current term, the financial impact of adopting *Korean IFRS 1109* is expected to be immaterial.

(b) Classification and Measurement of Financial Liabilities

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

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

As at December 31, 2016, total financial liabilities account for ₩46,944,824 million of which ₩417,399 million are designated to be measure at fair value through profit or loss, and for the 2016 fiscal year the Company recognized loss of 61,221 million in relation to financial liabilities measured at fair value through profit or loss.

According to the result of the preliminary impact assessment, financial liabilities measured at fair value through profit and loss for the current terms as at December 31, 2016 have mostly short maturities and the credit risk fluctuation of financial liabilities is insignificant. Therefore, it is expected that the impact of adopting *Korean IFRS 1109* will not be significant.

(c) Impairment: Financial Assets and Contract Assets

Korean IFRS 1109 sets out a new forward looking 'expected loss impairment model' which replaces the incurred loss model in *Korean IFRS 1039* if there is objective evidence and applies to:

- Financial assets measured at amortized cost
- Debt investments measured at fair value through other comprehensive income, and
- Certain loan commitments and financial guaranteed contracts.

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

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

¹ The Company shall measure the loss allowance at an amount equal to Lifetime expected credit losses for contract assets or trade receivables under the standard, *Korean IFRS 1115 Revenue from Contracts with Customers*, which do not contain a significant financing component. However, the Company elects to measure the loss allowance at an amount equal to Lifetime expected credit losses for all contract assets or all trade receivables which contain a significant financing component in accordance with *Korean IFRS 1115*. The Company also elects to measure the loss allowance at an amount equal to Lifetime expected credit losses for lease receivables.

² If the financial instrument has low credit risk at the reporting date, the Company may assume that the credit risk has not increased significantly since initial recognition.

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

Korean IFRS 1115, Revenue from Contracts with Customers

The Company will apply *Korean IFRS 1115 Revenue from Contracts with Customers* issued on November 6, 2015 for annual reporting periods beginning on or after January 1, 2018. This standard replaces *Korean IFRS 1018 Revenue*, *Korean IFRS 1011 Construction Contracts*, *Interpretation 2031 Revenue-Barter Transactions Involving Advertising Services*, *Interpretation 2113 Customer Loyalty Programs*, *Interpretation 2115 Agreements for the Construction of Real Estate* and *Interpretation 2118 Transfers of assets from customers*.

The Company will apply the standard retrospectively to prior reporting periods presented in accordance with *Korean IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors* and apply the simplified transition method with no restatement for completed contracts as at January 1, 2017.

The new standard is based on the principle that revenue is recognized when control of goods or services transfers to a customer – so the notion of control replaces the existing notion of risks and rewards. A new five-step process must be applied before revenue from contract with customer can be recognized:

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

Based on the information available at the end of the reporting period, the Company is in the process of preliminary assessment of the potential impact on the financial statements for the year 2016 when applying *Korean IFRS 1115*, and the interim results are set out below. The Company will analyze more specific financial impacts based on additional information in the future.

(a) Identification of performance obligations

The Company's IM (information technology & mobile communications) business consists of mobile phone, communication systems and computers. The Company manufactures and installs network communication systems, and provides them to customers. In 2016, the related revenue from such activities did not account for a large portion of total revenue. When applying *Korean IFRS 1115*, performance obligation, such as network system production with customers, distinguished as technical support in the

integrated contract such as (1) product sales, (2) installation service, and (3) maintenance, were identified. The timing of revenue recognition may change depending on whether each performance obligation is fulfilled at one time or over a period of time.

(b) Variable payment

As the Company allows returns when selling products and merchandise, variability in payment may occur. When apply *Korean IFRS 1115*, the Company estimates the variable payment using an expectation-value method that is expected to better anticipate the payments to which the company is entitled, and recognizes revenue by including variable payment in the transaction price only to the amount that it is highly unlikely to reverse a significant portion of the cumulative revenue amount that has already been recognized, at the end of the return period. Amounts not expected to be consideration received or receivable are recognized as a refund liability.

(c) Distribution of transaction price

When applying *Korean IFRS 1115*, the Company allocates transaction prices based on the relative individual selling prices to the various performance obligations identified in a single contract. The Company will use the 'Market Valuation Adjustment Approach' to estimate the individual selling prices of each performance obligation and will use the 'Estimated Cost Plus Margin Approach', which predicts the expected costs and adds the appropriate profits to the transactions.

2.3 Consolidation

The Company prepares the consolidated financial statements in accordance with *Korean IFRS 1110, Consolidated Financial Statements*.

(A) Subsidiaries

Subsidiaries are all entities (including special purpose entities) over which the Company has control. The Company controls the corresponding investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Consolidation of a subsidiary begins from the date the Company obtains control of a subsidiary and ceases when the Company loses control of the subsidiary.

The Company applies the acquisition method to account for business combinations. The consideration transferred is measured at the fair values of the assets transferred, and identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are initially measured at their fair values at the acquisition date. The Company recognizes any non-controlling interest in the acquiree on an acquisition-by-acquisition basis in the event of liquidation at the non-controlling interest's proportionate share of the recognized amounts of acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

Goodwill is recognized as the excess of (1) the aggregate of i) the consideration transferred, ii) the amount of any non-controlling interest in the acquiree and iii) the acquisition-date fair value of the Company's previously held equity interest in the acquiree over (2) the net identifiable assets acquired. If this consideration (1) is lower than the fair value of the acquiree's net assets in (2), the difference is recognized in profit or loss.

Balances of receivables and payables, income and expenses and unrealized gains on transactions between the Company subsidiaries are eliminated. Accounting policies of subsidiaries are changed where necessary to ensure consistency with the policies adopted by the Company.

(B) 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 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 of non-controlling interests are also recorded in equity.

(C) Disposal of subsidiaries

If the Company loses control of a subsidiary, any investment continuously retained in the subsidiary is re-measured at its fair value at the date when control is lost and any resulting differences are recognized in profit or loss. Such fair value becomes the initial carrying amount for the subsequent measurement of the retained interest accounted for as an associate, joint venture, or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of such entity are accounted for as if the Company had directly disposed of the related assets or liabilities. As a result, the previously recognized other comprehensive income are reclassified into profit or loss.

(D) Non-controlling interests

Each component of profit or loss and other comprehensive income is attributed to owners of the parent and to non-controlling interests. Total comprehensive income is attributed to owners of the parent and to non-controlling interests even if this results in a negative balance of non-controlling interests.

(E) Associates

Associates are all entities over which the Company has significant influence but does not have control, generally investees of which from 20% to 50% of voting stock is owned by the Company. Investments in associates are initially recognized at acquisition cost using the equity method. Unrealized gains on transactions between the Company and its associates are eliminated to the extent of the Company's interest in the associates. If there is any objective evidence that the investment in the associate is impaired, the Company recognizes the difference between the recoverable amount of the associate and its book value as impairment loss.

(F) Joint arrangements

A joint arrangement of which two or more parties have joint control is classified as either a joint operation or a joint venture. A joint operator has rights to the assets, and obligations for the liabilities, relating to the joint operation and recognizes the assets, liabilities, revenues and expenses relating to its interest in a joint operation. A joint venturer has rights to the net assets relating to the joint venture and accounts for that investment using the equity method.

2.4 Foreign Currency Translation

(A) 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 each entity operates (the "functional currency"). The consolidated financial statements are presented in Korean won, which is the parent company's functional and presentation currency.

(B) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in profit or loss.

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

(C) Translation into the presentation currency

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

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at the end of the reporting date.
- 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.
- All resulting exchange differences are recognized in other comprehensive income.

2.5 Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, deposits held at call with banks, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of change in value.

2.6 Financial Assets

(A) Classification

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

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

Financial assets at fair value through profit or loss are financial assets held for trading. A financial asset is classified in this category if acquired principally for the purpose of selling in the short-term. Derivatives not subject to hedge accounting and derivatives separated from financial instruments, such as embedded derivatives, are also categorized as held for trading. Assets in this category are classified as current assets.

(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 those with maturities greater than 12 months after the end of the reporting period which are classified as non-current assets.

(3) Available-for-sale financial assets

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

(B) Recognition and measurement

Regular purchases and sales of financial assets are recognized on the trade date. At initial recognition, financial assets are measured at fair value plus, in the case of financial assets not carried at fair value through profit or loss, transaction costs. Transaction costs of financial assets carried at fair value through profit or loss are expensed in the statement of income. After the initial recognition, available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. Loans and receivables and held-to-maturity investments are subsequently carried at amortized cost using the effective interest method.

Changes in fair value of financial assets at fair value through profit or loss are recognized in profit or loss and changes in fair value of available-for-sale financial assets are recognized in other comprehensive income. When the available-for-sale financial assets are sold or impaired, the fair value adjustments recorded in equity are reclassified into profit or loss.

Interest on available-for-sale financial assets and held-to-maturity financial assets calculated using the effective interest method is recognized in the statement of income as part of financial income. Dividends on available-for-sale financial assets are recognized in the statement of income as part of other non-operating income when the Company's right to receive payments is established.

(C) Offsetting financial instruments

Financial assets and liabilities are offset, and the net amount 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.

(D) Derecognition of financial assets

If the Company transfers a financial asset and the transfer does not result in derecognition because the Company has retained substantially all of the risks and rewards of ownership of the transferred asset due to a recourse in the event the debtor defaults, the Company continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received. The related financial liability is classified as 'borrowings' in the statement of financial position.

2.7 Impairment of Financial Assets

The Company assesses at the end of each reporting period whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment loss is recognized only if there is objective evidence 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.

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

The objective evidence that a financial asset is impaired includes significant financial difficulty of the issuer or obligor, a delinquency in interest or principal payments, or the disappearance of an active market for that financial asset because of financial difficulties. A significant and prolonged decline below its cost in the fair value of an available-for-sale equity instrument is also objective evidence of impairment.

2.8 Trade Receivables

Trade receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of business. If collection is expected in one year or less, they are classified as current assets. If collection is expected beyond one year, 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.

2.9 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the average cost method, except for materials in transit. 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 costs of idle plant and abnormal waste. Net realizable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses.

Inventories are reduced for the estimated losses arising from excess, obsolescence, and decline in value. This reduction is determined by estimating market value based on future customer demand. The losses on inventory obsolescence are recorded as a part of cost of sales.

2.10 Disposal Group Held-for-Sale

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

2.11 Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. Historical cost includes expenditures that are 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 those parts that are replaced is derecognized and repairs and maintenance expenses are recognized in profit or loss in the period they are incurred.

Depreciation on tangible assets is calculated using the straight-line method to allocate the difference between their cost and their residual values over their estimated useful lives. Land is not depreciated. Costs that are directly attributable to the acquisition, construction or production of a qualifying asset, including capitalized interest costs, form part of the cost of that asset and are amortized over the estimated useful lives.

The Company's policy is that property, plant and equipment should be depreciated over the following estimated useful lives:

	<u>Estimated useful lives</u>
Buildings and structures	15, 30 years
Machinery and equipment	5 years
Other	5 years

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

2.12 Intangible Assets

Goodwill represents the excess of the cost of an acquisition over the fair value of the Company's share of the net identifiable assets of the acquired subsidiary, associates, joint ventures and businesses at the date of acquisition. Goodwill on acquisitions of subsidiaries and businesses is included in intangible assets and goodwill on acquisition of associates and joint ventures is included in the investments in associates and joint ventures.

Intangible assets, except for goodwill, are initially recognized at their historical cost and carried at cost less accumulated amortization and accumulated impairment losses.

Internally generated development costs are the aggregate costs recognized after meeting the asset recognition criteria, including technical feasibility, and determined to have future economic benefits. Membership rights are regarded as intangible assets with an indefinite useful life and not amortized because there is no foreseeable limit to the period over which the assets are expected to be

utilized. Intangible assets with definite useful lives such as trademarks and licenses, are amortized using the straight-line method over their estimated useful lives.

The Company's policy is that intangible assets should be amortized over the following estimated useful lives:

	<u>Estimated useful lives</u>
Development costs	2 years
Trademarks, licenses and other intangible assets	5 - 10 years

2.13 Impairment of Non-Financial Assets

Goodwill or intangible assets with indefinite useful lives 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 for which an impairment charge was previously recorded are reviewed for possible reversal of the impairment at each reporting date.

2.14 Financial Liabilities

(A) Classification and measurement

Financial liabilities at fair value through profit or loss are financial instruments held for trading. Financial liabilities are classified in this category if incurred principally for the purpose of repurchasing them in the near term. Derivatives that are not designated as hedges or bifurcated from financial instruments containing embedded derivatives are also categorized as held-for-trading.

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

(B) Derecognition

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

2.15 Trade Payables

Trade payables are amounts due to suppliers for merchandise purchased or services received in the ordinary course of business. If payment is expected in one year or less, they are classified as current liabilities. If payment is expected beyond one year, they are presented as non-current liabilities. Non-current trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

2.16 Borrowings

Borrowings are recognized initially at fair value, net of transaction costs, and are subsequently measured at amortized cost. Any difference between cost and the redemption value is recognized in the statement of income over the period of the borrowings using the effective interest method. If the Company has an indefinite right to defer payment for a period longer than 12 months after the end of the reporting date, such liabilities are recorded as non-current liabilities, otherwise, they are recorded as current liabilities.

2.17 Provisions

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

When it is probable that an outflow of economic benefits will occur due to a present obligation resulting from a past event, and the amount is reasonably estimable, a corresponding provision is recognized in the financial statements. However, when such outflow is dependent upon a future event that is not certain to occur, or cannot be reliably estimated, a disclosure regarding the contingent liability is made in the notes to the financial statements.

2.18 Net Defined Benefit Liabilities

The Company has a variety of retirement pension plans including defined benefit and defined contribution plans. A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate entity. The Company has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. For defined contribution plans, the Company pays contributions to annuity plans that are managed either publicly or privately on a mandatory, contractual or voluntary basis. The Company has no further future 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 to defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating to the terms of the related pension obligation.

Actuarial gains and losses resulting from the changes in actuarial assumptions, and the differences between the previous actuarial assumptions and what has actually occurred, are recognized in other comprehensive income in the period in which they were incurred. Past service costs are immediately recognized in profit or loss.

2.19 Financial Guarantee Contract

Financial guarantee contracts are contracts that require the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due. Financial guarantees are initially recognized in the financial statements at fair value on the date the guarantee was given. If the amount measured in subsequent periods exceeds the unamortized balance of the amount initially recognized, the excess is classified as other financial liability.

2.20 Current and Deferred Tax

The tax expense for the period comprises current and deferred tax. Tax is recognized on the profit for the period in the statement of income, except to the extent that it relates to items recognized in other comprehensive income or directly in equity, in which case the tax is also recognized in other comprehensive income or directly in equity, respectively. The tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period.

Deferred tax is recognized for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts as expected tax consequences at the recovery or settlement of the carrying amounts of the assets and liabilities. However, deferred tax assets and liabilities are not recognized if they arise from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

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

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

2.21 Derivative Instruments

All derivative instruments are accounted for at their fair value according to the rights and obligations associated with the derivative contracts. The resulting changes are recognized in profit or loss in the year in which they are incurred. Certain derivatives that qualify as cash flow hedges and hedges on net investments in foreign operations are recognized under equity.

2.22 Dividend

Dividend distribution to the Company's shareholders is recognized as a liability when the dividends are approved.

2.23 Share Capital

Common shares and preferred shares with no repayment obligations are classified as equity. When the Company purchases its common shares, the acquisition costs, including direct transaction costs, are deducted from equity until the redemption or reissuance as treasury shares. Consideration received on the subsequent sale or issuance of treasury shares is credited to equity.

2.24 Revenue Recognition

Revenue mainly 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, sales incentives and discounts and after eliminating intercompany transactions.

The Company recognizes revenue when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the entity; and when specific criteria have been met for each of the Company's activities, as described below. The Company measures revenue by reliably estimating the contingencies associated with revenue based on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

Where multiple-element arrangements exist, the fair values of each element are determined based on the current market price of each of the elements when sold separately. When the fair values of each element are indeterminable, the fair values of deliverables which have already been provided are calculated in such way that the fair values of elements which are yet to be provided are subtracted from total contract value of the arrangement.

(A) Sales of goods

Sales of products and merchandise are recognized upon delivery when the significant risks and rewards of ownership of goods have transferred to the buyer. Revenue is recognized net of discounts and returns, estimated at the time of sale based on past experience.

(B) Sales of services

Revenues from rendering services are generally recognized using the percentage-of-completion method based on the percentage of costs to date compared to the total estimated costs, contractual milestones or performance.

(C) Interest income

Interest income is recognized using the effective interest method according to the time passed. When a loan or 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 loans and receivables is recognized using the original effective interest rate.

(D) Royalty income

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

(E) Dividend income

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

2.25 Government Grants

Government grants are recognized at their fair values when there is reasonable assurance that the grant will be received and the Company will comply with the conditions attached to it. Government grants relating to costs are deferred and recognized in the income statement over the period necessary to match them with the costs that they are intended to compensate. Government grants relating to assets are recognized in liabilities as deferred income government grants and are credited to the income statement on a straight-line basis over the expected lives of the related assets.

2.26 Earnings per Share

Basic earnings per share is calculated by dividing net profit for the period available to common shareholders by the weighted-average number of common shares outstanding during the year. Diluted earnings per share is calculated using the weighted-average number of common shares outstanding adjusted to include the potentially dilutive effect of common equivalent shares outstanding.

2.27 Operating Segments

Operating segments are disclosed in the manner reported to the chief operating decision-maker. The chief operating decision-maker is responsible for making strategic decisions on resource allocation and performance assessment of the operating segments. The Management Committee, which makes strategic decisions, is regarded as the chief operating decision-maker.

2.28 Convenience Translation into United States Dollar Amounts

The Company operates primarily in Korean won and its official accounting records are maintained in Korean won. The US dollar amounts provided in the financial statements represent supplementary information solely for the convenience of the reader. All Korean won amounts are expressed in U.S. dollars at the rate of ₩1159.83 to US \$1, the average exchange rate for the year ended December 31, 2016. Such presentation is not in accordance with generally accepted accounting principles, and should not be construed as a representation that the Korean won amounts shown could be readily converted, realized or settled in US dollars at this or at any other rate.

2.29 Approval of the Consolidated Financial Statements

These consolidated financial statements were approved by the Board of Directors on January 28, 2016.

3. Critical Accounting Estimates and Assumptions

The Company makes estimates and assumptions concerning the future. The estimates and assumptions are continuously assessed, considering historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

(A) Revenue recognition

The Company uses the percentage-of-completion method in accounting for its fixed-price contracts to deliver installation services. Use of the percentage-of-completion method requires the Company to estimate the services performed to date as a proportion of the total services to be performed. Revenues and earnings are subject to significant change, effected by early steps in a long-term projects, change in scope of a project, cost, period, and plans of the customers.

(B) Provision for warranty

The Company recognizes provision for warranty on products sold. The Company accrues provision for warranty based on the best estimate of amounts necessary to settle future and existing claims. The amounts are estimated based on past experience.

(C) Fair value of derivatives and other financial instruments

The fair value of financial instruments that are not traded in an active market is determined by using a variety of methods and assumptions that are mainly based on market conditions existing at the end of each reporting period.

(D) Net defined benefit liabilities

The net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions. Any changes in these assumptions will impact the carrying amount of the net defined benefit liability. The Company, in consideration of the interest rates of high-quality corporate bonds, 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 net defined benefit liability. The principal actuarial assumptions associated with the net defined benefit liability are based on the current market expectations.

(E) Impairment of goodwill

At the end of each reporting period, the Company tests whether goodwill has become impaired by comparing the carrying amounts of cash-generating units to the recoverable amounts. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations, and these calculations are based on estimates.

(F) Income taxes

Income taxes on the Company's taxable income from operating activities are subject to various tax laws and determinations of each tax authority across various countries throughout the world. There is uncertainty in determining the eventual tax effects on the taxable income from operating activities. The Company has recognized current tax and deferred tax at the end of the fiscal year based on the best estimation of future taxes payable as a result of operating activities. However, the resulting deferred income tax assets and liabilities may not equal the actual future taxes payable and such difference may impact the current tax and deferred income tax assets and liabilities upon the determination of eventual tax effects.

4. Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, deposits held at call with banks, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of change in value.

Cash and cash equivalents as at December 31, 2016 and 2015, consist of the following:

<i>(In millions of Korean won)</i>	2016		2015	
Cash on hand	₩	51,770	₩	40,337
Bank deposits and others		32,059,672		22,596,407
Total	₩	32,111,442	₩	22,636,744

5. Financial Assets Subject to Withdrawal Restrictions

Financial instruments subject to withdrawal restrictions as at December 31, 2016 and 2015, consist of the following:

<i>(In millions of Korean won)</i>	2016		2015	
Short-term financial instruments	₩	21,541	₩	14,032
Other non-current assets		28,828		23,015

6. Financial Instruments by Category

(A) Categorizations of financial assets and liabilities as at December 31, 2016 and 2015, are as follows:

(1) As at December 31, 2016

<i>(In millions of Korean won)</i>	Assets at fair value through profit or loss		Loans and receivables		Available-for-sale financial assets		Total
Assets							
Cash and cash equivalents	₩	-	₩	32,111,442	₩	-	₩ 32,111,442
Short-term financial instruments		-		52,432,411		-	52,432,411
Short-term available-for-sale financial assets		-		-		3,638,460	3,638,460
Trade receivables		-		24,279,211		-	24,279,211
Long-term available-for-sale financial assets		-		-		6,804,276	6,804,276
Other		63,208		3,396,655		-	3,459,863
Total	₩	63,208	₩	112,219,719	₩	10,442,736	₩ 122,725,663

<i>(In millions of Korean won)</i>	Liabilities at fair value through profit or loss		Financial liabilities measured at amortized cost		Other financial liabilities		Total	
Liabilities								
Trade payables	₩	-	₩	6,485,039	₩	-	₩	6,485,039
Short-term borrowings		-		1,817,021		10,929,768		12,746,789
Other payables		-		10,225,271		-		10,225,271
Current portion of long-term liabilities		-		1,232,817		-		1,232,817
Debentures		-		58,542		-		58,542
Long-term borrowings		-		1,244,238		-		1,244,238
Long-term other payables		342,702		2,666,957		-		3,009,659
Other		74,697		11,867,772		-		11,942,469
Total	₩	417,399	₩	35,597,657	₩	10,929,768	₩	46,944,824

(2) As at December 31, 2015

<i>(In millions of Korean won)</i>	Assets at fair value through profit or loss		Loans and receivables		Available-for-sale financial assets		Total	
Assets								
Cash and cash equivalents	₩	-	₩	22,636,744	₩	-	₩	22,636,744
Short-term financial instruments		-		44,228,800		-		44,228,800
Short-term available-for-sale financial assets		-		-		4,627,530		4,627,530
Trade receivables		-		25,168,026		-		25,168,026
Long-term available-for-sale financial assets		-		-		8,332,480		8,332,480
Other		63,177		3,483,257		-		3,546,434
Total	₩	63,177	₩	95,516,827	₩	12,960,010	₩	108,540,014

<i>(In millions of Korean won)</i>	Liabilities at fair value through profit or loss		Financial liabilities measured at amortized cost		Other financial liabilities		Total	
Liabilities								
Trade payables	₩	-	₩	6,187,291	₩	-	₩	6,187,291
Short-term borrowings		-		2,416,977		8,738,448		11,155,425
Other payables		-		7,625,490		-		7,625,490
Current portion of long-term liabilities		-		221,548		-		221,548
Debentures		-		1,230,448		-		1,230,448
Long-term borrowings		-		266,542		-		266,542
Long-term other payables		312,738		2,406,936		-		2,719,674
Other		38,829		7,908,569		-		7,947,398
Total	₩	351,567	₩	28,263,801	₩	8,738,448	₩	37,353,816

(B) Net gains or net losses on each category of financial instruments for the years ended December 31, 2016 and 2015, are as follows:

(1) For the year ended December 31, 2016

(In millions of Korean won)

Financial Assets	Assets at fair value through profit or loss	Loans and receivables	Available-for-sale financial assets	Total
Gain on valuation (other comprehensive income)	₩ -	₩ -	₩ 607,762	₩ 607,762
Gain(loss) on valuation/disposal (profit or loss)	(24,573)	(5,648)	953,416	923,195
Reclassification from other comprehensive income to profit or loss	-	-	(631,601)	(631,601)
Interest income	-	1,475,357	28,961	1,504,318
Foreign exchange differences (profit or loss)	-	772,552	-	772,552
Foreign exchange differences (other comprehensive income)	-	-	(156,050)	(156,050)
Dividend income	-	-	239,899	239,899
Impairment/reversal (profit or loss)	-	(135,046)	(341,790)	(476,836)

(In millions of Korean won)

Financial Liabilities	Liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Other financial liabilities	Total
Gain(loss) on valuation/disposal (profit or loss)	₩ (61,221)	₩ -	₩ -	₩ (61,221)
Interest expense	-	351,009	236,822	587,831
Foreign exchange differences (profit or loss)	-	(623,777)	(212,788)	(836,565)

(2) For the year ended December 31, 2015

(In millions of Korean won)

Financial Assets	Assets at fair value through profit or loss	Loans and receivables	Available-for-sale financial assets	Total
Loss on valuation (other comprehensive income)	₩ -	₩ -	₩ (906,547)	₩ (906,547)
Gain/(loss) on valuation/disposal (profit or loss)	4,168	(14,980)	132,223	121,411
Reclassification from other comprehensive income to profit or loss	-	-	491,586	491,586
Interest income	-	1,665,521	95,636	1,761,157
Foreign exchange differences (profit or loss)	-	147,455	-	147,455
Foreign exchange differences (other comprehensive income)	-	-	(161,511)	(161,511)
Dividend income	-	-	183,730	183,730
Impairment/reversal (profit or loss)	-	(65,051)	(11,323)	(76,374)

(In millions of Korean won)

Financial Liabilities	Liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Other financial liabilities	Total
Gain on valuation/disposal (profit or loss)	₩ 315,873	₩ -	₩ -	₩ 315,873
Interest expense	-	567,181	209,330	776,511
Foreign exchange differences (profit or loss)	-	(436,676)	33,695	(402,981)

7. Credit Quality of Financial Assets

The credit quality of financial assets that are neither past due nor impaired is assessed by reference to external credit ratings as at December 31, 2016 and 2015, as follows:

- Superior ability to repay: Aaa~Aa (Moody's), AAA~AA (S&P, Fitch), A1 (Credit rating agencies in Korea)
- Strong ability to repay: A (Moody's, S&P, Fitch), A2 (Credit rating agencies in Korea)
- Acceptable ability to repay: Baa (Moody's), BBB (S&P, Fitch), A3 (Credit rating agencies in Korea)
- Currently having the ability to repay: Ba or below (Moody's), BB or below (S&P, Fitch), B or below (Credit rating agencies in Korea)
- Group 1: Customers not having experienced capital erosion or default risk
- Group 2: Customers having experienced capital erosion or default risk, where all default risk is relieved as the trade payables are guaranteed by credit insurance or collateral.

(A) Trade receivables

(In millions of Korean won)

	2016	2015
Counterparties with external credit rating:		
Superior ability to repay	₩ 2,743,633	₩ 3,346,722
Strong ability to repay	3,170,573	3,337,397
Acceptable ability to repay	3,839,674	3,285,587
Currently having the ability to repay	2,744,783	3,576,405
Subtotal	12,498,663	13,546,111
Counterparties without external credit rating:		
Group 1	8,465,341	9,341,473
Group 2	239,626	137,973
Subtotal	8,704,967	9,479,446
Total	₩ 21,203,630	₩ 23,025,557

(B) Cash equivalents and short-term financial instruments

<i>(In millions of Korean won)</i>	2016	2015
Superior ability to repay	₩ 9,319,341	₩ 6,283,532
Strong ability to repay	70,916,126	57,377,674
Acceptable ability to repay	4,040,000	3,112,954
Currently having the ability to repay	171,393	17,293
Other ¹	45,223	33,754
Total	₩ 84,492,083	₩ 66,825,207

¹ Short-term financial instruments held at financial institutions (such as Credit unions) without an external credit rating.

8. Transfer of Financial Assets

Trade receivables of the Company have been discounted through factoring agreements with banks in 2016 and 2015. Collateral (trade receivables and other) provided in such factoring transactions do not meet the requirements for asset derecognition as risks and rewards are not substantially transferred in the event the debtor defaults. Financial liabilities recognized in relation to these transactions are included as short-term borrowings on the statement of financial position (Note 15).

The following table presents a breakdown of discounted trade receivables as at December 31, 2016 and 2015:

<i>(In millions of Korean won)</i>	2016	2015
Carrying amount of the discounted trade receivables ¹	₩ 10,929,768	₩ 8,738,448
Carrying amount of the related borrowings	10,929,768	8,738,448

¹ The discounted trade receivables include intercompany balances.

9. Available-for-Sale Financial Assets

Changes in available-for-sale financial assets for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016	2015
Balance as at January 1	₩ 12,960,010	₩ 15,954,307
Acquisitions	17,804,905	8,213,756
Disposals	(18,896,371)	(9,746,482)
Valuation of available-for-sale financial assets	798,698	(1,218,782)
Impairment	(326,672)	(11,323)
Foreign exchange differences	(156,050)	(161,511)
Other ¹	(1,741,784)	(69,955)
Balance as at December 31	₩ 10,442,736	₩ 12,960,010
(A) Current portion	3,638,460	4,627,530
(B) Non-current portion	6,804,276	8,332,480

¹ Due to increase in shareholding ratio for the year ended December 31, 2016, Samsung SDI and Cheil Worldwide were reclassified from available-for-sale financial assets to investments in associates.

Changes in valuation gains (losses) recognized in equity (other comprehensive income) on available-for-sale financial assets for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>		2016		2015	
Balance as at January 1	₩	2,008,223		₩	2,582,037
Fair value gains		798,698			(1,218,782)
Net gains transferred from equity		(837,088)			644,968
Balance as at December 31		1,969,833			2,008,223
Deferred income tax and non-controlling interests		(579,209)			(506,096)
Total	₩	1,390,624		₩	1,502,127

(A) Short-term available-for-sale financial assets

Details of short-term available-for-sale financial assets as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>		2016		2015	
Beneficiary certificates ¹	₩	3,638,460		₩	1,606,320
Government bonds		-			271,373
Bank debentures		-			2,749,837
Total	₩	3,638,460		₩	4,627,530

¹ Details of beneficiary certificates as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>		2016		2015	
Time deposits and others	₩	3,638,460		₩	1,606,320
Total	₩	3,638,460		₩	1,606,320

(B) Long-term available-for-sale financial assets

Details of long-term available-for-sale financial assets as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>		2016		2015	
Equity securities - Listed	₩	2,362,235		₩	4,674,753
Equity securities - Non-listed		4,337,328			3,498,655
Debt securities ¹		104,713			159,072
Total	₩	6,804,276		₩	8,332,480

¹ The maximum exposure to credit risk of available-for-sale debt securities is the carrying value at the reporting date.

(1) Equity securities - Listed

Details of listed equity securities as at December 31, 2016 and 2015, are as follows:

(In millions of Korean won, number of shares and percentage)

	2016			2015	
	Number of Shares Owned	Percentage of Ownership (%)	Acquisition Cost	Book Value (Market Value)	Book Value (Market Value)
Samsung SDI ¹	-	-	₩ -	₩ -	₩ 1,534,745
Samsung Heavy Industries	65,930,982	16.9	473,727	609,862	441,331
Hotel Shilla	2,004,717	5.1	13,957	96,527	154,965
Cheil Worldwide ¹	-	-	-	-	300,124
iMarket Korea	647,320	1.8	324	6,732	16,377
SFA	1,822,000	10.2	38,262	117,519	90,098
Wonik Holdings (formerly Wonik IPS) ²	3,518,342	4.6	30,821	23,714	81,949
Wonik IPS ²	3,701,872	9.0	32,428	96,989	-
ASML ³	6,297,787	1.5	363,012	851,395	1,331,450
Rambus ³	-	-	-	-	65,039
Seagate Technology ³	-	-	-	-	538,766
Sharp ³	-	-	-	-	43,502
Wacom	8,398,400	5.2	62,013	26,647	39,330
BYD ⁴	52,264,808	1.9	528,665	449,872	-
Other	-	-	79,259	82,978	37,077
Total			₩ 1,622,468	₩ 2,362,235	₩ 4,674,753

¹ Due to increase in shareholding ratio for the year ended December 31, 2016, Samsung SDI and Cheil Worldwide were reclassified from available-for-sale financial assets to investments in associates.

² For the year ended December 31, 2016, Wonik IPS split off from Wonik Holdings (formerly Wonik IPS).

³ For the same period above, the Company disposed all of its Rambus, Seagate Technology and Sharp shares and a portion of its ASML shares.

⁴ For the same period above, the Company acquired 52,264,808 shares of BYD.

Acquisition cost includes impairment loss on available-for-sale financial assets recognized due to the decline in realizable value below acquisition cost. The difference between the acquisition cost, net of impairment loss and the current fair value is recorded within other components of equity, net of tax effects (unrealized gains or losses on available-for-sale financial assets).

(2) Equity securities - Non-listed

Details of non-listed equity securities as at December 31, 2016 and 2015, are as follows:

(In millions of Korean won, number of shares and percentage)

	2016			2015	
	Number of Shares Owned	Percentage of Ownership (%)	Acquisition Cost	Book Value ²	Book Value
Kihyup Technology	1,000,000	17.2	₩ 5,000	₩ 5,000	₩ 5,000
Pusan Newport ¹	-	-	-	-	5,677
Samsung Venture Investment Maltani (formerly Taewon Lightning)	980,000	16.3	4,900	7,515	7,207
Corning Inc.	45,000	15.0	16,544	16,270	15,860
CSOT ¹	2,300	7.4	2,434,320	3,440,487	2,745,574
CSOSDT	-	-	-	-	278,557
Nanosys	-	9.8	357,315	357,315	-
Other	15,950,462	12.8	27,323	28,985	28,985
Total			542,205	481,756	411,795
			₩ 3,387,607	₩ 4,337,328	₩ 3,498,655

¹ For the same period above, the Company disposed all of its Pusan Newport and CSOT shares.

² Nonmarketable shares are measured at cost as the variability of estimated cash flow is significant and the probability of various estimates, including discount rate, cannot be reasonably assessed.

Acquisition cost includes impairment loss on available-for-sale financial assets recognized due to the decline in realizable value below acquisition cost. The difference between the acquisition cost, net of impairment loss and the current fair value is recorded within other components of equity, net of tax effects (unrealized gains or losses on available-for-sale financial assets).

(3) Debt securities

Details of debt securities as at December 31, 2016 and 2015, are as follows:

(In millions of Korean won)

	2016		2015	
Corporate bonds	₩	104,713	₩	159,072
Total	₩	104,713	₩	159,072

10. Trade and Other Receivables

(A) Trade and other receivables as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
	Trade	Non-Trade	Trade	Non-Trade
Receivables	₩ 24,704,524	₩ 3,582,229	₩ 25,520,385	₩ 3,585,895
Less: Provisions for impairment	(420,889)	(25,503)	(326,861)	(49,291)
Receivables, net	24,283,635	3,556,726	25,193,524	3,536,604
Less: Non-current portion	(4,424)	(35,529)	(25,498)	(183,941)
Current portion	₩ 24,279,211	₩ 3,521,197	₩ 25,168,026	₩ 3,352,663

The Company transferred receivable balances to financial institutions in exchange for cash during the years ended December 31, 2016 and 2015. The outstanding balances of transferred receivables, amounting to ₩10,929,768 million and ₩8,738,448 million, have been accounted for as collateralized borrowings as at December 31, 2016 and 2015, respectively (Note 15).

(B) Movements in the provisions for impairment of receivables for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
	Trade	Non-Trade	Trade	Non-Trade
Balance as at January 1	₩ 326,861	₩ 49,291	₩ 277,788	₩ 9,894
Provisions for impaired receivables / (reversals of unused amounts)	117,207	(19,209)	58,513	41,195
Receivables written off during the year as uncollectible	(20,421)	(3,978)	(2,963)	(3,235)
Other	(2,758)	(601)	(6,477)	1,437
Balance as at December 31	₩ 420,889	₩ 25,503	₩ 326,861	₩ 49,291

(C) The aging analysis of trade and other receivables as at December 31, 2016 and 2015, is as follows:

<i>(In millions of Korean won)</i>	2016	2015
Receivables not past due	₩ 24,598,074	₩ 26,052,236
Past due but not impaired ¹ :		
Less than 31 days overdue	2,281,693	1,986,756
Impaired:		
31 days to 90 days overdue	881,736	405,310
Over 90 days overdue	525,250	661,978
Total	₩ 28,286,753	₩ 29,106,280

¹ The Company does not consider receivables that are overdue for less than or equal to 31 days as impaired.

(D) The maximum exposure to current credit risk is equivalent to the carrying amount of receivables as at December 31, 2016. The Company has in place insurance contracts covering the Company's major receivables, and has accrued provisions against receivables in accordance with the overdue payment history for those receivables not covered by insurance contracts.

11. Inventories

Inventories as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016			2015		
	Gross Amount	Valuation Allowance ¹	Book Value	Gross Amount	Valuation Allowance	Book Value
Finished goods	₩ 7,982,850	₩ (2,077,511)	₩ 5,905,339	₩ 5,956,413	₩ (186,953)	₩ 5,769,460
Work in process	5,334,607	(317,223)	5,017,384	6,142,964	(363,661)	5,779,303
Raw materials and supplies	7,526,608	(1,032,442)	6,494,166	6,082,185	(222,923)	5,859,262
Materials in transit	936,614	-	936,614	1,403,769	-	1,403,769
Total	₩21,780,679	₩ (3,427,176)	₩18,353,503	₩19,585,331	₩ (773,537)	₩18,811,794

¹ Inventories for which the Company has suspended sales or production, are evaluated based on net realizable value. In addition, if the net realizable value is less than the book value, then the difference is recorded as a valuation allowance.

The cost of inventories recognized as expense and included in 'cost of sales' for the year ended December 31, 2016, amounts to ₩119,611,006 million (2015: ₩122,679,069 million). The amount includes inventory valuation losses.

12. Investments in Associates and Joint Ventures

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

<i>(In millions of Korean won)</i>	2016		2015	
Balance as at January 1	₩	5,276,348	₩	5,232,461
Acquisition		84,306		137,917
Disposal ¹		(1,343,936)		(19,323)
Share of profit		19,501		1,101,932
Other ²		1,801,665		(1,176,639)
Balance as at December 31	₩	5,837,884	₩	5,276,348

¹ The Company sold its entire stake in Samsung Card for the year ended December 31, 2016.

² Other consists of dividends, impairment and reclassification as assets held-for-sale. Due to increase in shareholding ratio for the year ended December 31, 2016, Samsung SDI and Cheil Worldwide were reclassified from available-for-sale financial assets to investments in associates. For the year ended December 31, 2015, Impairment losses on Samsung Card resulting from the decline in recoverable value below the book value amounted to ₩1,126,958 million.

(B) Major investments in associates and joint ventures as at December 31, 2016, are as follows:

(1) Investments in associates

Investee	Nature of Relationship with Associate	Percentage of Ownership ¹ (%)	Principal Business Location
Samsung Electro-Mechanics	Manufacture and supply electronic components including passive components, circuit boards, and modules	23.7	Korea
Samsung SDS	Provide IT services including computer programming, system integration and management	22.6	Korea
Samsung Biologics	New business investment	31.5	Korea
Samsung SDI ²	Manufacture and supply electronics including secondary cell batteries	19.6	Korea
Cheil Worldwide	Advertising agency	25.2	Korea

¹ Ownership represents the Company's ownership of common stock in each entity.

² The Company's ownership of common stock outstanding is 20.3%.

(2) Investments in joint ventures

Investee	Nature of Relationship with Joint Venture	Percentage of Ownership ¹ (%)	Principal Business Location
Samsung Corning Advanced Glass	Manufacture and supply industrial glass devices	50.0	Korea

¹ Ownership represents the Company's ownership of common stock in each entity.

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

(1) Investments in associates

(In millions of Korean won)

Investee	2016		
	Acquisition cost	Net asset value of equity shares ¹	Book value
Samsung Electro-Mechanics	₩ 359,237	₩ 993,031	₩ 997,022
Samsung SDS	147,963	1,161,197	1,185,703
Samsung Biologics	443,193	1,285,706	1,289,351
Samsung SDI	1,242,605	2,131,718	1,232,986
Cheil Worldwide	506,162	192,594	517,885
Other	642,536	182,279	390,438
Total	₩ 3,341,696	₩ 5,946,525	₩ 5,613,385

¹ The Company's portion of net asset value of associates is based on the Company's ownership percentage.

(In millions of Korean won)

2015

Investee	2015		2015		Book value	
	Acquisition cost	Net asset value of equity shares ¹	Acquisition cost	Net asset value of equity shares ¹		
Samsung Card	₩	1,538,540	₩	2,504,778	₩	1,338,679
Samsung Electro-Mechanics		359,237		987,695		994,489
Samsung SDS		147,963		1,036,142		1,060,396
Samsung Biologics		545,665		1,300,185		1,310,202
Samsung SDI		-		-		-
Cheil Worldwide		-		-		-
Other		583,756		191,272		323,513
Total	₩	3,175,161	₩	6,020,072	₩	5,027,279

¹ The Company's portion of net asset value of associates is based on the Company's ownership percentage.

(2) Investments in joint ventures

(In millions of Korean won)

2016

Investee	2016		2016		Book value	
	Acquisition cost	Net asset value of equity shares ¹	Acquisition cost	Net asset value of equity shares ¹		
Samsung Corning Advanced Glass	₩	215,000	₩	169,521	₩	169,485
Other		259,977		59,342		55,014
Total	₩	474,977	₩	228,863	₩	224,499

¹ The Company's portion of net asset value of associates is based on the Company's ownership percentage.

(In millions of Korean won)

2015

Investee	2015		2015		Book value	
	Acquisition cost	Net asset value of equity shares ¹	Acquisition cost	Net asset value of equity shares ¹		
Samsung Corning Advanced Glass	₩	215,000	₩	188,431	₩	188,371
Other		259,977		104,440		60,698
Total	₩	474,977	₩	292,871	₩	249,069

¹ The Company's portion of net asset value of joint ventures is based on the Company's ownership percentage.

(D) Details of the valuations of investments in associates and joint ventures under the equity method for the years ended December 31, 2016 and 2015, are as follows:

(In millions of Korean won)

Investee	2016				
	Balance as at January 1	Gain/loss on valuation	Other comprehensive income/loss	Other ¹	Balance as at December 31
Samsung Card	₩ 1,338,679	₩ -	₩ -	₩ (1,338,679)	₩ -
Samsung Electro-Mechanics	994,489	1,738	9,641	(8,846)	997,022
Samsung SDS	1,060,396	105,424	28,620	(8,737)	1,185,703
Samsung Biologics	1,310,202	(66,212)	(1,189)	46,550	1,289,351
Samsung SDI	-	(8,017)	(1,602)	1,242,605	1,232,986
Cheil Worldwide	-	4,375	7,348	506,162	517,885
Samsung Corning Advanced Glass	188,371	(18,742)	(144)	-	169,485
Other	384,211	935	(6,522)	66,828	445,452
Total	₩ 5,276,348	₩ 19,501	₩ 36,152	₩ 505,883	₩ 5,837,884

¹ Other consists of acquisitions, disposals, dividends, impairment, reclassification and others

(In millions of Korean won)

Investee	2015				
	Balance as at January 1	Gain/loss on valuation	Other comprehensive income/loss	Other ¹	Balance as at December 31
Samsung Card	₩ 2,354,026	₩ 124,999	₩ 29,831	₩(1,170,177)	₩ 1,338,679
Samsung Electro-Mechanics	1,040,404	(2,877)	(28,954)	(14,084)	994,489
Samsung SDS	951,776	100,156	17,196	(8,732)	1,060,396
Samsung Biologics	293,975	886,439	(3,812)	133,600	1,310,202
Samsung Corning Advanced Glass	195,930	(7,785)	226	-	188,371
Other	396,350	1,000	(1,630)	(11,509)	384,211
Total	₩ 5,232,461	₩ 1,101,932	₩ 12,857	₩(1,070,902)	₩ 5,276,348

¹ Other consists of acquisitions, disposals, dividends, impairment, reclassification and others

(E) Summary of the condensed financial information of major associates and joint ventures.

(1) A summary of condensed financial information of major associates, details of adjustments from the book value of investments in major associates, and dividends received from major associates as at and for the years ended December 31, 2016 and 2015, is as follows:

(In millions of Korean won)

Investee	2016						
	Samsung Electro-Mechanics	Samsung SDS	Samsung Biologics	Samsung SDI	Cheil Worldwide		
1. Condensed financial information							
Condensed statement of financial position:							
Current assets	₩2,812,409	₩4,548,448	₩1,461,425	₩3,958,266	₩1,794,812		
Non-current assets	4,850,220	2,293,556	6,071,580	10,942,046	356,619		
Current liabilities	2,043,155	1,347,385	2,476,545	2,212,796	1,244,899		
Non-current liabilities	1,281,889	203,495	974,089	1,723,405	130,248		
Non-controlling interests	97,467	150,429	-	241,980	13,277		
Condensed statement of comprehensive income:							
Revenue	6,033,040	8,180,187	294,622	5,200,823	3,232,594		
Profit from continuing operations ¹	14,707	463,858	(176,832)	(878,504)	88,263		
Profit after tax from discontinued operations ¹	-	-	-	1,089,615	-		
Other comprehensive income(loss) ¹	41,212	35,664	108	(222,175)	(13,711)		
Total comprehensive income(loss) ¹	55,919	499,522	(176,724)	(11,064)	74,552		
2. Details of adjustments from the book value of investments in associates							
Net assets (a)	₩4,240,118	₩5,140,695	₩4,082,371	₩10,722,131	₩763,007		
Ownership percentage (b) ²	23.4%	22.6%	31.5%	19.9%	25.2%		
Net assets of equity shares (a x b)	993,031	1,161,197	1,285,706	2,131,718	192,594		
Goodwill	7,081	26,801	3,645	-	325,291		
Intercompany transactions and others ³	(3,090)	(2,295)	-	(898,732)	-		
Book value of associates	997,022	1,185,703	1,289,351	1,232,986	517,885		
3. Dividends from associates							
Dividends	₩	8,847	₩	8,736	-	-	-

¹ Income (loss) attributable to owners of the parent.

² Ownership percentage includes common and preferred stock.

³ Consists of unrealized gains and losses and other differences.

(In millions of Korean won)

2015

Investee	Samsung Card ¹	Samsung Electro-Mechanics	Samsung SDS	Samsung Biologics
1. Condensed financial information				
Condensed statement of financial position:				
Current assets		₩2,729,971	₩3,845,289	₩ 192,854
Non-current assets	₩19,070,997	4,539,482	2,486,390	5,767,640
Current liabilities		1,768,254	1,389,915	1,911,669
Non-current liabilities	12,382,672	1,185,816	164,913	1,273,991
Non-controlling interests	-	93,268	188,091	-
Condensed statement of comprehensive income:				
Revenue	₩3,302,194	₩6,176,258	₩7,853,459	₩ 91,278
Profit from continuing operations ²	333,724	312,773	439,020	1,920,179
Profit after tax from discontinued operations ²	-	(301,585)	-	-
Other comprehensive loss ²	79,656	(138,445)	70,670	(8,315)
Total comprehensive income ²	413,380	(127,257)	509,690	1,911,864
2. Details of adjustments from the book value of investments in associates				
Net assets (a)	₩6,688,325	₩4,222,115	₩4,588,760	₩2,774,834
Ownership percentage (b) ³	37.5%	23.4%	22.6%	46.8%
Net assets of equity shares (a x b)	2,504,778	987,695	1,036,142	1,300,185
Goodwill	17,181	7,081	26,801	5,531
Intercompany transactions and others ⁴	(56,322)	(287)	(2,547)	4,486
Impairment	(1,126,958)	-	-	-
Book value of associates	1,338,679	994,489	1,060,396	1,310,202
3. Dividends from associates				
Dividends	₩ 43,393	₩ 13,270	₩ 8,736	-

¹ Samsung Card does not present current and non-current assets and liabilities as separate classifications in its statement of financial position.

² Income (loss) attributable to owners of the parent.

³ Ownership percentage includes common and preferred stock.

⁴ Consists of unrealized gains and losses and other differences.

- (2) A summary of condensed financial information of major joint ventures, details of adjustments from the book value of investments in major joint ventures, and dividends from major joint ventures as at and for the years ended December 31, 2016 and 2015, is as follows:

(In millions of Korean won)

Investee	Samsung Corning Advanced Glass	
	2016	2015
1. Condensed financial information		
Condensed statements of financial position		
Current assets	₩ 170,614	₩ 226,720
- Cash and cash equivalent	16,021	13,383
Non-current assets	209,881	183,313
Current liabilities	41,076	32,158
- Current financial liabilities ¹	14,779	14,111
Non-current liabilities	377	1,013
Condensed statements of comprehensive income		
Revenue	257,041	264,660
Depreciation and amortization	2,202	2,025
Interest income	1,433	1,182
Income tax expense	(8,841)	(2,100)
Loss from continuing operations ²	(37,531)	(15,619)
Other comprehensive income (loss) ²	-	452
Total comprehensive loss ²	(37,531)	(15,167)

¹ Trade payables, other payables, and provisions are excluded.

² Profit (loss) attributable to owners of the parent.

(In millions of Korean won)

Investee	Samsung Corning Advanced Glass	
	2016	2015
2. Details of adjustments from the book value of investments in joint ventures		
Net assets (a)	₩ 339,042	₩ 376,862
Ownership percentage (b)	50.0%	50.0%
Net assets of equity shares (a x b)	169,521	188,431
Intercompany transactions and others ¹	(36)	(60)
Book value of joint ventures	169,485	188,371
3. Dividends from joint ventures		
Dividends	₩ -	₩ -

¹ Consists of unrealized gains and losses and other differences.

(3) Profit (loss) amounts attributable to owners of the parent from associates and joint ventures which are not individually material for the years ended December 31, 2016 and 2015, are as follow:

<i>(In millions of Korean won)</i>	2016		2015					
	Investee	Associates	Joint ventures	Associates	Joint ventures			
Profit(Loss) from continuing operations ¹	₩	4,993	₩	(3,567)	₩	173	₩	1,834
Other comprehensive income (loss) ¹		(2,042)		(4,505)		620		(233)
Total comprehensive income (loss) ¹	₩	2,951	₩	(8,072)	₩	793	₩	1,601

¹ Income (loss) attributable to owners of the parent.

(F) Fair value of marketable investments in associates as at December 31, 2016 and 2015, is as follows:

<i>(In millions of Korean won and number of shares)</i>	2016		2015
	Number of shares held	Market value	Market value
Samsung Electro-Mechanics	17,693,084	898,809	1,112,895
Samsung SDS	17,472,110	2,437,359	4,437,916
Samsung Biologics	20,836,832	3,146,362	¹
Samsung SDI	13,462,673	1,467,431	²
Cheil Worldwide	29,038,075	457,350	²

¹ The Company does not disclose published price quotations of Samsung biologics for 2015 as Samsung Biologics listed its shares in 2016.

² Due to increase in shareholding ratio for the year ended December 31, 2016, Samsung SDI and Cheil Worldwide were reclassified from available-for-sale financial assets to investments in associates.

13. Property, Plant and Equipment

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

<i>(In millions of Korean won)</i>	2016					
	Land	Buildings and Structures	Machinery and Equipment	Construction In Progress	Other	Total
Balance as at January 1	₩7,848,432	₩22,453,296	₩43,077,879	₩10,970,052	₩2,127,451	₩86,477,110
Acquisition cost	7,848,432	32,850,110	147,315,096	10,970,052	6,303,834	205,287,524
Accumulated depreciation and impairment	-	(10,396,814)	(104,237,217)	-	(4,176,383)	(118,810,414)
Acquisitions and capital expenditures ¹	37,735	3,482,228	12,769,230	8,230,900	974,275	25,494,368
Business combinations	-	-	4,492	240	2,271	7,003
Depreciation	-	(1,631,089)	(16,814,751)	-	(866,680)	(19,312,520)
Disposals/Scrap	(28,331)	(26,384)	(80,552)	(5)	(66,684)	(201,956)
Impairment	-	(2,805)	(370,574)	-	(1,731)	(375,110)
Reclassification of assets held-for-sale	-	(11,922)	(20,131)	(7,660)	(45,156)	(84,869)
Other ²	11,843	112,502	(263,538)	(419,541)	27,749	(530,985)
Balance as at December 31	₩7,869,679	₩24,375,826	₩38,302,055	₩18,773,986	₩2,151,495	₩91,473,041
Acquisition cost	7,869,679	36,474,462	155,285,378	18,773,986	6,769,149	225,172,654
Accumulated depreciation and impairment	-	(12,098,636)	(116,983,323)	-	(4,617,654)	(133,699,613)

¹ The capitalized borrowing costs are ₩17,644 million and the interest rate used to calculate the borrowing costs eligible for capitalization is 0.95%.

² Other includes effects of changes in foreign currency exchange rates and effects of the offset related to government assistance.

<i>(In millions of Korean won)</i>	2015					
	Land	Buildings and Structures	Machinery and Equipment	Construction In Progress	Other	Total
Balance as at January 1	₩ 7,710,352	₩17,598,547	₩ 37,751,890	₩15,832,307	₩ 1,979,854	₩ 80,872,950
Acquisition cost	7,710,352	26,474,937	127,603,897	15,832,307	5,664,513	183,286,006
Accumulated depreciation and impairment	-	(8,876,390)	(89,852,007)	-	(3,684,659)	(102,413,056)
Acquisitions and capital expenditures ¹	318,540	6,389,558	22,233,244	(4,471,883)	1,048,603	25,518,062
Business combinations	246	1,757	3,498	47	29,228	34,776
Depreciation	-	(1,557,234)	(17,191,280)	-	(914,027)	(19,662,541)
Disposals/Scrap	(78,449)	(60,697)	(208,505)	(39)	(226,004)	(573,694)
Impairment	-	-	(78,240)	-	(454)	(78,694)
Other ²	(102,257)	81,365	567,272	(390,380)	210,251	366,251
Balance as at December 31	₩ 7,848,432	₩22,453,296	₩ 43,077,879	₩10,970,052	₩ 2,127,451	₩ 86,477,110
Acquisition cost	7,848,432	32,850,110	147,315,096	10,970,052	6,303,834	205,287,524
Accumulated depreciation and impairment	-	(10,396,814)	(104,237,217)	-	(4,176,383)	(118,810,414)

¹ The capitalized borrowing costs are ₩11,061 million and the interest rate used to calculate the borrowing costs eligible for capitalization is 1.12%.

² Other includes effects of changes in foreign currency exchange rates and effects of the offset related to government assistance.

(B) Details of depreciation of property, plant and equipment for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016	2015
Cost of sales	₩ 17,348,302	₩ 17,877,592
Selling and administrative expenses and others	1,964,218	1,784,949
Total	₩ 19,312,520	₩ 19,662,541

14. Intangible Assets

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

<i>(In millions of Korean won)</i>	2016					
	Intellectual property rights	Development cost	Membership	Goodwill	Other	Total
Balance as at January 1	₩ 1,342,104	₩ 1,697,545	₩ 184,915	₩ 910,539	₩ 1,261,208	₩ 5,396,311
Internally generated (development costs)	-	680,962	-	-	-	680,962
External acquisitions	275,288	-	802	4,922	85,694	366,706
Business combinations	70,199	-	-	503,045	63,674	636,918
Amortization	(234,666)	(748,573)	-	-	(417,206)	(1,400,445)
Sales/disposals	(49,700)	-	(1,005)	-	(2,257)	(52,962)
Impairment	-	(449,297)	-	(15,143)	(9,054)	(473,494)
Reclassification of assets held-for-sale	(41,032)	-	(89)	(41,650)	(41,800)	(124,571)
Other ¹	(12,429)	(19)	(224)	(18,133)	345,400	314,595
Balance as at December 31	₩ 1,349,764	₩ 1,180,618	₩ 184,399	₩ 1,343,580	₩ 1,285,659	₩ 5,344,020

¹ Other includes effects of changes in foreign currency exchange rates, and others.

<i>(In millions of Korean won)</i>	2015					
	Intellectual property rights	Development cost	Membership	Goodwill	Other	Total
Balance as at January 1	₩ 1,340,481	₩ 1,239,933	₩ 182,415	₩ 739,576	₩ 1,283,068	₩ 4,785,473
Internally generated (development costs)	-	1,143,059	-	-	-	1,143,059
External acquisitions	234,740	-	3,272	-	67,358	305,370
Business combinations	20,691	-	-	316,724	36,809	374,224
Amortization	(232,103)	(607,526)	-	-	(428,687)	(1,268,316)
Sales/disposals	(22,944)	-	(292)	-	(409)	(23,645)
Impairment	(21,957)	(76,703)	-	(178,696)	(7,275)	(284,631)
Other ¹	23,196	(1,218)	(480)	32,935	310,344	364,777
Balance as at December 31	₩ 1,342,104	₩ 1,697,545	₩ 184,915	₩ 910,539	₩ 1,261,208	₩ 5,396,311

¹ Other includes effects of changes in foreign currency exchange rates, and others.

(B) Goodwill

Goodwill is allocated to cash-generating units at the end of the reporting period. Details of goodwill as at December 31, 2016 and 2015, is as follows:

<i>(In millions of Korean won)</i>	2016		2015	
CE	₩	532,669	₩	449,127
IM		644,468		290,338
Semiconductor		82,400		86,754
DP		80,299		80,299
Other		3,744		4,021
Total	₩	1,343,580	₩	910,539

Goodwill impairment reviews are undertaken annually, and the recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management covering a five-year period. Cash flows beyond the five-year period are extrapolated using the estimated growth rates stated below. The growth rate does not exceed the long-term average growth rate for the industry. In addition, a constant growth rate assumption is used for perpetual cash flow calculation.

- (1) For the year ended December 31, 2016, The Company recognized an impairment loss of ₩15,143 million relating to the goodwill recorded by Samsung Electronics America (SEA) for which an associated inflow of economic benefits is no longer expected.
- (2) For the year ended December 31, 2015, pursuant to the results of the goodwill impairment reviews performed, the Company recognized an impairment of ₩79,277 million on goodwill recognized in LED division. The key assumptions used in calculating the value-in-use were as follows:

<i>(In percentage, %)</i>	Key assumptions
Sales growth rate	1.1
Perpetual growth rate	1.0
Pre-tax discount rate ¹	9.5

¹ Pre-tax discount rate applied to the cash flow projections.

The sales growth rate was determined on the basis of past performance and expectations of market fluctuations. The discount rate reflects specific risks related to the division.

(C) Details of amortization of intangible assets by line item for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Cost of sales	₩	959,545	₩	801,993
Selling and administrative expenses and others		440,900		466,323
Total	₩	1,400,445	₩	1,268,316

15. Loans

(A) Details of the carrying amounts of loans as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	Financial Institutions	Annual Interest Rates (%) as at December 31, 2016	2016	2015
Short-term borrowings				
Collateralized borrowings ¹	Woori Bank and others	0.1 ~ 12.1	₩10,929,768	₩ 8,738,448
Non-collateralized borrowings	Citibank and others	0.5 ~ 18.9	1,817,021	2,416,977
Total			₩12,746,789	₩11,155,425
Current portion of long-term borrowings				
Bank borrowings	US Bank and others	3.5 ~ 6.0	₩ 68	₩ 45
Financial lease liabilities ²	CSSD and others	1.1 ~ 15.7	18,599	15,652
Total			₩ 19,283	₩ 16,106
Long-term borrowings				
Bank borrowings	Citibank and others	LIBOR+0.4 ~ 19.8	₩ 1,179,111	₩ 193,598
Financial lease liabilities ²	CSSD and others	1.1 ~ 15.7	65,127	72,944
Total			₩ 1,244,238	₩ 266,542

¹ Collateralized borrowings are secured by trade receivables (Note 8 and 10).

² Leased property, plant and equipment were pledged as collateral (Note 19).

(B) Maturities of long-term borrowings outstanding as at December 31, 2016, are as follows:

<i>(In millions of Korean won)</i>	Long-term borrowings
For the Years Ending December 31	
2017	₩ 19,283
2018	293,805
2019	903,193
2020	8,144
2021 and thereafter	39,096
Total	₩ 1,263,521

16. Debentures

Details of the carrying amount of debentures as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Korean won denominated debentures (A)	₩	-	₩	-
Foreign currency denominated debentures (B)		58,542		1,230,448
Total	₩	58,542	₩	1,230,448

(A) Details of Korean won denominated debentures as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	Issue Date	Due Date	Annual Interest Rates (%) as at December 31, 2016	2016		2015	
Unsecured debentures	2011.11.17	2016.11.17	4.2	₩	-	₩	200,000
Less: Current portion					-		(200,000)
Less: Discounts					-		-
Total				₩	-	₩	-

The debenture has been issued by Samsung Display and will be repaid upon maturity.

(B) Details of foreign currency denominated debentures as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	Issue Date	Due Date	Annual Interest Rates (%) as at December 31, 2016	2016		2015	
US dollar denominated straight bonds ¹	1997.10.2	2027.10.1	7.7	₩	66,468 (US\$55 million)	₩	70,320 (US\$60 million)
US dollar denominated unsecured bonds ²	2012.4.10	2017.4.10	1.8		1,208,500 (US\$1,000 million)	1,172,000	(US\$1,000 million)
Less: Current portion					(1,214,543)		(5,860)
Less: Discounts					(1,883)		(6,012)
Total				₩	58,542	₩	1,230,448

¹ US dollar straight bonds are repaid annually for twenty years after a ten-year grace period from the date of issuance. Interest is paid semi-annually.

² Samsung Electronics America issued dollar denominated unsecured bonds. Repayment of these debentures is due on the date of maturity and interest is paid semi-annually.

(C) Maturities of debentures outstanding as at December 31, 2016, are as follows:

(In millions of Korean won)

For the Years Ending December 31	Debentures	
2017	₩	1,214,543
2018		6,043
2019		6,043
2020		6,043
2021 and thereafter		42,296
Total	₩	1,274,968

17. Net Defined Benefit Liabilities (Assets)

(A) Details of net defined benefit liabilities(assets) recognized on the statements of financial position as at December 31, 2016 and 2015, are as follows:

(In millions of Korean won)

	2016		2015	
Present value of funded defined benefit obligations	₩	7,167,929	₩	7,693,919
Present value of unfunded defined benefit obligations		110,885		138,860
Subtotal		7,278,814		7,832,779
Fair value of plan assets		(7,662,249)		(7,473,959)
Total	₩	(383,435)	₩	358,820

(B) The amounts recognized in the statements of profit or loss for the years ended December 31, 2016 and 2015 relating to defined benefit plans are as follows:

(In millions of Korean won)

	2016		2015	
Current service cost	₩	1,077,511	₩	1,147,127
Net interest cost		11,221		8,595
Other		2,319		3,324
Total	₩	1,091,051	₩	1,159,046

(C) The amounts recognized as expense of defined contribution plans for the years ended December 31, 2016 and 2015, are ₩105,971 million and ₩96,611 million, respectively.

(D) The pension expenses related to defined benefit plans recognized on the statements of profit or loss for the years ended December 31, 2016 and 2015, are as follows:

(In millions of Korean won)

	2016		2015	
Cost of sales	₩	469,172	₩	500,660
Selling and administrative expenses and others		621,879		658,386
Total	₩	1,091,051	₩	1,159,046

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

<i>(In millions of Korean won)</i>	2016		2015	
Balance as at January 1	₩	7,832,779	₩	7,542,247
Current service cost		1,077,511		1,147,127
Interest cost		298,003		322,296
Remeasurement:				
Actuarial gains or losses arising from changes in demographic assumptions		(41,608)		2,428
Actuarial gains or losses arising from changes in financial assumptions		(1,062,656)		(315,630)
Other		(295,125)		(165,799)
Benefits paid		(474,112)		(700,205)
Foreign exchange differences		1,846		2,568
Other ¹		(57,824)		(2,253)
Balance as at December 31	₩	7,278,814	₩	7,832,779

¹ Other includes effects of reclassification as assets held-for-sale.

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

<i>(In millions of Korean won)</i>	2016		2015	
Balance as at January 1	₩	7,473,959	₩	7,340,905
Expected return on plan assets		286,782		313,701
Remeasurement factor of plan assets		(123,794)		(137,262)
Contributions by employer		498,504		292,951
Benefits paid		(422,249)		(320,106)
Other ¹		(50,953)		(16,230)
Balance as at December 31	₩	7,662,249	₩	7,473,959

¹ Other includes effects of changes in foreign currency exchange rates and reclassification as assets held-for-sale.

Expected contributions to post-employment benefit plans for the year ending December 31, 2017, are ₩1,196,040 million.

(G) Plan assets as at December 31, 2016 and 2015, consist of as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Debt instruments	₩	7,635,150	₩	7,445,277
Other		27,099		28,682
Total	₩	7,662,249	₩	7,473,959

Plan assets are mostly invested in instruments which have a quoted price in active markets.

(H) The principal actuarial assumptions as at December 31, 2016 and 2015, are as follows:

	2016	2015
Discount rate	0.4 ~ 8.2 %	0.7 ~ 8.2 %
Salary growth rate (including the effects of inflation)	1.5 ~ 10.0 %	1.5 ~ 10.0 %

(I) The sensitivity of the defined benefit obligations as at December 31, 2016 and 2015, to changes in the weighted principal assumptions is as follows:

	2016	2015
Discount rate		
1% increases	90%	89%
1% decreases	111%	113%
Salary growth rate		
1% increases	111%	112%
1% decreases	90%	89%

(J) The weighted average duration of the defined benefit obligations is 10.48 years.

18. Provisions

Changes in provisions for the year ended December 31, 2016, are as follows:

<i>(In millions of Korean won)</i>	Warranty (A)	Royalty expenses (B)	Long-term incentives (C)	Other(D, E)	Total
Balance as at January 1	₩ 1,664,526	₩ 4,443,749	₩ 753,553	₩ 81,153	₩ 6,942,981
Charged (credited) to the statement of income	2,176,443	(1,047,548)	193,409	1,532,609	2,854,913
Payment	(2,087,361)	(1,898,987)	(220,402)	(231,577)	(4,438,327)
Other ¹	(5,751)	90,823	(10,308)	(478,788)	(404,024)
Balance as at December 31	₩ 1,747,857	₩ 1,588,037	₩ 716,252	₩ 903,397	₩ 4,955,543

¹ Other includes effects of changes in foreign currency exchange rates and reclassification as assets held-for sale.

- (A) The Company accrues warranty reserves for estimated costs of future service, repairs and recalls, based on historical experience and terms of warranty programs.
- (B) The Company recognizes provisions for the estimated royalty expenses that are under negotiation with counterparties. The timing and the amount of payment depend on the settlement of the negotiations.
- (C) The Company has a long-term incentive plan for its executives based on a three-year management performance criteria and recognizes a provision for the estimated incentive cost for the accrued period.
- (D) The Company records provisions for the estimated expenses occurring from discontinuing production and sale of products.

(E) The Company makes provisions for the estimated expense for emissions in excess of the permits held by the Company for the applicable years:

(1) Allocated amount of emission permits and estimated volume of emission as at December 31, 2016 are as follows:

<i>(In 10 thousand tons)</i>	2016	
Allocated emission permits		1,080
Estimated volume of emission		1,148

(2) Changes in the emission permits for the year ended December 31, 2016 are as follows:

<i>(In millions of Korean won)</i>	2016	
Balance as at January 1	₩	7,260
Addition		12,907
Used		(5,100)
Balance as at December 31	₩	15,067

(3) Changes in the provisions for emissions liabilities during the year ended December 31, 2015 are as follows:

<i>(In millions of Korean won)</i>	2016	
Balance as at January 1	₩	7,947
Charged to the statement of income		9,845
Payment		(5,100)
Balance as at December 31	₩	12,692

19. Commitments and Contingencies

(A) Guarantees

Details of guarantees of debt provided by the Company as at December 31, 2016 and 2015 are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Guarantees of debt for housing rental ¹	₩	56,752	₩	64,753

¹ Represents the maximum amount of debt guarantee which was provided for employees who took debt from financial institutions in order to finance employee housing rental.

In addition to the guarantees described above, the Company provides guarantees for borrowings executed by Medicapital from Dime Investment and two other companies in the amount of ₩ 2,264 million. In consideration of possibility to bear the liability, the Company recognizes financial guarantee liabilities

(B) Leases

The Company leases certain property, plant and equipment under various finance lease arrangements and recognizes the related amounts as lease assets or liabilities. Assets with a net book value of ₩87,106 million (2015: ₩96,216 million) are treated as finance lease agreements and are included in property, plant and equipment. Depreciation expense for the finance lease assets amounted to ₩13,495 million for the year ended December 31, 2016 (2015: ₩12,916 million). Leased property, plant and equipment were pledged as collateral (Note 15).

The minimum lease payments under finance lease agreements and their present value as at December 31, 2016 and 2015, are as follows:

	2016		2015	
	Minimum Lease payments	Present values	Minimum Lease payments	Present values
Within one year	₩ 25,928	₩ 18,645	₩ 23,391	₩ 15,652
From one year to five years	56,732	31,461	60,405	32,895
More than five years	56,249	33,620	69,194	40,049
Total	₩ 138,909	₩ 83,726	₩ 152,990	₩ 88,596
Present value adjustment	(55,183)		(64,394)	
Finance lease payable	₩ 83,726		₩ 88,596	

(C) Litigation

- (1) The litigation with Apple Inc. (“Apple”) is ongoing in the United States as at the reporting date. On August 24, 2012, the jury determined that the Company partially infringed Apple’s design and utility patent and should pay damages to Apple. However, On March 1, 2013, the Judge ordered a new trial for a certain portion of the damages, ruling that it was originally miscalculated. On November 21, 2013 a jury verdict was rendered on the recalculated damages amount, and on March 6, 2014, the Judge made a final judgement to confirm the total damages and deny Apple’s bid for a permanent injunction against the Company. The Company appealed the decision on the damages amount on March 7, 2014, and a hearing on the appeal was held on December 4, 2014. On May 18, 2015, the appeals court affirmed in part and reversed in part a previous decision, and remanded it. On June 17, 2015, the Company petitioned for an en banc rehearing regarding the design infringement, and on August 13, 2015, the federal court dismissed the Company’s request. After the remand procedure, the Court of First Trial announced a partial final judgment on the appeals on September 18, 2015. On October 13, 2015, the immediate appeal was dismissed and on November 19, 2015, the Federal Circuit Court denied an en banc rehearing request. On December 11, 2015, the Company made payment for the damages. On December 14, 2015, the Company filed an appeal to the Supreme Court regarding the design patent infringement ruling. Thereafter, the two parties have submitted in writing to the District court details of supplemental damages incurred in connection with the ruling. On March 21, 2016, the Supreme Court granted the design-related appeals filed by the Company and on March 22, 2016, the Court of First Trial ordered all proceedings for review of damages scheduled to commence March 28, 2016 suspended until the sentence rendered by the Supreme Court was confirmed. On June 1, 2016, the Company submitted the draft document in the design-related appeal, and on June 28, 2016, several companies and organizations presented the document in support of the Company. Apple filed a dissenting document on July 29, 2016, and on August 5, 2016, several companies and organizations presented an advocative document. On August, 29, 2016, the Company submitted a rebuttal letter. Oral statements for the appeal were held at the Supreme Court on October 11, 2016. On December 6, 2016, the Supreme Court issued a ruling citing the Company appeal and returned the case to the Court of Appeals. On February 7, 2017, the Court of Appeals reversed the case to the Court of First Trial.

Additionally, on May 5, 2014, the jury in another ongoing patent lawsuit determined that the Company partially infringed Apple’s utility patent and should pay damages to Apple. On November 25, 2014, the first trial judgment was pronounced to confirm the jury’s verdict. The Company appealed on November 25, 2014 and the rehearing was held on January 5, 2016. On August 27, 2014, the Judge denied Apple’s request for a permanent injunction on the Company’s product. However, on September 17, 2015, the appellate court reversed and remanded a previous decision and on December 16, 2015, the Federal Circuit Court denied an en banc hearing request of the Company. On January 18, 2016, the Court of First instance ordered a permanent injunction on the Company’s product. The Company asserts that the Company’s product was designed around the patent and thus has not infringed the patent. The final conclusion and the effect of the patent lawsuits with Apple are uncertain as at the reporting date.

In August 2014, the Company and Apple reached an agreement to withdraw from ongoing litigation in all regions other than the United States, and the Company has withdrawn all non-United States based lawsuits.

- (2) The Company is involved in claims, disputes, and investigations conducted by regulatory bodies at the reporting date, including civil claims from some overseas buyers for price-fixing related to the sale of TFT-LCD. Although the outflow of

resources and timing of these matters are uncertain, the Company believes the outcome will not have a material impact on the financial condition of the Company.

- (3) In addition, during the normal course of business with numerous companies, the Company has been involved in various claims, disputes, and investigations conducted by regulatory bodies. Although the outflow of resources and timing of these matters are uncertain, the Company believes the outcome will not have a material impact on the financial condition of the Company.

(D) Other commitments

As at December 31, 2016, the Company has a trade financing agreement, trade notes receivable discounting facilities, and loan facilities with accounts receivable pledged as collateral with 7 financial institutions, including Woori Bank, with a combined limit of up to ₩10,116,485 million. In addition, the Company has a trade financing agreement (up to ₩865,000 million and US\$8,253 million), loan facilities with accounts receivable pledged as collateral and other financial agreements (up to ₩1,638,865 million and JP ¥ 180,000 million) with 23 financial institutions, including Shinhan Bank.

Samsung Display Co., Ltd entered into a collaboration agreement with Corning Incorporated on October 23, 2013 that includes a condition relating to mutual loss preservation which can cause inflows or outflows of future economic benefits and the Company has recorded an estimated liability as a result of this commitment as at December 31, 2016 (Notes 6 and 31).

20. Share Capital

The Company's total number of authorized shares is 500,000,000 shares (₩5,000 per share). The Company has issued 140,679,337 shares of common stock and 20,513,427 shares of preferred stock as at December 31, 2016, excluding retired shares. Due to the retirement of shares, the total par value of the shares issued is ₩805,964 million (common stock ₩703,397 million, preferred stock ₩102,567 million), which does not agree with paid-in capital of ₩897,514 million.

Changes in the number of shares outstanding for the years ended December 31, 2016 and 2015, are as follows:

<i>(In number of shares)</i>	Preferred stock	Common stock
Balance as at January 1, 2015	19,722,484	130,204,596
Disposal of treasury stock through exercise of stock options	-	5,000
Acquisition of treasury stock	(1,174,651)	(2,812,748)
Balance as at December 31, 2015	18,547,833	127,396,848
Acquisition of treasury stock	(1,264,099)	(4,699,197)
Balance as at December 31, 2016	17,283,734	122,697,651

The Company retired 6,620,000 shares of common stock and 2,320,000 shares of preferred stock of which acquisition cost is ₩11,399,991 million in total on the basis of the Board of Directors' approval on October 29, 2015, January 28, 2016, April 28, 2016 and July 28, 2016.

21. Retained Earnings

Retained earnings as at December 31, 2016 and 2015, consist of as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Appropriated	₩	143,007,192	₩	131,539,594
Unappropriated		50,079,125		53,592,420
Total	₩	193,086,317	₩	185,132,014

22. Dividends

Details of interim and year-end dividends are as follows:

(A) Interim dividends (Record date: June 30, 2016 and 2015)

<i>(In millions of Korean won and number of shares)</i>		2016		2015	
Number of shares eligible for dividends	Common stock	123,958,561 shares		129,312,651 shares	
	Preferred stock	17,580,920 shares		19,603,734 shares	
Dividend rate		20%		20%	
Dividend amount	Common stock	₩	123,958	₩	129,313
	Preferred stock		17,581		19,603
Total		₩	141,539	₩	148,916

(B) Year-end dividends (Record date: December 31, 2016 and 2015)

<i>(In millions of Korean won and number of shares)</i>		2016		2015	
Number of shares eligible for dividends	Common stock	122,697,651 shares		127,396,848 shares	
	Preferred stock	17,283,734 shares		18,547,833 shares	
Dividend rate	Common stock	550%		400%	
	Preferred stock	551%		401%	
Dividend amount	Common stock	₩	3,374,185	₩	2,547,937
	Preferred stock		476,167		371,884
Total		₩	3,850,352	₩	2,919,821

23. Other Components of Equity

Other components of equity as at December 31, 2016 and 2015, consist of as follows::

<i>(In millions of Korean won)</i>	2016	2015
Treasury stock	₩ (9,750,326)	₩ (13,442,379)
Unrealized gains on available-for-sale financial assets	1,390,624	1,478,330
Share of other comprehensive income of associates and joint ventures	94,694	362,342
Foreign currency translation	(2,902,076)	(4,091,202)
Remeasurement of net defined benefit liabilities	(811,529)	(1,737,809)
Other	44,027	(149,733)
Total	₩ (11,934,586)	₩ (17,580,451)

The Company repurchases registered common stock and non-voting preferred stock for the purpose of stock price stability and increase in shareholder value. The Company recognizes the repurchase amount in other components of equity. Treasury stock as at December 31, 2016 and 2015, consists of as follows::

<i>(In millions of Korean won and number of shares)</i>	2016		2015	
	Preferred Stock	Common Stock	Preferred Stock	Common Stock
Number of shares	3,229,693 shares	17,981,686 shares	4,285,594 shares	19,902,489 shares
Acquisition cost	₩ 878,817	₩ 8,871,509	₩ 2,064,840	₩ 11,377,539

24. Expenses by Nature

Expenses by nature for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Changes in finished goods and work in process	₩	626,040	₩	(1,310,244)
Raw materials used and merchandise purchased		73,512,658		77,774,274
Wages and salaries		19,269,035		18,366,965
Pension		1,197,022		1,255,657
Depreciation		19,312,520		19,662,541
Amortization		1,400,445		1,268,316
Welfare		3,495,336		3,852,929
Commission and service charges		8,002,513		8,439,586
Other expenses		45,810,504		44,930,016
Total¹	₩	172,626,073	₩	174,240,040

¹ Equal to the sum of cost of sales and selling and administrative expenses on the consolidated statements of income.

25. Selling and Administrative Expenses

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

<i>(In millions of Korean won)</i>	2016		2015	
1) Selling and Administrative Expenses				
Wages and salaries	₩	5,687,494	₩	5,542,701
Pension		288,767		295,652
Commissions and service charges		8,002,513		8,439,586
Depreciation		780,223		714,883
Amortization		221,593		255,708
Advertising		4,432,109		3,852,478
Sales promotion		7,080,554		7,101,937
Transportation		3,334,693		3,433,215
Warranty		3,752,603		2,849,567
Other		4,656,428		4,566,500
2) Research and development expenses				
Total expenses		14,792,343		14,848,754
Capitalized expenses		(680,962)		(1,143,059)
Total	₩	52,348,358	₩	50,757,922

26. Other Non-Operating Income and Expense

Details of other non-operating income for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Dividend income	₩	239,899	₩	183,730
Rental income		107,664		83,400
Gain on disposal of investments		2,053,744		262,073
Gain on disposal of property, plant and equipment		193,020		135,564
Gain on disposal of assets as held-for-sale		69,924		207,796
Other		574,010		813,384
Total	₩	3,238,261	₩	1,685,947

Details of other non-operating expense for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Loss on disposal of property, plant and equipment	₩	126,516	₩	161,510
Donations		407,087		446,391
Impairment losses on investments		341,790		1,890,097
Impairment losses on intangible assets		473,494		284,631
Other		1,114,927		940,805
Total	₩	2,463,814	₩	3,723,434

27. Financial Income and Costs

(A) Details of financial income and costs for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Financial income				
Interest income				
Interest income from loans and receivables	₩	1,475,357	₩	1,665,521
Interest income from available-for-sale financial assets		28,961		95,636
Foreign exchange differences		9,052,495		7,765,797
Gains from derivatives		828,832		987,925
Total	₩	11,385,645	₩	10,514,879

<i>(In millions of Korean won)</i>	2016		2015	
Financial costs				
Interest expense:				
Interest expense from financial liabilities measured at amortized cost	₩	351,009	₩	567,181
Other financial liabilities		236,822		209,330
Foreign exchange differences		9,232,249		8,275,571
Losses from derivatives		886,533		979,689
Total	₩	10,706,613	₩	10,031,771

(B) The Company recognizes foreign exchange gains and losses arising from foreign currency transactions and translation as financial income and costs.

28. Income Tax

(A) Income tax expense for the years ended December 31, 2016 and 2015, consists of as follows:

<i>(In millions of Korean won)</i>	2016	2015
Current taxes:		
Current tax on profits for the year	₩ 6,161,609	₩ 5,707,937
Adjustments in respect to prior years	(244,791)	1,077,780
Deferred taxes:		
Changes in carryforward of unused tax credits	(166,206)	35,128
Changes in temporary differences	1,869,700	(282,458)
Changes in carryforward of unused tax losses	397,329	321,583
Other	(30,081)	41,369
Items charged directly to equity	-	(488)
Income tax expense	₩ 7,987,560	₩ 6,900,851

(B) The tax on the Company's profit before tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of the Company as follows:

<i>(In millions of Korean won)</i>	2016	2015
Income before tax	₩ 30,713,652	₩ 25,960,995
Tax calculated at weighted average of applicable tax rates ¹	7,009,003	6,880,212
Tax effects of:		
Permanent differences	(687,901)	25,886
Temporary differences for which no deferred income tax was recognized	(12,825)	(55,186)
Tax credits	(608,218)	(824,893)
Results of interest in subsidiaries, associates and joint ventures	2,288,893	560,668
Impact of changes in tax rates	1,280	6,291
Other	(2,672)	307,873
Income tax expense	₩ 7,987,560	₩ 6,900,851

¹ The weighted average of statutory tax rates are applied to the respective profits of the Company applicable to each tax authority as at December 31, 2016 and 2015.

(C) Changes in deferred income tax assets and liabilities resulting from the tax effect of temporary differences for the years ended December 31, 2016 and 2015, are as follows:

(1) 2016

<i>(In millions of Korean won)</i>	Temporary Differences			Deferred Income Tax Assets (Liabilities)		
	Balance as at January 1	Increase (Decrease)	Balance as at December 31	Balance as at January 1	Increase (Decrease)	Balance as at December 31
Deferred tax arising from temporary differences						
Special reserves appropriated for tax purposes	₩ (7,368)	₩ 7,000	₩ (368)	₩ (1,783)	₩ 1,694	₩ (89)
Revaluation of land	(3,455,958)	11,704	(3,444,254)	(836,342)	2,832	(833,510)
Investments in subsidiaries, associates and joint ventures ¹	(41,729,872)	(17,540,434)	(59,270,306)	(5,173,897)	(2,362,840)	(7,536,737)
Depreciation	2,627,073	281,473	2,908,546	651,988	(7,862)	644,126
Accrued income	(309,545)	51,235	(258,310)	(71,086)	(7,885)	(78,971)
Provisions and accrued expenses	13,322,516	136,265	13,458,781	3,519,564	(286,776)	3,232,788
Foreign currency translation	221,793	(56,235)	165,558	58,567	(13,960)	44,607
Asset impairment losses	652,768	574,585	1,227,353	160,975	140,231	301,206
Other	(193,612)	1,673,283	1,479,671	(14,734)	664,866	650,132
Subtotal	₩ (28,872,205)	₩ (14,861,124)	₩ (43,733,329)	₩ (1,706,748)	(1,869,700)	₩ (3,576,448)
Deferred tax arising from carryforwards						
Unused tax losses	₩ 6,178,327	₩ (1,486,967)	₩ 4,691,360	₩ 1,495,976	₩ (397,329)	₩ 1,098,647
Unused tax credits	631,362	242,093	873,455	555,041	166,206	721,247
Deferred tax recognized in other comprehensive income						
Valuation of available-for-sale financial instruments	₩ (1,976,829)	₩ 6,996	₩ (1,969,833)	₩ (453,192)	₩ 6,436	₩ (446,756)
Actuarial valuation	2,299,154	(1,275,595)	1,023,559	543,239	(311,993)	231,246
Subtotal	₩ 322,325	₩ (1,268,599)	₩ (946,274)	₩ 90,047	₩ (305,557)	₩ (215,510)
Deferred tax assets						₩ 5,321,450
Deferred tax liabilities						(7,293,514)
Total						₩ (1,972,064)

¹ Deferred tax assets were not recognized if it is probable that the temporary differences will not reverse in the foreseeable future for investments in subsidiaries, associates and joint ventures.

(2) 2015

<i>(In millions of Korean won)</i>	Temporary Differences			Deferred Income Tax Assets (Liabilities)		
	Balance as at January 1	Increase (Decrease)	Balance as at December 31	Balance as at January 1	Increase (Decrease)	Balance as at December 31
Deferred tax arising from temporary differences						
Special reserves appropriated for tax purposes	₩ (14,368)	₩ 7,000	₩ (7,368)	₩ (3,477)	₩ 1,694	₩ (1,783)
Revaluation of land	(3,475,692)	19,734	(3,455,958)	(841,117)	4,775	(836,342)
Investments in subsidiaries, associates and joint ventures ¹	(31,469,156)	(10,260,716)	(41,729,872)	(4,242,098)	(931,799)	(5,173,897)
Depreciation	2,609,052	18,021	2,627,073	643,194	8,794	651,988
Accrued income	(535,671)	226,126	(309,545)	(132,237)	61,151	(71,086)
Provisions and accrued expenses	11,432,901	1,889,615	13,322,516	2,958,810	560,754	3,519,564
Foreign currency translation	98,788	123,005	221,793	25,516	33,051	58,567
Asset impairment losses	579,655	73,113	652,768	141,377	19,598	160,975
Other	(2,233,868)	2,040,256	(193,612)	(539,174)	524,440	(14,734)
Subtotal	₩ (23,008,359)	₩ (5,863,846)	₩ (28,872,205)	₩ (1,989,206)	₩ 282,458	₩ (1,706,748)
Deferred tax arising from carryforwards						
Unused tax losses	₩ 7,465,339	₩(1,287,012)	₩ 6,178,327	₩ 1,817,559	₩ (321,583)	₩ 1,495,976
Unused tax credits	739,448	(108,086)	631,362	590,169	(35,128)	555,041
Deferred tax recognized in other comprehensive income						
Valuation of available-for-sale financial instruments	₩ (2,549,385)	₩ 572,556	₩ (1,976,829)	₩ (610,738)	₩ 157,546	₩ (453,192)
Actuarial valuation	2,640,893	(341,739)	2,299,154	621,000	(77,761)	543,239
Subtotal	₩ 91,508	₩ 230,817	₩ 322,325	₩ 10,262	₩ 79,785	₩ 90,047
Deferred tax assets						₩ 5,589,108
Deferred tax liabilities						(5,154,792)
Total						₩ 434,316

¹ Deferred tax assets were not recognized if it is probable that the temporary differences will not reverse in the foreseeable future for investments in subsidiaries, associates and joint ventures.

The Company periodically assesses its ability to recover deferred tax assets. In the event of a significant uncertainty regarding the Company's ultimate ability to recover such assets, deferred 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 utilized.

Temporary differences whose deferred tax effects were not recognized due to uncertainty regarding the ultimate realizability of such assets as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016	2015
Unused tax losses ¹	₩ 58,969	₩ 34,899
Unused tax credits ¹	31,205	22,584

¹Expiry dates of unused tax losses and unused tax credits for which no deferred tax asset is recognized in the balance sheet are as follows:

<i>(In millions of Korean won)</i>	2017	2018	2019	2020 and after
Undisposed accumulated deficit			-	₩ 58,969
Tax credit carryforwards	4,789	1,704	19,279	5,433

(D) The liquidity analysis of deferred tax assets and deferred tax liabilities for the year ended December 31, 2016 and 2015 is as follows:

<i>(In millions of Korean won)</i>	2016	2015
Deferred tax assets		
Deferred tax assets to be recovered within 12 months	₩ 3,066,577	₩ 2,401,806
Deferred tax assets to be recovered after more than 12 months	2,254,873	3,187,302
Subtotal	5,321,450	5,589,108
Deferred tax liabilities		
Deferred tax liabilities to be recovered after more than 12 months	(7,293,514)	(5,154,792)
Subtotal	(7,293,514)	(5,154,792)
Total	₩ (1,972,064)	₩ 434,316

29. Earnings per Share

(A) Basic earnings per share

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

(1) Common stock

<i>(In millions of Korean won, except per share data, and thousands of number of shares)</i>	2016	2015
Profit attributable to owners of the Parent company	₩ 22,415,655	₩ 18,694,628
Profit available for common stock	19,647,199	16,317,275
Weighted-average number of common shares outstanding	124,375	129,190
Basic earnings per share	₩ 157,967	₩ 126,305

(2) Preferred stock

<i>(In millions of Korean won, except per share data, and thousands of number of shares)</i>	2016	2015
Profit attributable to owners of the Parent company	₩ 22,415,655	₩ 18,694,628
Profit available for common stock	2,768,456	2,377,353
Weighted-average number of preferred shares outstanding	17,692	19,519
Basic earnings per preferred share	₩ 156,480	₩ 121,798

(B) Diluted earnings per share

The Company had one category of potentially dilutive common shares: stock options. Dilutive earnings per share is calculated by adjusting the weighted average number of common shares outstanding to assume conversion of all dilutive potential common shares. All remaining stock options were exercised during the year ended December 31, 2015, and as a result, basic earnings per share and diluted earnings per share are the same for the year ended December 31, 2016.

Diluted earnings per share for the years ended December 31, 2016 and 2015, is calculated as follows:

(1) Common stock

<i>(In millions of Korean won, except per share data, and thousands of number of shares)</i>	2016	2015
Profit available for common stock and common stock equivalents	₩ 19,647,199	₩ 16,317,276
Weighted-average number of shares of common stock and dilutive potential common stock	124,375	129,192
Diluted earnings per share	₩ 157,967	₩ 126,303

(2) Preferred stock

<i>(In millions of Korean won, except per share data, and thousands of number of shares)</i>	2016	2015
Net income available for preferred stock and preferred stock equivalents	₩ 2,768,456	₩ 2,377,352
Weighted-average number of shares of preferred stock and dilutive potential preferred stock	17,692	19,519
Diluted earnings per preferred share	₩ 156,480	₩ 121,798

30. Cash Generated from Operations

(A) Adjustments and changes in assets and liabilities arising from operating activities for the years ended December 31, 2016 and 2015, are as follows:

- Adjustments

<i>(In millions of Korean won)</i>	2016		2015	
Adjustments for:				
Income tax expense	₩	7,987,560	₩	6,900,851
Financial income		(3,521,050)		(3,339,267)
Financial costs		2,500,020		2,466,042
Severance and retirement benefits		1,197,022		1,255,657
Depreciation		19,312,520		19,662,541
Amortization		1,400,445		1,268,316
Bad debt expenses		701,335		388,792
Dividend income		(239,899)		(183,730)
Gain on valuation of equity method investments		(19,501)		(1,101,932)
Gain on disposal of property, plant and equipment		(193,020)		(135,564)
Loss on disposal of property, plant and equipment		126,516		161,510
Obsolescence and scrapping of inventories		2,959,042		963,637
Gain on disposal of investments		(2,053,744)		(262,073)
Gain on disposal of assets as held-for-sale		(69,924)		(207,796)
Impairment losses on investments		341,790		1,890,097
Impairment losses on intangible assets		473,494		284,631
Other income/expense		(148,135)		(400,741)
Adjustments, total	₩	30,754,471	₩	29,610,971

- Changes in assets and liabilities arising from operating activities

<i>(In millions of Korean won)</i>	2016		2015	
Changes in assets and liabilities:				
Decrease in trade receivables	₩	1,473,776	₩	207,676
(Increase) decrease in other receivables		(160,500)		206,245
Decrease (increase) in advances		145,053		(40,938)
(Increase) decrease in prepaid expenses		(46,026)		611,089
Increase in inventories		(2,830,602)		(2,616,203)
Increase (decrease) in trade payables		200,240		(1,871,175)
Increase in other payables		1,144,756		650,861
Decrease in advances received		(105,460)		(76,233)
Decrease in withholdings		(302,901)		(163,124)
Increase (decrease) in accrued expenses		1,136,440		(1,243,649)
(Decrease) increase in provisions		(1,604,824)		503,661
Payment of severance benefits		(474,112)		(700,205)
(Increase) decrease in plan assets		(76,255)		27,155
Other		319,462		(177,192)
Changes in net working capital, total	₩	(1,180,953)	₩	(4,682,032)

(B) The Company's statements of cash flows are prepared using indirect method. Significant transactions not affecting cash flows for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Valuation of available-for-sale financial assets	₩	798,698	₩	(1,218,782)
Reclassification of construction in progress and machinery in transit to property, plant and equipment		17,131,444		29,846,423
Reclassification of available-for-sale financial assets to assets held-for-sale		-		77,073
Valuation of investments in associates and joint ventures		36,152		12,857
Reclassification of current maturities of long-term borrowings		19,283		16,106
Reclassification of current maturities of bonds		1,214,543		205,860
Reclassification of available-for-sale financial assets to investment in associates		1,742,242		-
Reclassification of Printing Solutions division to held-for-sale		508,228		-

(C) The Company reported cash receipts and payments arising from transactions occurring frequently and short-term financial instruments, loans, and borrowings on a net basis.

31. Financial Risk Management

The Company's financial risk management focuses on minimizing market risk, credit risk, and liquidity risk arising from operating activities. To mitigate these risks, the Company implements and operates a financial risk policy and program that closely monitors and manages such risks.

The finance team mainly carries out the Company's financial risk management. With the cooperation of the Company's divisions, domestic and foreign subsidiaries, the finance team periodically measures, evaluates and hedges financial risk and also establishes and implements the global financial risk management policy.

Also, financial risk management officers are dispatched to the regional headquarters of each area including the United States, United Kingdom, Singapore, China, Brazil and Russia to operate the local finance center in accordance with global financial risk management.

The Company's financial assets that are under financial risk management are comprised of cash and cash equivalents, short-term financial instruments, available-for-sale financial assets, trade and other receivables and other financial assets. The Company's financial liabilities under financial risk management are comprised of trade and other payables, borrowings, debentures, and other financial liabilities.

(A) Market risk

(1) Foreign exchange risk

The Company is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the United States, European Union, South America, Japan and other Asian countries. Revenues and expenses arise from foreign currency transactions and exchange positions, and the most widely used currencies are the US Dollar, EU's EURO, Japanese Yen and Chinese Yuan. Foreign exchange risk management of the Company is carried out by both SEC and its subsidiaries. To minimize foreign exchange risk arising from operating activities, the Company's foreign exchange management policy requires normal business transactions to be in local currency or for the cash-in currency to be matched up with the cash-out currency. The Company's foreign exchange risk management policy also defines foreign exchange risk, measuring period, controlling responsibilities, management procedures, hedging period and hedge ratio.

The Company limits all speculative foreign exchange transactions and operates a system to manage receivables and payables denominated in foreign currency. It evaluates, manages and reports foreign currency exposures to receivables and payables.

The foreign currency exposure to financial assets and liabilities of a 5% currency rate change against the Korean won are presented below:

<i>(In millions of Korean won)</i>	2016		2015	
	Increase	Decrease	Increase	Decrease
USD	₩ 222,149	₩ (222,149)	₩ 143,266	₩ (143,266)
EUR	138,084	(138,084)	19,626	(19,626)
JPY	(61,294)	61,294	(15,120)	15,120

(2) Price risk

The Company's investment portfolio consists of direct and indirect investments in equity securities classified as available-for-sale, which is in line with the Company's strategy.

As at December 31, 2016 and 2015, a price fluctuation in Company relation to marketable equity securities by 1% would result in changes in other comprehensive income (before income tax) of ₩23,622 million and ₩46,748 million, respectively.

(3) Interest rate risk

Risk of changes in interest rates for floating interest rate financial instruments is defined as the risk that the fair value of components of the statement of financial position, and future cash flows of interest income (expenses) of a financial instrument, will fluctuate because of changes in market interest rates. The Company is exposed to interest rate risk mainly through interest bearing liabilities and assets. The Company's position with regard to interest rate risk exposure is mainly driven by its floating interest rate debt obligations and interest-bearing deposits. The Company implemented policies and operates to minimize uncertainty arising from changes in interest rates and finance costs.

In order to avoid interest rate risk, the Company maintains minimum external borrowings by facilitating cash pooling systems on a regional and global basis. The Company manages exposed interest rate risk via periodic monitoring and handles risk factors on a timely basis.

The sensitivity risk of the Company is determined based on the following assumptions:

- Changes in market interest rates that could impact the interest income and expenses of floating interest rate financial instruments

Based on the above assumption, changes to profit and net equity as a result of 1% increases in interest rates on borrowings are presented below:

<i>(In millions of Korean won)</i>	2016		2015	
	Increase	Decrease	Increase	Decrease
Financial assets	₩ 64,803	₩ (64,803)	₩ 81,962	₩ (81,962)
Financial liabilities	(9,123)	9,123	(22,314)	22,314
Net effect	₩ 55,680	₩ (55,680)	₩ 59,648	₩ (59,648)

(B) Credit risk

Credit risk arises during the normal course of transactions and investing activities where clients or other parties fail to discharge an obligation. The Company monitors and sets the client's and counterparty's credit limit on a periodic basis based on the client's and counterparty's financial conditions, default history and other important factors. Adequate insurance coverage is maintained for accounts receivables related to trading partners situated in higher risk countries.

Credit risk can arise from transactions with financial institutions which include financial instrument transactions such as cash and cash equivalents, savings, and derivative instruments. To minimize such risk, the Company transacts only with banks which have strong international credit rating (S&P A and above), and all new transactions with financial institutions with no prior transaction history are approved, managed and monitored by the Company's finance team and the local finance center. The Company requires separate approval for contracts with restrictions.

The Company estimates that its maximum exposure to credit risk is the carrying value of its financial assets, net of impairment losses.

(C) Liquidity risk

Due to large investments made by the Company, maintaining adequate levels of liquidity risk is critical. The Company strives to achieve this goal by periodically forecasting its capital balance, estimating required cash levels, and managing income and expenses.

The Company manages its liquidity risk by periodically forecasting projected cash flows. If abnormal signs are identified, the Company works with the local finance center and provides liquidity support by utilizing a globally integrated finance structure, such as Cash Pooling. In addition, the Company maintains a liquidity management process which provides additional financial support by the local finance center and the Company. The Cash Pooling program allows sharing of surplus funds among entities and contributes to minimizing liquidity risk and strengthening the Company's competitive position by reducing capital operation expenses and financial expenses.

In addition, the Company mitigates liquidity risk by contracting with financial institutions with respect to bank overdrafts and foreign trade finance, and by providing payment guarantees to subsidiaries. For large scale facility investments, liquidity risk is minimized by utilizing internal reserves and long term borrowings according to the capital injection schedule.

The following table is an undiscounted cash flow analysis for financial liabilities that are presented on the statements of financial position according to their remaining contractual maturity.

<i>(In millions of Korean won)</i>	2016				
	Less than 3 months	4-6 months	7-12 months	1-5 years	More than 5 years
Financial liabilities	₩ 40,918,912	₩ 1,588,798	₩ 150,744	₩ 4,346,200	₩ 50,073

<i>(In millions of Korean won)</i>	2015				
	Less than 3 months	4-6 months	7-12 months	1-5 years	More than 5 years
Financial liabilities	₩ 32,275,387	₩ 412,196	₩ 1,331,166	₩ 3,057,099	₩ 476,432

The table above shows the Company's financial liabilities based on the remaining period at the statement of financial position date until the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows. The Company's trading portfolio of derivative instruments has been included at its fair value of ₩74,697 million (December 31, 2014: ₩38,829 million). These contracts are managed on a net-fair value basis rather than by maturity date. Net settled derivatives consist of

forward exchange contracts used by the Company to manage the exchange rate profile.

The maximum liquidity risk exposure from those other than the above financial liabilities (e.g., payment guarantees for affiliated companies and performance bonds) as at December 31, 2016 is ₩59,016 million (December 31, 2015: ₩67,017 million).

(D) Capital risk management

The purpose of capital management is to maintain a sound capital structure. The Company monitors capital on the basis of the ratio of total liabilities to total equity. This ratio is calculated by dividing total liabilities by total equity in the consolidated financial statements.

The Company's capital risk management policy has not changed since the fiscal year ended December 31, 2015. As at December 31, 2016, the Company has maintained an A+ and A1 credit rating from S&P and Moody's, respectively, on its long term debt.

The total liabilities to equity ratios as at December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	2016	2015
Total liabilities	₩ 69,211,291	₩ 63,119,716
Total equity	192,963,033	179,059,805
Total liabilities to equity ratio	35.9%	35.3%

(E) Fair value estimation

(1) Carrying amounts and fair values of financial instruments by category as at December 31, 2016 and 2015 are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Cash and cash equivalents	₩ 32,111,442	¹	₩ 22,636,744	¹
Short-term financial instruments	52,432,411	¹	44,228,800	¹
Short-term available-for-sale financial assets	3,638,460	3,638,460	4,627,530	4,627,530
Trade receivables	24,279,211	¹	25,168,026	¹
Long-term available-for-sale financial assets ²	6,804,276	5,826,507	8,332,480	8,225,687
Other ³	3,459,863	919,071	3,546,434	1,070,839
Total financial assets	₩ 122,725,663		₩ 108,540,014	
Financial liabilities				
Trade payables	₩ 6,485,039	¹	₩ 6,187,291	¹
Short-term borrowings	12,746,789	¹	11,155,425	¹
Other payables	10,225,271	¹	7,625,490	¹
Current portion of long-term liabilities	1,232,817	¹	221,548	¹
Debentures	58,542	76,129	1,230,448	1,261,783
Long-term borrowings	1,244,238	1,225,455	266,542	242,603
Long-term other payables	3,009,659	3,022,821	2,719,674	2,581,985
Other ³	11,942,469	74,697	7,947,398	38,829
Total financial liabilities	₩ 46,944,824		₩ 37,353,816	

¹ Assets and liabilities whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

² Amount measured at cost (2016: ₩977,770 million, 2015: ₩106,793 million) is excluded as the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed.

³ Assets measured at cost of ₩2,452,118 million (December 31, 2015: ₩2,349,454 million) and liabilities measured at cost of ₩11,867,772 million (December 31, 2015: ₩7,908,569) are excluded as the carrying amount is a reasonable approximation of fair value.

(2) The following table presents the assets and liabilities, by level, that are measured or disclosed at fair value as at December 31, 2016 and 2015:

<i>(In millions of Korean won)</i>	2016			
	Level 1	Level 2	Level 3	Total balance
1) Assets				
Short-term available-for-sale financial assets	₩ -	₩ 3,638,460	₩ -	₩ 3,638,460
Long-term available-for-sale financial assets	2,362,235	-	3,464,272	5,826,507
Other	-	919,071	-	919,071
2) Liabilities				
Debentures	-	76,129	-	76,129
Long-term borrowings	-	1,225,455	-	1,225,455
Long-term other payables	-	2,680,119	342,702	3,022,821
Derivatives	-	74,697	-	74,697
<i>(In millions of Korean won)</i>	2015			
	Level 1	Level 2	Level 3	Total balance
1) Assets				
Short-term available-for-sale financial assets	₩ -	₩ 4,627,530	₩ -	₩ 4,627,530
Long-term available-for-sale financial assets	4,674,753	78,189	3,472,745	8,225,687
Other	-	1,055,240	15,599	1,070,839
2) Liabilities				
Debentures	-	1,261,783	-	1,261,783
Long-term borrowings	-	242,603	-	242,603
Long-term other payables	-	2,269,247	312,738	2,581,985
Derivatives	-	38,829	-	38,829

The levels of the fair value hierarchy and its application to financial assets and liabilities are described below.

- 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 or indirectly
- Level 3: Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs)

The fair value of financial instruments traded in active markets is based on quoted market prices at the statement of financial position date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry Company, 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. Instruments included in Level 1 are listed equity investments classified as trading securities or available-for-sale financial assets.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. 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 are not based on observable market data, the instrument is included in Level 3.

The Company performs the fair value measurements required for financial reporting purposes, including Level 3 fair values and discusses valuation processes and results at least once every quarter in line with the Company's quarterly reporting dates. The Company's policy is to recognize transfers between levels at the end of the reporting period, if corresponding events or changes in circumstances have occurred.

Specific valuation techniques used to value financial instruments include:

- Quoted market prices or dealer quotes for similar instruments.
- The fair value of forward foreign exchange contracts is determined using forward exchange rates at the statement of financial position date, with the resulting value discounted back to present value.

Other techniques, such as discounted cash flow analysis, are used to determine fair value for the remaining financial instruments. For trade and other receivables, the book value approximates a reasonable estimate of fair value.

(3) Valuation technique and the inputs

The Company utilizes a present value technique to discount future cash flows at a proper interest rate for corporate bonds, government and public bonds, and bank debentures that are classified as Level 2 in the fair value hierarchy.

The following table presents the valuation technique and the inputs used for major financial instruments classified as Level 3.

(In millions of Korean won)

Classification	Fair Value	Valuation Technique	Level 3 Inputs	Input Range (Weighted Average)
Long-term available-for-sale financial assets				
Maltani (formerly Taewon Lighting)	₩ 16,270	Discounted cash flow	Permanent growth rate Weighted average cost of capital	-1.00%~1.00%(0%) 7.45%~9.45%(8.45%)
Samsung Venture Investment	7,515	Discounted cash flow	Permanent growth rate Weighted average cost of capital	-1.00%~1.00%(0%) 21.31%~23.31%(22.31%)
Corning Incorporated convertible preferred stock	3,440,487	Trinomial model	Risk adjusted discount rate Price volatility	5.74%~7.74%(6.74%) 27.8%~33.8%(30.80%)
Long-term other payables				
Contingent financial liability	342,702	Discounted cash flow	Weighted average cost of capital	3.81%~4.65%(4.23%)

(4) Changes in Level 3 instruments for the years ended December 31, 2016 and 2015 are as follows:

<i>(In millions of Korean won)</i>	2016		2015	
Financial assets				
Balance as of January 1	₩	3,488,344	₩	3,548,095
Purchases		-		119,297
Disposals		(14,805)		(55,986)
Amount recognized in profit or loss		(795)		3,530
Amount recognized in other comprehensive income(loss)		695,631		(304,012)
Others		(704,103)		177,420
Balance as at December 31	₩	3,464,272	₩	3,488,344

<i>(In millions of Korean won)</i>	2016		2015	
Financial liabilities				
Balance as of January 1	₩	312,738	₩	-
Amount recognized in profit or loss		(29,964)		312,738
Balance as at December 31	₩	342,702	₩	312,738

(5) Sensitivity analysis for recurring fair value measurements categorized within Level 3

Sensitivity analysis of financial instruments is performed to measure favorable and unfavorable changes in the fair value of financial instruments which are affected by the unobservable parameters, using a statistical technique. When the fair value is affected by more than two input parameters, the amounts represent the most favorable or most unfavorable.

The results of the sensitivity analysis for the effect on profit or loss (before-tax amount for other comprehensive income or loss) from changes in inputs for each financial instrument which is categorized within Level 3 and subject to sensitivity analysis, are as follows:

<i>(In millions of Korean won)</i>	Classification	Favorable Changes		Unfavorable Changes	
		Profit or Loss	Equity	Profit or Loss	Equity
	Long-term available-for-sale financial assets ¹	₩ -	₩ 194,732	₩ -	₩ (227,857)
	Long-term other payables ²	1,920	1,920	(1,932)	(1,932)
	Total	₩ -	₩ 196,652	₩ (1,932)	₩ (229,789)

¹ For equity securities changes in their fair value are calculated with the correlation between growth ratio (-1% to 1%) and discount rate, which are significant unobservable inputs.

² The fair value long-term payables is calculated by increasing and decreasing the correlation between discount rate and volatility by 10% which are significant unobservable inputs.

32. Segment Information

(A) Operating segment information

The chief operating decision maker has been identified as the Management Committee. The Management Committee is responsible for making strategic decisions based on review of the group's internal reporting. The Management Committee has determined the operating segments based on these reports.

The Management Committee reviews operating profits of each operating segment in order to assess performance and to make decisions about allocating resources to the segment. The operating segments are product based and include CE, IM, Semiconductor, DP and others.

Depreciation, amortization of intangible assets, and operating profit were prepared after the allocation of internal transaction adjustments. Total assets and liabilities of each operating segment are excluded from the disclosure as these have not been provided regularly to the Management Committee.

(1) For the year ended December 31, 2016

2016 (In millions of Korean won)	DS						Intercompany elimination within the group	Consolidated
	CE	IM	Total ¹	Semi conductor	DP	Total ¹		
Total segment revenue	₩109,672,506	₩211,523,973	₩159,473,455	₩ 99,527,926	₩55,884,739	₩482,046,125	₩ (280,179,380)	₩201,866,745
Intercompany revenue	(62,627,083)	(111,221,861)	(81,325,252)	(48,370,924)	(28,956,095)	(280,179,380)	280,179,380	-
Net revenue ²	47,045,423	100,302,112	78,148,203	51,157,002	26,928,644	201,866,745	-	201,866,745
Depreciation	560,095	1,303,509	17,041,961	12,548,152	4,271,617	19,312,520	-	19,312,520
Amortization	73,581	175,351	960,611	812,652	130,398	1,400,445	-	1,400,445
Operating profit	2,638,002	10,807,569	15,850,986	13,595,004	2,226,626	29,240,672	-	29,240,672

¹ Includes other amounts not included in specific operating segments.

² Segment net revenue includes intersegment revenues.

(2) For the year ended December 31, 2015

2015 (In millions of Korean won)	DS						Intercompany elimination within the group	Consolidated
	CE	IM	Total ¹	Semi conductor	DP	Total ¹		
Total segment revenue	₩120,688,835	₩222,023,600	₩149,974,731	₩ 90,600,806	₩ 55,120,243	₩493,313,476	₩ (292,659,994)	₩200,653,482
Intercompany revenue	(73,793,424)	(118,469,345)	(74,948,617)	(43,014,054)	(27,633,382)	(292,659,994)	292,659,994	-
Net revenue ²	46,895,411	103,554,255	75,026,114	47,586,752	27,486,861	200,653,482	-	200,653,482
Depreciation	600,216	1,175,340	17,244,351	12,481,198	4,534,914	19,662,541	-	19,662,541
Amortization	98,154	182,661	790,369	646,110	130,416	1,268,316	-	1,268,316
Operating profit	1,254,187	10,142,022	14,887,262	12,787,297	2,295,367	26,413,442	-	26,413,442

¹ Includes other amounts not included in specific operating segments.

² Segment net revenue includes intersegment revenues.

(B) Regional information

The regional segment information provided to the Management Committee for the reportable segments as at and for the years ended December 31, 2016 and 2015, is as follows:

<i>(In millions of Korean won)</i>	2016						Intercompany elimination within the group	Consolidated
	Korea	America	Europe	Asia and Africa	China			
Net segment revenue	20,201,828	68,728,575	38,253,185	39,099,991	35,583,166	-	201,866,745	
Non-current assets ¹	68,978,040	7,041,731	730,490	9,626,711	11,132,720	(483,191)	97,026,501	

¹ Total of non-current assets other than financial instruments, deferred tax assets, and investments in associates and joint ventures.

<i>(In millions of Korean won)</i>	2015						Intercompany elimination within the group	Consolidated
	Korea	America	Europe	Asia and Africa	China			
Net segment revenue	20,827,822	68,944,447	38,629,442	41,265,504	30,986,267	-	200,653,482	
Non-current assets ¹	63,691,863	7,600,852	709,513	7,596,102	12,820,469	(545,378)	91,873,421	

¹ Total of non-current assets other than financial instruments, deferred tax assets, and investments in associates and joint ventures.

33. Related Party Transactions

(A) Sale and purchase transactions

Sales and purchases with related parties for the years ended December 31, 2016 and 2015, are as follows:

<i>(In millions of Korean won)</i>	Name of Company ¹	2016			
		Sales	Disposal of fixed assets	Purchases	Purchase of fixed assets
Associates and Joint ventures	Samsung SDS	₩ 46,073	₩ -	₩1,585,089	₩ 199,728
	Samsung Electro-Mechanics	27,516	23	2,280,953	-
	Samsung SDI ²	59,322	397	1,072,830	32,576
	Cheil Worldwide ³	672	-	214,061	-
	Other	286,880	113	6,693,656	214,728
	Total (Associates and Joint ventures)	420,463	533	11,846,589	447,032
Other related parties	Samsung C&T. ⁴	42,905	74	249,088	3,343,979
	Other	231,878	1,557,589	763,500	398,514
	Total (Other related parties)	274,783	1,557,663	1,012,588	3,742,493
Others ⁵	Samsung Engineering	15,677	-	17,627	2,485,027
	S-1	35,846	-	323,792	37,590
	Other	58,054	83,298	663,222	65
	Total (Others)	109,577	83,298	1,004,641	2,522,682

¹ Transactions with separate entities that are related parties of the Company.

² During the year ended December 31, 2016, Samsung SDI was included in associates as the Company's ownership of common outstanding stock was increased.

³ During the year ended December 31, 2016, Cheil Worldwide was included in associates due to acquisition of shares.

⁴ During the year ended December 31, 2015, Cheil Industries Inc. merged Samsung C&T and changed its name to Samsung C&T.

⁵ Although these entities are not related parties of the Company in accordance with Korean IFRS 1024, they belong to same enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

		2015			
<i>(In millions of Korean won)</i>	Name of Company¹	Sales	Disposal of fixed assets	Purchases	Purchase of fixed assets
Associates and Joint ventures	Samsung SDS	₩ 38,885	₩ -	₩1,615,824	₩ 201,748
	Samsung Electro-Mechanics	27,437	-	2,806,123	2
	Other	319,090	3,526	5,541,899	323,363
	Total (Associates and Joint ventures)	385,412	3,526	9,963,846	525,113
Other related parties	Samsung C&T. ²	9,630	-	113,098	1,850,655
	Samsung SDI	59,879	326	1,518,575	24,606
	Other	117,432	-	1,239,441	968,840
	Total (Other related parties)	186,941	326	2,871,114	2,844,101
Others ³	Samsung Engineering	9,232	-	24,630	1,205,414
	S-1	38,290	-	283,295	57,039
	Other	77,706	88	817,212	143,981
	Total (Others)	125,228	88	1,125,137	1,406,434

¹ Transactions with separate entities that are related parties of the Company.

² During the year ended December 31, 2015, Cheil Industries Inc. merged Samsung C&T and changed its name to Samsung C&T.

³ Although these entities are not related parties of the Company in accordance with Korean IFRS 1024, they belong to the same large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

(B) Balances of receivables and payables

Balances of receivables and payables arising from sales and purchases of goods and services as at December 31, 2016 and 2015, are as follows:

		2016	
<i>(In millions of Korean won)</i>	Name of Company¹	Receivables	Payables
Associates and Joint ventures	Samsung SDS	₩ 5,709	₩ 362,062
	Samsung Electro-Mechanics	1,143	108,469
	Samsung SDI ²	89,721	76,211
	Cheil Worldwide ³	456	436,624
	Other	210,891	784,475
	Total (Associates and Joint ventures)	307,920	1,767,841
Other related parties	Samsung C&T ⁴	231,089	435,505
	Other	31,752	1,932,924
	Total (Other related parties)	262,841	2,368,429
Others ⁵	Samsung Engineering	10,664	115,726
	S-1	4,160	47,098
	Other	3,058	28,841
	Total (Others)	17,882	191,665

¹ Balances due from and to separate entities that are related parties of the Company.

² During the year ended December 31, 2016, Samsung SDI was included in associates as the Company's ownership of common outstanding stock was increased.

³ During the year ended December 31, 2016, Cheil Worldwide was included in associates due to acquisition of shares.

⁴ During the year ended December 31, 2015, Cheil Industries Inc. merged Samsung C&T and changed its name to Samsung C&T.

⁵ Although these entities are not related parties of the Company in accordance with Korean IFRS 1024, they belong to the same large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

(In millions of Korean won)	Name of Company ¹	2015	
		Receivables	Payables
Associates and Joint ventures	Samsung SDS	₩ 3,578	₩ 311,648
	Samsung Electro-Mechanics	608	216,869
	Other	66,033	1,722,515
	Total (Associates and Joint ventures)	70,219	2,251,032
Other related parties	Samsung C&T ²	208,576	1,430,098
	Samsung SDI	90,221	106,507
	Other	19,456	161,048
	Total (Other related parties)	318,253	1,697,653
Others ³	Samsung Engineering	3,970	457,817
	S-1	2,825	61,739
	Other	4,546	385,649
	Total (Others)	11,341	905,205

¹ Balances due from and to separate entities that are related parties of the Company.

² During the year ended December 31, 2015, Cheil Industries Inc. merged with Samsung C&T and changed its name to Samsung C&T.

³ Although these entities are not related parties of the Company in accordance with Korean IFRS 1024, they belong to the same large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

(C) During the year ended December 31, 2016, the Company invested ₩84,306 million in associates and joint ventures including ₩14,805 million in Samsung Biologics. During the year ended December 31, 2015, the Company invested ₩137,917 million in associates and joint ventures. Also, the Company invested ₩181,081 million in Samsung Heavy Industries which is not a related party of the Company in accordance with Korean IFRS 1024, the entity belongs to the same large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

(D) Key management compensation

Key management includes directors (executive and non-executive) and members of the Executive Committee. The compensation paid or payable for employee services for the years ended December 31, 2016 and 2015, consists of as follows:

(In millions of Korean won)	2016		2015	
Salaries and other short-term employee benefits	₩	16,822	₩	23,671
Termination benefits		840		560
Other long-term benefits		8,671		8,316

34. Information about Non-Controlling Interests

(A) Changes in accumulated non-controlling interests

The profit or loss allocated to non-controlling interests and accumulated non-controlling interests of subsidiaries that are material to the Company for the years ended December 31, 2016 and 2015, is as follows:

2016

<i>(In millions of Korean won)</i>	Percentage of Non-Controlling Interests	Balance as at January 1	Net Income	Dividends	Other	Balance as at December 31
Samsung Display and its subsidiaries	15.2%	₩ 5,642,413	₩ 253,296	₩ (13,472)	₩ 99,217	₩ 5,981,454

2015

<i>(In millions of Korean won)</i>	Percentage of Non-Controlling Interests	Balance as at January 1	Net Income	Dividends	Other	Balance as at December 31
Samsung Display and its subsidiaries	15.2%	₩ 5,360,192	₩ 314,078	-	₩ (31,857)	₩ 5,642,413

(B) The summarized financial information for each subsidiary with non-controlling interests that are material to the Company before intercompany eliminations for the years December 31, 2016 and 2015 is as follows:

(1) Summarized consolidated statements of financial position

<i>(In millions of Korean won)</i>	Samsung Display and its subsidiaries	
	December 31, 2016	December 31, 2015
Current assets	₩ 17,208,126	₩ 16,947,132
Non-current assets	30,421,181	25,161,235
Current liabilities	7,957,076	6,703,532
Non-current liabilities	3,191,759	1,260,822
Equity attributable to:	36,480,472	34,144,013
Owners of the parent	35,982,390	33,639,387
Non-controlling interests	498,082	504,626

(2) Summarized consolidated statements of comprehensive income

<i>(In millions of Korean won)</i>	Samsung Display and its subsidiaries	
	2016	2015
Sales	₩ 26,816,450	₩ 27,446,419
Net income	1,618,023	1,841,637
Other comprehensive income(loss)	721,849	(233,527)
Total comprehensive income attributable to:	2,339,872	1,608,110
Owners of the parent	2,343,120	1,565,566
Non-controlling interests	(3,248)	42,544

(3) Summarized consolidated statements of cash flows

<i>(In millions of Korean won)</i>	Samsung Display and its subsidiaries	
	2016	2015
Cash flows from operating activities	₩ 6,800,635	₩ 7,458,783
Cash flows from investing activities	(9,163,528)	(8,045,005)
Cash flows from financing activities	2,563,830	653,266
Effect of exchange rate changes on cash and cash equivalents	10,061	(2,563)
Increase in cash and cash equivalents	210,998	64,481
Cash and cash equivalents at beginning of period	385,863	321,382
Cash and cash equivalents at end of period	596,861	385,863

35. Business Combination

Significant business combinations for the year ended December 31, 2016 are as follow:

(A) Acquisition of Joyent

Samsung Electronics America, the Company's subsidiary, acquired 100% of the equity shares of Joyent on June 24, 2016.

(1) Overview of the acquired company

Name of the acquired company	Joyent, Inc. and 2 subsidiaries
Headquarters location	San Francisco, CA, USA
Representative director	Scott Hammond
Industry	Cloud services

(2) Purchase price allocation

<i>(In millions of Korean Won)</i>	Amount
I. Consideration transferred	₩ 185,343
II. Identifiable assets and liabilities	
Cash and cash equivalents	1,556
Short-term financial instruments	116
Trade and other receivables	3,646
Property, plant and equipment	5,625
Intangible assets	22,208
Other assets	24,582
Trade and other payables	(10,979)
Total net identifiable assets	46,754
III. Goodwill (I – II)	₩ 138,589

Had Joyent been consolidated from January 1, 2016, revenues would have increased by ₩9,721 million and net income would have decreased by ₩5,386 million on the interim consolidated statement of income. The revenue and net loss contributed by Joyent since acquisition amount to ₩14,142 million and ₩5,690 million, respectively.

(B) Acquisition of Dacor

Samsung Electronics America, the Company's subsidiary, acquired 100% of the equity shares of Dacor on September 7, 2016.

(1) Overview of the acquired company

Name of the acquired company	Dacor Holdings, Inc. and 4 subsidiaries
Headquarters location	City of Industry, CA, USA
Representative director	Charles Huebner
Industry	Manufacture and sale of home appliances

(2) Purchase price allocation

<i>(In millions of Korean Won)</i>	Amount
I. Consideration transferred	₩ 176,800
II. Identifiable assets and liabilities	
Cash and cash equivalents	2,092
Short-term financial instruments	834
Trade and other receivables	5,786
Inventory	9,323
Property, plant and equipment	646
Intangible assets	67,313
Other assets	3,731
Trade and other payables	(8,936)
Other liabilities	(4,549)
Total net identifiable assets	76,240
III. Goodwill (I – II)	₩ 100,560

Had Dacor been consolidated from January 1, 2016, revenues would have increased by ₩38,979 million and net income would have decreased by ₩35,193 million on the interim consolidated statement of income. The revenue and net loss contributed by Dacor since acquisition amount to ₩16,239 million and ₩1,682 million, respectively.

(C) Acquisition of Viv Labs

Samsung Research America, the Company's subsidiary, acquired 100% of the equity shares of Viv Labs on October 7, 2016.

(1) Overview of the acquired company

Name of the acquired company	Viv Labs, Inc.
Headquarters location	San Jose, CA, USA
Representative director	Dag Kittlaus
Industry	Research of AI technology

(2) Purchase price allocation

<i>(In millions of Korean Won)</i>	Amount
I. Consideration transferred	₩ 238,930
II. Identifiable assets and liabilities	
Cash and cash equivalents	10,325
Short-term financial instruments	67
Trade and other receivables	284
Inventory	-
Property, plant and equipment	30
Intangible assets	33,038
Other assets	-
Trade and other payables	(1,874)
Other liabilities	(5,543)
Total net identifiable assets	36,327
III. Goodwill (I – II)	₩ 202,603

Had Viv Labs been consolidated from January 1, 2016, net income would have decreased by ₩6,770 million on the interim consolidated statement of income. Net loss contributed by Viv Labs since acquisition amount to ₩3,424 million.

36. Non-current Assets Held-for-Sale (Assets of disposal group)

(A) Summary

(1) Sale of Samsung Fine Chemicals

During the year ended December 31, 2015, the Company entered into an agreement with Lotte Chemical to sell all of its shares in Samsung Fine Chemicals. The transaction was completed in February 2016.

(2) Sale of Samsung Biologics

During the year ended December 31, 2016, the Company entered into an agreement with Samsung Biologics to sell all of its shares. The transaction was completed in November 2016.

(3) Sale of printing solutions business segment

During the nine months ended December 31, 2016, the management of the Company decided to sell printing solutions business segment to HP Inc. The contract was entered into on September 12, 2016, and the transaction is expected to be completed within 1 year upon regulatory approval.

(B) Details of assets and liabilities reclassified as held-for-sale, as at December 31, 2016 and 2015 are as follows:

<i>(In millions of Korean Won)</i>	2016		2015	
Assets held-for-sale				
Trade receivables	₩	182,738	₩	-
Inventories		270,642		-
Other current assets		115,037		-
Property, plant and equipment		84,869		-
Intangible assets		124,571		-
Investment		-		77,073
Other non-current assets		57,949		-
Total		835,806		77,073
Liabilities held-for-sale				
Current liabilities		272,726		-
Non-current liabilities		83,662		-
Total	₩	356,388	₩	-

(C) Details of cumulative income or expense recognized in other comprehensive income relating to the disposal group classified as held-for-sale as of December 31, 2016 and 2015 are as follows:

<i>(In millions of Korean Won)</i>	2016		2015	
Gain on valuation of available-for-sale securities	₩	-	₩	23,797
Foreign exchange translation adjustment		(28,810)		-
Total	₩	(28,810)	₩	23,797

37. Events after the Reporting Period

On January 24, 2017, the board of directors approved the share buyback and retirement of common and preferred stock, with the estimated total number of shares to be repurchased of 1.28 million (common stock 1.02 million, preferred stock 0.26 million). All repurchased shares will be retired after the buyback is completed. The purchase period will end on April 24, 2017.

3. Other Financial Information

A. Matters of Interest

(1) Restatement of Financial Statements: N/A

(2) Acquisitions and Divestments (Separate only)

There are no major merger transactions in the past three fiscal years. For information on the business combinations and divestitures of subsidiaries, please refer to the notes on the business combination and assets held for sale (assets of disposal group) of the consolidated financial statements.

Details of split

- Company Name: S-Printing Solution Corp.
- Location: 129 Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do
- Purpose of split: Improve S-Printing Solution competitiveness
- Approval of split: October 27, 2016 (extraordinary meeting of shareholders)
- Date of split: November 1, 2016

(Unit: KRW million)

Company	Account	Forecast		Actual			
		1st Year	2nd Year	1st Year		2nd Year	
				Actual	Difference	Actual	Difference
S-Printing Solution	Sales	2,094	14,160	2,186	4.40%	-	-
	Operating Income	-29	-1,359	-61	111.48%	-	-
	Net Income	-67	-1,486	-10	-84.72%	-	-

Difference rate of operating income was more than 110% due to the year-end bonus payments and difference of net income was more than 80% due to the foreign exchange differences and etc.

Details of the above statement can be found in the “Important Matters Report“, published at DART (<http://dart.fss.or.kr/>).

Split of S-Printing Solution business was reported on a separate basis.

(3) Information on the accounting treatment of the sales of assets and contingent liabilities relating to the asset backed securities

- Domestic: As of December 31, 2016, the Company provided a debt guarantee of KRW 36,825 million to its employees who took debt from financial institutions in order to finance employee housing rental. The Company’s housing rental debt guarantee limit is KRW 56,752 million. The Company has provided guarantees for borrowings executed by Medicapital from Dime Investment and two other companies in the amount of KRW 2,264 million.

- Overseas :

(Unit: USD thousand)

Company	Relationship	Creditor	Guarantee Expiry Date	Transactions				Limit of Guarantee
				Beginning of period	Increase	Decrease	End of period	
SEA	Subsidiary	SMBC, etc.	2017-12-16	1,000,000	-	-	1,000,000	2,425,000
SEM	Subsidiary	Santander, etc.	2017-12-16	-	-	-	-	546,000
SAMCOL	Subsidiary	Citibank, etc.	2017-12-16	66,333	17252	-	83,585	156,000
SEDA	Subsidiary	HSBC, etc.	2017-12-18	-	-	-	-	769,000
SECH	Subsidiary	Citibank, etc.	2017-12-16	-	-	-	-	178,000
SEPR	Subsidiary	BBVA, etc.	2017-12-16	58,033	10,706	-	68,739	180,000
SSA	Subsidiary	Citibank, etc.	2017-12-16	126,001	-	91,674	34,327	335,000
SEMAG	Subsidiary	SocGen, etc.	2017-12-16	-	-	-	-	110,000
SETK	Subsidiary	BTMU, etc.	2017-12-16	134,625	53242	-	187,867	590,000
SECE	Subsidiary	Citibank, etc.	2017-12-16	1,180	-	1,180	-	110,000
SEEG	Subsidiary	HSBC	2017-06-13	-	-	-	-	50,000
SEIN	Subsidiary	BNP, etc.	2017-11-08	-	-	-	-	186,000
SJC	Subsidiary	Mizuho Bank, etc.	2017-12-16	107,656	-	107,656	-	900,040
SRJ	Subsidiary	SMBC	2016-02-28	20,734	-	20,734	-	-
SEUC	Subsidiary	Credit Agricole, etc.	2017-12-16	-	-	-	-	175,000
SEDAM	Subsidiary	Citibank, etc.	2017-12-16	110,408	-	9082	101,326	391,000
SECA	Subsidiary	Nova Scotia	2017-10-10	-	-	-	-	11,105
SELA	Subsidiary	Citibank	2017-12-16	-	-	-	-	30,000
SEEH	Subsidiary	HSBC, etc.	2017-12-16	-	-	-	-	727,000
SERK	Subsidiary	BNP, etc.	2017-12-16	-	-	-	-	345,000
SELV	Subsidiary	Citibank	2017-12-16	-	-	-	-	10,000
SAPL	Subsidiary	BOA, etc.	2017-12-16	-	-	-	-	411,000
SEV	Subsidiary	SCB	2017-11-08	-	-	-	-	15,000
SAVINA	Subsidiary	SCB, etc.	2017-11-08	-	-	-	-	71,000
SET	Subsidiary	SCB	2017-11-08	-	-	-	-	30,000
SCIC	Subsidiary	HSBC, etc.	2017-12-16	-	-	-	-	350,000
SME	Subsidiary	SCB	2017-11-08	-	-	-	-	110,000
SAMEX	Subsidiary	Citibank	2017-12-16	-	-	-	-	5,000
SEASA	Subsidiary	Citibank	2017-12-16	-	-	-	-	1,000
SSAP	Subsidiary	SCB	2017-11-08	14,267	-	3985	10,282	30,000
Simpress	Subsidiary	BNP	2017-11-08	36,356	8,173	-	44,529	60,000
SEHK	Subsidiary	HSBC	2017-06-13	-	-	-	-	2,000
SEPM	Subsidiary	HSBC	2017-06-13	115,493	-	28,623	86,870	125,000
		Total		1,791,086	89,373	262,934	1,617,525	9,434,145

※ SEC requires BOD approval for individual guarantees exceeding 2.5% of total equity. When the guarantee amount is between 0.1% and/or less than 2.5%, the approval decision is delegated to the Management Committee.

Refer to 3.Litigation (XI. Other Information Related to Investment Protection) or the notes to the consolidated financial statements for the information on contingent liabilities.

(4) Other matters requiring attention in relation to the use of the financial statements: N/A

B. Allowance for Bad Debt

The allowances for bad debts over the past 3 years are as follows:

Bad debt allowance by account

(Unit: KRW million, %)

Period	Account	Receivables Amount	Allowance Amount	Allowance (%)
2016	Trade receivables	24,699,961	420,750	1.7%
	Short-term loans	7,208	67	0.9%
	Other receivables	3,546,546	25,349	0.7%
	Advances	1,442,219	2,281	0.2%
	Trade receivables (Long-term)	4,563	139	3.0%
	Other receivables (Long-term)	35,683	153	0.4%
	Advances (Long-term)	175,211	1,369	0.8%
	Long-term loans	173,068	7,849	4.5%
	Total	30,084,459	457,957	1.5%
2015	Trade receivables	25,494,637	326,611	1.3%
	Short-term loans	8,570	80	0.9%
	Other receivables	3,400,227	47,564	1.4%
	Advances	1,709,840	3,837	0.2%
	Trade receivables (Long-term)	25,747	249	1.0%
	Other receivables (Long-term)	185,667	1,726	0.9%
	Advances (Long-term)	422,884	793	0.2%
	Long-term loans	180,839	2,334	1.3%
	Total	31,428,411	383,194	1.2%
2014	Trade receivables	24,972,069	277,459	1.1%
	Short-term loans	9,650	118	1.2%
	Other receivables	3,549,692	9,817	0.3%
	Advances	1,993,788	4,318	0.2%
	Trade receivables (Long-term)	35,944	329	0.9%
	Other receivables (Long-term)	9,419	77	0.8%
	Advances (Long-term)	176,949	793	0.4%
	Long-term loans	176,232	1,246	0.7%
	Total	30,923,743	294,157	1.0%

※ Receivables amount is based on net present value (Consolidated)

Allowance for Bad Debt (Roll Forward)

(Unit: KRW million)

	2016	2015	2014
1. Allowance for bad debts (beginning balance)	383,194	294,157	329,853
2. Net Bad Debt Expense (① - ② ± ③)	29,843	11,373	49,349
① Bad Debt Expense (Write-off)	31,334	14,149	50,705
② Bad Debt Recovered	1,491	2,776	1,356
③ Others	-	-	-
3. Bad debts expense	104,606	100,410	13,653
4. Allowance for bad debts (Ending balance)	457,957	383,194	294,157

※ Based on consolidated financial statements.

- The guideline for Bad Debts Allowances

(1) Calculation of Bad Debts Allowances

- Bad Debts are calculated based on write-off experiences and future expected bad debts.

(2) Calculation Method for Write-Off Experience Rate:

- Experience rate of write-off: the actual write-off rate for the average receivables balance of previous three (3) years
- Future expected bad debts: Cases of debtor bankruptcy, compulsory execution, death, or disappearance are reflected in the bad debt allowance, ranging from 1% ~ 100% of the balance of trade-other receivable

[Bad Debt Allowance]

Situation	Rate of Allowance
Dispute or Conflict	25%
Receivable through utilization of third party collection agency	50%
Receivable under litigation	75%
Customer filed or in the process of filing bankruptcy	100%

(3) Instruction: Write-off is recorded when trade receivables contain the following characteristics:

- Objective proof of bad debts, such as bankruptcy, compulsory execution, discontinuance of business, debtor's death or disappearance
- Legal action has failed or the right of collection is extinguished.
- When the collection agency gives as notice that collection is not possible.
- When the collateral is sold or insurance is received.
- The collection expenses exceed the amount of receivables.

The outstanding period of trade receivables

(Unit : KRW million)

	Less than 6 months	6 months ~ 1 year	1 year ~ 3 years	More than 3 years	Total
Amount	24,480,590	31,331	156,425	36,178	24,704,524
Ratio	99.1%	0.1%	0.6%	0.2%	100.0%

* Receivables amount on net present value (consolidated)

C. Inventory

- The inventory status by Division over the last three years is as follows:

(Unit: KRW million)

Division		Category	2016	2015	2014	Note
CE		Finished Goods	2,182,776	1,851,491	1,946,482	
		Work In Process	116,636	77,940	80,122	
		Raw Material	1,887,460	1,697,398	1,566,121	
		Material In Transit	2,022,321	1,672,192	1,694,448	
		Total	6,209,193	5,299,021	5,287,173	
IM		Finished Goods	2,032,004	1,924,116	2,210,160	
		Work In Process	531,628	347,780	279,861	
		Raw Material	2,851,438	2,471,314	2,751,331	
		Material In Transit	594,955	492,149	488,877	
		Total	6,010,025	5,235,359	5,730,229	
DS	Semi-Conductor	Finished Goods	871,428	1,598,617	777,450	
		Work In Process	3,796,746	4,740,937	3,677,543	
		Raw Material	541,573	505,226	419,398	
		Material In Transit	62,078	109,333	121,477	
		Total	5,271,825	6,954,113	4,995,868	
	DP	Finished Goods	299,208	398,342	409,516	
		Work In Process	444,831	483,084	244,324	
		Raw Material	375,611	265,206	281,223	
		Material In Transit	69,782	49,957	55,176	
		Total	1,189,432	1,196,589	990,239	
	DS Total	Finished Goods	1,203,332	2,014,630	1,228,783	
		Work In Process	4,412,185	5,353,650	4,105,675	
		Raw Material	977,020	804,420	750,929	
		Material In Transit	135,230	162,897	178,218	
		Total	6,727,767	8,335,597	6,263,605	
Total	Finished Goods	5,905,339	5,769,460	5,773,448		
	Work In Process	5,017,384	5,779,303	4,465,071		
	Raw Material	6,494,166	5,859,262	5,957,006		
	Material In Transit	936,614	1,403,769	1,121,979		
	Total	18,353,503	18,811,794	17,317,504		
Inventory Ratio (%)- Total Assets [Inventory ÷ Total Assets]			7.0%	7.8%	7.5%	
Inventory Turn-over [Yearly CGS ÷ {(Beginning of Inventory End of Inventory)÷2}]			6.5	6.8	7.0	

Inventory Counts

(1) Inspection Date

- End of May and November (twice a year)
- Performed check of the existence of inventories included in an accounting books and records on the inspection date

(2) Inspection Method

- Internal warehouse: Closed & Total Inspection
- ※ Sample check in semiconductor and DP inventory, SVC materials
- Outside warehouse
Performed check of the possession confirmation documents and sample tests at third party warehouse and Inventory in transit
- External auditors join and observe the inspection and carry out sample test to check the existence and completeness.

Inventory Aging and Valuation

Inventories are stated at the lower of cost or net realizable value. Inventory as of December 31, 2016 is as follows:

(Unit : KRW million)

Category	Acquisition Cost	Inventory Valuation Reserve	Balance	Note
Finished Goods	7,982,850	2,077,511	5,905,339	
Work In Process	5,334,607	317,223	5,017,384	
Raw Material	7,526,608	1,032,442	6,494,166	
Material In Transit	936,614	-	936,614	
Total	21,780,679	3,427,176	18,353,503	

- ※ Prepared on a consolidated basis

D. Fair Value Estimation

Refer to 3. Financial Instruments by Category and 24. Financial Risk Management in 『III. Financial Affairs』.

E. List of Issued Debt Securities

Issued Debt Securities

(As of December 31, 2016)

(Unit : KRW Million, %)

Issuing Company	Type of Securities	Issuance Method	Date of Issuance	Total Nominal Amount	Interest Rate	Rating (Rating Institution)	Maturity Date	Payment Status	Management Company
Samsung Electronics	Corporate Bonds	Public Offering	1997.10.02	120,850	7.7	A+(S&P), A1(Moody's)	2027.10.01	Partial Redemption	Goldman Sachs et al.
SEA	Corporate Bonds	Public Offering	2012.04.10	1,208,500	1.8	A+(S&P), A1(Moody's)	2017.04.10	Unredeemed	Goldman Sachs et al.
Total	-	-	-	1,329,350	-	-	-	-	-

Details and Compliance of the Bond Management Contract (Samsung Electronics)

(Base Date of Preparation: December 31, 2016)

(Unit : KRW Million, %)

Name of Security	Date of Issuance	Maturity Date	Issued Amount	Settlement Date of Bond Management Contract	Debenture Management Company
US\$ 100,000,000 7.7% Debenture	1997.10.02	2027.10.01	120,850	1997.10.02	The Bank of New York Mellon Trust Company, N.A.

Base Date of Implementation: December 31, 2016

Financial Ratios	Contract Details	Not applicable
	Implementation Status	Not applicable
Constraint on Collaterals	Contract Details	Less than 10% of net tangible assets
	Implementation Status	Compliant (there is no collateral for the relevant assets)
Constraint on Disposal of Assets	Contract Details	Certain requirements, such as transfer of obligations on the bond, must be satisfied to dispose all or most of an asset
	Implementation Status	Compliant (disposal of assets accounted for 3.1% of the total during '16)
Submission of Implementation Report	Implementation Status	Not applicable

- ※ The date of the bond management contract was signed on the same day as the Fiscal Agency Agreement; accordingly, the Bank of New York Mellon Trust Company, N.A. is under the authority of the Fiscal Agent.
- ※ The exchange rate as of the base date has been applied.
- ※ The net tangible assets subjected to the limitation of collaterals are production facilities and stocks owned by the Company.

Main Details and Compliance of the Bond Management Contract (SEA)

(Base Date of Preparation : December 31, 2016)

(Unit : KRW Million, %)

Name of Security	Date of Issuance	Maturity Date	Issued Amount	Date of Bond Management Contract	Debenture Management Company
US\$1,000,000,000 1.75% Notes	2012.04.10	2017.04.10	1,208,500	2012.04.10	Citi Bank, N.A., London branch

Base Date of Implementation: December 31, 2016

Financial Ratios	Contract Details	Not applicable
	Implementation Status	Not applicable
Constraint on Collaterals	Contract Details	Less than 10% of net tangible assets
	Implementation Status	Compliant (there is no collateral for the relevant assets)
Constraint on Disposal of Assets	Contract Details	Certain requirements, such as transfer of obligations on the bond, must be satisfied by the guarantor to dispose all or most of an asset
	Implementation Status	Compliant (disposal of assets accounted for 3.1% of the total during '16)
Submission of Implementation Report	Implementation Status	Not applicable

※ The date of the bond management contract was signed on the same day as the Fiscal Agency Agreement; accordingly, Citi Bank, N.A. London branch is under the authority of the Fiscal Agent.

※ The exchange rate as of the base date has been applied.

※ The net tangible assets subjected to the limitation of collaterals are production facilities and stocks owned by the Company.

Commercial Paper Balance

(Base Date : December 31, 2016)

(Unit : KRW Million)

Maturity		Under 10 Days	Above 10 Days / Under 30 Days	Above 30 Days / Under 90 Days	Above 90 Days / Under 180 Days	Above 180 Days / Under 1 Year	Above 1 Year / Under 2 Years	Above 2 Years / Under 3 Years	Above 3 Years	Total
Balance	Public	-	-	-	-	-	-	-	-	-
	Private	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-

Asset-Backed Short Term Bond Unredeemed Balance

(Base Date : December 31, 2016)

Maturity		Under 10 Days	Above 10 Days / Under 30 Days	Above 30 Days / Under 90 Days	Above 90 Days / Under 180 Days	Above 180 Days / Under 1 Year	Total	Issue Limit	Balance Limit
Balance	Public	-	-	-	-	-	-	-	-
	Private	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-

Corporate Bond Unredeemed Balance

(Base Date : December 31, 2016)

(Unit : KRW Million)

Maturity		Under 1 Year	Above 1 Year / Under 2 Years	Above 2 Years / Under 3 Years	Above 3 Years / Under 4 Years	Above 4 Years / Under 5 Years	Above 5 Years / Under 10 Years	Above 10 Years	Total
Balance	Public	1,214,543	6,043	6,043	6,043	6,043	30,213	6,043	1,274,971
	Private	-	-	-	-	-	-	-	-
	Total	1,214,543	6,043	6,043	6,043	6,043	30,213	6,043	1,274,971

※ The exchange rate as of the base date has been applied.

- Corporate Bond Unredeemed Balance (Samsung Electronics)

(Base Date : December 31, 2016)

(Unit : KRW Million)

Maturity		Under 1 Year	Above 1 Year / Under 2 Years	Above 2 Years / Under 3 Years	Above 3 Years / Under 4 Years	Above 4 Years / Under 5 Years	Above 5 Years / Under 10 Years	Above 10 Years	Total
Unredeemed Balance	Public	6,043	6,043	6,043	6,043	6,043	30,213	6,043	66,471
	Total	6,043	6,043	6,043	6,043	6,043	30,213	6,043	66,471

※ The exchange rate as of the base date has been applied.

- Corporate Bond Unredeemed Balance (SEA)

(Base Date : December 31, 2016)

(Unit : KRW Million)

Maturity		Under 1 Year	Above 1 Year / Under 2 Years	Above 2 Years / Under 3 Years	Above 3 Years / Under 4 Years	Above 4 Years / Under 5 Years	Above 5 Years / Under 10 Years	Above 10 Years	Total
Unredeemed Balance	Public	1,208,500	-	-	-	-	-	-	1,208,500
	Total	1,208,500	-	-	-	-	-	-	1,208,500

※ The exchange rate as of the base date has been applied.

Hybrid Bond Outstanding Balance

(Base Date : December 31, 2016)

(Unit : KRW Million)

Maturity		Under 1 Year	Above 1 Year / Under 5 Years	Above 5 Years / Under 10 Years	Above 10 Years / Under 15 Years	Above 15 Years / Under 20 Years	Above 20 Years / Under 30 Years	Above 30 Years	Total
Unredeemed Balance	Public	-	-	-	-	-	-	-	-
	Private	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-

Contingent Convertible Bond Outstanding Balance

(Base Date : December 31, 2016)

(Unit : KRW Million)

Maturity		Under 1 Year	Above 1 Year / Under 2 Years	Above 2 Years / Under 3 Years	Above 3 Years / Under 4 Years	Above 4 Years / Under 5 Years	Above 5 Years / Under 6 Years	Above 10 Years / Under 20 Years	Above 20 Years / Under 30 Years	Above 30 Years	Total
Unredeemed Balance	Public	-	-	-	-	-	-	-	-	-	-
	Private	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-

IV. Auditor's Report

1. Introduction

Samil PwC has audited the financial year end consolidated/separate financial position of the Company as of December 31, 2016, and the related financial year end consolidated/separate statements of income and comprehensive income for the year ended December 31, 2016, and the consolidated/separate statements of changes in equity and cash flows for the year ended December 31, 2016. Nothing has come to attention that causes them to believe the accompanying year end consolidated/separate financial statements are not presented fairly, in all material respects, in accordance with the K-IFRS. Samil PwC also conducted audits on the consolidated/separate financial statement of financial position of the Company as of December 31, 2014 and 2015, and the related consolidated/separate statements of income, comprehensive income, changes in equity and cash flows for the year then ended and expressed an unqualified opinion on those financial statements. There are 169 subsidiaries as of December 31, 2016. There are 13 newly incorporated/acquired entities, and 11 of them, such as Stellus Technologies, appointed PwC as the auditor and 2 of them, such as SVIC #32, appointed Deloitte Anjin as external auditor at their own decision.

Period end	Group Auditor	Audit(Review) Opinion	Remarks
31 December 2016	Samil PwC	Not applicable	Not applicable
31 December 2015	Samil PwC	Unqualified	Not applicable
31 December 2014	Samil PwC	Unqualified	Not applicable

< Audit(Review) plan for the year ended December 31, 2016 >

Review Period		Planned dates
2016 1Q	Pre-review	2016.03.07 ~ 2016.03.25
	Review	2016.04.07 ~ 2016.05.13
2016 2Q	Pre-review	2016.06.07 ~ 2016.06.24
	Review	2016.07.07 ~ 2016.08.12
2016 3Q	Pre-review	2016.09.07 ~ 2016.09.23
	Review	2016.10.07 ~ 2016.11.14
System and Internal Control Audit		2016.06.22 ~ 2016.07.29
Audit Procedures		2016.12.05 ~ 2016.12.23
Completion of final audit procedures		2017.01.04 ~ 2017.02.27

[Audit Contract Description]

(In millions of Korean won)

Fiscal Year	Group Auditor	Description	Compensation	Total Hours
Year ended December 31, 2016	Samil PwC	- Review of the interim consolidated/separate financial statements	3,690	43,999
Year ended December 31, 2015	Samil PwC	- Review of the interim consolidated/separate financial statements - Audit on consolidated/separate financial statements	3,690	43,928
Year ended December 31, 2014	Samil PwC	- Review of the interim consolidated/separate financial statements - Audit on consolidated/separate financial statements	3,690	43,411

Samil PwC has performed non-audit services and has been paid KRW 1,353 million by the Company for the year ended December 31, 2016.

[Non-Audit Service Contract Description]

(In millions of Korean won)

Fiscal Year	Contract Date	Non-audit Service Description	Period for Service	Compensation	Note
Year ended December 31, 2016	December 2016	Tax Advisory	2016.12~2016.12	220	
	February 2016	Custom Tax Advisory	2016.01~2016.12	1,133	
	Subtotal			1,353	
Year ended December 31, 2015	June 2014	Incorporation, M&A and Divestiture Advisory	2015.01~2015.12	503	
	May 2014	Tax Advisory	2015.01~2015.12	47	
	Subtotal			550	
Year ended December 31, 2014	September 2013	Incorporation, M&A and Divestiture Advisory	2014.01~2014.12	1,161	
	August 2013	Custom Tax Advisory	2014.01~2014.12	533	
	October 2013	Process Improvement Advisory	2014.01~2014.12	996	
		Others		297	
	Subtotal			2,987	

2. Regarding Internal Control

Samil PwC has reviewed management's report on the operations of the Internal Accounting Control System ("IACS") of the Company as of December 31, 2016 and nothing has come to attention that causes them to believe that management's report on the operations of the IACS is not presented fairly, in all material respects, in accordance with IACS standards.

V. Management Discussion and Analysis

1. Note on Forward-Looking Statements

This annual report includes forward-looking statements that relate to future events and can be generally identified by phrases containing words such as “believes,” “expects,” “anticipates,” “foresees,” “forecasts,” “estimates” or other words or phrases of similar meaning. These forward-looking statements are not guarantees of future performance and may involve known and unknown risks, uncertainties and other factors that may affect our actual results, performance, achievements or financial position, making them materially different from the actual future results, performance, achievements or financial position expressed or implied by these forward-looking statements. Unless otherwise specified, all data presented in this report is from our consolidated financial statements.

Uncertain events that could positively or negatively affect the Company’s management condition and financial performance include:

- Trends of financial markets domestically and abroad, including changes in exchange rates and interest rates
- The Company’s strategic decision making, including disposals and purchases of businesses
- Unexpected sudden changes in core businesses such as CE, IM, Semiconductor, and DP
- Other changes domestically and abroad that can affect management condition and financial performance

The Company assumes no obligation to revise or update this report to reflect risks or uncertainties that arise after the reporting period.

2. Overview

In 2016, the global economy continued to slow down and faced heightened uncertainties due to U.S. interest rate hikes and the impact of Brexit. Under these circumstances, South Korea’s economic slowdown continued, with sluggish exports and domestic consumption hindering growth.

Despite intensified competition over major products, the Company achieved solid earnings driven by the support of our shareholders and tireless efforts of all of our executives and employees. We recorded sales of KRW 202 trillion and operating profit of KRW 29 trillion on a consolidated basis. On a stand-alone basis, SEC posted sales of KRW 134 trillion and operating profit of KRW 14 trillion.

In financial terms, the debt-to-equity ratio is 35.9%, the capital adequacy ratio is 73.6%, and ROE is 12.2% on a consolidated basis. On a stand-alone basis, SEC’s debt-to-equity ratio is 27.1%, the capital adequacy ratio is 78.7%, and ROE is 8.5%. Therefore, we have maintained a solid financial structure. Our company’s brand value reached USD 51.8 billion in 2016, a 14% increase, and was ranked the world’s 7th largest company for its third consecutive year (Oct ’16 Interbrand).

In terms of business, we solidified our industry leadership and maintained a dominant market share by building on our technological competence and launching the world’s first 10nm-class DRAM and by expanding sales of SUHD TVs and Curved TVs based on our differentiated image quality and design strengths.

In 2017, we expect that the uncertainties weighing on the global economy will continue to increase, caused by further interest rate increases in the U.S. this year, the impact of Brexit on the EU, as well as rising protectionism under the new U.S. government. Under these circumstances, we project that competition in our main product markets will become even fiercer. Also, competitors’ heavy investments and their aggressive moves to reduce the technology gap pose a greater challenge to our company.

In a response to such ongoing changes within business conditions and a challenging environment, we will work to strengthen the technological competitiveness of our business. We will save no effort to lay the strong base for seizing future opportunities, by developing new businesses with great potential through strategic M&A and R&D investment.

3. Financial Position and Performance (Consolidated)

A. Financial Position

(Unit: KRW million)

Classification	2016	2015	Increase/decrease	% change
Total assets	262,174,324	242,179,521	19,994,803	8.3%
Current assets	141,429,704	124,814,725	16,614,979	13.3%
- Cash and cash equivalents	32,111,442	22,636,744	9,474,698	41.9%
- Short-term financial instruments	52,432,411	44,228,800	8,203,611	18.5%
- Available-for-sale financial assets	3,638,460	4,627,530	△989,070	△21.4%
- Trade and other receivables	24,279,211	25,168,026	△888,815	△3.5%
- Inventories	18,353,503	18,811,794	△458,291	△2.4%
- Other current assets	10,614,677	9,341,831	1,272,846	13.6%
Non-current assets	120,744,620	117,364,796	3,379,824	2.9%
- Available-for-sale financial assets	6,804,276	8,332,480	△1,528,204	△18.3%
- Associates and joint ventures	5,837,884	5,276,348	561,536	10.6%
- Property, plant and equipment	91,473,041	86,477,110	4,995,931	5.8%
- Intangible assets	5,344,020	5,396,311	△52,291	△1.0%
- Other non-current assets	11,285,399	11,882,547	△597,148	△5.0%
Total liabilities	69,211,291	63,119,716	6,091,575	9.7%
Current liabilities	54,704,095	50,502,909	4,201,186	8.3%
Non-current liabilities	14,507,196	12,616,807	1,890,389	15.0%
Total equity	192,963,033	179,059,805	13,903,228	7.8%
Total liabilities and equity	262,174,324	242,179,521	19,994,803	8.3%
Capital adequacy ratio	73.6%	73.9%	△0.3%	-
Debt-to-equity ratio	35.9%	35.3%	0.6%	-
Inventory turnover	6.5	6.8	△0.3	-

※ Presented in accordance with Korean International Financial Reporting Standards (“K-IFRS”)

[△ represents negative (-) balance]

- Samsung Electronics' total assets in 2016 were KRW 262.174 trillion, an increase of KRW 19.995 trillion (8.3%) from the previous year. This includes an increase of KRW 5.0 trillion in property, plant and equipment from large-scale facilities investment, as well as an increase of KRW 9.5 trillion in cash and cash equivalents.
- Total liabilities were KRW 69.211 trillion, an increase of KRW 6.092 trillion (9.7%) from the previous year. This includes an increase of KRW 4.201 trillion (8.3%) in current liabilities and an increase of KRW 1.890 trillion (15.0%) in non-current liabilities.
- Total equity was KRW 192.963 trillion, an increase of KRW 13.903 trillion (7.8%) from the previous year. Retained earnings increased by KRW 7.954 trillion primarily from net income of KRW 22.726 trillion.
- In terms of financial ratios, the Company maintained the financial structure of a world-class company as the capital adequacy ratio decreased by 0.3% from the previous year to 73.6% and the debt-to-equity ratio increased by 0.6% from the previous year to 35.9%.

B. Performance

(Unit: KRW million)

Classification	2016	2015	Increase/decrease	% change
Sales	201,866,745	200,653,482	1,213,263	0.6%
Cost of sales	120,277,715	123,482,118	△3,204,403	△2.6%
Gross profit	81,589,030	77,171,364	4,417,666	5.7%
Selling and administrative expenses	52,348,358	50,757,922	1,590,436	3.1%
Operating profit	29,240,672	26,413,442	2,827,230	10.7%
Other revenue	3,238,261	1,685,947	1,552,314	92.1%
Other expenses	2,463,814	3,723,434	△1,259,620	△33.8%
Gain on valuation using the equity method of accounting	19,501	1,101,932	△1,082,431	△98.2%
Financial revenue	11,385,645	10,514,879	870,766	8.3%
Financial expenses	10,706,613	10,031,771	674,842	6.7%
Income before income tax expense	30,713,652	25,960,995	4,752,657	18.3%
Income tax expense	7,987,560	6,900,851	1,086,709	15.7%
Net income	22,726,092	19,060,144	3,665,948	19.2%

※ Presented in accordance with Korean International Financial Reporting Standards (“K-IFRS”)
 [△ represents negative (-) balance]

- In 2016, revenue increased by 0.6% to KRW 202 trillion. This strong result was made possible by increased sales of semiconductors such as memory products, despite stopping the sales and production of Galaxy Note 7.

- Operating profit increased by 10.7% to KRW 29.241 trillion, income before income tax expense increased by 18.3% to KRW 30.714 trillion, and net income increased by 19.2% to KRW 22.726 trillion.

Performance by division

[Unit: KRW million]

Classification	Division	Business	2016		2015		% change	
			Amount	Share	Amount	Share	Amount	(%)
Revenue	CE		47,045,423	23.3%	46,895,411	23.4%	150,012	0.3%
	IM		100,302,112	49.7%	103,554,255	51.6%	△3,252,143	△3.1%
	DS	Semiconductor	51,157,002	25.3%	47,586,752	23.7%	3,570,250	7.5%
		DP	26,928,644	13.3%	27,486,861	13.7%	△558,217	△2.0%
		Total	78,148,203	38.7%	75,026,114	37.4%	3,122,089	4.2%
	Overall revenue		201,866,745	100.0%	200,653,482	100.0%	1,213,263	0.6%
Operating profit	CE		2,638,002	9.0%	1,254,187	4.7%	1,383,815	110.3%
	IM		10,807,569	37.0%	10,142,022	38.4%	665,547	6.6%
	DS	Semiconductor	13,595,004	46.5%	12,787,297	48.4%	807,707	6.3%
		DP	2,226,626	7.6%	2,295,367	8.7%	△68,741	△3.0%
		Total	15,850,986	54.2%	14,887,262	56.4%	963,724	6.5%
	Overall operating profit		29,240,672	100.0%	26,413,442	100.0%	2,827,230	10.7%

[△ represents negative (-) balance]

[CE Division]

- The CE division's 2016 revenue increased by 0.3% from the previous year to KRW 47.045 trillion. Consolidated operating profit increased by KRW 1.384 trillion compared to the previous year to KRW 2.638 trillion.

- The CE division is on the path of stable growth, focusing on our strategic products equipped with our industry leading premium technologies, such as high picture quality SUHD TVs, Family Hub refrigerators, Active/AddWash washing machines, and Breeze-free air conditioners.

Our TV business maintained the top position in the overall TV market for the 11th consecutive year, based on our outstanding technology and design strengths. We continued to widen the gap with our competitors and, as a result, solidified our market leading position.

In 2017, we will continue to maintain our market leadership in the industry by leading the premium market with our QLED TV product which provides superior image quality.

[IM Division]

- The IM division's revenue for 2016 was KRW 100.302 trillion, decreased by 3.1% compared to the previous year, but operating profit increased by 6.6% to KRW 10.808 trillion.
- In terms of the IM division business, global shipments of our flagship Galaxy S7 smartphone increased and our mid to low-range products Galaxy A and J series were well received in the market. Unfortunately, we had to halt sales of our premium Note 7 smartphone launched in the second half of the year due to quality issues.

In 2017, we will focus on strengthening the premium market leadership based on our unique form factor as well as differentiated design/UX, and constantly strengthen our position in the mid to low-range markets by offering a diverse line-up of products. In addition, we will work hard to meet the different needs of consumers with better usability and more convenient user experience through accessories and wearable devices like Gear S3 and VR.

Along with these efforts, we will continue to invest in new growth engines to differentiate our products and services, in areas such as Cloud, Intelligence, Mobile B2B, as well as Mobile Payment such as Samsung pay. We will build on the industry's Top R&D capability and grow as a global leading company which constantly delivers new value to our consumers. While constantly pursuing product innovation, we will make sure that consumer safety is our top priority. By implementing multi-layer safety measures, conducting a thorough pre-safety check, and establishing an organization devoted to safety verification, we will strive to ensure that a similar quality-related issue does not happen again. We will be committed to building trust from the market and our consumers.

[Semiconductor]

- The semiconductor business's 2016 revenue increased by 7.5% from the previous year to KRW 51.157 trillion. Operating profit increased by 6.3% compared to the previous year to KRW 13.595 trillion.
- The memory business achieved a record high result by enhancing process technology, reducing cost, and expanding shipments of more profitable products, based on stable demands from major mobile and server customers. Also, we are focused on securing next-generation technological leadership through continuous investment.
- The DRAM business environment gradually turned into a supply shortage period from a state of oversupply, as overall demand increased with the launch of new mobile products and other suppliers were slow in developing high-performance and high-quality products. Under these circumstances, a heavy demand on the Company is likely to continue for an extended period of time. We unveiled the industry's first 10nm-class DRAM products in the fourth quarter of 2016 and secured a competitive position at least a year ahead of competitors in terms of technology development capability. Furthermore, we are making various efforts to solidify the leadership position in the DRAM market through methods such as the ongoing work on the differentiated products based on 10nm-class technology and the development of next-generation DRAMs.

The demand for NAND is expected to increase as more NAND is included in new smartphones and the ever-increasing adoption of SSDs (solid state drives) continues, and as a result we expect the chip market to experience a supply shortage as suppliers are reaching the limits in migrating to finer processes and competitors are slow in expanding Vertical NAND production. We are mass producing both planar and vertical NANDs in order to address the customer demand for various NAND products in a timely manner. In particular, the Company is mass producing the 3rd generation of Vertical NAND, which is ahead of its competitors in terms of technology and simultaneously entering the premium market by applying the products to high-performance SSDs. We are also expanding high-quality 3bit MLC products to maximize cost competitiveness.

In 2017, growth in the memory semiconductor market is expected to continue. In order to continue to lead as the No. 1 memory maker, the Company will expand on differentiated products based on advanced processes and address demands from each application's market by taking advantage of our diverse product line-ups.

- For the System LSI business, the growth has mostly come from mobile products, but we expect the markets for mobile products such as smartphones and tablets to slow down in 2017. However, the overall demand is projected to stay flat, due to an increased demand from newly forming markets, such as IoT, wearable, automotive electronics components, health care and others.

We are also witnessing an increasing demand for high-resolution, high-quality and differentiated image sensors from companies seeking to differentiate their mobile products. Based on our advanced technologies like dual pixels, we are leading the CIS product markets for mobile devices.

We have advanced processes and manufacturing technology over our competitors that enable us to lead the foundry industry. Production demand from fabless customers continue to increase.

[DP]

- The DP division's revenue in 2016 decreased by 2.0% from the previous year to KRW 26.929 trillion. Operating profit decreased by 3.0% compared to the previous year to KRW 2.227 trillion.
- We are focused on strengthening the competitiveness of the OLED business through increasing production yields, improving cost competitiveness and enhancing collaboration with customers. In the mobile display market, the demand for OLED panel is projected to continuously increase, driven by the demand from smartphone makers who seek to differentiate their products. Further, the growing trend towards large-sized and high-resolution screens will continue and demand for flexible displays will further increase. We will diversify the product line-ups of mid- to small-sized OLED panels and expand our customer base. At the same time, we will expand shipments of flexible products.

This year, we will strive to develop new technologies and make strategic investments in order to respond quickly to paradigm shifts of the emerging IT industries including IoT, AI, and automotive electronics while securing a leading position in the next-generation markets.

Along with our efforts to strengthen our business competitiveness, we will undertake a thorough review on the existing systems and practices in all areas of our business in order to build a robust risk management system.

We expect various uncertainties to persist throughout this year, but we will continue our effort to widen the gap with competitors through continuous technology innovation and business advancement while striving to better understand the market and our customers' needs through in-depth reviews and creating new values. By doing so, we hope to make 2017 another year for strong growth.

C. New businesses

N/A

D. Changes in Organizational Structure

In December 2009, following an organizational change, the Company was reorganized from a two-divisional system (DMC and DS) to a system of seven independent business units. Additionally, the total number of regional headquarters increased to 10, as the Africa regional headquarters was newly established.

In April 2010, the Digital Imaging business unit was added through a merger with Samsung Digital Imaging, increasing the total number of business units to eight. In December 2010, an overseas semiconductor division was changed from a subsidiary to a regional headquarters.

In July 2011, the Company established the DS business headquarters to reinforce synergies in the component business. In December 2011, following an organizational change, the DMC division was re-established and the Company returned to a two-divisional system (DMC and DS).

In April 2012, the LED business unit was added through a merger with Samsung LED.

In May 2012, the Japan regional headquarters was established under the DS division.

In December 2012, following an organizational change, the CE and IM businesses were upgraded to individual division status, and the IT Solution business was divided into the Printing Solution and Computer businesses. The Printing Solution business was incorporated into the CE division, and the Computer business was integrated into the Mobile business under the IM division. The Medical Device business team was upgraded to a business unit within the CE division.

In December 2013, the Digital Imaging business was changed to a team unit, and then was integrated with the Mobile business.

In December 2015, the LED business was reorganized and converted into a team unit.

(Refer to 『2. Company History』 of 『I. Corporate Overview』 for more details about changes in the organizational structure.)

E. Foreign Exchange Risk

The Company is exposed to foreign exchange risks of currencies, including USD, in carrying out business activities. Uncertainty related to exchange rates could influence business transactions, assets and liabilities in the future. In particular, as the Company exports more than it imports, won cash flow can be negatively impacted when the won is strong. As such, the Company focuses on minimizing foreign exchange risk by matching foreign currency income and expenditure and does not hedge foreign currencies using derivatives. In particular, macroeconomic factors such as a fall in KRW/USD exchange rate and global policies to move away from ultra-low interest rates can negatively impact the Company's profitability.

F. Recognition of Asset Impairment Loss

The Company conducts an annual review of asset impairment loss, and the determination of recoverable amount of a CGU (cash generating unit) was based on the calculation of value in use. The use of value was calculated on assumption regarding BTCF (before tax cash flow), based on the financial budget for the next five years approved by the management committee. In calculating terminal-year cash flow for period that exceeds the term, assumption of fixed average growth (does not exceed industry average) was used.

(Refer to 『2. Notes to Consolidated Financial Statements』 of 『III. Financial Affairs』 for more details about asset impairment loss)

4. Liquidity, Financing, and Expenditure

As of the end of 2016, the Company has KRW 88.182 trillion of liquid funds.

These liquid funds include i) cash and cash equivalents, ii) short-term financial instruments, and iii) short-term available-for-sale securities. This balance increased by KRW 16.689 trillion from KRW 71.493 trillion at the end of the previous period.

The Company's short-term borrowings (including alternatives for liquidity) are KRW 13.980 trillion, an increase of KRW 2.603 trillion from KRW 11.377 trillion of the end of the previous year. Long-term borrowings are KRW 1.303 trillion, a decrease of KRW 194 billion from KRW 1.497 trillion of the end of the previous year.

The Company's net cash (liquid funds - borrowings) is KRW 72.900 trillion, which is an increase of KRW 14.281 trillion from KRW 58.619 trillion of the end of the previous period.

The Company has ample liquidity according to the liquidity assessment index of the global credit rating agency Moody's. The Company's cash coverage (liquid funds/borrowings), which is a major liquidity index that Moody's uses, corresponds to the highest level, Aaa.

	2016	2015	Note
Cash Coverage (Liquid funds/borrowings)	577%	555%	Moody's rating Aaa : >100%

5. Other Information for Investment Decision Making

A. Significant accounting policies and estimation

- Refer to 『2. Note to Consolidated Financial Statements』 in 『III. Financial Affairs』 for significant accounting policies and estimates.

B. Environment and employees

- Refer to 『5. Sanctions and others』 in 『XI. Other information』 for environmental sanctions or administrative actions.
- No significant changes in employee positions during this period.

C. Legal regulations

- Refer to 『5. Sanctions and others』 of 『XI. Other information』 for major legal regulations on the Company's businesses.

D. Derivatives and risk management policy

- To manage exchange rate risk, overseas companies enter into currency forwards which are denominated in the trading currency of a foreign currency position as opposed to the companies' reporting currencies. Overseas offices buy or sell currency forwards with less than one year maturity via a bank to avert risk.

VI. Corporate Governance

1. Board of Directors

A. Overview of Board of Directors

As of December 31, 2016, the Board of Directors (BOD) consists of nine (9) directors, four (4) of whom are executive directors (Oh-Hyun Kwon, Boo-Keun Yoon, Jong-Kyun Shin, and Jae-Yong Lee) and five (5) independent directors (In-Ho Lee, Han-Joong Kim, Kwang-Soo Song, Byeong-Gi Lee, and Jae-Wan Bahk).

The Board has six (6) committees as follows: Management Committee, Audit Committee, Independent Director Recommendation Committee, Related Party Transactions Committee, Compensation Committee, and CSR Committee.

B. The BOD Agendas considered and voting results

Date	Agenda	Results	Independent directors					
			In-Ho Lee	Han-Joong Kim	Kwang-Soo Song	Byeong-Gi Lee	Eun-Mee Kim	Jae-Wan Bahk
Jan 28, 2016	① Approval of FY2015 financial statements and annual business report	Approved	For	For	For	Absent	For	-
	② Buyback and cancellation of treasury stocks	Approved	For	For	For	Absent	For	-
	③ Disposal of Samsung Card shares	Approved	For	For	For	Absent	For	-
	④ Approval of FY2016 business plan	Approved	For	For	For	Absent	For	-
	⑤ Appointment of compliance officer	Approved	For	For	For	Absent	For	-
	✳ <i>Reported Item</i>							
	① Report on the internal accounting management system							
	② Assessment of the internal accounting management system							
Feb 12, 2016	① Decision to convene the 47 th (FY2016) AGM	Approved	For	For	For	For	For	-
	② Decision of the 47 th AGM agenda items	Approved	For	For	For	For	For	-
	- report items:							
	1) FY2015 annual audit report							
	2) FY2015 annual business report							
	- Item 1: Approval of FY2015 financial statements, including balance sheet, income statement, and the statement of appropriation of retained earnings, etc.							
-Item 2: Appointment of Directors								
Item 2-1: Appointment of Independent Directors								
Item 2-1-1: Appointment of In-ho Lee as an Independent Director								
Item 2-1-2: Appointment of Kwang-soo Song as an Independent Director								
Item 2-1-3: Appointment of Jae-wan Bahk as an Independent Director								
Item 2-2: Appointment of Executive Directors								
Item 2-3: Appointment of Audit Committee members								
- Item 3: Approval of remuneration limit for Directors								
- Item 4: Approval of amendments to the Articles of Incorporation								
③ Approval of changes in large-scale goods and services transactions in 2016	Approved	For	For	For	For	For	-	
✳ <i>Reported Item</i>								
① Report on the results of compliance review								
Mar 11, 2016	① Revision to BOD regulations	Approved	For	For	For	For	Absent	For
	② Appointment of BOD Chairman	Approved	For	For	For	For	Absent	For
	③ Appointment of CEO and Directors	Approved	For	For	For	For	Absent	For
	④ Appointment of BOD Committee members	Approved	For	For	For	For	Absent	For
	⑤ Setting the remuneration of directors	Approved	For	For	For	For	Absent	For
	⑥ Cancellation of real estate lease contracts with Samsung Life Insurance	Approved	For	For	For	For	Absent	For
	⑦ Donation	Approved	For	For	For	For	Absent	For

Apr 28, 2016	<ul style="list-style-type: none"> ① Approval of the 48th 1Q16 financial statements and business report ② Buyback and cancellation of treasury stocks ③ Property leasing contract with Samsung Life Insurance ④ Acquisition of Samsung Biologics shares ⑤ Donation to Sungkyunkwan University ⑥ Approval of holding a concurrent position as Executive Director in Samsung Display 	<ul style="list-style-type: none"> Approved Approved Approved Approved Approved Approved 	<ul style="list-style-type: none"> For For For For For For 	<ul style="list-style-type: none"> For For For For For For 	<ul style="list-style-type: none"> For For For For For For 	<ul style="list-style-type: none"> - - - - - - 	<ul style="list-style-type: none"> For For For For For For 	
May 20, 2016	<ul style="list-style-type: none"> ① Property leasing contract with Samsung Display ② Approval of Greenhouse gas emissions trading with Samsung Display 	<ul style="list-style-type: none"> Approved Approved 	<ul style="list-style-type: none"> For For 	<ul style="list-style-type: none"> For For 	<ul style="list-style-type: none"> For For 	<ul style="list-style-type: none"> For For 	<ul style="list-style-type: none"> - - 	<ul style="list-style-type: none"> For For
Jul 28, 2016	<ul style="list-style-type: none"> ① Approval of the 48th 1H16 financial statements, half-year business report and June quarterly dividend ② Buyback and cancellation of treasury stocks ③ Revision to management committee regulations ④ Revision to CSR committee regulations ⑤ Application for property insurance ⑥ Application for Venture Capital Union 	<ul style="list-style-type: none"> Approved Approved Approved Approved Approved Approved 	<ul style="list-style-type: none"> For For For For For For 	<ul style="list-style-type: none"> For For For For For For 	<ul style="list-style-type: none"> For For For For For For 	<ul style="list-style-type: none"> - - - - - - 	<ul style="list-style-type: none"> For For For For For For 	
Sep 12, 2016	<ul style="list-style-type: none"> ① Disposal of Printing Solutions Business ② Approval of the Printing solutions business Spin-off ③ Decision to convene the Extraordinary General Shareholders Meeting (EGM) ④ Decision of the EGM agenda items <ul style="list-style-type: none"> - report item: audit report - Item 1: Approval of the Printing solutions business Spin-off - Item 2: Appointment of Jae-Yong Lee as an Executive director ⑤ Closing of shareholder register and the record date for EGM ⑥ Disposal of Samsung Biologics shares 	<ul style="list-style-type: none"> Approved Approved Approved Approved Approved Approved 	<ul style="list-style-type: none"> For For For For For For 	<ul style="list-style-type: none"> For For For For For For 	<ul style="list-style-type: none"> For For For For For For 	<ul style="list-style-type: none"> - - - - - - 	<ul style="list-style-type: none"> For For For For For For 	
Oct 27, 2016	<ul style="list-style-type: none"> ① Approval of the 3Q16 financial statements and business report ② Participation in Samsung Heavy Industries rights offering ③ Purchase of shares of Cheil Worldwide ④ A property leasing contract with Samsung Securities ⑤ Sale of real estate to Samsung Life Insurance ⑥ Establishment and operation of Lifelong Learning center ⑦ Application for Venture Capital Union ⑧ Donation to Samsung Life Public Welfare Foundation 	<ul style="list-style-type: none"> Approved Approved Approved Approved Approved Approved Approved Approved 	<ul style="list-style-type: none"> For For For For For For For For 	<ul style="list-style-type: none"> For For For For For For For For 	<ul style="list-style-type: none"> For For For For For For For For 	<ul style="list-style-type: none"> - - - - - - - - 	<ul style="list-style-type: none"> For For For For For For For For 	
Nov 2, 2016	<ul style="list-style-type: none"> ① Report and disclosure of Spin-off Completion of Printing Solutions Business ② Revision to BOD regulations 	<ul style="list-style-type: none"> Approved Approved 	<ul style="list-style-type: none"> For For 	<ul style="list-style-type: none"> For For 	<ul style="list-style-type: none"> For For 	<ul style="list-style-type: none"> For For 	<ul style="list-style-type: none"> - - 	<ul style="list-style-type: none"> For For
Nov 14, 2016	<ul style="list-style-type: none"> ① Acquisition of Harman 	<ul style="list-style-type: none"> Approved 	<ul style="list-style-type: none"> For 	<ul style="list-style-type: none"> For 	<ul style="list-style-type: none"> For 	<ul style="list-style-type: none"> For 	<ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> For
Nov 29, 2016	<ul style="list-style-type: none"> ① Approval of transactions with affiliate person(s) ② Payment of retirement pensions ③ Approval of mid to long-term shareholder value enhancement plans ④ Purchase of facility of Samsung Display ✳ <i>Reported Item</i> ① Report on the results of compliance review 	<ul style="list-style-type: none"> Approved Approved Approved Approved 	<ul style="list-style-type: none"> For For For For 	<ul style="list-style-type: none"> For For For For 	<ul style="list-style-type: none"> For For For For 	<ul style="list-style-type: none"> For For For For 	<ul style="list-style-type: none"> - - - - 	<ul style="list-style-type: none"> For For For For

C. The Committees of BOD

(1) Composition of the BOD Committees as of December 31, 2016

Committee Name	Members	Member Name	Responsibility and Authority
Management	3 Executive Directors	Oh-Hyun Kwon, Boo-Keun Yoon, Jong-Kyun Shin	See description below
Related Party Transactions	3 Independent Directors	In-Ho Lee, Han-Joong Kim, Kwang-Soo Song	
Compensation	3 Independent Directors	Kwang-Soo Song, In-Ho Lee, Byeong-Gi Lee	
CSR	5 Independent Directors	Byeong-Gi Lee, In-Ho Lee, Han-Joong Kim, Kwang-Soo Song, Jae-Wan Bahk	

※ The Audit Committee and Independent Director Recommendation Committee were excluded according to *Corporate Disclosure Guidelines* set forth by the *Financial Supervisory Service Authority* of South Korea.

i) The Management Committee

- *Responsibility:* The Management Committee deliberates and decides on matters specified by the BOD regulations and resolutions or specifically delegated by the BOD. The composition and operation of the management committee are determined by the BOD.

- *Authority*

The Management Committee deliberates and decides on the following matters:

(A) General management

1. Annual or mid to long-term management policy and strategy
2. Key management strategy
3. Business planning and restructuring
4. Establishment, relocation, and withdrawal of overseas branch and corporation
5. Initiating cooperation such as strategic partnership with foreign companies
6. Acquisition or disposal of domestic and overseas subsidiaries
(Provided that the value of transaction exceeds 0.1% of total equity)
7. Other major management matters
8. Establishment, relocation, and withdrawal of branches and operations
9. Appointment or dismissal of supervisors
10. Suspension or shutdown of production over 5% of the total production in the recent year
11. Licensing agreements and technology transfer, partnership in regards to technology of over 0.5% of the total equity
12. Acquisitions and transfers of patents related to new material and new technology of over 0.5% of the total equity
13. Collection and destruction of products corresponding to over 5% of the total sales in the recent business year
14. Contracting for over 5% of the total sales in the recent business year
15. Contracting or canceling of single sales agency and suppliers over 5% of the total sales in the recent business year
16. Set basic principles of organization management
17. Decision making on basic principles and any changes related to wages, bonus, and fringe benefits
18. Appointments, dismissals and changes of transfer agent
19. Closing of shareholder register and setting reference date
20. Establishing corporate guidelines for business and management related activities
21. Donations over KRW 50 billion per donation. Donation to related parties between KRW 3 billion and KRW 5 billion

(B) Matters related to Finance

1. Acquisitions or disposals of equity investments with a value between 0.1% and/or less than 2.5% of the total equity
2. Direct overseas investments with a value of over 0.1% and/or less than 2.5% of the total equity
3. New debt guarantee (excluding extension of period) or collateral issuance with a value of over 0.1% and/or less than 2.5% of the total equity
 - A. Collateral: Only in the case of providing collateral for others
 - B. Guarantee: Excludes performance guarantee (e.g., bid, contract, defect, difference guarantee) and tax payment guarantee
4. New credit agreement contract (excluding extension of period) with a value of over 0.1% and/or less than 5% of the total equity
5. Approval of related party transactions:
Related party transactions with affiliates involving cash (loans and payments), equity (stocks and bonds) or assets (such as real estate and intangible property rights) with a value between KRW 3 billion and/or less than KRW 5 billion, as defined in the Monopoly Regulation and Fair Trade Act
※ Excluding cases where existing contracts are renewed without significant change.
6. Issuance of Corporate Bond
7. Acquisition and disposal of real estate with a value of over 0.1% of the total equity, provided that the transaction is with the third party
8. Any matters that the CEO deems necessary and important for the business (e.g., CAPEX)

(C) All other matters except for those delegated to the BOD and other committees in accordance with BOD regulations

ii) *Related Party Transactions Committee*

- *Responsibility*: Improve management transparency through establishment of a voluntary compliance system

- *Authority*

- 1) Right to receive reports on related party transactions:
The Committee can request reports on related party transactions with affiliates
※ According to the Monopoly Regulation and Fair Trade Act, the Related Party Transactions committee is permitted to conduct preliminary reviews and approves on related party transactions over KRW 5 billion and other transactions that are deemed as significant.
- 2) Right to order ex officio investigation of related party transactions
- 3) Right to propose corrective measures for related party transactions

iii) *Compensation Committee*

- *Responsibility*: Provide transparent and objective decision making process related to remuneration of directors

- *Authority*

- 1) Propose remuneration limit of directors at annual general shareholders' meeting
- 2) Establish the director remuneration system
- 3) Other matters delegated by the Board

iv) *CSR Committee*

- *Responsibility*: Address social responsibilities of the Company and make contributions to public interest

- *Authority*

- 1) Matters related to social responsibility of the Company
- 2) Matters related to establishment, composition and management of organizations (e.g. research groups or council under the committee)
- 3) Other matters delegated by the Board

(2) The BOD Committee Activities

※ The Audit Committee and Independent Director Recommendation Committee were excluded according to *Corporate Disclosure Guidelines* set forth by the *Financial Supervisory Service Authority* of South Korea.

□ The Management Committee

Date	Agenda	Voting Results	Attendance/Voting Results of Independent Directors
Jan 28, 2016	① Greenhouse gases emissions trading ② Liquidation of a subsidiary ③ Establishment of regional office	Approved Approved Approved	N/A (All comprised of executive directors)
Feb 17, 2016	① Patent license agreement ② Memory investment	Approved Approved	
Mar 30, 2016	① Establishment of regional office ② Additional investment in Pyeongtaek complex	Approved Approved	
Apr 28, 2016	① Memory investment	Approved	
May 20, 2016	① Stake acquisition of regional office ② Establishment of a subsidiary	Approved Approved	
Jun 9, 2016	① Stake acquisition of regional office ② Memory investment ③ Closing of shareholder register for June quarterly dividend	Approved Approved Approved	
Jun 29, 2016	① Patent license agreement ② Establishment of regional office ③ Real estate contract	Approved Approved Approved	
Jul 28, 2016	① Memory investment and investment in a subsidiary ② Liquidation of a subsidiary ③ Liquidation of a marketing corporate entity	Approved Approved Approved	
Aug 11, 2016	① Stake acquisition of subsidiary	Approved	
Sep 1, 2016	① Disposal of assets	Approved	
Sep 28, 2016	① Establishment of a subsidiary ② Stake acquisition of subsidiary ③ Real estate contract	Approved Approved Approved	
Oct 24, 2016	① Liquidation of a subsidiary ② Memory investment	Approved Approved	
Nov 29, 2016	① Additional investment in Pyeongtaek complex ② S.LSI investment	Approved Approved	
Dec 20, 2016	① Memory investment ※ <i>Reported Item</i> ① Proposals from investors	Approved -	

□ **The Related Party Transactions Committee**

Date	Agenda	Voting Results	Name of independent directors		
			In-Ho Lee (Attendance: 100%)	Han-Joong Kim (Attendance: 100%)	Kwang-Soo Song (Attendance: 100%)
			For/against		
Jan 27, 2016	- Prior review on large-scale related party transactions 1) Disposal of Samsung Card shares - Report on 4Q15 related party transactions	-	-	-	-
Feb 12, 2016	- Prior review on large-scale related party transactions 1) Approval of changes in large-scale goods and services transactions in 2016	-	-	-	-
Mar 11, 2016	- Prior review on large-scale related party transactions 1) Cancellation of real estate lease contracts with Samsung Life Insurance 2) Donation	-	-	-	-
Apr 27, 2016	- Approval items 1) Appointment of the head of Related Party Transactions Committee	Approved	For	For	For
	- Prior review on large-scale related party transactions 1) Acquisition of Samsung Biologics shares 2) Donation to Sungkyunkwan University 3) Property leasing contract with Samsung Life Insurance - Report on 1Q16 related party transactions	-	-	-	-
May 20, 2016	- Prior review on large-scale related party transactions 1) Property leasing contract with Samsung Display 2) Approval of Greenhouse gas emissions trading with Samsung Display	-	-	-	-
Jul 27, 2016	- Prior review on large-scale related party transactions 1) Application for property insurance 2) Application for Venture Capital Union - Report on 2Q16 related party transactions	-	-	-	-
Sep 12, 2016	- Prior review on large-scale related party transactions 1) Disposal of Samsung Biologics shares	-	-	-	-
Oct 26, 2016	- Prior review on large-scale related party transactions 1) Participation in Samsung Heavy Industries rights offering 2) Purchase of shares 3) Property leasing contract with Samsung Securities 4) Sale of real estate to Samsung Life Insurance 5) Application for Venture Capital Union 6) Donation to Samsung Life Public Welfare Foundation	-	-	-	-
	- Report on 3Q16 related party transactions	-	-	-	-
Nov 29, 2016	- Prior review on large-scale related party transactions 1) Approval of large-scale goods and services transactions in 2017 2) Payment of retirement pensions	-	-	-	-

□ **The Compensation Committee**

Date	Agenda	Voting Results	Name of Independent Directors		
			Kwang-Soo Song (Attendance: 100%)	In-Ho Lee (Attendance: 100%)	Byeong-Gi Lee (Attendance: 100%)
			For/Against		
Feb 5, 2016	① Prior review on 2016 remuneration ceiling for Directors	Approved	For	For	For

□ **The CSR Committee**

Date	Agenda	Voting Results	Name of Independent Directors				
			Byeong-Gi Lee (Attendance: 100%)	In-Ho Lee (Attendance: 100%)	Han-Joong Kim (Attendance: 100%)	Kwang-Soo Song (Attendance: 100%)	Jae-Wan Bahk (Attendance: 100%)
			For/Against				
Apr 28, 2016	① Review on establishment of risk management council	-	-	-	-	-	-
May 20, 2016	① Review on risk management plans ② Research results and findings of the 2nd term research committee for the advancement of corporate ecosystem	Approved -	For -	For -	For -	For -	For -
Jul 28, 2016	① Establishment of CSR risk management council	Approved	For	For	For	For	For
Nov 29, 2016	※ Reported Item ① Report on 4Q16 results of CSR risk management council	-	-	-	-	-	-

D. Director Independence

(1) Appointment of Directors

Directors are appointed by shareholders at the general meeting of shareholders. The Board is responsible for nominating candidates for Executive Directors, and the Independent Director Recommendation Committee nominates independent director candidates, who are presented to shareholders as separate agendas and voted on at the annual general meeting.

The Board submits shareholders' proposal for appointment of Directors at the annual general shareholder meeting as a separate agenda if the proposal satisfies related laws and regulations.

The composition of the Board of Directors, as appointed by shareholders, is as follows:

[As of December 31, 2016]

Position	Name	Nominated by	Responsibility	Transactions with the Company	Relation with the controlling shareholder	
Executive Director	Oh-Hyun Kwon	BOD	Chairman of BOD Head of DS Division	N/A	N/A	
Executive Director	Boo-Keun Yoon	BOD	Head of CE Division			
Executive Director	Jong-Kyun Shin	BOD	Head of IM Division			
Executive Director	Jae-Yong Lee	BOD	Overall management of the Company's operations		N/A	Affiliate
Independent Director	In-Ho Lee	Independent Director Recommendation Committee	Overall management of the Company			
Independent Director	Han-Joong Kim	Independent Director Recommendation Committee	Overall management of the Company			
Independent Director	Kwang-Soo Song	Independent Director Recommendation Committee	Overall management of the Company			
Independent Director	Byeong-Gi Lee	Independent Director Recommendation Committee	Overall management of the Company			
Independent Director	Jae-Wan Bahk	Independent Director Recommendation Committee	Overall management of the Company			

(2) Independent Director Recommendation Committee

The Independent Director Recommendation Committee assesses the independence and ability of potential candidates and recommends selected candidates to be appointed at the annual general meeting of shareholders. The committee is composed of three Independent Directors (Han-Joong Kim, Byeong-Gi Lee, and Jae-Wan Bahk) and one Executive Director (Oh-Hyun Kwon) based on related laws that states more than a majority of members should be independent directors in accordance with clause 4 of Article 542-8 of the Commercial Law.

(3) Professionalism of Independent Directors

The Company provides the independent directors with access to support staff so they are able to perform their duties professionally in the BOD and the Board committees. The support staff provides the Directors with reference materials corresponding to the meeting agendas well in advance so Directors will have the ample opportunity thoroughly review the topics to be discussed before the Board and committee meetings. If necessary, the Directors are provided with separate information sessions on any item on the agenda and they are also frequently provided updates on other key management issues. In addition, the support staff conducts internal education programs which allow Independent Directors to visit and conduct inspect domestic and overseas business sites and receive reports of the current state of business operation.

2. Audit System

A. Profile of the member of the Audit Committee

As of December 31, 2016, SEC operates an Audit Committee consisting of three (3) Independent Directors.

Name	Career	Note
In-Ho Lee	<ul style="list-style-type: none"> - Corporate Advisor, Shinhan Bank (2009-2011) - Chief Executive Officer, Shinhan Financial Group (2005-2009) - President & CEO, Shinhan Bank (1999-2003) 	Independent director
Han-Joong Kim	<ul style="list-style-type: none"> - Professor Emeritus, Yonsei University (2012-Present) - President, Yonsei University (2008-2012) - Professor, Dept. of Preventive Medicine & Public Health (1982-2012) 	Independent director
Kwang-Soo Song	<ul style="list-style-type: none"> - Advisor, Kim & Chang Law Office (2007-Present) - Prosecutor General, Supreme Prosecutors' Office (2003-2005) - Chief Prosecutor, Daegu High Prosecutors' Office (2002-2003) 	Independent director

B. Audit Committee Independence

Pursuant to related laws and the Articles of Incorporation, SEC has prepared internal audit regulations which encompass composition, operation, authority, and responsibility of the Audit Committees to carry out audit related activities.

The Audit Committee is exclusively composed of Independent Directors appointed at the general shareholder meeting and includes audit and financial experts. Also, the Audit Committee satisfies requirements of relevant laws. (e.g., The stipulation that the role of head of the committee be held by an Independent Director.)

Requirements	Satisfied the requirement	Applicable Acts, etc.
- The audit committee shall consist of at least three directors	Satisfied (three directors)	Article 415-2 (2) of the Commercial Act, Article 2 of the Company's Audit Committee Regulation
- The ratio of independent directors shall exceed two thirds of the total number of members.	Satisfied (all members are independent directors)	
- At least one member of the committee shall be an accounting or financing expert.	Satisfied (In-ho Lee)	Article 542-11 (2) of the Commercial Act, Article 3 of the Company's Audit Committee Regulation
- The representative of the committee shall be an independent director.	Satisfied	
- Other conditions (affiliates of majority shareholder, etc.)	Satisfied (n/a)	Article 542-11 (3) of the Commercial Act

The Audit Committee reviews accounting documents including financial statements and audit process related documents presented by the external auditor, and if needed, requests the external auditor to perform additional reviews on accounting books and records. To ensure the reliability of accounting related disclosures, the audit committee receives and reviews a report on internal accounting control systems prepared by internal accounting managers. In addition, the Committee attends the BOD meetings and other significant meetings. The Committee receives reports on deliberations of the Management Committee and on business performance from Directors and requests additional reviews and supplementation of data as needed.

C. Major Activities of the Audit Committee

See the table below for major activities of the Audit Committee by reporting date.

Date	Agenda	Voting Results	Name of independent directors		
			In-Ho Lee (Attendance: 100%)	Han-Joong Kim (Attendance: 100%)	Kwang-Soo Song (Attendance: 100%)
			For/Against		
Jan 27, 2016	- Report on 2015 financial statement and business report - Report on 2015 internal accounting management system activities - Report on 4Q15 non-audit activities - Report on 2015 audit activities	- - - -	- - - -	- - - -	- - - -
Feb 12, 2016	- Review of the 2016 AGM agenda - Assessment of 2015 activities of internal compliance system	- -	- -	- -	- -
Apr 27, 2016	- Appointment of the head of Audit Committee - Report on 1Q16 financial statement and business report - Report on 1Q16 non-audit activities	Approved - -	For - -	For - -	For - -
Jul 27, 2016	- Report on 1H16 financial statement and half-year business report - Report on 2Q16 non-audit activities - Report on 1H16 audit activities	- - -	- - -	- - -	- - -
Sep 12, 2016	- Review of the 48th EGM agenda	-	-	-	-
Oct 26, 2016	- Report on 3Q16 financial statement and business report - Report on 3Q16 non-audit activities	- -	- -	- -	- -

D. Compliance Officer

1. Compliance Officer	Name	Sang-joo Lee
	Age	46
	Academic Background	Doctor of Laws (Korea University College of Law) / Master of Public Administration (Graduate School of Public Administration, Harvard University)
	Current Position	Corporate Compliance Team leader at Samsung Electronics Legal Affairs Office
	Career	- Dec '12: Senior vice president/Team leader of Samsung Electronics Global Legal Affairs Team - Dec '15: Senior vice president/Team leader of Samsung Electronics Compliance Team - Feb '16: Senior vice president/Concurrently Chief privacy officer of Samsung Electronics Global Privacy Office
2. Date of BOD resolution		Jan 28, 2016
3. Disqualifications		N/A
4. Others		N/A

3. Voting Rights of Shareholders

A. Voting Method

The Company has not adopted a concentrated voting system, voting in writing, or an electronic voting system.

B. Minority Shareholder Right

No minority shareholder right was exercised during the reporting period.

C. Competition over Management Right

No competition over management rights occurred during the reporting period.

VII. Information on Shareholders

1. Ownership of Shares by the Major Shareholder and Related Parties

The following table presents changes in shares held by the major shareholder and related parties as of the beginning and end of the reporting period.

[As of December 31, 2016]

(Unit: Shares, %)

Name	Relationship	Type of share	Number of Shares owned				Note
			Beginning of period		End of period		
			# shares owned	%	# shares owned	%	
Kun-Hee Lee	Major shareholder	Common	4,985,464	3.38	4,985,464	3.54	-
Kun-Hee Lee	Major shareholder	Preferred	12,398	0.05	12,398	0.06	-
Samsung C&T	Affiliate	Common	5,976,362	4.06	5,976,362	4.25	-
Samsung Welfare Foundation	Affiliate	Common	89,683	0.06	89,683	0.06	-
Samsung Foundation Of Culture	Affiliate	Common	37,615	0.03	37,615	0.03	-
Ra-Hee Hong	Affiliate	Common	1,083,072	0.74	1,083,072	0.77	-
Jae-Yong Lee	Affiliate	Common	840,403	0.57	840,403	0.60	-
Samsung Life Insurance	Affiliate	Common	10,622,814	7.21	10,622,814	7.55	-
Samsung Life Insurance	Affiliate	Preferred	879	0.00	879	0.00	-
Samsung Life Insurance (special accounts)	Affiliate	Common	493,350	0.33	467,320	0.33	Open market sales
Samsung Life Insurance (special accounts)	Affiliate	Preferred	45,457	0.20	51,614	0.25	Open market sales
Samsung Fire & Marine Insurance	Affiliate	Common	1,856,370	1.26	1,856,370	1.32	-
Oh-Hyun Kwon	Affiliate	Common	1,700	0.00	1,300	0.00	Open market sales
Sang-Hoon Lee	Affiliate	Common	1,473	0.00	0	0	Resigned from the director position
Total		Common	25,988,306	17.64	25,960,403	18.45	-
		Preferred	58,734	0.26	64,891	0.32	-

※ The definition of ‘major shareholder’ is as defined in the Monopoly Regulation and Fair Trade Act of Korea.

※ The changes in percentage of shares owned reported herein (excluding open market sales) resulted from the purchase of treasury stock.

[The major shareholder]

- Name of the major shareholder: Kun-Hee Lee
- Career (recent 5 years): Chairman of Samsung Electronics (2010.3 ~)
Member of the International Olympic Committee (1996 ~)
- The major shareholder of record has not changed during the reporting period.

2. Ownership of Shares

As of December 31, 2016, the date of Suspension of Entry in the Register of Shareholders, shareholders with over 5% voting shares, excluding the major shareholder, are as follows:

[As of December 31, 2016]

(Unit: Shares)

Classification	Name	Number of shares owned	Share ratio	Note
Shareholders with over 5% voting shares	National Pension Service	12,976,838	9.22	-
	Samsung Life Insurance	11,090,134	7.88	-
Employee Stock Ownership Association		-	-	-

※ Note: According to the shareholder register, as of December 31, 2016.

※ The number of shares owned and share ratio of Samsung Life Insurance includes special accounts.

3. Minority Shareholders

[As of December 31, 2016]

(Unit: Person, Shares, %)

Classification	Shareholder		Shares owned		Note
	# of shareholders	Portion	# of shares	Portion	
Minority shareholder	66,719	99.98	76,998,715	54.73	Shareholders with shares less than 1/100 of total issued stocks
Total	66,799	100.00	140,679,337	100.00	

※ Note: According to the shareholder register, as of December 31, 2016.

※ Based on the number of common stock with voting rights.

4. Stock Affairs

<p>Preemptive Rights in the Articles of Incorporation</p>	<ol style="list-style-type: none"> 1. New shares to be issued by the Company shall be allocated to the shareholders in proportion to their respective shareholdings in accordance with Paragraph 6, Article 8. If shares are not subscribed for as a result of waiver or loss of the preemptive right of the shareholders to subscribe for new shares, or if fractional shares remain at the time of allocation of new shares, such shares may be disposed of by a resolution of the Board of Directors in accordance with applicable laws and regulations. 2. Notwithstanding the above Paragraph 1, new shares may be allocated to persons other than shareholders in the following cases: <ol style="list-style-type: none"> a. If the Company issues new shares or causes underwriters to underwrite new shares by a resolution of the Board of Directors in accordance with applicable laws and regulations including the Financial Investment Services and Capital Markets Act; b. If the Company allocates new shares preferentially to members of the Employee Stock Ownership Association by a resolution of the Board of Directors in accordance with applicable laws and regulations including the Financial Investment Services and Capital Markets Act; c. If the Company issues new shares for the issuance of depositary receipts (DR) by a resolution of the Board of Directors in accordance with the applicable laws and regulations including the Financial Investment Services and Capital Markets Act; d. If the Company issues new shares by public offering in accordance with Article 11-3; e. If new shares are issued by the exercise of stock options in accordance with Article 11-4; f. If the Company issues new shares to the extent of 20% of the total issued and outstanding shares to domestic or foreign financial institutions for the purpose of obtaining financing urgently or to the relevant partner company for the purpose of inducing technology therefrom, etc., by a resolution of the Board of Directors; provided that the issue price of the new shares shall not be less than the price prescribed by the Financial Investment Services and Capital Markets Act and other applicable laws and regulations. <p>☞ (Note) Paragraph 6, Article 8</p> <p>In the case of rights issue, bonus issue or stock dividend, the holders of common shares shall be entitled to common shares, and the holders of preferred shares shall be entitled to preferred shares, in proportion to their respective shareholdings; provided that in the case of rights issue and stock dividend the Company may, if necessary, issue only one kind of shares, where all the shareholders shall be entitled to such kind of shares to be issued.</p> <p>☞ (Note) Article 11-3 (Public Offering)</p> <ol style="list-style-type: none"> 1. The Company may issue new shares by public offering to the extent that the new shares do not exceed 20% of the total number of issued and outstanding shares by a resolution of the Board of Directors, pursuant to Article 165-6, Paragraph 1, Item 3 of the Financial Investment Services and Capital Markets Act. 2. If the Company issues new shares by public offering, the type, quantity and issue price of the shares to be newly issued shall be determined by a resolution of the Board of Directors; provided that the issue price of such new shares shall not be less than the price prescribed by the Financial Investment Services and Capital Markets Act and other applicable laws and regulations.
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Preemptive Rights in the Articles of Incorporation	<p>(Note) Article 11-4 (Stock Options)</p> <ol style="list-style-type: none"> 1. The Company may grant stock options to its officers and employees (including officers and employees of the related companies as set forth in Article 542-3, Paragraph 1 of the Commercial Code; the same shall apply for the purpose of this Article) by a special resolution of the general meeting of shareholders pursuant to Article 542-3 of the Commercial Code, to the extent permitted by the Commercial Code; provided, however, that the Company may grant the stock options to its officers and employees (except for the directors of the Company) by a resolution of the Board of Directors to the extent determined by the relevant laws and regulations. 2. The person to whom stock options may be granted are the officers and employees who have contributed or have the capacity to contribute to the establishment, management, overseas business, technical innovation, etc. of the Company; provided, however, that the officers and employees who may not be entitled to stock options under the relevant laws and regulations shall be excluded. 3. The shares to be issued to the officers or employees by the exercise of their stock options (in case the Company pays, either in cash or treasury shares, the difference between the exercise price of stock options and the market price, they refer to the shares which are the basis for such calculation) shall be common shares in registered form or preferred shares in registered form. 4. Total number of shares to be delivered in accordance with the exercise of stock options shall be up to the extent permitted by the relevant laws and regulations. 5. The stock options may be exercised until an expiry date determined by a resolution of the general meeting of shareholders or the Board of Directors and such expiry date shall be determined within a period not exceeding eight (8) years from the date when two (2) years have elapsed from the date of the general meeting of shareholders or the date of the Board of Directors' meeting at which a resolution to grant such stock options is adopted; provided, however, that the person to whom a stock option is granted should serve the Company for at least two (2) years after the date of such resolution in order to exercise such stock option, unless otherwise set forth by relevant laws and regulations. 6. The terms and conditions for stock options, such as the contents and exercise price thereof shall be determined by a special resolution of the general meeting of shareholders or by a resolution of the Board of Directors in accordance with the relevant laws and regulations and the Articles of Incorporation; provided, however, that such matters which are not provided for as matters reserved for resolutions of the general meeting of shareholders or the Board of Directors' meeting under the relevant laws and regulations or the Articles of Incorporation may be determined by the Board of Directors or a committee authorized by the Board of Directors. 7. The Company may cancel the grant of stock options by a resolution of the Board of Directors in any of the following cases: <ol style="list-style-type: none"> a. In case the relevant officer or employee voluntarily retires from his/her office or leaves the Company after the grant of stock options; b. In case the relevant officer or employee causes substantial damages to the Company due to his/her willful misconduct or negligence; c. In case any of the causes for cancellation set forth in the stock option agreement occurs. 				
	Settlement date	December 31	Annual General Meetings of Shareholders	Within 3 months after the end of every business year	
	Shareholder register closing period			One month from January 1	
	Stock type	1, 5, 10, 50, 100, 500, 1000, 10000(8 types)			
	Transfer agent	Korea Securities Depository(T: +82-2-3774-3000): 23, Yeouinaru-ro 4-gil, Yeongdeungpo-gu, Seoul, Korea			
	Shareholder benefit	n/a		Published on	Joongang Daily

5. Stock Price and Stock Transactions

A. Domestic Stock Market

(Unit: KRW, Shares)

Type		July '16	August	September	October	November	December	
Common stock	Stock price	Highest	1,543,000	1,687,000	1,643,000	1,706,000	1,746,000	1,812,000
		Lowest	1,421,000	1,517,000	1,465,000	1,535,000	1,539,000	1,718,000
		Average	1,497,810	1,595,545	1,583,474	1,606,750	1,625,045	1,777,190
	Volume	Highest (day)	334,983	410,644	529,987	781,771	570,704	329,251
		Lowest (day)	126,701	139,177	153,203	185,799	108,349	93,069
		Monthly	4,470	5,037	5,218	6,910	5,105	3,922
Preferred stock	Stock price	Highest	1,265,000	1,400,000	1,355,000	1,379,000	1,356,000	1,438,000
		Lowest	1,180,000	1,252,000	1,178,000	1,251,000	1,209,000	1,355,000
		Average	1,219,762	1,318,136	1,292,632	1,304,000	1,278,000	1,401,381
	Volume	Highest (day)	82,134	126,128	65,293	65,540	102,488	58,063
		Lowest (day)	17,649	22,252	16,503	10,300	19,312	8,252
		Monthly	932	995	791	504	705	708

※ Monthly trading volume in 1,000 shares

B. Overseas Stock Market

Name of Stock Exchange: London Stock Exchange (Common stock)

(Unit: USD, KRW, DR)

Type		July '16	August	September	October	November	December	
Common stock	Stock price	Highest	686.50	750.50	745.50	763.00	733.50	767.00
		(Converted to KRW)	772,793	830,353	823,778	847,922	857,095	896,930
		Lowest	602.00	671.50	666.00	670.50	660.00	731.50
		(Converted to KRW)	694,106	744,626	732,267	744,926	768,504	857,757
		Average	650.55	713.43	706.57	708.90	695.30	749.70
	Volume	Highest (day)	125,764	72,419	75,048	184,917	94,563	59,094
		Lowest (day)	16,374	11,052	13,065	14,293	4,062	3,276
		Monthly	896	732	794	1,198	569	477

※ Monthly volume in 1,000 Depository Receipt (DR) shares.

※ Stock price converted to KRW is based on the closing price of the KRW/USD exchange rate of the applicable trading day.

Ratio: Common one (1) share equals DR two (2) shares

Name of Stock Exchange: Luxembourg Stock Exchange (Preferred stock)

(Unit: USD, KRW, DR)

Type		July '16	August	September	October	November	December	
Preferred stock	Stock price	Highest	564.00	621.00	615.00	609.00	576.00	606.00
		(Converted to KRW)	634,895	698,811	686,832	676,782	673,056	708,717
		Lowest	504.00	560.00	532.00	545.00	518.00	574.00
		(Converted to KRW)	581,112	620,984	584,934	605,495	605,956	670,604
		Average	531.14	588.14	577.64	573.67	546.73	590.00
	Volume	Highest (day)	81,517	24,881	23,993	20,447	20,661	13,261
		Lowest (day)	614	573	829	490	761	212
		Monthly	194	164	97	107	100	74

※ Monthly volume in 1,000 DR shares.

※ Stock price converted to KRW is based on KRW/USD exchange rate of closing price of trading day.

Ratio: Preferred one (1) share equals DR two (2) shares

VIII. Executives and Employees

1. Executives and Employees

A. Registered Executives

[As of December 31, 2016]

(Unit: # of shares)

Name	Gender	Date of birth	Position	Registered executive	Full/part-time	Responsibility	Major career	Number of shares owned		Length of Service	Term expiration
								Common	Preferred		
Oh-Hyun Kwon	M	1952.10	CEO	Registered executive	Full time	Chairman of BOD Head of DS Division	Head of DS Division	1,300	0	58 mo.	2018.03.16
Boo-Keun Yoon	M	1953.02	CEO	Registered executive	Full time	Head of CE Division	Head of CE Division	0	0	46 mo.	2019.03.15
Jong-Kyun Shin	M	1956.01	CEO	Registered executive	Full time	Head of IM Division	Head of IM Division	0	0	46 mo.	2019.03.15
Jae-Yong Lee	M	1968.06	Executive Director	Registered executive	Full time	Overall management of the Company's operation	Vice Chairman	840,403	0	3 mo.	2019.10.27
In-Ho Lee	M	1943.11	Independent Director	Registered executive	Part time	Overall management of the Company	Former President & CEO of Shinhan Bank	0	0	82 mo.	2019.03.19
Han-Joong Kim	M	1948.11	Independent Director	Registered executive	Part time	Overall management of the Company	Former President of Yonsei University	0	0	58 mo.	2018.03.18
Kwang-Soo Song	M	1950.01	Independent Director	Registered executive	Part time	Overall management of the Company	Advisor at Kim & Chang Law Office	0	0	46 mo.	2019.03.15
Byeong-Gi Lee	M	1951.05	Independent Director	Registered executive	Part time	Overall management of the Company	Professor Emeritus at Seoul National University	0	0	58 mo.	2018.03.16
Jae-Wan Bahk	M	1955.01	Independent Director	Registered executive	Part time	Overall management of the Company	Professor of Public Administration at Sungkyunkwan University	0	0	10 mo.	2019.03.11

※ On March 11, 2016, Jae-Wan Bahk was newly appointed as an Independent Director at the annual general meeting of shareholders and Independent Director Eun-Mee Kim retired upon the expiration of her term.

※ Jae-Yong Lee was newly appointed as Executive Director at the Extraordinary General Meeting of Shareholders on October 27, 2016, and Executive Director Sang-Hoon Lee resigned.

B. Concurrent Position with Other Companies

[As of December 31, 2016]

Concurrent office holder		Company	
Name	Position	Name of company	Position
Kwang-Soo Song	Independent director	Doosan Corp.	Independent director
Jae-Wan Bahk	Independent director	Lotte Shopping co., Ltd	Independent director
Oh-Hyun Kwon	Executive director, CEO	Samsung Display	Executive director, CEO
Jae-Yong Lee	Executive director	EXOR N.V	Independent director

C. Employees

[As of December 31, 2016]

(Unit: KRW million)

Division	Gender	No. of employees				Average length of service (years)	Total Compensation	Average Compensation per employee
		Regular	Contract-based	Others	Total			
CE	M	11,058	109	-	11,167	12.9	-	-
CE	F	2,159	19	-	2,178	7.9	-	-
IM	M	19,358	215	-	19,573	11.1	-	-
IM	F	6,793	32	-	6,825	8.6	-	-
DS	M	31,281	123	-	31,404	10.5	-	-
DS	F	12,856	22	-	12,878	9.8	-	-
Others	M	7,305	139	-	7,444	13.4	-	-
Others	F	1,702	29	-	1,731	8.8	-	-
Gender Total	M	69,002	586	-	69,588	11.4	8,277,739	116
Gender Total	F	23,510	102	-	23,612	9.2	1,962,847	81
Total		92,512	688	-	93,200	10.8	10,240,586	107

- ※ Total compensation and average compensation per employee were calculated before income tax and other deductions based on the earned income payment record submitted to the district tax office in accordance with Article 20 of the Income Tax Law.
- ※ The number of employees represent domestic employees resident in Korea, excluding four executive directors.
- ※ Average compensation per employee was calculated based on total average employee figure of 95,460 (male: 71,084; female: 24,375)

2. Remuneration for Directors

A. Summary on Total Remuneration

(1) Remuneration approved at the annual general meetings of shareholders

(Unit: KRW million)

	Number of Persons	Amount Approved at Shareholders' Meeting	Note
Executive Directors	4	-	-
Independent Directors	2	-	-
Audit Committee member or Auditor	3	-	-
Total	9	39,000	-

※ Number of persons as of the Reporting Date.

※ The amount approved at shareholders' meeting is the remuneration limit for directors registered pursuant to Article 388 of the Korean Commercial Act ("Registered Directors"). It includes compensation for Registered Directors who retired this fiscal year and in past years.

(2) Remuneration Paid

[Remuneration paid for directors and audits]

(Unit: KRW million)

Number of Persons	Total amount of remuneration	Average remuneration per Director	Note
9	20,194	2,203	Remuneration for resigned director is included

※ Number of persons is as of the Reporting Date.

※ The total amount is the income based on the Income Tax Law that incumbent or retired executive directors, independent directors, and members of audit committee in the fiscal year received as a Registered Director in accordance with Article 159 of the Financial Investment Services and Capital Markets Act and Article 168 of the enforcement decree of the same law.

※ Average remuneration per Director was calculated by dividing total remuneration by annual average number of persons.

※ There is no recognized expenses (compensation expenses) in this term from granting stock options.

[Remuneration paid by type of director]

(Unit: KRW million)

	Number of Persons	Total amount of remuneration	Average remuneration per Director	Note
Executive Director (not including independent directors and audit committee members)	4	19,750	4,837	Remuneration for resigned director is included
Independent Director (not including audit committee members)	2	188	90	Remuneration for resigned director is included
Audit Committee member	3	256	85	-
Auditor	-	-	-	-

- ※ Number of persons is as of the Reporting Date.
- ※ The total amount is the income based on the Income Tax Law that incumbent or retired executive directors, independent directors, and members of audit committee in the fiscal year received as a Registered Director in accordance with Article 159 of the Financial Investment Services and Capital Markets Act and Article 168 of the enforcement decree of the same law.
- ※ Average remuneration per Director was calculated by dividing total remuneration by annual average number of persons.
- ※ There is no recognized expenses (compensation expenses) in this term from granting stock options.

3. Remuneration for Individual Executive Directors

(1) Summary on Remuneration by Executive

(Unit: KRW million)

Name	position	Total amount of remuneration	Remuneration not included in total amount
Oh-Hyun Kwon	CEO	6,698	-
Boo-Keun Yoon	CEO	5,030	-
Jong-Kyun Shin	CEO	3,986	-
Jae-Yong Lee	Executive Director	1,135	-
Sang-Hoon Lee	Executive Director	2,901	-

(2) Criteria and Methodology

(Unit: KRW million)

Name	Type of remuneration	Total amount	Criteria and methodology
Oh-Hyun Kwon (CEO)	Salary	1,944	In accordance with internal regulation for executive treatment (Board resolution), Remuneration is determined based on position (vice president), responsibilities, and performance results. He was paid KRW 174 million per month from January to April and KRW 156 million per month from May to December.
	Bonus	4,635	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Target Achievement Incentive: Paid biannual basis within the range of 0~200% of monthly wage * CEO decides the amount according to the level of target achieved - Performance Incentive: When performance exceeds the Company's goal; CEO decides the amount based on 20% profit. Paid once a year within 0~50% of salary. (Adjusted according to individual performance) - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. <p>※ Bonus awarded based on his contributions and consideration for his performance; As the Company's CEO, he laid the foundation for the Company's continuous growth. He expanded cutting-edge processes and increased sales of high value-added products for semiconductor and DP business, and he also improved productivity of OLED panels. Under his leadership, the Company achieved KRW 202 trillion in revenue and KRW 29 trillion in operating profit.</p>
	Profit from exercising stock option	-	n/a
	Other Income	119	Fringe benefits are provided in line with the internal regulation for executive treatment (Board resolution)
	Retirement Income	-	n/a
	Other Income	-	n/a

(Unit: KRW million)

Name	Type of remuneration		Total amount	Criteria and methodology
Boo-Keun Yoon (CEO)	Earned Income	Salary	1,728	In accordance with internal regulation for executive treatment (Board resolution), Remuneration is determined based on his position (president), responsibilities, and performance results. He was paid KRW 144 million per month.
		Bonus	3,216	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Target Achievement Incentive: Paid biannual basis within the range of 0~200% of monthly wage * CEO decides the amount according to the level of target achieved - Performance Incentive: When performance exceeds the Company's goal; CEO decides the amount based on 20% profit. Paid once a year within 0~50% of salary. (Adjusted according to individual performance) - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. <p>※ Bonus awarded based on his contributions and consideration for his performance; He strengthened the Company's leading position in the market by expanding shipments of premium products such as Chef Collection kitchen appliances and Add Wash washing machines, and strengthened business competitiveness by increasing B2B investment and launching innovative products including QLED TV and Family Hub 2.0 refrigerator. Under his leadership, the Company's TV business maintained the top position (in terms of market share) in the overall TV market for the 11th consecutive year.</p>
		Profit from exercising stock option	-	n/a
		Other Income	86	Fringe benefits are provided in line with the internal regulation for executive treatment (Board resolution)
	Retirement Income	-	n/a	
	Other Income	-	n/a	

(Unit: KRW million)

Name	Type of remuneration		Total amount	Criteria and methodology
Jong-Kyun Shin (CEO)	Earned Income	Salary	1,728	In accordance with internal regulation for executive treatment (Board resolution), Remuneration is determined based on his position (president), responsibilities, and performance results. He was paid KRW 144 million per month.
		Bonus	2,154	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Target Achievement Incentive: Paid biannual basis within the range of 0~200% of monthly wage * CEO decides the amount according to the level of target achieved - Performance Incentive: When performance exceeds the Company's goal; CEO decides the amount based on 20% profit. Paid once a year within 0~50% of salary. (Adjusted according to individual performance) - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. <p>※ Bonus awarded based on his contributions and consideration for his performance; Despite many challenges such as the Galaxy Note 7 issue, he expanded sales of flagship products such as Galaxy S7 and S7 Edge, strengthening the Company's leading position in the global market. Also, he expanded service regions of Samsung Pay and Cloud.</p>

	Profit from exercising stock option	-	n/a
	Other Income	104	Fringe benefits are provided in line with the internal regulation for executive treatment (Board resolution)
	Retirement Income	-	n/a
	Other Income	-	n/a

(Unit: KRW million)

Name	Type of remuneration	Total amount	Criteria and methodology
Jae-Yong Lee (Executive Director)	Salary	476	In accordance with internal regulation for executive treatment (Board resolution), Remuneration is determined based on his position (vice chairman), responsibilities, and performance results. He was paid KRW 159 million per month from October to December.
	Bonus	635	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Target Achievement Incentive: Paid biannual basis within the range of 0~200% of monthly wage * CEO decides the amount according to the level of target achieved - Performance Incentive: When performance exceeds the Company's goal; CEO decides the amount based on 20% profit. Paid once a year within 0~50% of salary. (Adjusted according to individual performance) - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. <p>※ Bonus awarded based on his contributions and consideration for his performance; As a registered director, he successfully made a large-scale strategic M&A deal since he sat on the Board, contributing to securing future growth engines of the Company.</p>
	Profit from exercising stock option	-	n/a
	Other Income	24	Fringe benefits are provided in line with the internal regulation for executive treatment (Board resolution)
	Retirement Income	-	n/a
	Other Income	-	n/a

Name	Type of remuneration		Total amount	Criteria and methodology
Sang-Hoon Lee (Executive Director)	Earned Income	Salary	1,080	In accordance with internal regulation for executive treatment (Board resolution), Remuneration is determined based on his position (president), responsibilities, and performance results. He was paid KRW 108 million per month from January to October.
		Bonus	1,719	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Target Achievement Incentive: Paid biannual basis within the range of 0~200% of monthly wage * CEO decides the amount according to the level of target achieved - Performance Incentive: When performance exceeds the Company's goal; CEO decides the amount based on 20% profit. Paid once a year within 0~50% of salary. (Adjusted according to individual performance) - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. <p>※ Bonus awarded based on his contributions and consideration for his performance; Despite many challenges such as the low growth of the global economy, he strengthened internal stability by efficiently managing resources and creating synergy among businesses, as the president of Corporate Management Office. Also, he greatly contributed to creating an organizational culture which fosters creativity and reengineering the organization.</p>
		Profit from exercising stock option	-	n/a
		Other Income	102	Fringe benefits are provided in line with the internal regulation for executive treatment (Board resolution)
	Retirement Income	-	n/a	
	Other Income	-	n/a	

B. Stock Options Granted and Exercised

(1) Status of Stock Options Granted to Registered Directors

There have been no stock options granted to, or exercised by, the executive BOD or Audit Committee members during the reporting period.

(2) Status of Stock Options Granted to Non-Registered Executives

As of December 31, 2016, there is no accumulated-basis unexercised stock option.

IX. Affiliates and Subsidiaries

1. Affiliates & Subsidiaries

A. Affiliates

- Name of affiliated group: Samsung Group

As at December 31, 2016, Samsung Group had a total of fifty-eight (58) domestic affiliates, where seven (7) affiliates (Nuri Solution, Samsung Fine Chemicals, S-EnPol, Hantok Chemicals, SDI-Chemical Co., Ltd., Jeongahm Wind Power, Allat) were excluded and three (3) affiliate (SDI-Chemical Co., Ltd., Samsung Fire & Marine Financial Service, S-Printing Solution) were added. Among the Samsung Group's fifty-eight (58) domestic affiliates, sixteen (16) affiliates including Samsung Electronics are listed, and forty-two (42) affiliates are unlisted.

[As of December 31, 2016]

	No. of affiliates	Name of affiliates
Listed	16	Samsung C&T, Samsung Electronics, Samsung SDI, SEMCO, Samsung Fire & Marine Insurance, Samsung Heavy Industries, Samsung Life Insurance, MULTICAMPUS, Samsung Securities, Samsung SDS, Samsung Card, Samsung Engineering, S1, Cheil Worldwide, Hotel Shilla, Samsung Biologics
Unlisted	42	Seoul Lakeside CC, Samwoo Architects & Engineers, CVnet Corporation, Samsung Bioepis, Samsung Display, Samsung Corning Advanced Glass, SU Materials, STECO, SEMES, Samsung Electronics Service, Samsung Electronics Sales, Samsung Electronics Logitech, Suwon Samsung Bluewings FC, Samsung Medison, Samsung Claim Adjustment Service, Samsung Fire & Marine Insurance Service, Samsung Fire & Marine Financial Service, Daejung Offshore Wind Power Co., Ltd., Samsung Futures, Samsung Asset Management, Saengbo, Samsung Life Service, Samsung SRA Asset Management, Samsung Life Financial Service, SD Flex, Cheil Fashion Retail, Natural9, Samsung Welstory, S-Printing Solution, SECUI, STM, S-Core, OpenHands, Miracom, Samsung Card Customer Service, Human TSS, S-1CRM, Shilla Stay, HDC Shilla Duty Free LTD, SERI, Samsung Lions, Samsung Venture Investment Corporation
Total	58	

※ Effective March 11, 2016, CREDU changed its name to Multicampus Co., Ltd..

※ Effective April 1, 2016, Colombo Korea changed its name to Cheil Fashion Retail Co., Ltd.

※ Allat was excluded from the Company group on December 15, 2016 (sold its shares on September 30, 2016)

B. Ownership Status of Affiliates and Subsidiaries

1) Domestic

Investee Investor	Samsung C&T Corp	Samsung Electronics	Samsung SDI	Samsung Electro-Mechanics	Samsung Heavy Industries	Hotel Shilla	Samsung Engineering	Cheil Worldwide	S1 Corporation	Samsung SDS	Samsung Lions	SERI	STECO
Samsung C&T Corporation		4.2			0.1		7.0			17.1		1.0	
Samsung Electronics			19.6	23.7	16.9	5.1		25.2		22.6		29.8	70.0
Samsung SDI	2.1				0.4	0.1	11.7		11.0			29.6	
Samsung Electro-mechanics	2.6				2.3							23.8	
Samsung Heavy Industries												1.0	
Cheil Worldwide					0.1						67.5		
Hotel Shilla													
S1 Corporation													
SERI													
Samsung SDS													
Samsung Life Insurance	0.1	7.9	0.1	0.1	3.3	7.4	0.0	0.1	5.6	0.1		14.8	
Samsung Fire & Marine Insurance	1.4	1.3					0.2		1.0				
Samsung Securities.						3.1			1.3				
Samsung Card						1.3		3.0	1.9				
SDC													
Samsung BioLogics													
Miracom													
Total	6.3	13.5	19.6	23.8	23.2	17.0	18.9	28.4	20.8	39.7	67.5	100.0	70.0

※ (% of Ownership; As of December 31, 2016; Based on Common shares)

Investee Investor	SEMES	Samsung Electronics Service	Samsung Electronics Sales	Suwon Samsung Bluewings FC	Samsung Electronics Logitech	Samsung Display	Samsung Medison	Samsung BioLogics	Samsung BioEpis	Samsung Corning Advanced Glass	SU Materials	CVnet	Seoul Lakeside CC
Samsung C&T Corporation								43.4				40.1	100.0
Samsung Electronics	91.5	99.3	100.0		100.0	84.8	68.5	47.8					
Samsung SDI						15.2							
Samsung Electro-mechanics													
Samsung Heavy Industries													
Cheil Worldwide				100.0									
Hotel Shilla													
S1 Corporation													
SERI													
Samsung SDS												9.4	
Samsung Life Insurance								0.0					
Samsung Fire & Marine Insurance													
Samsung Securities.													
Samsung Card													
SDC										50.0	50.0		
Samsung BioLogics									93.3				
Miracom													
Total	91.5	99.3	100.0	100.0	100.0	100.0	68.5	75.0	93.3	50.0	50.0	49.5	100.0

※ (% of Ownership; As of December 31, 2016; Based on Common shares)

Investee Investor	Samwoo Architects & Engineers	SD Flex	Cheil Fashion Retail	Natural9	Samsung Welstory	Daejung Offshore Wind Power	SECUI	Human TSS	S-1CRM	STM	MULTI CAMPUS	S-Core	Open Hands
Samsung C&T Corporation	100.0		100.0	51.0	100.0		8.7						
Samsung Electronics													
Samsung SDI		50.0								100.0			
Samsung Electro-mechanics													
Samsung Heavy Industries						50.1							
Cheil Worldwide												5.2	
Hotel Shilla													
S1 Corporation								100.0	100.0			0.6	
SERI											15.2		
Samsung SDS							56.5				47.2	81.8	100.0
Samsung Life Insurance											0.0		
Samsung Fire & Marine Insurance													
Samsung Securities.													
Samsung Card													
SDC													
Samsung BioLogics													
Miracom												0.5	
Total	100.0	50.0	100.0	51.0	100.0	50.1	65.2	100.0	100.0	100.0	62.4	88.1	100.0

※ (% of Ownership; As of December 31, 2016; Based on Common shares)

Investee Investor	Miracom	Shilla Stay	HDC Shilla Duty Free LTD	Samsung Life Insurance	Saengbo	Samsung Life Service	Samsung SRA Asset Management	Samsung Life Financial Service	Samsung Fire & Marine Insurance	Samsung Claim Adjustment Service	Samsung Fire & Marine Insurance Service	Samsung Fire & Marine Financial Service	Samsung Securities
Samsung C&T Corporation				19.3									
Samsung Electronics													
Samsung SDI													
Samsung Electro-mechanics													
Samsung Heavy Industries													
Cheil Worldwide	5.4												
Hotel Shilla		100.0	50.0										
S1 Corporation	0.6												
SERI													
Samsung SDS	83.6												
Samsung Life Insurance					50.0	99.8	100.0	100.0	15.0				30.2
Samsung Fire & Marine Insurance										100.0	100.0	100.0	
Samsung Securities.													
Samsung Card													
SDC													
Samsung BioLogics													
Miracom													
Total	89.6	100.0	50.0	19.3	50.0	99.8	100.0	100.0	15.0	100.0	100.0	100.0	30.2

※ (% of Ownership; As of December 31, 2016; Based on Common shares)

Investee Investor	Samsung Card	S-Printing Solution	Samsung Card Customer Service	Samsung Asset Management	Samsung Futures	Samsung Venture Investment
Samsung C&T Corporation						16.7
Samsung Electronics		100.0				16.3
Samsung SDI						16.3
Samsung Electro-mechanics						17.0
Samsung Heavy Industries						17.0
Cheil Worldwide						
Hotel Shilla						
S1 Corporation						
SERI						
Samsung SDS						
Samsung Life Insurance	71.9			100.0		
Samsung Fire & Marine Insurance						
Samsung Securities.					100.0	16.7
Samsung Card			100.0			
SDC						
Samsung BioLogics						
Miracom						
Total	71.9	100.0	100.0	100.0	100.0	100.0

※ (% of Ownership; As of December 31, 2016; Based on Common shares)

2) Overseas

Investor	Investee	Ownership
Samsung C&T America Inc.	Meadowland Distribution	100.0
Samsung C&T America Inc.	SAMSUNG OIL & GAS USA CORP	10.0
Samsung C&T America Inc.	Samsung Green repower, LLC	100.0
Samsung C&T America Inc.	Samsung Solar Construction Inc.	100.0
Samsung C&T America Inc.	QSSC, S.A. de C.V.	20.0
Samsung C&T America Inc.	S-print Inc	24.0
Samsung Renewable Energy Inc.	SRE GRW EPC GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE GRW EPC LP	100.0
Samsung Renewable Energy Inc.	SRE SKW EPC GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE SKW EPC LP	100.0
Samsung Renewable Energy Inc.	SRE GRW LP Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE SKW LP Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE WIND PA GP INC.	100.0
Samsung Renewable Energy Inc.	SRE WIND PA LP	100.0
Samsung Renewable Energy Inc.	SRE GRS Holdings GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE GRS Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE K2 EPC GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE K2 EPC LP	100.0
Samsung Renewable Energy Inc.	SRE KS HOLDINGS GP INC.	100.0
Samsung Renewable Energy Inc.	SRE KS HOLDINGS LP	100.0
Samsung Renewable Energy Inc.	SRE Belle River LP Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE Armow EPC GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Armow EPC LP	100.0
Samsung Renewable Energy Inc.	SRE Armow LP Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE North Kent 1 LP H.LP	100.0
Samsung Renewable Energy Inc.	SRE Wind GP Holding Inc.	100.0
Samsung Renewable Energy Inc.	SRE North Kent 2 LP Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE Solar Development GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Solar Development LP	100.0
Samsung Renewable Energy Inc.	SRE Windsor Holdings GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Windsor Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE Southgate Holdings GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Southgate Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE Solar Construction Management GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Solar Construction Management LP	100.0
Samsung Renewable Energy Inc.	SRE DEVELOPMENT GP INC.	100.0
Samsung Renewable Energy Inc.	SRE DEVELOPMENT LP	100.0
Samsung Renewable Energy Inc.	SRE BRW EPC GP INC.	100.0
Samsung Renewable Energy Inc.	SRE BRW EPC LP	100.0
Samsung Renewable Energy Inc.	SRE North Kent 1 GP Holdings Inc	100.0
Samsung Renewable Energy Inc.	SRE North Kent 2 GP Holdings Inc	100.0
Samsung Renewable Energy Inc.	SRE Belle River GP Holdings Inc	100.0
Samsung Renewable Energy Inc.	SRE NK1 EPC GP Inc	100.0
Samsung Renewable Energy Inc.	SRE NK1 EPC LP	100.0
Samsung Green repower, LLC	SOLAR PROJECTS SOLUTIONS,LLC	50.0
SP Armow Wind Ontario GP Inc	SP Armow Wind Ontario LP	0.0
Samsung C&T Oil & Gas Parallel Corp.	PLL Holdings LLC	83.6
Samsung C&T Oil & Gas Parallel Corp.	PLL E&P LLC	90.0
SRE GRW EPC GP Inc.	SRE GRW EPC LP	0.0
SRE SKW EPC GP Inc.	SRE SKW EPC LP	0.0
PLL Holdings LLC	Parallel Petroleum LLC	61.0
SRE GRW LP Holdings LP	Grand Renewable Wind LP Inc.	45.0

SRE SKW LP Holdings LP	South Kent Wind LP Inc.	50.0
SRE WIND PA GP INC.	SRE WIND PA LP	0.0
SRE GRS Holdings GP Inc.	Grand Renewable Solar GP Inc.	50.0
SRE GRS Holdings GP Inc.	SRE GRS Holdings LP	0.0
SRE K2 EPC GP Inc.	SRE K2 EPC LP	0.0
SRE KS HOLDINGS GP INC.	KINGSTON SOLAR GP INC.	50.0
SRE KS HOLDINGS GP INC.	SRE KS HOLDINGS LP	0.0
SOUTHGATE SOLAR GP INC.	SOUTHGATE SOLAR LP	0.0
WINDSOR SOLAR GP INC.	WINDSOR SOLAR LP	0.0
SRE Belle River LP Holdings LP	SP Belle River Wind LP	42.5
SP Belle River Wind GP Inc	SP Belle River Wind LP	0.0
SRE Armow EPC GP Inc.	SRE Armow EPC LP	0.0
SRE Armow LP Holdings LP	SP Armow Wind Ontario LP	50.0
SRE North Kent 1 LP H.LP	North Kent Wind 1 LP	50.0
SRE Wind GP Holding Inc.	SP Armow Wind Ontario GP Inc	50.0
SRE Wind GP Holding Inc.	SRE GRW LP Holdings LP	0.0
SRE Wind GP Holding Inc.	SRE SKW LP Holdings LP	0.0
SRE Wind GP Holding Inc.	SRE Armow LP Holdings LP	0.0
SRE Wind GP Holding Inc.	South Kent Wind GP Inc.	50.0
SRE Wind GP Holding Inc.	Grand Renewable Wind GP Inc.	50.0
South Kent Wind GP Inc.	South Kent Wind LP Inc.	0.0
Grand Renewable Wind GP Inc.	Grand Renewable Wind LP Inc.	0.0
North Kent Wind 1 GP Inc	North Kent Wind 1 LP	0.0
SRE North Kent 2 LP Holdings LP	North Kent Wind 2 LP	50.0
North Kent Wind 2 GP Inc	North Kent Wind 2 LP	0.0
SRE Solar Development GP Inc.	SRE Solar Development LP	0.0
SRE Windsor Holdings GP Inc.	WINDSOR SOLAR GP INC.	50.0
SRE Windsor Holdings GP Inc.	SRE Windsor Holdings LP	0.0
SRE Windsor Holdings LP	WINDSOR SOLAR LP	50.0
SRE Southgate Holdings GP Inc.	SOUTHGATE SOLAR GP INC.	50.0
SRE Southgate Holdings GP Inc.	SRE Southgate Holdings LP	0.0
SRE Southgate Holdings LP	SOUTHGATE SOLAR LP	50.0
SRE Solar Construction Management GP Inc.	SRE Solar Construction Management LP	0.0
SRE DEVELOPMENT GP INC.	SRE DEVELOPMENT LP	0.0
SRE BRW EPC GP INC.	SRE BRW EPC LP	0.0
SRE North Kent 1 GP Holdings Inc	SRE North Kent 1 LP H.LP	0.0
SRE North Kent 1 GP Holdings Inc	North Kent Wind 1 GP Inc	50.0
SRE North Kent 2 GP Holdings Inc	SRE North Kent 2 LP Holdings LP	0.0
SRE North Kent 2 GP Holdings Inc	North Kent Wind 2 GP Inc	50.0
SRE Belle River GP Holdings Inc	SRE Belle River LP Holdings LP	0.0
SRE Belle River GP Holdings Inc	SP Belle River Wind GP Inc	50.0
SRE NK1 EPC GP Inc	SRE NK1 EPC LP	0.0
Samsung C&T Deutschland GmbH	SCNT Investment Atlantic SPRL	0.0
Samsung C&T Deutschland GmbH	POSS-SLPC, s.r.o	20.0
Samsung C&T Deutschland GmbH	Solluce Romania 1 B.V.	20.0
Samsung C&T Deutschland GmbH	Solluce Slovenia 1 B.V.	20.0
Samsung C&T Deutschland GmbH	S.C. Otelinox S.A	94.3
Samsung C&T Deutschland GmbH	KSI LLP	25.0
Samsung C&T U.K. Ltd.	Samsung Nigeria Co., Ltd.	0.1
Solluce Romania 1 B.V.	LJG GREEN SOURCE ENERGY ALPHA S.R.L.	78.0
Solluce Slovenia 1 B.V.	ZE Solar 1 D.O.O.	70.0
Cassava Investment Korea Pte. Ltd.	PT. Cahaya Borneo Sukses Agrosindo	49.0
Cassava Investment Korea Pte. Ltd.	PT. Cassava Borneo Sukses Plantation	49.0
Samsung C&T Thailand Co., Ltd	Samsung Development (Thailand) Co., Ltd.	67.0
Cheil Holding Inc.	Samsung Const. Co. Phils.,Inc.	75.0

Samsung C&T Singapore Pte., Ltd.	Samsung Chemtech Vina LLC	48.3
Samsung C&T Singapore Pte., Ltd.	S-print Inc	16.0
Samsung C&T Singapore Pte., Ltd.	Cassava Investment Korea Pte. Ltd.	12.7
Samsung C&T Singapore Pte., Ltd.	PT. INSAM BATUBARA ENERGY	10.0
Samsung C&T Singapore Pte., Ltd.	Malaysia Samsung Steel Center Sdn.Bhd	30.0
Samsung C&T Singapore Pte., Ltd.	S&G Biofuel PTE.LTD	12.6
S&G Biofuel PTE.LTD	PT. Gandaerah Hendana	95.0
S&G Biofuel PTE.LTD	PT. Inecda	95.0
Samsung C&T Hongkong Ltd.	Samsung C&T Thailand Co., Ltd	13.2
Samsung C&T Hongkong Ltd.	SAMSUNG (TIANJIN) INTERNATIONAL TRADING CO., LTD	100.0
Samsung C&T Hongkong Ltd.	SAMSUNG TRADING (SHANGHAI) CO., LTD	100.0
Samsung C&T Hongkong Ltd.	Samsung Precision Stainless Steel(pinghu) Co.,Ltd.	45.0
Samsung C&T Hongkong Ltd.	Samsung Corporation (Guangzhou) Limited.	100.0
Samsung Electronics	Samsung Japan Corporation	100.0
Samsung Electronics	Samsung R&D Institute Japan Co. Ltd	100.0
Samsung Electronics	Samsung Electronics America, Inc.	100.0
Samsung Electronics	Samsung Electronics Canada Inc.	100.0
Samsung Electronics	Samsung Electronics Mexico S.A. De C.V.	63.6
Samsung Electronics	Samsung Electronics (UK) Ltd.	100.0
Samsung Electronics	Samsung Electronics Ltd.	100.0
Samsung Electronics	Samsung Electronics Holding GmbH	100.0
Samsung Electronics	Samsung Electronics Iberia, S.A.	100.0
Samsung Electronics	Samsung Electronics France S.A.S	100.0
Samsung Electronics	Samsung Electronics Hungarian RT.	100.0
Samsung Electronics	Samsung Electronics Italia S.P.A.	100.0
Samsung Electronics	Samsung Electronics Europe Logistics B.V.	100.0
Samsung Electronics	Samsung Electronics Benelux B.V.	100.0
Samsung Electronics	Samsung Electronics Overseas B.V.	100.0
Samsung Electronics	Samsung Electronics Polska, SP.Zo.o	100.0
Samsung Electronics	Samsung Electronics Portugesa S.A.	100.0
Samsung Electronics	Samsung Electronics Nordic Aktiebolag	100.0
Samsung Electronics	Samsung Electronics Austria GmbH	100.0
Samsung Electronics	Samsung Electronics Slovakia s.r.o	55.7
Samsung Electronics	Samsung Electronics Europe Holding Cooperatief U.A.	100.0
Samsung Electronics	Samsung Electronics Display (M) SDN.Bhd.	75.0
Samsung Electronics	Samsung Electronics(M) SDN.BHD.	100.0
Samsung Electronics	Samsung Vina Electronics Co., Ltd.	100.0
Samsung Electronics	Samsung Asia Private Ltd.	100.0
Samsung Electronics	Samsung India Electronics Private Ltd.	100.0
Samsung Electronics	Samsung R&D Institute India-Bangalore Private Limited	100.0
Samsung Electronics	Samsung Electronics Australia Pty. Ltd.	100.0
Samsung Electronics	PT Samsung Electronics Indonesia	100.0
Samsung Electronics	Thai Samsung Electronics Co., Ltd.	91.8
Samsung Electronics	Samsung Malaysia Electronics(SME) Sdn.Bhd.	100.0
Samsung Electronics	Samsung Electronics Hong Kong Co., Ltd.	100.0
Samsung Electronics	Suzhou Samsung Electronics Co., Ltd.	69.1
Samsung Electronics	Samsung (CHINA) Investment Co., Ltd.	100.0
Samsung Electronics	Samsung Electronics Suzhou Semiconductor Co., Ltd.	100.0
Samsung Electronics	Samsung Electronics (Shandong) Digital Printing Co., Ltd.	87.1
Samsung Electronics	Samsung Electronics Huizhou Co., Ltd.	89.6
Samsung Electronics	Tianjin Samsung Electronics Co., Ltd.	48.2
Samsung Electronics	Samsung Electronics Taiwan Co., Ltd.	100.0
Samsung Electronics	Tianjin Samsung Telecom Technology Co., Ltd.	90.0
Samsung Electronics	Shanghai Samsung Semiconductor Co., Ltd.	100.0
Samsung Electronics	Samsung Electronics Suzhou Computer Co., Ltd.	73.7

Samsung Electronics	Shenzhen Samsung Electronics Telecommunication Co., Ltd.	95.0
Samsung Electronics	Samsung Semiconductor (China) R&D Co., Ltd.	100.0
Samsung Electronics	Samsung (China) Semiconductor Co., Ltd.	100.0
Samsung Electronics	Samsung SemiConductor Xian	100.0
Samsung Electronics	Samsung Gulf Electronics Co., Ltd.	100.0
Samsung Electronics	Samsung Electronics Egypt S.A.E	0.1
Samsung Electronics	Samsung Electronics South Africa(Pty) Ltd.	100.0
Samsung Electronics	Samsung Electronics Latinoamerica (Zona Libre)	100.0
Samsung Electronics	Samsung Electronica da Amazonia Ltda.	87.0
Samsung Electronics	Samsung Electronics Argentina S.A.	98.0
Samsung Electronics	Samsung Electronics Chile Limitada	4.1
Samsung Electronics	Samsung Electronics Rus Company LLC	100.0
Samsung Electronics	Samsung Electronics Rus Kaluga LLC	100.0
Samsung Electronics	Samsung SDI Brasil Ltda.	0.1
Samsung Electronics	Tianjin Samsung LED Co., Ltd.	100.0
Samsung Electronics	Tianjin Samsung Opto-Electronics Co., Ltd.	82.0
Samsung BioEpis	SAMSUNG BIOEPIS UK LIMITED	100.0
Samsung BioEpis	Samsung Bioepis CH GmbH	100.0
Samsung BioEpis	SAMSUNG BIOEPIS AU PTY LTD	100.0
Samsung BioEpis	Samsung Bioepis TR Pharmaceutical Distributor LLC	100.0
Samsung BioEpis	SAMSUNG BIOEPIS BR PHARMACEUTICAL LTDA	100.0
Samsung Display	Intellectual Keystone Technology LLC	41.9
Samsung Display	Samsung Display Slovakia s.r.o.	100.0
Samsung Display	Samsung Display Vietnam Co., Ltd.	100.0
Samsung Display	Samsung Suzhou Module Co., Ltd.	100.0
Samsung Display	Samsung Suzhou LCD Co., Ltd.	60.0
Samsung Display	Samsung Display Dongguan Co., Ltd.	100.0
Samsung Display	Samsung Display Tianjin Co., Ltd.	95.0
Samsung Display	Novaled GmbH	9.9
SEMES	SEMES America, Inc.	100.0
SEMES	SEMES (XIAN) Co., Ltd.	100.0
Samsung Medison	Samsung Medison India Private Ltd.	100.0
Samsung Electronics America, Inc.	NexusDX, Inc.	100.0
Samsung Electronics America, Inc.	NeuroLogica Corp.	100.0
Samsung Electronics America, Inc.	Samsung Receivables Corporation	100.0
Samsung Electronics America, Inc.	Dacor Holdings, Inc.	100.0
Samsung Electronics America, Inc.	Quietside LLC	100.0
Samsung Electronics America, Inc.	SmartThings, Inc.	100.0
Samsung Electronics America, Inc.	Samsung Oak Holdings, Inc.	100.0
Samsung Electronics America, Inc.	Joyent Inc	100.0
Samsung Electronics America, Inc.	SamsungPay, Inc.	100.0
Samsung Electronics America, Inc.	Prismview, LLC	100.0
Samsung Electronics America, Inc.	Samsung Semiconductor, Inc.	100.0
Samsung Electronics America, Inc.	Samsung Research America, Inc	100.0
Samsung Electronics America, Inc.	Samsung International, Inc.	100.0
Dacor Holdings, Inc.	Dacor	100.0
Dacor Holdings, Inc.	EverythingDacor.com, Inc.	100.0
Dacor Holdings, Inc.	Distinctive Appliances of California, Inc.	100.0
Dacor	Dacor Canada Co.	100.0
Samsung Oak Holdings, Inc.	Stellus Technologies, Inc.	100.0
Joyent Inc	Joyent Ltd	100.0
Samsung Semiconductor, Inc.	Samsung Austin Semiconductor LLC.	100.0
Samsung Electronics Canada Inc.	PrinterOn Corporation	100.0
Samsung Electronics Canada Inc.	AdGear Technologies Inc.	100.0
Samsung Electronics Canada Inc.	NewNet Communication Technologies (Canada), Inc.	100.0

PrinterOn Corporation	PrinterOn America Corporation	100.0
PrinterOn Corporation	PrinterOn Europe Limited	100.0
Samsung Research America, Inc	SAMSUNG NEXT LLC	100.0
Samsung Research America, Inc	VivLabs	100.0
SAMSUNG NEXT LLC	SAMSUNG NEXT FUND LLC	100.0
Samsung International, Inc.	Samsung Mexicana S.A. de C.V	100.0
Samsung Electronics Mexico S.A. De C.V.	Samsung Electronics Digital Appliance Mexico, SA de CV	100.0
Samsung Electronics (UK) Ltd.	Samsung Semiconductor Europe Limited	100.0
Samsung Electronics Holding GmbH	Samsung Semiconductor Europe GmbH	100.0
Samsung Electronics Holding GmbH	Samsung Electronics GmbH	100.0
Samsung Electronics Hungarian RT.	Samsung Electronics Czech and Slovak s.r.o.	31.4
Samsung Electronics Hungarian RT.	Samsung Electronics Slovakia s.r.o	44.3
Samsung Electronics Benelux B.V.	Samsung Electronics Mexico S.A. De C.V.	36.4
Samsung Electronics Benelux B.V.	SAMSUNG ELECTRONICS BALTICS SIA	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics West Africa	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics East Africa	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Egypt S.A.E	99.9
Samsung Electronics Benelux B.V.	Samsung Electronics Israel Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Tunisia S.A.R.L	99.0
Samsung Electronics Benelux B.V.	Samsung Electronics Pakistan(Private) Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics South Africa Production (Propr	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Turkey	100.0
Samsung Electronics Benelux B.V.	Samsung Semiconductor Israel R&D Center,Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Levant Co.,Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Maghreb Arab	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Venezuela, C.A.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronica da Amazonia Ltda.	13.0
Samsung Electronics Benelux B.V.	Samsung Electronics Chile Limitada	95.9
Samsung Electronics Benelux B.V.	Samsung Electronics Peru S.A.C.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Rus	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Ukraine LLC	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Ukraine Company LLC	100.0
Samsung Electronics Benelux B.V.	Samsung R&D Institute Rus LLC	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics KZ and Central Asia LLP	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Caucasus Co., Ltd	100.0
Samsung Electronics Nordic Aktiebolag	Samsung Nanoradio Design Center	100.0
Samsung Electronics Austria GmbH	Samsung Electronics Switzerland GmbH	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Electronics Czech and Slovak s.r.o.	68.6
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Electronics Romania LLC	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Porta Nuova Varesine Building 2 S.r.l.	49.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Electronics Poland Manufacturing SP.Zo.o	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Electronics Greece S.A.	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Denmark Research Center ApS	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung France Research Center SARL	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Cambridge Solution Centre Limited	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Novald GmbH	40.0
Samsung Asia Private Ltd.	Samsung Electronics Japan Co., Ltd.	100.0
Samsung Asia Private Ltd.	Samsung Electronics Display (M) SDN.Bhd.	25.0
Samsung Asia Private Ltd.	Samsung Electronics New Zealand Limited	100.0
Samsung Asia Private Ltd.	Samsung Electronics Philippines Corporation	100.0
Samsung Asia Private Ltd.	Samsung R&D Institute BanglaDesh	100.0
Samsung Asia Private Ltd.	Samsung Electronics Vietnam Co., Ltd.	100.0
Samsung Asia Private Ltd.	Samsung Electronics Vietnam THANGUYEN Co., Ltd.	100.0
Samsung Asia Private Ltd.	Samsung Electronics HCMC CE Complex Co. Ltd.,	100.0
Samsung Asia Private Ltd.	Samsung SDI(Malaysia) Sdn, Bhd.	25.0

Samsung Asia Private Ltd.	Samsung Electro-Mechanics(Thailand) Co., Ltd.	25.0
Samsung Asia Private Ltd.	iMarket Asia Co., Ltd.	11.4
PT Samsung Electronics Indonesia	PT Samsung Telecommunications Indonesia	100.0
Thai Samsung Electronics Co., Ltd.	Laos Samsug Electronics Sole Co., Ltd	100.0
Samsung Electronics Hong Kong Co., Ltd.	iMarket Asia Co., Ltd.	11.3
Suzhou Samsung Electronics Co., Ltd.	Samsung Suzhou Electronics Export Co., Ltd.	100.0
Samsung (CHINA) Investment Co., Ltd.	Suzhou Samsung Electronics Co., Ltd.	19.2
Samsung (CHINA) Investment Co., Ltd.	Samsung Mobile R&D Center China-Guangzhou	100.0
Samsung (CHINA) Investment Co., Ltd.	Samsung Mobile R&D Center China - Tianjin	100.0
Samsung (CHINA) Investment Co., Ltd.	Samsung Network R&D Center China-Shenzhen	100.0
Samsung (CHINA) Investment Co., Ltd.	Samsung Electronics (Shandong) Digital Printing Co., Ltd.	12.9
Samsung (CHINA) Investment Co., Ltd.	Samsung Electronics Huizhou Co., Ltd.	10.3
Samsung (CHINA) Investment Co., Ltd.	Tianjin Samsung Electronics Co., Ltd.	43.1
Samsung (CHINA) Investment Co., Ltd.	Beijing Samsung Telecom R&D Center	100.0
Samsung (CHINA) Investment Co., Ltd.	Samsung Electronics Suzhou Computer Co., Ltd.	26.3
Samsung (CHINA) Investment Co., Ltd.	Samsung R&D Institute China - Nanjing	100.0
Samsung (CHINA) Investment Co., Ltd.	Samsung Electronics (Beijing) Service Company Limited	100.0
Samsung (CHINA) Investment Co., Ltd.	Tianjin Samsung Opto-Electronics Co., Ltd.	8.0
Samsung Gulf Electronics Co., Ltd.	Samsung Electronics Egypt S.A.E	0.1
Samsung Electronics Maghreb Arab	Samsung Electronics Tunisia S.A.R.L	1.0
Samsung Electronics Latinoamerica (Zona Libre)	Samsung Electronics Latinoamerica Miami, Inc.	100.0
Samsung Electronics Latinoamerica (Zona Libre)	Samsung Electronica Colombia S.A.	100.0
Samsung Electronics Latinoamerica (Zona Libre)	Samsung Electronics Panama. S.A	100.0
Samsung Electronica da Amazonia Ltda.	Simpres Comercio, Locacao e Servicos S.A.	100.0
Samsung Electronica da Amazonia Ltda.	Samsung Electronics Argentina S.A.	2.0
Samsung Electronics KZ and Central Asia LLP	Samsung Electronics Caucasus Co., Ltd	0.0
Samsung SDI	Intellectual Keystone Technology LLC	41.0
Samsung SDI	Samsung SDI Japan Co., Ltd.	89.2
Samsung SDI	Samsung SDI America, Inc.	91.7
Samsung SDI	Samsung SDI Hungary Rt.	100.0
Samsung SDI	Samsung SDI Europe GmbH	100.0
Samsung SDI	Samsung SDI Battery Systems GmbH	100.0
Samsung SDI	Samsung SDI(Malaysia) Sdn, Bhd.	68.6
Samsung SDI	Samsung SDI Vietnam Co., Ltd.	100.0
Samsung SDI	Samsung SDI Energy Malaysia Sdn, Bhd.	100.0
Samsung SDI	Samsung SDI(Hong Kong) Ltd.	97.6
Samsung SDI	Samsung SDI China Co., Ltd.	100.0
Samsung SDI	Samsung SDI-ARN (Xi'An) Power Battery Co., Ltd.	50.0
Samsung SDI	Samsung SDI-Sungrow Energy Storage Battery Co., Lt	65.0
Samsung SDI	Samsung SDI (Changchun) Power Battery Co., Ltd.	50.0
Samsung SDI	Samsung SDI (Tianjin) Battery Co.,Ltd.	50.0
Samsung SDI	Samsung SDI Brasil Ltda.	45.0
Samsung SDI	Novald GmbH	50.1
Samsung SDI	SAMSUNG SDI WUXI CO.,LTD.	100.0
Samsung SDI	Samsung Chemical Electronic Materials (SuZhou) Co., Ltd.	100.0
Samsung SDI	iMarket Asia Co., Ltd.	8.7
Samsung SDI America, Inc.	Samsung SDI Mexico, S.A. de C.V.	100.0
Samsung SDI America, Inc.	Samsung SDI Brasil Ltda.	40.4
Samsung SDI(Hong Kong) Ltd.	Tianjin Samsung SDI Co., Ltd.	80.0
Samsung SDI(Hong Kong) Ltd.	Samsung SDI Brasil Ltda.	14.5
Samsung Electro-Mechanics	Samsung Electro-Machanics Japan Co., Ltd.	100.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics Japan Advanced Technology Co., Ltd.	100.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics America, Inc.	100.0
Samsung Electro-Mechanics	SAMSUNG ELECTRO-MECHANICS GMBH	100.0
Samsung Electro-Mechanics	Samsung Hungary Electro-Mechanics Private Limited Liability Company	100.0

Samsung Electro-Mechanics	Samsung Electro-Mechanics(Thailand) Co., Ltd.	75.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics Philippines, Corp.	100.0
Samsung Electro-Mechanics	Calamba Premier Realty Corporation	39.8
Samsung Electro-Mechanics	Samsung Electro-Mechanics Pte Ltd.	100.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics Vietnam Co., Ltd.	100.0
Samsung Electro-Mechanics	Dongguan Samsung Electro-Mechanics Co., Ltd.	100.0
Samsung Electro-Mechanics	Tianjin Samsung Electro-Mechanics Co., Ltd.	81.8
Samsung Electro-Mechanics	Samsung High-Tech Electro-Mechanics(Tianjin) Co., Ltd.	95.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics (Shenzhen) Co., Ltd.	100.0
Samsung Electro-Mechanics	Kunshan Samsung Electro-Mechanics Co., Ltd.	100.0
Samsung Electro-Mechanics	iMarket Asia Co., Ltd.	8.7
Samsung Electro-Mechanics America, Inc.	Samsung Electro-Mechanics do Brasil Intermediacoes de Negocios Ltda.	100.0
Calamba Premier Realty Corporation	Batino Realty Corporation	100.0
Samsung Fire & Marine Insurance	SAMSUNG FIRE & MARINE MANAGEMENT CORPORATION	100.0
Samsung Fire & Marine Insurance	SAMSUNG FIRE & MARINE INSURANCE COMPANY OF EUROPE	100.0
Samsung Fire & Marine Insurance	P.T. Asuransi Samsung Tugu	70.0
Samsung Fire & Marine Insurance	Samsung Vina Insurance Co., Ltd	75.0
Samsung Fire & Marine Insurance	SAMSUNG REINSURANCE PTE. LTD	100.0
Samsung Fire & Marine Insurance	Samsung Property & Casualty Insurance Company(China), Ltd	100.0
Samsung Fire & Marine Insurance	Samsung Fire & Marine Insurance Management Middle East	100.0
Samsung Fire & Marine Insurance	SAMSUNG FIRE & MARINE CONSULTORIA EM SEGUROS LTDA.	100.0
Samsung Heavy Industries Co.,Ltd.	Camellia Consulting Corporation	100.0
Samsung Heavy Industries Co.,Ltd.	Offshore 1 consulting Corporation	51.0
Samsung Heavy Industries Co.,Ltd.	Samsung Heavy Industries India Pvt.Ltd.	100.0
Samsung Heavy Industries Co.,Ltd.	SAMSUNG HEAVY INDUSTRIES (M) SDN.BHD	100.0
Samsung Heavy Industries Co.,Ltd.	Samsung Heavy Industries(Ningbo) Co., Ltd	100.0
Samsung Heavy Industries Co.,Ltd.	Samsung Heavy Industries(Rongcheng) Co., Ltd	100.0
Samsung Heavy Industries Co.,Ltd.	Rongcheng Gaya Heavy Industries Co., Ltd	100.0
Samsung Heavy Industries Co.,Ltd.	SAMSUNG HEAVY INDUSTRIES NIGERIA LIMITED	100.0
Samsung Heavy Industries Co.,Ltd.	SAMSUNG HEAVY INDUSTRIES BRASIL ASSESSORIA EM PROJETOS EMPRESARIAIS LTDA.	100.0
Samsung Heavy Industries Co.,Ltd.	SHI BRAZIL CONSTRUCTION	100.0
SAMSUNG HEAVY INDUSTRIES NIGERIA LIMITED	SHI - MCI FZE	70.0
Samsung Life Insurance	Porta Nuova Varesine Building 2 S.r.l.	51.0
Samsung Life Insurance	30 GRESHAM STREET(JERSEY) LIMITED	100.0
Samsung Life Insurance	THAI SAMSUNG LIFE INSURANCE CO., LTD.	35.8
Samsung Life Insurance	Beijing Samsung Real Estate Co.. Ltd	90.0
Samsung Asset Management	Samsung Asset Management (New York), Inc.	100.0
Samsung Asset Management	Samsung Asset Management(London) Ltd.	100.0
Samsung Asset Management	Samsung Private Equity Manager I Co., Ltd	100.0
Samsung Asset Management	Samsung Asset Management (Hong Kong) Ltd.	100.0
30 GRESHAM STREET(JERSEY) LIMITED	30 GRESHAM STREET (SINGAPORE) LIMITED	100.0
Samsung Asset Management (Hong Kong) Ltd.	Samsung Asset Management (Beijing) Ltd.	100.0
CHEIL INDUSTRIES ITALY SRL	COLOMBO VIA DELLA SPIGA S.R.L	100.0
Samsung Fashion Trading Co. ,Ltd	Eight Seconds(Shanghai)Co., Ltd.	100.0
Samsung C&T Corporation	MYODO METAL CO., LTD.	100.0
Samsung C&T Corporation	Samsung C&T Japan Corporation	100.0
Samsung C&T Corporation	Samsung C&T America Inc.	100.0
Samsung C&T Corporation	Samsung Finance Corporation.	80.0
Samsung C&T Corporation	Samsung E&C America, INC.	100.0
Samsung C&T Corporation	SAMSUNG OIL & GAS USA CORP	90.0
Samsung C&T Corporation	Samsung Renewable Energy Inc.	100.0
Samsung C&T Corporation	SCNT Power Norte S. De R.L. de C.V.	100.0
Samsung C&T Corporation	QSSC, S.A. de C.V.	60.0
Samsung C&T Corporation	Samsung C&T Oil & Gas Parallel Corp.	100.0

Samsung C&T Corporation	Samsung C&T Canada Ltd.	100.0
Samsung C&T Corporation	Samsung C&T Deutschland GmbH	100.0
Samsung C&T Corporation	Samsung C&T U.K. Ltd.	100.0
Samsung C&T Corporation	Samsung C&T ECUK Limited	100.0
Samsung C&T Corporation	Whessoe engineering Limited	100.0
Samsung C&T Corporation	SCNT Investment Atlantic SPRL	100.0
Samsung C&T Corporation	POSS-SLPC, s.r.o	50.0
Samsung C&T Corporation	Solluce Romania 1 B.V.	80.0
Samsung C&T Corporation	SAM investment Manzanilo.B.V	53.3
Samsung C&T Corporation	Solluce Slovenia 1 B.V.	80.0
Samsung C&T Corporation	Ecosolar OOD	100.0
Samsung C&T Corporation	Ecoenergy Solar OOD	100.0
Samsung C&T Corporation	Agrilplam EOOD	100.0
Samsung C&T Corporation	Fishtrade EOOD	100.0
Samsung C&T Corporation	Manageproject EOOD	100.0
Samsung C&T Corporation	Solar Park EOOD	100.0
Samsung C&T Corporation	Veselinovo Energy OOD	100.0
Samsung C&T Corporation	Samsung C&T Construction Hungary Kft.	100.0
Samsung C&T Corporation	Samsung C&T (KL) Sdn.,Bhd.	100.0
Samsung C&T Corporation	Samsung C&T Malaysia SDN. BHD	100.0
Samsung C&T Corporation	Erdsam Co., Ltd.	100.0
Samsung C&T Corporation	Samsung Chemtech Vina LLC	51.7
Samsung C&T Corporation	S-print Inc	40.0
Samsung C&T Corporation	Cassava Investment Korea Pte. Ltd.	29.7
Samsung C&T Corporation	P.T. Samsung Development	100.0
Samsung C&T Corporation	Samsung Development (Thailand) Co., Ltd.	33.0
Samsung C&T Corporation	Samsung C&T Thailand Co., Ltd	43.9
Samsung C&T Corporation	Cheil Holding Inc.	40.0
Samsung C&T Corporation	Samsung Const. Co. Phils.,Inc.	25.0
Samsung C&T Corporation	Samsung Design Philippines Inc	100.0
Samsung C&T Corporation	Samsung Oil & Gas Australia PTY. LTD	100.0
Samsung C&T Corporation	PT. INSAM BATUBARA ENERGY	90.0
Samsung C&T Corporation	Samsung C&T India Pte., Ltd.	100.0
Samsung C&T Corporation	Samsung C&T Corporation India Private Limited	100.0
Samsung C&T Corporation	Malaysia Samsung Steel Center Sdn.Bhd	70.0
Samsung C&T Corporation	Samsung C&T Singapore Pte., Ltd.	100.0
Samsung C&T Corporation	S&G Biofuel PTE.LTD	50.5
Samsung C&T Corporation	SAMSUNG C&T Mongolia LLC.	70.0
Samsung C&T Corporation	Samsung C&T Eng.&Const. Mongolia LLC.	100.0
Samsung C&T Corporation	S&WOO CONSTRUCTION PHILIPPINES,INC.	40.0
Samsung C&T Corporation	Samsung C&T Hongkong Ltd.	100.0
Samsung C&T Corporation	GUANGDONG XINGPU STEEL CENTER CO.,LTD	51.6
Samsung C&T Corporation	Samsung C&T Taiwan Co., Ltd.	100.0
Samsung C&T Corporation	Samsung Precision Stainless Steel(pinghu) Co.,Ltd.	55.0
Samsung C&T Corporation	SAMSUNG C&T (SHANGHAI) CO., LTD.	100.0
Samsung C&T Corporation	Samsung C&T (Xi'an) Co., Ltd.	100.0
Samsung C&T Corporation	Samsung Nigeria Co., Ltd.	99.9
Samsung C&T Corporation	SAMSUNG C&T CORPORATION SAUDI ARABIA	100.0
Samsung C&T Corporation	SAM Gulf Investment Limited	100.0
Samsung C&T Corporation	Samsung C&T Chile Copper SpA	100.0
Samsung C&T Corporation	SCNT Power Kelar Inversiones Limitada	100.0
Samsung C&T Corporation	Samsung C&T do Brasil Construtora LTDA.	100.0
Samsung C&T Corporation	Samsung C&T Corporation Rus LLC	100.0
Samsung C&T Corporation	KSI LLP	25.0
Samsung C&T Corporation	JSC BALKHASH THERMAL POWER PLANT	50.0

Samsung C&T Corporation	Samsung SDI America, Inc.	8.3
Samsung C&T Corporation	Samsung SDI(Malaysia) Sdn, Bhd.	6.4
Samsung C&T Corporation	Samsung SDI(Hong Kong) Ltd.	2.4
Samsung C&T Corporation	Samsung SDI Brasil Ltda.	0.0
Samsung C&T Corporation	Beijing Samsung Real Estate Co.. Ltd	10.0
Samsung C&T Corporation	Cheil Industries Corp., USA	100.0
Samsung C&T Corporation	CHEIL INDUSTRIES ITALY SRL	100.0
Samsung C&T Corporation	Samsung Fashion Trading Co. ,Ltd	100.0
Samsung C&T Corporation	CHEIL INDUSTRIES INC. VIETNAM COMPANY LIMITED	100.0
Samsung C&T Corporation	Samsung C&T Corporation UEM Construction JV Sdn Bhd	60.0
Samsung C&T Corporation	iMarket Asia Co., Ltd.	19.3
Samsung Welstory	WELSTORY VIETNAM COMPANY LIMITED	90.0
Samsung Welstory	Shanghai Ever-Hongjun Business Mgt Service Co.,LTD	85.0
Samsung Welstory	Shanghai Welstory Food Company Limited	70.0
MULTICAMPUS	LANGUAGE TESTING INTERNATIONAL, INC	82.4
Eight Seconds(Shanghai)Co., Ltd.	Eight Seconds (Shanghai) Trading Co., Ltd.	100.0
PengTai Greater China Co., Ltd.	PengTai China Co., Ltd.	100.0
PengTai Greater China Co., Ltd.	PengTai Taiwan Co., Ltd.	100.0
PengTai Greater China Co., Ltd.	PengTai Interactive Advertising Co.,Ltd.	100.0
PengTai China Co., Ltd.	PengTai e-Commerce Co.,Ltd.	100.0
PengTai China Co., Ltd.	PengTai Marketing Service Co., Ltd.	100.0
PengTai Interactive Advertising Co.,Ltd.	MEDIALYTICS Inc.	51.0
iMarket Asia Co., Ltd.	iMarket China Co., Ltd.	80.0
Samsung Securities	Samsung Securities (America), Inc.	100.0
Samsung Securities	Samsung Securities (Europe) Limited.	100.0
Samsung Securities	Samsung Securities (Asia) Limited.	100.0
Samsung SDS	iMarket Asia Co., Ltd.	40.6
Samsung SDS	Samsung SDS Global SCL America, Inc.	100.0
Samsung SDS	SAMSUNG SDS GSCL CANADA., LTD.	100.0
Samsung SDS	Samsung SDS America, Inc.	100.0
Samsung SDS	Samsung SDS Europe Ltd.	100.0
Samsung SDS	Samsung SDS Global SCL Hungary Kft.	100.0
Samsung SDS	Samsung SDS Global SCL Slovakia, s.r.o.	100.0
Samsung SDS	Samsung SDS Global SCL Poland Sp. Z.o.o.	100.0
Samsung SDS	Samsung SDS Global SCL Netherlands Cooperatief U.A	100.0
Samsung SDS	Samsung SDS Asia Pacific Pte. Ltd.	100.0
Samsung SDS	Samsung SDS India Pvt. Ltd.	100.0
Samsung SDS	SAMSUNG SDS VIETNAM CO., LTD.	100.0
Samsung SDS	SAMSUNG SDS GLOBAL SCL ASIA PACIFIC PTE. LTD.	100.0
Samsung SDS	Samsung SDS GSCL Vietnam Co Ltd	100.0
Samsung SDS	PT. Samsung SDS Global SCL Indonesia	100.0
Samsung SDS	Samsung SDS Global SCL Philippines Co., Ltd. Inc.	100.0
Samsung SDS	Samsung SDS Global SCL Thailand Co.,Ltd	100.0
Samsung SDS	Samsung SDS Global SCL Malaysia SDN.BHD.	100.0
Samsung SDS	SAMSUNG SDS GLOBAL SCL AUSTRALIA PTY., LTD.	100.0
Samsung SDS	SDS-ACUTECH CO., LTD	50.0
Samsung SDS	ALS SDS Joint Stock Company	51.0
Samsung SDS	Samsung SDS China, Ltd.	100.0
Samsung SDS	Samsung IT Services (Beijing) Co., Ltd.	100.0
Samsung SDS	Samsung SDS Global SCL Hong Kong Ltd	100.0
Samsung SDS	Samsung SDS Global SCL Egypt	100.0
Samsung SDS	Samsung SDS Global SCL South Africa (PTY) Ltd.	100.0
Samsung SDS	Samsung SDS Global SCL Transport and Logistics Joint Stock Company	100.0
Samsung SDS	Samsung SDS Global Supply Chain Logistics Middle East DWC-LLC	100.0
Samsung SDS	Samsung SDS Latin America Solucoes Em Tecnologia Ltda	99.7

Samsung SDS	SAMSUNG SDS GLOBAL SCL LATIN AMERICA LOGISTICA LTD	99.7
Samsung SDS	Samsung SDS Global SCL Rus Limited Liability Company	100.0
Miracom	MIRACOM INC ASIA PACIFIC LTD	100.0
Samsung SDS Global SCL America, Inc.	Samsung SDS Latin America Solucoes Em Tecnologia Ltda	0.3
Samsung SDS Global SCL America, Inc.	Samsung SDS Mexico, S.A. DE C.V.	99.0
Samsung SDS Global SCL America, Inc.	Samsung SDS Global SCL Panama S. A.	100.0
Samsung SDS Global SCL America, Inc.	Samsung SDS Global SCL Chile Limitada	100.0
Samsung SDS Global SCL America, Inc.	Samsung SDS Global SCL Peru S.A.C.	100.0
Samsung SDS Global SCL America, Inc.	Samsung SDS Global SCL Colombia S.A.S.	100.0
Samsung SDS Global SCL America, Inc.	SAMSUNG SDS GLOBAL SCL LATIN AMERICA LOGISTICA LTD	0.3
Samsung SDS Europe Ltd.	Samsung SDS Global SCL Netherlands Cooperatief U.A	0.0
Samsung SDS Global SCL Netherlands Cooperatief U.A	Samsung SDS Global SCL Poland Sp. Z.o.o.	0.0
Samsung SDS Global SCL Netherlands Cooperatief U.A	Samsung SDS Global SCL Rus Limited Liability Company	0.0
Samsung SDS India Pvt. Ltd.	Samsung SDS India Private Limited	100.0
Samsung SDS China, Ltd.	Samsung SDS Global Development Center Xi'an	100.0
Samsung SDS China, Ltd.	Samsung SDS Global SCL Beijing Co., Ltd	100.0
MIRACOM INC ASIA PACIFIC LTD	MIRACOM INC CHINA LTD	100.0
Samsung Engineering	Offshore 1 consulting Corporation	49.0
Samsung Engineering	Samsung Engineering America Inc.	100.0
Samsung Engineering	Samsung Engineering Hungary Ltd.	100.0
Samsung Engineering	Samsung Engineering (Malaysia) SDN. BHD.	100.0
Samsung Engineering	PT Samsung Engineering Indonesia Co., Ltd.	100.0
Samsung Engineering	Samsung Engineering (Thailand) Co., Ltd.	81.0
Samsung Engineering	Samsung Engineering India Private Ltd.	100.0
Samsung Engineering	Samsung Engineering Vietnam	100.0
Samsung Engineering	Samsung Engineering Construction(Shanghai) Co., Lt	100.0
Samsung Engineering	SAMSUNG ENGINEERING CONSTRUCTION XIAN CO., LTD.	100.0
Samsung Engineering	Samsung Saudi Arabia Company Limited.	100.0
Samsung Engineering	Muharrag Wastewater Services Company W.L.L.	64.8
Samsung Engineering	Muharrag STP Company B.S.C.	4.6
Samsung Engineering	Muharrag Holding Company 1 Ltd.	45.0
Samsung Engineering	Samsung Ingenieria Mexico Construccion Y Operacion S.A. De C.V.	99.9
Samsung Engineering	Samsung Engineering Trinidad Co., Ltd.	100.0
Samsung Engineering	Samsung Ingenieria Manzanillo, S.A. De C.V.	99.9
Samsung Engineering	Grupo Samsung Ingenieria Mexico, S.A. De C.V.	100.0
Samsung Engineering	Samsung Ingenieria Energia S.A. De C.V.	100.0
Samsung Engineering	Samsung Engineering Bolivia S.A	100.0
Samsung Engineering	Samsung Ingenieria DUBA S.A. de C.V.	100.0
Samsung Engineering	Samsung Engineering Kazakhstan LLP	100.0
Samsung Engineering America Inc.	SEA Construction, LLC	100.0
Samsung Engineering America Inc.	SEA Louisiana Construction, L.L.C.	100.0
Samsung Engineering (Malaysia) SDN. BHD.	Muharrag Wastewater Services Company W.L.L.	0.3
Samsung Engineering India Private Ltd.	Samsung Saudi Arabia Company Limited.	0.0
Samsung Saudi Arabia Company Limited.	Samsung EPC Company Ltd.	75.0
Muharrag Holding Company 1 Ltd.	Muharrag Holding Company 2 Ltd.	100.0
Muharrag Holding Company 2 Ltd.	Muharrag STP Company B.S.C.	89.9
S1 Corporation	SOCM LLC	100.0
S1 Corporation	Samsung Beijing Security Systems	100.0
Cheil Worldwide	Cheil USA Inc.	100.0
Cheil Worldwide	Cheil Central America Inc.	100.0
Cheil Worldwide	IRIS Worldwide Holdings Limited	71.7
Cheil Worldwide	Cheil Europe Ltd.	100.0
Cheil Worldwide	Cheil Germany GmbH	100.0
Cheil Worldwide	Cheil France SAS	100.0
Cheil Worldwide	Cheil Nordic AB	100.0

Cheil Worldwide	Cheil India Pvt. Ltd.	100.0
Cheil Worldwide	Cheil (Thailand) Ltd.	100.0
Cheil Worldwide	Cheil Singapore Pte. Ltd.	100.0
Cheil Worldwide	Cheil Vietnam Co. Ltd.	90.0
Cheil Worldwide	Cheil Integrated Marketing Philippines, Inc.	100.0
Cheil Worldwide	Cheil Malaysia SDN BHD	100.0
Cheil Worldwide	Cheil China	100.0
Cheil Worldwide	Cheil Hong Kong Ltd.	100.0
Cheil Worldwide	Bravo Asia Limited	100.0
Cheil Worldwide	Bravo Asia-Shanghai	100.0
Cheil Worldwide	Cheil MEA FZ-LLC	100.0
Cheil Worldwide	Cheil South Africa Pty., Ltd.	100.0
Cheil Worldwide	CHEIL KENYA LIMITED	99.0
Cheil Worldwide	Cheil Communications Nigeria Ltd.	99.0
Cheil Worldwide	Cheil Jordan LLC	100.0
Cheil Worldwide	Cheil Ghana Limited	100.0
Cheil Worldwide	Cheil Brazil Communications Ltda.	100.0
Cheil Worldwide	Cheil Mexico Inc. SA de CV	98.0
Cheil Worldwide	Cheil Chile SpA.	100.0
Cheil Worldwide	Cheil Rus LLC	100.0
Cheil Worldwide	Cheil Ukraine LLC	100.0
Cheil Worldwide	Cheil Kazakhstan LLC	100.0
Hotel Shilla	Samsung Hospitality America Inc.	100.0
Hotel Shilla	SAMSUNG HOSPITALITY U.K. Limited	100.0
Hotel Shilla	SAMSUNG HOSPITALITY ROMANIA SRL	100.0
Hotel Shilla	Shilla Travel Retail Pte.Ltd	100.0
Hotel Shilla	SAMSUNG HOSPITALITY VIETNAM CO.,LTD	100.0
Hotel Shilla	SHILLA HOSPITALITY PHILIPPINES INC.	100.0
Hotel Shilla	SAMSUNG HOSPITALITY INDIA PRIVATE LIMITED	100.0
Hotel Shilla	SHILLA LIMITED Macao	100.0
Hotel Shilla	Samsung Shilla Business Service Beijing Co., Ltd.	100.0
Hotel Shilla	SHILLA LIMITED Hong Kong	100.0
Iris Americas, Inc.	Iris USA, Inc.	100.0
Iris Americas, Inc.	Iris Atlanta, Inc.	100.0
Iris Americas, Inc.	Iris Experience, Inc.	100.0
Iris Americas, Inc.	Iris Latin America, Inc.	100.0
Iris Americas, Inc.	Iris Worldwide San Diego, Inc.	100.0
Iris Latin America, Inc.	Irisnation Latina No.2, S. de R.L. de C.V.	0.0
Iris Latin America, Inc.	Irisnation Latina, S. de R.L. de C.V.	0.0
Cheil USA Inc.	The Barbarian Group LLC	100.0
Cheil USA Inc.	McKinney Ventures LLC	100.0
Cheil USA Inc.	Cheil India Pvt. Ltd.	0.0
Cheil USA Inc.	Cheil Mexico Inc. SA de CV	2.0
Samsung Hospitality America Inc.	Samsung Hospitality Europe GmbH	100.0
IRIS Worldwide Holdings Limited	Iris Nation Worldwide Limited	100.0
IRIS Worldwide Holdings Limited	Josh & James Limited	100.0
Iris Nation Worldwide Limited	Iris Americas, Inc.	100.0
Iris Nation Worldwide Limited	Irisnation Latina No.2, S. de R.L. de C.V.	100.0
Iris Nation Worldwide Limited	Irisnation Latina, S. de R.L. de C.V.	100.0
Iris Nation Worldwide Limited	Iris London Limited	100.0
Iris Nation Worldwide Limited	Iris Promotional Marketing Ltd	100.0
Iris Nation Worldwide Limited	Iris Ventures 1 Limited	100.0
Iris Nation Worldwide Limited	Founded Partners Limited	76.0
Iris Nation Worldwide Limited	Iris Products (Worldwide) Limited	100.0
Iris Nation Worldwide Limited	Iris Korea Limited	100.0

Iris Nation Worldwide Limited	Iris PR Limited	100.0
Iris Nation Worldwide Limited	Iris Concise Limited	100.0
Iris Nation Worldwide Limited	Iris Digital Limited	100.0
Iris Nation Worldwide Limited	Iris Amsterdam B.V.	100.0
Iris Nation Worldwide Limited	Datalytics Limited	100.0
Iris Nation Worldwide Limited	Iris Ventures (Worldwide) Limited	100.0
Iris Nation Worldwide Limited	Iris Culture Limited	100.0
Iris Nation Worldwide Limited	Concise Consultants Limited	100.0
Iris Nation Worldwide Limited	Irisnation Singapore Pte Limited	100.0
Iris Nation Worldwide Limited	Iris Worldwide Integrated Marketing Pvt Limited	100.0
Iris Nation Worldwide Limited	Iris Sydney PTY Ltd	100.0
Iris Nation Worldwide Limited	Iris (Beijing) Advertising Company Limited	100.0
Iris Nation Worldwide Limited	Irisnation Hong Kong Limited	100.0
Iris London Limited	Iris Partners LLP	100.0
Iris Promotional Marketing Ltd	Holdings BR185 Limited	100.0
Iris Ventures 1 Limited	Iris Germany GmbH	100.0
Founded Partners Limited	Founded Partners, Inc.	100.0
Iris Germany GmbH	Pepper NA, Inc.	100.0
Iris Germany GmbH	Pepper Technologies Pte Limited	100.0
Cheil Europe Ltd.	BEATTIE MCGUINNESS BUNGAY LIMITED	100.0
Cheil Europe Ltd.	Cheil Italia S.r.l	100.0
Cheil Europe Ltd.	CHEIL SPAIN S.L	100.0
Cheil Europe Ltd.	CHEIL BENELUX B.V.	100.0
Cheil Germany GmbH	Cheil Austria GmbH	100.0
Cheil Singapore Pte. Ltd.	PengTai Greater China Co., Ltd.	95.0
Cheil Singapore Pte. Ltd.	PT. CHEIL WORLDWIDE INDONESIA	100.0
Cheil Integrated Marketing Philippines, Inc.	Cheil Philippines Inc.	30.0
Cheil Hong Kong Ltd.	PengTai Greater China Co., Ltd.	3.1
Cheil MEA FZ-LLC	One Agency FZ LLC	100.0
Cheil MEA FZ-LLC	One RX Project Management Design and Production Limited Company	0.0
Cheil South Africa Pty., Ltd.	CHEIL KENYA LIMITED	1.0
Cheil South Africa Pty., Ltd.	Cheil Communications Nigeria Ltd.	1.0
One Agency FZ LLC	One RX India PVT. LTD	100.0
One Agency FZ LLC	One RX Project Management Design and Production Limited Company	100.0
One Agency FZ LLC	One RX Interior Design LLC	100.0
One Agency FZ LLC	One RX Printing LLC	100.0
One Agency FZ LLC	One Agency South Africa Pty., Ltd.	100.0
One Agency FZ LLC	One RX Russia LLC	99.9
One RX Interior Design LLC	One RX India PVT. LTD	0.0
Holdings BR185 Limited	Brazil 185 Participacoes Ltda	100.0
Brazil 185 Participacoes Ltda	Iris Router Marketing Ltda	80.0
Cheil Rus LLC	One RX Russia LLC	0.1

※ (% of Ownership; As of December 31, 2016; Based on Common shares)

C. Related Statute & Regulation

Restrictions on cross-holdings within Samsung Group in accordance with the Monopoly Regulation and Fair Trade Act

- (1) Date of announcement by authorities of companies deemed Samsung Group companies for the current year:
April 1, 2016
- (2) Summary of Regulation
 - Restriction of cross-holdings
 - Restriction of debt guarantee between affiliates
 - Restriction of voting rights at financial affiliates, including insurance
 - Decision by board committee and public disclosure of large-scale related party transactions
 - Public disclosure of important matters of unlisted companies
 - Other public disclosures related to Group status

D. Equity Investments in other corporations

(1) The total book value of equity investments in other corporations as of December 31, 2016 is KRW 49,937 billion

[As of December 31, 2016]

(Unit: 1,000 shares, KRW million, %)

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Listed	Samsung Electro-Mechanics	1977.01	Business	250	17,693	23.69	445,244	0		0	17,693	23.69	445,244	7,269,453	20,643
Listed	Samsung Card	1988.12	Business	10,000	43,393	37.45	1,455,485	-43,393	1,455,485	0	0	0.00	0	19,070,997	333,724
Unlisted	STECO	1995.06	Management	24,000	2,590	70.00	35,861	0		0	2,590	70.00	35,861	73,744	2,273
Unlisted	SEMES	1992.12	Management	1,000	2,173	91.54	71,906	0		0	2,173	91.54	71,906	717,229	76,299
Unlisted	SERI	1991.05	Business	320	3,576	29.80	24,942	0		0	3,576	29.80	24,942	131,131	221
Listed	Samsung SDS	1992.07	Business	6,160	17,472	22.58	560,827	0		0	17,472	22.58	560,827	6,331,679	469,831
Unlisted	Samsung Lions	1986.08	Business	240	55	27.50	-102	-55	102	0	0	0.00	0	28,042	25,631
Unlisted	Samsung Electronics Service	1998.01	Management	30,000	6,000	99.33	48,121	0		0	6,000	99.33	48,121	296,104	1,388
Unlisted	Samsung Electronics Sales	2000.12	Management	3,100	1,767	100.00	247,523	0		0	1,767	100.00	247,523	550,655	2,062
Unlisted	Samsung Electronics Logitech	1999.04	Management	76	1,011	100.00	46,669	0		0	1,011	100.00	46,669	146,052	13,165
Unlisted	Samsung Display	2012.04	Management	16,009,547	221,969	84.78	18,509,307	0		0	221,969	84.78	18,509,307	39,225,460	1,673,165
Unlisted	SVIC #14	2009.05	Management	18,000	0	99.00	0	0		0	0	0.00	0	66,796	4,487

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	SVIC #21	2011.11	Management	19,800	2	99.00	164,692	-1	-67,122	0	1	99.00	97,570	181,200	9,646
Unlisted	SVIC #22	2011.11	Management	19,800	2	99.00	159,558	-1	-12,276	0	1	99.00	147,282	163,503	-3,405
Unlisted	SVIC #26	2014.11	Management	19,800	1	99.00	108,405	1	25,839	49,500	2	99.00	183,744	105,021	5,062
Unlisted	SVIC #27	2014.09	Management	5,940	0	99.00	15,642	0		0	0	99.00	15,642	16,567	862
Unlisted	SVIC #28	2015.02	Management	7,425	1	99.00	67,518	1	80,784	11,682	2	99.00	159,984	64,453	-5,020
Unlisted	SVIC #32	2016.08	Management	19,800	0	0.00	0	0	40,194	0	0	99.00	40,194	0	0
Unlisted	SVIC #33	2016.11	Management	4,950	0	0.00	0	0	4,950	0	0	99.00	4,950	0	0
Unlisted	Samsung Medison	2011.02	Management	286,384	87,350	68.45	477,648	0		0	87,350	68.45	477,648	315,073	-19,902
Unlisted	S-Printing Solution	2016.11	Business	218,370	0	0.00	0	10,000	218,370	0	10,000	100.00	218,370	0	0
Unlisted	Samsung BioLogics	2011.04	Business	30,000	12,899	46.79	545,665	7,938	-102,472	0	20,837	31.49	443,193	5,974,295	1,874,243
Unlisted	Intellectual Discovery	2011.05	Business	5,000	1,784	15.71	5,241	0		0	1,784	15.71	5,241	46,591	-5,479
Listed	Samsung Heavy Industries	1977.09	Business	125	40,676	17.61	441,331	25,255	215,428	-46,897	65,931	16.91	609,862	17,301,592	1,212,110
Listed	Samsung Fine Chemicals	1995.05	Business	1,346	2,165	8.39	77,073	-2,165	-77,073	0	0	0.00	0	1,684,225	89,979
Listed	Hotel Shilla	1979.12	Business	252	2,005	5.11	154,965	0		-58,438	2,005	5.11	96,527	2,176,705	18,482
Listed	Cheil Worldwide	1988.09	Business	185	14,499	12.60	300,124	14,539	259,619	-68,144	29,038	25.24	491,599	1,866,862	81,741

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Listed	A-Tech Solution	2009.11	Business	26,348	1,592	15.92	8,469	0		8,167	1,592	15.92	16,636	172,054	-3043
Listed	iMarket Korea	2000.12	Business	1,900	647	1.80	16,377	0		-9,645	647	1.80	6,732	1,266,306	49,566
Listed	KT Skylife	2001.12	Business	3,344	240	0.50	4,152	0			240	0.50	4,152	711,294	72,987
Listed	Samsung SDI	1977.01	Business	304	13,463	19.58	1,534,745	0		-292,140	13,463	19.58	1,242,605	16,225,303	25,686
Listed	Wonik IPS	2016.04	Business	16,214	0	0.00	0	1,851	20,545	27,950	1,851	4.48	48,495	0	0
Listed	Wonik Holdings	2013.12	Business	15,411	3,610	4.48	40,975	-1,851	-20,545	-8,573	1,759	2.28	11,857	658,491	73,014
Unlisted	SSLM	2012.04	Business	52,296	4,378	9.31	0	-4,158		0	220	0.39	0	137,633	-77,909
Unlisted	Kihyup Technology Banking	1995.01	Business	5,000	1,000	17.24	5,000	0		0	1,000	17.24	5,000	98,192	968
Unlisted	Pusan Newport	1997.09	Business	590	1,135	0.98	5,677	-1,135	-5,677	0	0	0.00	0	641,380	45,221
Unlisted	The Korea Economic Daily	1987.05	Business	150	72	0.39	365	0		0	72	0.39	365	324,848	27,122
Unlisted	Samsung Venture Investment	1999.11	Business	4,900	980	16.33	7,207	0		308	980	16.33	7,515	82,759	6,010
Unlisted	Cyber Bank	2000.12	Business	8,000	1,083	7.46	0	0		0	1,083	7.46	0	0	0
Unlisted	FineChips	2001.12	Business	10	2	3.81	10	0		0	2	3.81	10	3,626	41
Unlisted	SK Telink	2010.11	Business	4,357	15	1.13	4,357	0		0	15	1.13	4,357	309,955	55,781
Unlisted	Inkel	2006.11	Business	130	0	0.00	0	0		0	0	0.00	0	129,344	-1,694

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Listed	Yongpyong Resort	2007.05	Business	1,869	400	1.05	1,869	0		1,563	400	0.83	3,432	970,651	11,573
Unlisted	Sambo Computer	2012.09	Withdrawal	0	0	0.01	0	0		0	0	0.01	0	37,711	2,280
Unlisted	Icube #1	2009.12	Business	4,000	0	16.23	4,000	0		0	0	16.23	4,000	20,747	-287
Unlisted	KT Wibro	2010.07	Business	60,000	600	24.20	48,500	0		0	600	24.20	48,500	270,129	3,540
Unlisted	Shinsung Eng & Construction	2010.07	Withdrawal	1	0	0.01	0	0		0	0	0.01	0	55,272	584
Unlisted	Woobang	2010.07	Withdrawal	0	1	0.00	0	0		0	1	0.00	0	260,744	12,199
Unlisted	Heehoon Design & Global	2010.07	Withdrawal	0	2	0.02	0	0		0	2	0.02	0	42,516	-8,168
Unlisted	Daewoo Development	2012.12	Withdrawal	0	0	0.02	0	0		0	0	0.02	0	131,773	953
Unlisted	Daewoo Songdo Development	2012.12	Withdrawal	0	9	0.02	0	0		0	9	0.02	0	1,216,605	-7,984
Unlisted	Zyle Motor Sales	2012.12	Withdrawal	0	1	0.00	0	0		0	1	0.00	0	305,917	4,623
Unlisted	Woojung Construction	2014.04	Withdrawal	0	5	0.35	0	0		0	5	0.35	0	23,920	-6,902
Unlisted	Hyunjin	2014.04	Withdrawal	0	23	0.25	0	0		0	23	0.25	0	31,585	13,219
Unlisted	Sungwon Construction	2014.04	Withdrawal	0	1	0.03	0	0		0	1	0.03	0	34,337	-1,733
Unlisted	Inhee	2014.04	Withdrawal	0	2	0.17	0	0		0	2	0.17	0	10,698	-99
Unlisted	Samsung Solution	2014.04	Withdrawal	0	4	6.70	0	0		0	4	6.70	0	8,925	55

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	STX Construction	2014.04	Withdrawal	0	0	0.01	0	0		0	0	0.01	0	117,512	-320
Unlisted	Poonglim	2014.05	Withdrawal	0	52	0.37	0	0		0	52	0.37	0	340,165	-1,056
Unlisted	JNT	2011.02	Business	1,800	0	24.00	3,120	0	-624	0	0	24.00	2,496	13,437	-35
Unlisted	SV	2011.02	Business	1,850	0	14.85	3,188	0	-896	0	0	14.85	2,292	20,085	-85
Unlisted	Seoul Investment Partners	2011.1	Business	1,550	0	19.38	2,737	0	-48	0	0	19.38	2,689	12,061	6,955
Unlisted	Daishin Aju IB	2011.08	Business	258	0	3.00	1,049	0	-323	0	0	3.00	726	44,139	11,675
Unlisted	TS	2011.11	Business	1,700	0	20.32	2,682	0	-1,478	0	0	20.48	1,204	19,749	5,737
Unlisted	IMM	2011.11	Business	760	0	7.60	1,964	0	-1,256	0	0	7.60	708	29,433	12,154
Unlisted	L&S	2012.07	Business	848	0	7.46	2,773	0	-1,017	0	0	7.46	1,756	32,490	-545
Unlisted	Maltani Corp.	2012.04	Business	16,544	45	15.00	15,860	0	0	410	45	15.00	16,270	68,704	382
Unlisted	Pantech	2013.06	Business	53,000	53,000	10.03	0	0		0	53,000	10.03	0	86,122	-69,928
Unlisted	KTCNP-GC	2013.12	Business	960	0	3.56	4,036	0	1,219	0	0	3.56	5,255	110,296	-622
Unlisted	Postech Technology Investment	2013.12	Business	600	0	10.00	600	0		0	0	10.00	600	296,670	95
Unlisted	AI Research Institute	2016.07	Business	3,000	0	0.00	0	600	3,000	0	600	14.29	3,000	0	0

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	SECA	1992.08	Position Security	3,823	0	100.00	90,922	0		0	0	100.00	90,922	465,801	30,182
Unlisted	SEA	1978.07	Position Security	59,362	492	100.00	5,651,195	0	4,411,886	0	492	100.00	10,063,081	14,875,687	268,083
Unlisted	SELA	1989.04	Position Security	319	40	100.00	86,962	0		0	40	100.00	86,962	327,557	-35,071
Unlisted	SEM	1995.07	Position Security	3,032	3,837	63.58	165,638	0		0	3,837	63.58	165,638	1,030,161	193,947
Unlisted	SEASA	1996.06	Position Security	4,696	21,854	98.00	6,779	0		0	21,854	98.00	6,779	40,459	6,572
Unlisted	SEDA	1994.01	Position Security	13,224	77,205,709	87.04	647,620	0		0	77,205,709	87.04	647,620	3,114,334	322,939
Unlisted	SECH	2002.12	Position Security	597	0	4.10	597	0		0	0	4.10	597	345,850	28,583
Unlisted	SESA	1989.01	Position Security	3,276	8,021	100.00	142,091	0		0	8,021	100.00	142,091	642,393	43,198
Unlisted	SENA	1992.03	Position Security	392	1,000	100.00	69,372	0		0	1,000	100.00	69,372	701,525	5,086
Unlisted	SEH	1991.05	Position Security	1,954	753	100.00	650,157	0		0	753	100.00	650,157	1,254,673	97,474
Unlisted	SEP	1982.09	Position Security	204	1,751	100.00	37,616	0		0	1,751	100.00	37,616	155,940	6,773
Unlisted	SEF	1991.08	Position Security	230	2,700	100.00	234,115	0		0	2,700	100.00	234,115	908,971	63,996
Unlisted	SEUK	1995.07	Position Security	33,908	109,546	100.00	433,202	0		0	109,546	100.00	433,202	1,133,512	106,413
Unlisted	SEHG	1982.02	Position Security	28,042	0	100.00	354,846	0		0	0	100.00	354,846	383,777	112,541
Unlisted	SEAG	2002.01	Position Security	40	0	100.00	32,162	0		0	0	100.00	32,162	289,807	16,498

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	SEI	1993.05	Position Security	862	677	100.00	143,181	0		0	677	100.00	143,181	768,278	59,554
Unlisted	SEBN	1995.07	Position Security	236	539,138	100.00	914,751	0		0	539,138	100.00	914,751	1,264,497	42,790
Unlisted	SELS	1991.05	Position Security	18,314	1,306	100.00	24,288	0		0	1,306	100.00	24,288	1,894,614	-7,745
Unlisted	SEPOL	1996.04	Position Security	5,462	106	100.00	78,267	0		0	106	100.00	78,267	457,516	51,265
Unlisted	SSA	1998.12	Position Security	263	2,000	100.00	32,622	0		0	2,000	100.00	32,622	603,300	51,871
Unlisted	SESK	2002.06	Position Security	8,976	0	55.68	263,767	0		0	0	55.68	263,767	1,888,341	107,968
Unlisted	SEEH	2008.01	Position Security	4,214	0	100.00	1,369,992	0		0	0	100.00	1,369,992	6,989,207	-31,925
Unlisted	SEO	1997.01	Position Security	120	0	100.00	-10,043	0		0	0	100.00	-10,043	105,859	-134
Unlisted	SRSC	1997.11	Position Security	707	0	100.00	8,211	0	-8,211	0	0	0.00	0	22,414	186
Unlisted	SERC	2006.01	Position Security	24,877	0	100.00	180,079	0	8,211	0	0	100.00	188,290	598,708	11,598
Unlisted	SERK	2007.07	Position Security	4,600	0	100.00	204,555	0		0	0	100.00	204,555	608,200	52,030
Unlisted	SEAU	1987.11	Position Security	392	53,200	100.00	111,964	0		0	53,200	100.00	111,964	431,714	-22,370
Unlisted	SEMA	1989.09	Position Security	4,378	16,247	100.00	153,602	0		0	16,247	100.00	153,602	117,879	18,228
Unlisted	SGE	1995.05	Position Security	827	0	100.00	32,836	0		0	0	100.00	32,836	952,236	59,431
Unlisted	SEEG	2012.07	Position Security	23	0	0.05	39	0		0	0	0.05	39	539,155	48,358

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	SEIN	1991.08	Position Security	7,463	46	99.99	118,909	0		0	46	99.99	118,909	964,021	53,205
Unlisted	SDMA	1995.03	Position Security	21,876	71,400	75.00	244,382	0		0	71,400	75.00	244,382	246,755	26,583
Unlisted	SIEL	1995.08	Position Security	5,414	216,787	100.00	75,263	0		0	216,787	100.00	75,263	3,723,127	326,462
Unlisted	SRI-B	2005.05	Position Security	7,358	17	100.00	31,787	0		0	17	100.00	31,787	147,149	-2,500
Unlisted	SAVINA	1995.01	Position Security	5,839	0	100.00	28,365	0		0	0	100.00	28,365	350,158	55,471
Unlisted	TSE	1988.01	Position Security	1,390	11,020	91.83	279,163	0		0	11,020	91.83	279,163	1,889,410	179,527
Unlisted	STE	1996.01	Position Security	4,206	2,499	49.00	0	0		0	2,499	49.00	0	6,568	0
Unlisted	SME	2003.05	Position Security	4,796	17,100	100.00	7,644	0		0	17,100	100.00	7,644	312,263	18,422
Unlisted	SAPL	2006.07	Position Security	793	877,133	100.00	981,483	0		0	877,133	100.00	981,483	4,227,798	957,734
Unlisted	SEHK	1988.09	Position Security	349	274,250	100.00	79,033	0		0	274,250	100.00	79,033	948,800	26,450
Unlisted	SET	1994.11	Position Security	456	27,270	100.00	112,949	0		0	27,270	100.00	112,949	1,253,480	44,025
Unlisted	SESS	1994.12	Position Security	18,875	0	100.00	504,313	0		0	0	100.00	504,313	836,562	78,202
Unlisted	SCIC	1996.03	Position Security	23,253	0	100.00	617,941	0	22,512	0	0	100.00	640,452	12,748,395	-77,629
Unlisted	SEHZ	1992.12	Position Security	792	0	89.56	255,535	0		0	0	89.56	255,535	6,192,974	722,700
Unlisted	SSEC	1995.04	Position Security	32,128	0	69.06	130,551	0		0	0	69.06	130,551	637,485	16,748

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	TSEC	1993.04	Position Security	15,064	0	48.20	138,101	0		0	0	48.20	138,101	858,675	100,638
Unlisted	SSDP	1993.08	Position Security	4,446	0	87.10	65,319	0		0	0	87.10	65,319	853,982	87,004
Unlisted	TSTC	2001.03	Position Security	10,813	0	90.00	490,041	0		0	0	90.00	490,041	2,075,123	146,972
Unlisted	SSTC	2001.11	Position Security	15,799	0	100.00	22,512	0	-22,512	0	0	0.00	0	6,151	-898
Unlisted	SSET	2002.02	Position Security	6,009	0	95.00	121,624	0		0	0	95.00	121,624	118,697	15,839
Unlisted	SESC	2002.09	Position Security	5,471	0	73.70	34,028	0		0	0	73.70	34,028	886,593	62,565
Unlisted	SSS	2001.01	Position Security	1,200	0	100.00	19,189	0		0	0	100.00	19,189	3,792,437	141,232
Unlisted	SSCR	2006.09	Position Security	3,405	0	100.00	9,332	0		0	0	100.00	9,332	24,818	3,420
Unlisted	TSOE	2010.04	Position Security	33,837	0	82.00	93,154	0		-19,262	0	82.00	73,893	125,762	-29,078
Unlisted	TSLED	2012.04	Position Security	119,519	0	100.00	119,519	0		0	0	100.00	119,519	349,963	36,338
Unlisted	SCS	2012.09	Position Security	111,770	0	100.00	3,888,196	0		0	0	100.00	3,888,196	9,742,388	171,644
Unlisted	SSCX	2016.04	Position Security	1,141	0	0.00	0	0	1,141	0	0	100.00	1,141	0	0
Unlisted	SJC	1975.12	Position Security	273	1,560	100.00	370,647	0		0	1,560	100.00	370,647	656,101	80,912
Unlisted	SRJ	1992.08	Position Security	3,120	122	100.00	117,257	0		0	122	100.00	117,257	157,461	2,933
Unlisted	TSST Japan	2004.03	Business	1,639	30	49.03	0	0		0	30	49.03	0	248,021	0

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	SDIB	1996.09	Business	3,110	586	0.08	0	0		0	586	0.08	0	21,571	-6,735
Unlisted	Semiconductor Portal	2002.12	Business	38	0	1.21	10	0		0	0	1.21	10	1,466	19
Unlisted	FTS	2008.12	Business	1,952	116	100.00	563	-116	-563	0	0	0.00	0	950	-1
Unlisted	Nanosys, Inc	2010.08	Business	4,774	1,747	1.43	2,387	0		0	1,747	1.43	2,387	24,502	-14,519
Unlisted	ONE BLUE LLC	2011.07	Business	1,766	0	16.67	1,766	0		0	0	16.67	1,766	37,054	1,020
Unlisted	TidalScale	2013.08	Business	1,112	2,882	8.87	1,112	0		0	2,882	8.87	1,112	8,590	-2,809
Unlisted	Sentiance	2012.12	Business	3,422	7	9.79	3,422	0		0	7	10.85	3,422	6,084	-1,317
Unlisted	Mantis Vision	2014.01	Business	1,594	355	2.94	1,980	0		0	355	2.93	1,980	8,919	-8,376
Unlisted	Argus Cyber Security	2015.09	Business	356	10	0.39	356	0		0	10	0.39	356	31,839	-2,787
Unlisted	INEDA	2014.04	Business	3,181	6,100	6.41	5,397	0		0	6,100	7.42	5,397	5,674	-2,220
Unlisted	Leman	2014.08	Business	1,019	17	3.91	1,019	0		0	17	3.66	1,019	3,049	-3,608
Unlisted	Alces	2014.09	Business	4,832	421	19.95	4,832	0		0	421	18.50	4,832	4,900	-3,353
Unlisted	Keyssa	2016.01	Business	3,332	0	0.00	0	1,235	3,332	0	1,235	2.58	3,332	32,495	-20,671
Unlisted	Zyomed	2016.01	Business	2,044	0	0.00	0	1,464	2,044	0	1,464	2.88	2,044	9,729	-2,212
Unlisted	SensiFree	2016.01	Business	2,111	0	0.00	0	490	2,111	0	490	17.88	2,111	4,980	-2,226

※ Account noted here reflects approved for sales securities.

Account	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Ownership (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Ownership (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	Bot Home Automation	2016.03	Business	2,307	0	0.00	0	540	2,307	0	540	0.89	2,307	37,886	-17,493
Unlisted	Unispectral	2016.02	Business	1,112	0	0.00	0	115	1,112	0	115	8.83	1,112	0	0
Unlisted	Quobyte	2016.04	Business	2,865	0	0.00	0	729	2,865	0	729	11.83	2,865	3,528	-9,949
Unlisted	Afero	2016.05	Business	5,685	0	0.00	0	723	5,685	0	723	5.60	5,685	323	-1,350
Unlisted	Graphcore	2016.06	Business	3,494	0	0.00	0	3,000	3,494	0	3,000	7.73	3,494	0	0
Unlisted	Soundhound	2016.12	Business	7,059	0	0.00	0	306	7,059	0	306	1.24	7,059	18,445	19,269
Listed	Rambus	2010.01	Business	185,363	4,788	4.11	65,039	-4,788	-65,039	0	0	0.00	0	843,259	247,747
Listed	SEAGATE	2011.12	Business	788,454	12,539	4.19	538,766	-12,539	-	0	0	0.00	0	10,308,912	734,844

*Account noted here reflects approved for sales securities.

* Based on separate financial statements

* Ownership percentage is calculated based on the number of common shares issued

X. Related Party Transactions

1. Credit Offerings for Affiliates and Subsidiaries

A. Details on Debt Guarantee (as of December 31, 2016)

- Domestic: N/A

- Overseas:

(Unit: USD thousand)

Company	Relationship	Creditor	Guarantee Expiry Date	Transactions				Limit of Guarantee
				Beginning of period	Increase	Decrease	End of period	
SEA	Subsidiary	SMBC, etc.	2017-12-16	1,000,000	-	-	1,000,000	2,425,000
SEM	Subsidiary	Santander, etc.	2017-12-16	-	-	-	-	546,000
SAMCOL	Subsidiary	Citibank, etc.	2017-12-16	66,333	17,252	-	83,585	156,000
SEDA	Subsidiary	HSBC, etc.	2017-12-18	-	-	-	-	769,000
SECH	Subsidiary	Citibank, etc.	2017-12-16	-	-	-	-	178,000
SEPR	Subsidiary	BBVA, etc.	2017-12-16	58,033	10,706	-	68,739	180,000
SSA	Subsidiary	Citibank, etc.	2017-12-16	126,001	-	91,674	34,327	335,000
SEMAG	Subsidiary	SocGen, etc.	2017-12-16	-	-	-	-	110,000
SETK	Subsidiary	BTMU, etc.	2017-12-16	134,625	53,242	-	187,867	590,000
SECE	Subsidiary	Citibank, etc.	2017-12-16	1,180	-	1,180	-	110,000
SEEG	Subsidiary	HSBC	2017-06-13	-	-	-	-	50,000
SEIN	Subsidiary	BNP, etc.	2017-11-08	-	-	-	-	186,000
SJC	Subsidiary	Mizuho Bank, etc.	2017-12-16	107,656	-	107,656	-	900,040
SRJ	Subsidiary	SMBC	2016-02-28	20,734	-	20,734	-	-
SEUC	Subsidiary	Credit Agricole, etc.	2017-12-16	-	-	-	-	175,000
SEDAM	Subsidiary	Citibank, etc.	2017-12-16	110,408	-	9,082	101,326	391,000
SECA	Subsidiary	Nova Scotia	2017-10-10	-	-	-	-	11,105
SELA	Subsidiary	Citibank	2017-12-16	-	-	-	-	30,000
SEEH	Subsidiary	HSBC, etc.	2017-12-16	-	-	-	-	727,000
SERK	Subsidiary	BNP, etc.	2017-12-16	-	-	-	-	345,000
SELV	Subsidiary	Citibank	2017-12-16	-	-	-	-	10,000
SAPL	Subsidiary	BOA, etc.	2017-12-16	-	-	-	-	411,000
SEV	Subsidiary	SCB	2017-11-08	-	-	-	-	15,000
SAVINA	Subsidiary	SCB, etc.	2017-11-08	-	-	-	-	71,000
SET	Subsidiary	SCB	2017-11-08	-	-	-	-	30,000
SCIC	Subsidiary	HSBC, etc.	2017-12-16	-	-	-	-	350,000
SME	Subsidiary	SCB	2017-11-08	-	-	-	-	110,000
SAMEX	Subsidiary	Citibank	2017-12-16	-	-	-	-	5,000
SEASA	Subsidiary	Citibank	2017-12-16	-	-	-	-	1,000
SSAP	Subsidiary	SCB	2017-11-08	14,267	-	3,985	10,282	30,000
Simpres	Subsidiary	BNP	2017-11-08	36,356	8,173	-	44,529	60,000
SEHK	Subsidiary	HSBC	2017-06-13	-	-	-	-	2,000
SEPM	Subsidiary	HSBC	2017-06-13	115,493	-	28,623	86,870	125,000
Total				1,791,086	89,373	262,934	1,617,525	9,434,145

SEC requires BOD approval for individual guarantees exceeding 2.5% of total equity. When the guarantee amount is between 0.1% and/or less than 2.5%, the approval decision is delegated to the Management Committee.

B. Purchase and Sales of Securities

N/A

2. Acquisitions and Disposals of Assets with Affiliates and Subsidiaries

In 2016, the Company sold its stakes in Samsung Card to Samsung Life Insurance in order to focus on core business competencies. The Company sold assets to various affiliates including SCS (Samsung China Semiconductor Co., Ltd.), to increase the production capacity of such affiliates.

In addition, the Company acquired assets including facility equipment from affiliates to improve efficiency of domestic production, and purchased shares of Cheil Worldwide owned by Samsung C&T for the purpose of strengthening the strategic collaborative relationship.

(Unit: KRW million)

Company	Relationship	Transaction Type	Transaction Date	Date based on	Asset	Amount
Samsung Life Insurance	Affiliates	Asset sale	2016.12.22	Date of sale	Samsung card shares, etc.	1,557,499
Samsung C&T	Affiliates	Asset purchase	2016.10.27	Date of purchase	Cheil Worldwide shares, etc.	267,524
SCS	Affiliates	Asset sale/purchase	2016.12.17	Date of sale/purchase	Machinery, etc.	83,096
SAS	Affiliates	Asset sale/purchase	2016.12.31	Date of sale/purchase	Machinery, etc.	65,905
SEHC	Affiliates	Asset sale	2016.11.16	Date of sale	Machinery, etc.	30,370
SEVT	Affiliates	Asset sale/purchase	2016.10.06	Date of sale/purchase	Machinery, etc.	29,666
SESS	Affiliates	Asset sale/purchase	2016.10.25	Date of sale/purchase	Machinery, etc.	7,322
Samsung Display	Affiliates	Asset purchase	2016.12.01	Date of purchase	Emission credits, etc.	6,957
TSTC	Affiliates	Asset sale/purchase	2016.11.14	Date of sale/purchase	Machinery, etc.	3,047
SEV	Affiliates	Asset sale/purchase	2016.12.02	Date of sale/purchase	Machinery, etc.	2,776
SIEL	Affiliates	Asset sale	2016.12.01	Date of sale	Machinery, etc.	2,011
SEHZ	Affiliates	Asset sale/purchase	2016.07.20	Date of sale/purchase	Machinery, etc.	1,780
TSOE	Affiliates	Asset purchase	2016.08.16	Date of purchase	Machinery, etc.	990
Samsung Bioepis	Affiliates	Asset sale	2016.04.15	Date of sale	Machinery, etc.	853
SEDAM	Affiliates	Asset sale	2016.11.10	Date of sale	Machinery, etc.	736
TSLED	Affiliates	Asset purchase	2016.11.30	Date of purchase	Machinery, etc.	451
Samsung SDI	Affiliates	Asset sale	2016.10.25	Date of sale	Machinery, etc.	397
SEMES	Affiliates	Asset sale	2016.12.22	Date of sale	Machinery, etc.	381
SEPM	Affiliates	Asset sale	2016.04.22	Date of sale	Machinery, etc.	213
TSE	Affiliates	Asset sale	2016.09.20	Date of sale	Machinery, etc.	171
SEIN	Affiliates	Asset sale	2016.11.14	Date of sale	Machinery, etc.	164
SEH	Affiliates	Asset sale/purchase	2016.06.17	Date of sale/purchase	Machinery, etc.	111

※ Transaction amount was calculated by an appropriate method based upon market value assessment.

※ Acquisitions and disposals of assets with affiliates and subsidiaries listed above were not on the agenda of BOD. The sale of shares to Samsung Life Insurance and the purchase of emission credits from Samsung Display proceeded with the approval of BOD.

※ Transaction date: most recent transaction

3. Business Transactions with Affiliates and Subsidiaries

(Unit: KRW million)

Company	Relationship	Type of Transaction	Date	Details	Amount
SEA	Subsidiary	Sales/Purchases	2016.01 - 2016.12	Purchase/sales of HHP and Home Appliance, etc.	27,469,787
SSI	Subsidiary	Sales/Purchases	2016.01 - 2016.12	Purchase/sales of semiconductors, etc	16,090,070
SEVT	Subsidiary	Sales/Purchases	2016.01 - 2016.12	Purchase/sales of HHP, etc	15,005,311
SSS	Subsidiary	Sales/Purchases	2016.01 - 2016.12	Sales of semiconductors, etc	13,574,341
SEV	Subsidiary	Sales/Purchases	2016.01 - 2016.12	Purchase/sales of HHP and Home Appliance, etc.	13,103,453
SEHZ	Subsidiary	Sales/Purchases	2016.01 - 2016.12	Purchase/sales of HHP and TV, etc.	9,472,646
SII	Subsidiary	Sales/Purchases	2016.01 - 2016.12	Purchase/sales of TV, etc.	6,944,535

In 2016, SEC conducted business transactions with the following subsidiaries: SEA (Samsung Electronics America, Inc.)

4. Transactions with Stakeholders other than Affiliates and Subsidiaries

As of December 31, 2016, the Company's outstanding loan amount is KRW 115.7 billion related to support for supplier companies for product competitiveness and mutual development as well as home loan and educational expenses for employee welfare. In addition, the Company provides debt guarantees up to KRW 9.0 billion for employees' loans from financial institutions relating to housing rental.

(Unit: KRW million)

Company	Relationship	Loans				
		Account title	Transaction			End of period (December 31, 2016)
			Beginning of period (January 1, 2016)	Increase	Decrease	
SEST Co., Ltd., etc	Partner company	Short-term loans	31,042	1,120	892	31,271
Bumjin I&D, etc	Partner company and employee	Long-term loans	85,368	38,372	39,357	84,383
Total			116,410	39,492	40,248	115,653

※ The amount shown above reflects the discounted present value of debts before accounting for impaired debts.

XI. Other Information

1. Public Disclosure

- N/A

2. Summary of Results of Shareholder Meetings

[As of December 31, 2016]

Date	Agenda	Results
FY2016 extraordinary general meeting of shareholders ('16.10.27)	1. Approval of Printing solutions business Spin-off	Approved
	2. Appointment of Executive director - Nominee : Jae-Yong Lee	Approved
FY2016 annual general meeting of shareholders ('16.3.11)	1. Approval of Balance Sheet, Income Statement, and Statement of Appropriation of Retained Earnings (Draft), etc. for FY2015	Approved
	2. Election of Directors 2.1: Appointment of Independent Directors 2.1.1: In-Ho Lee 2.1.2: Kwang-Soo Song 2.1.3: Jae-Wan Bahk	Approved Approved Approved
	2.2: Appointment of Executive Director 2.2.1: Boo-Keun Yoon 2.2.2: Jong-Kyun Shin 2.2.3: Sang-Hoon Lee	Approved Approved Approved
	2.3: Appointment of Members of Audit Committee 2.3.1: In-Ho Lee 2.3.2: Kwang-Soo Song	Approved Approved
	3. Approval of the Remuneration Limit for the Directors for FY 2016	Approved
	4. Approval of amendments to the Articles of Incorporation	Approved
FY2015 annual general meeting of shareholders ('15.3.13)	1. Approval of Balance Sheet, Income Statement, and Statement of Appropriation of Retained Earnings (Draft), etc. for FY2014	Approved
	2. Appointment of Directors 2.1: Appointment of Independent Directors 2.1.1: Han-Joong Kim 2.1.2: Byeong-Gi Lee	Approved Approved
	2.2: Appointment of Executive Director (Oh-Hyun Kwon) 2.3: Appointment of Member of Audit Committee (Han-Joong Kim)	Approved Approved
	3. Approval of the limit on the remuneration for Directors	Approved
FY2014 annual general meeting of shareholders ('14.3.14)	1. Approval of Balance Sheet, Income Statement, and Statement of Appropriation of Retained Earnings (Draft), etc. for FY2013	Approved
	2. Approval of the limit on the remuneration for Directors	Approved

3. *Litigation*

(1) The litigation with Apple Inc. (“Apple”) is ongoing in the United States as at the reporting date. On August 24, 2012, the jury determined that the Group partially infringed Apple’s design and utility patent and should pay damages to Apple. However, On March 1, 2013, the Judge ordered a new trial for a certain portion of the damages, ruling that it was originally miscalculated. On November 21, 2013 a jury verdict was rendered on the recalculated damages amount, and on March 6, 2014, the Judge made a final judgement to confirm the total damages and deny Apple’s bid for a permanent injunction against the Group. The Group appealed the decision on the damages amount on March 7, 2014, and a hearing on the appeal was held on December 4, 2014. On May 18, 2015, the appeals court affirmed in part and reversed in part a previous decision, and remanded it. On June 17, 2015, the Group petitioned for an en banc rehearing regarding the design infringement, and on August 13, 2015, the federal court dismissed the Group’s request. After the remand procedure, the Court of First Trial announced a partial final judgment on the appeals on September 18, 2015. On October 13, 2015, the immediate appeal was dismissed and on November 19, 2015, the Federal Circuit Court denied an en banc rehearing request. On December 11, 2015, the Group made payment for the damages. On December 14, 2015, the Group filed an appeal to the Supreme Court regarding the design patent infringement ruling. Thereafter, the two parties have submitted in writing to the District court details of supplemental damages incurred in connection with the ruling. On March 21, 2016, the Supreme Court granted the design-related appeals filed by the Group and on March 22, 2016, the Court of First Trial ordered all proceedings for review of damages scheduled to commence March 28, 2016 suspended until the sentence rendered by the Supreme Court was confirmed. On June 1, 2016, the Group submitted the draft document in the design-related appeal, and on June 28, 2016, several companies and organizations presented the document in support of the Group. Apple filed a dissenting document on July 29, 2016, and on August 5, 2016, several companies and organizations presented an advocative document. On August 29, 2016, the Group submitted a rebuttal letter. Oral statements for the appeal were held at the Supreme Court on October 11, 2016. On December 6, 2016, the Supreme Court issued a ruling citing the Group appeal and returned the case to the Court of Appeals. On February 7, 2017, the Court of Appeals reversed the case to the Court of First Trial.

Additionally, on May 5, 2014, the jury in another ongoing patent lawsuit determined that the Group partially infringed Apple’s utility patent and should pay damages to Apple. On November 25, 2014, the first trial judgment was pronounced to confirm the jury’s verdict. The Group appealed on November 25, 2014 and the rehearing was held on January 5, 2016. On August 27, 2014, the Judge denied Apple’s request for a permanent injunction on the Group’s product. However, on September 17, 2015, the appellate court reversed and remanded a previous decision and on December 16, 2015, the Federal Circuit Court denied an en banc hearing request of the Group. On January 18, 2016, the Court of First instance ordered a permanent injunction on the Group’s product. The Group asserts that the Group’s product was designed around the patent and thus has not infringed the patent. The final conclusion and the effect of the patent lawsuits with Apple are uncertain as at the reporting date.

In August 2014, the Group and Apple reached an agreement to withdraw from ongoing litigation in all regions other than the United States, and the Group has withdrawn all non-United States based lawsuits.

(2) The Group is involved in claims, disputes, and investigations conducted by regulatory bodies at the reporting date, including civil claims from some overseas buyers for price-fixing related to the sale of TFT-LCD. Although the outflow of resources and timing of these matters are uncertain, the Group believes the outcome will not have a material impact on the financial condition of the Group.

(3) In addition, during the normal course of business with numerous companies, the Group has been involved in various claims, disputes, and investigations conducted by regulatory bodies. Although the outflow of resources and timing of these matters are uncertain, the Group believes the outcome will not have a material impact on the financial condition of the Group.

4. Guarantees

- Domestic: As of December 31, 2016, the Company provided a debt guarantee of KRW 36,825 million to its employees who took debt from financial institutions in order to finance employee housing rental. The Company's housing rental debt guarantee limit is KRW 56,752 million. The Company has provided guarantees for borrowings executed by Medicapital from Dime Investment and two other companies in the amount of KRW 2,264 million.

- Overseas:

(Unit: USD thousand)

Company	Relationship	Creditor	Guarantee Expiry Date	Transactions				Limit of Guarantee
				Beginning of period	Increase	Decrease	End of period	
SEA	Subsidiary	SMBC, etc.	2017-12-16	1,000,000	-	-	1,000,000	2,425,000
SEM	Subsidiary	Santander, etc.	2017-12-16	-	-	-	-	546,000
SAMCOL	Subsidiary	Citibank, etc.	2017-12-16	66,333	17252	-	83,585	156,000
SEDA	Subsidiary	HSBC, etc.	2017-12-18	-	-	-	-	769,000
SECH	Subsidiary	Citibank, etc.	2017-12-16	-	-	-	-	178,000
SEPR	Subsidiary	BBVA, etc.	2017-12-16	58,033	10,706	-	68,739	180,000
SSA	Subsidiary	Citibank, etc.	2017-12-16	126,001	-	91,674	34,327	335,000
SEMAG	Subsidiary	SocGen, etc.	2017-12-16	-	-	-	-	110,000
SETK	Subsidiary	BTMU, etc.	2017-12-16	134,625	53242	-	187,867	590,000
SECE	Subsidiary	Citibank, etc.	2017-12-16	1,180	-	1,180	-	110,000
SEEG	Subsidiary	HSBC	2017-06-13	-	-	-	-	50,000
SEIN	Subsidiary	BNP, etc.	2017-11-08	-	-	-	-	186,000
SJC	Subsidiary	Mizuho Bank, etc.	2017-12-16	107,656	-	107,656	-	900,040
SRJ	Subsidiary	SMBC	2016-02-28	20,734	-	20,734	-	-
SEUC	Subsidiary	Credit Agricole, etc.	2017-12-16	-	-	-	-	175,000
SEDAM	Subsidiary	Citibank, etc.	2017-12-16	110,408	-	9082	101,326	391,000
SECA	Subsidiary	Nova Scotia	2017-10-10	-	-	-	-	11,105
SELA	Subsidiary	Citibank	2017-12-16	-	-	-	-	30,000
SEEH	Subsidiary	HSBC, etc.	2017-12-16	-	-	-	-	727,000
SERK	Subsidiary	BNP, etc.	2017-12-16	-	-	-	-	345,000
SELV	Subsidiary	Citibank	2017-12-16	-	-	-	-	10,000
SAPL	Subsidiary	BOA, etc.	2017-12-16	-	-	-	-	411,000
SEV	Subsidiary	SCB	2017-11-08	-	-	-	-	15,000
SAVINA	Subsidiary	SCB, etc.	2017-11-08	-	-	-	-	71,000
SET	Subsidiary	SCB	2017-11-08	-	-	-	-	30,000
SCIC	Subsidiary	HSBC, etc.	2017-12-16	-	-	-	-	350,000
SME	Subsidiary	SCB	2017-11-08	-	-	-	-	110,000
SAMEX	Subsidiary	Citibank	2017-12-16	-	-	-	-	5,000

SEASA	Subsidiary	Citibank	2017-12-16	-	-	-	-	1,000
SSAP	Subsidiary	SCB	2017-11-08	14,267	-	3,985	10,282	30,000
Simpress	Subsidiary	BNP	2017-11-08	36,356	8,173	-	44,529	60,000
SEHK	Subsidiary	HSBC	2017-06-13	-	-	-	-	2,000
SEPM	Subsidiary	HSBC	2017-06-13	115,493	-	28,623	86,870	125,000
	Total			1,791,086	89,373	262,934	1,617,525	9,434,145

※ SEC requires BOD approval for individual guarantees exceeding 2.5% of total equity. When the guarantee amount is between 0.1% and/or less than 2.5%, the approval decision is delegated to the Management Committee.

5. Sanctions and Others

The Company is engaged in a lawsuit after being issued a corrective order and fine (KRW 14,126 million) on July 10, 2012 for violating Article 23 (Prohibition of Unfair Trade Practices) of the Monopoly Regulation and Fair Trade Act. In order to comply with relevant laws on fair trade, the Company has strengthened internal oversight and provides education to executives and employees for the prevention of unfair trade practices.

The Company was ordered to pay a fine (KRW 26 million) on January 13, 2014 from the Fair Trade Commission for violating Article 4 (Announcement of Critical Information and Integrated Notification) of the Fair Labeling and Advertising Act, and has subsequently paid the fine. To comply with the Fair Labeling and Advertising Act, the Company offers education and training to executives and employees regarding these laws.

The Company was ordered to pay a fine (KRW 267 million) on March 7, 2013, for violating the Occupational Safety and Health Act in connection with a hydrofluoric acid gas leak that occurred on January 28, 2013, and has subsequently paid the fine. The Company was issued an improvement order and ordered to pay a fine (KRW 2.2 million) on April 1, 2013, for violating the Toxic Chemicals Control Act. The Company reported compliance with the improvement order and subsequently paid the fine. As a result of this incident, three employees and executives (a director of chemicals supply management with 20 years of continuous employment, a manager in charge of toxic chemicals with 8 years of continuous employment, and a manager of chemicals supply management with 11 years of continuous employment) of SEC were ordered to pay a fine (KRW 15 million) at the first trial (in Suwon District Court) on October 31, 2014. The Company appealed the decision. In order to improve the capabilities of safety managers, the Company has implemented a relevant education program, and is strengthening inspection on maintenance and management of dangerous facilities.

For the hydrofluoric acid gas leak occurred on May 2, 2013, SEC was ordered to pay a fine (KRW 4.5 million) on February 27, 2014, for violating the Occupational Safety and Health Act and the Toxic Chemicals Control Act, and has subsequently paid the fine. The Company has completely revamped the Health & Safety Management Program, including creating a new organization devoted to the prevention of leakage to avoid such accidents from reoccurring in the future.

The Company was ordered and paid a fine of KRW 166.7 million for not reporting the importation of certain chemicals in August 2013, following a joint inspection by the Ministry of Environment and Gyeong-Gi Province. The Company has improved the reporting process for imported chemicals to ensure proper notification of such chemicals.

Pursuant to the results of a joint inspection by the prosecutor's office and the Ministry of Employment and Labor conducted from June 16 through June 20 (2014), a current executive of SEC (Head director of safety & healthy management with 32 years of continuous employment) and SEC were ordered and respectively paid a fine of KRW 2 million for violating the obligation of taking safety measures in accordance with the Occupational Safety and Health Act on July 29, 2015 (in Suwon District Court). To prevent recurrence, the Company has implemented its own Environment & Safety Preliminary Evaluation System and conducts regular inspections.

Pursuant to the results of a regular inspection by the Ministry of Employment and Labor conducted from December 14 through December 16 (2015), SEC paid a fine of KRW 18.76 million for violating the obligation of implementing safety measures in accordance with the Occupational Safety and Health Act on December 31, 2015 (The original amount was KRW 23.45 million, but was reduced by 20%, as the company voluntarily paid the fine by the due date). Regarding this matter, the Company has implemented its own safety inspection program for Hazardous Machineries and equipment to reinforce compliance management.

Pursuant to the results of a Process Safety Management (PSM) inspection by the Ministry of Employment and Labor conducted from December 5 through the December 9 (2016), the Company was ordered to pay a fine of KRW 3.52 million for violating the obligation of implementing safety measures in accordance with the Occupational Safety and Health Act on December 14, 2016 and has subsequently paid the fine. In order to comply with relevant laws, the Company is training process safety experts on site and conducting its own process safety evaluation.

The years of continuous employment described herein is based on the date of order.

The Company (including Samsung Display) has joint responsibility for reimbursement of liabilities that Samsung Display accrued before the separation.

On October 23, 2013, the Company signed a basic agreement on comprehensive business cooperation with Corning Incorporated, etc. Inflow or outflow of resources can occur hereafter, as the agreement includes conditions for compensation of loss. Projected disbursement as of the end of reporting term was counted as liabilities.

For information on the Company's commitments and contingencies, refer to Commitments and Contingencies notes in the Separate and Consolidated Financial Statements.

6. Return of Short-Swing Profits

The Company has not received any notification of short-swing profits from the Securities & Futures Commission (the Governor of the Financial Supervisory Service) in the past three years and until the date of this report.

7. Subsequent Events

On January 24, 2017, the board of directors approved the share buyback and retirement of common and preferred stock, with the estimated total number of shares to be repurchased of 1.28 million (common stock 1.02 million, preferred stock 0.26 million). All repurchased shares will be retired after the buyback is completed. The period of purchase is subject to end on April 24, 2017.

Since the agreement to acquire Harman on November 14, 2016, the Company has completed all necessary procedures for acquisition, including shareholders' meeting and approval of antitrust review in 10 countries subject to examination, including the United States. The Company has completed the acquisition of Harman on March 10, 2017 (March 11, 2017, in Korea).

8. Acquisition and Divestments

A. Acquisitions and divestments (Separate only)

[Split of S-Printing Solution]

- Company Name: S-Printing Solution Corp.
- Location: 129 Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do
- Purpose of split: S-Printing Solution competitiveness improvement
- Approval of split: October 27, 2016 (temporary shareholders' meeting)
- Date of split: November 1, 2016

(Unit: KRW million)

Company	Account	Forecast		Actual			
		1st Year	2nd Year	1st Year		2nd Year	
				Actual	Difference	Actual	Difference
S-Printing Solution	Sales	2,094	14,160	2,186	4.40%	-	-
	Operating Income	-29	-1,359	-61	111.48%	-	-
	Net Income	-67	-1,486	-10	-84.72%	-	-

Difference rate of operating income was more than 110% due to the year-end bonus payments and difference of net income was more than 80% due to the foreign exchange differences and etc.

Details of the above statement can be found in the “Important Matters Report“, published in DART (<http://dart.fss.or.kr/>).

Split of S-Printing Solution business is reported on a separate basis.

- Please refer to the Management Combination and Non-current Assets Held-for-Sale (Assets of disposal group) notes in the Consolidated Financial Statements for acquisition and divestments on the consolidation basis.

9. Green Management

The Company is actively securing “Green Technology Certifications” to follow the Low Carbon Green Growth policy of the Korean government.

(Green Technology Certification)

The Company is acquiring Green Technology Certifications in accordance with Clause 2, Article 32 of the Framework Act on Low Carbon Green Growth. Green technology development is a part of our “Planet First” strategy, which strives to conduct business activities in a manner that respect people and nature. Since the certification system was introduced in 2010, the Company has secured 14 valid Green Technology Certifications as of December 31, 2016. In addition, the Company has acquired 50 ‘Green Technology’ product certificates (429 models), for commercialized products.

Certified Green Technologies as of December 31, 2016 are as follows:

Division	Business	Name of green technology and green projects	No.
CE		Low-power consumption SoC design technology for digital TVs, etc.	9
IM		Pentile display power-saving technology that adapts to level of illumination of the surroundings, etc.	5
Total			14

※ The data reported above is with respect to Samsung Electronics Co., Ltd. only.

※ See 『11. Other Information (B. Environmental regulations)』 in 『II. Businesses Overview』 for greenhouse gas emission and energy use.