



**SAMSUNG ELECTRONICS Co., Ltd.**  
**Half Year Report**

January 1, 2017 - June 30, 2017

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

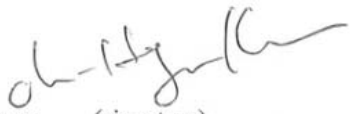
We, Oh-Hyun Kwon and Sang-Hoon Lee, as CEO and executive of the company in charge of reporting, certify that we have reviewed the half year business report of Samsung Electronics Co., Ltd. for the six-months ended June 30, 2017.

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. 8. 14

  
Oh-Hyun Kwon (signature)

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

Director 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, Republic of Korea
- Phone Number: 82-31-200-1114
- Website: [http:// www.samsung.com/sec](http://www.samsung.com/sec)

### D. The Company does not fall under the category of small and medium enterprise under Article 2 of the Framework Act on Small and Medium Enterprises.

### E. Core Businesses

- The Company (defined below) comprises business divisions that operates independently (each a “**Division**”): CE (Consumer Electronics), IM (Information Technology & Mobile Communications), DS (Device Solutions), and Harman (Harman International Industries, Inc. and its subsidiaries), which produces automotive electronics components.

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, TFT-LCD, OLED, etc.
Harman	Infotainment, Telematics, Loudspeaker, Headphone, Amplifier, Digital Signal Processor, etc.

The Company is a global electronics company comprised of the headquarters in Korea and 276 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, five (5) regional headquarters for the DS Division, and Harman and its subsidiaries.

#### [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 in 2016 by leveraging competitive advantages in hardware such as LCD/LED TVs as well as software driven product features within our Smart TV product portfolio. Moving forward, we will continue to increase our market leadership by pioneering new technologies and pushing forward innovation.

### **[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 camera sensor chips. 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 by creating new demand through the improvement of product performance of AP products, as well as through the remarkable enhancement of product density for memories such as DRAMs.

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 business is not complacent on the semiconductor market for mobile devices and expanding to the semiconductors for automobile. The system LSI business will continue to stay at the forefront of the market by offering differentiated products such as APs and CISs and strengthening competitiveness using the latest advanced process technology.

The Foundry business started supplying 10nm products from the fourth quarter in 2016, and is bringing its full capacity to lead the industry.

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.

## **[Harman Division]**

Harman is a leader in the design and engineering of connected products and solutions for automakers, consumers and enterprises worldwide, including connected car systems, audio and visual products, enterprise automation solutions and connected services.

Harman developed its strength in these areas, both internally and through a series of strategic acquisitions, with a variety of product offerings sold under renowned brand names in its principal markets.

☞ 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 June 30, 2017, Samsung Group had a total of sixty-two (62) domestic affiliates, addition of four (4) affiliates (Samsung Active Asset Management, Samsung Hedge Asset Management, Harman International Korea, Red Bend Software Korea) when compared to December 31, 2016. Among the Samsung Group's sixty-two (62) domestic affiliates, sixteen (16) affiliates including Samsung Electronics are listed, and forty-six (46) affiliates are unlisted.

[As of June 30, 2017]

	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	46	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, Samsung Active Asset Management, Samsung Hedge Asset Management, Harman International Korea, Red Bend Software Korea
Total	62	

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

## G. Subsidiaries Subject to Consolidated Financial Statements

As of June 30, 2017, Samsung Electronics' consolidated subsidiaries totaled 276 with the addition of one hundred and thirteen (113) newly established or acquired subsidiaries and the subtraction of six (6) subsidiaries when compared to December 31, 2016. Below is the list of consolidated subsidiaries.

(Unit: KRW million)

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2016 Assets	% ownership	Classified as major subsidiary (Y/N)
Samsung Electronics America Inc.	1978.07	Sale of electronic goods	21,810,491	Over 50%	Y
NexusDX Inc.	2009.07	Medical equipment	7,912	Over 50%	N
NeuroLogica Corp.	2004.02	Medical equipment	199,830	Over 50%	Y
Dacor Holdings, Inc.	1998.12	Holding Company	27,553	Over 50%	N
Dacor	1965.03	Production and sale of home appliances	28,992	Over 50%	N
Dacor Canada Co.	2001.06	Sale of home appliances	46	Over 50%	N
EverythingDacor.com, Inc.	2006.06	Sale of home appliances	166	Over 50%	N
Distinctive Appliances of California, Inc.	2014.06	Sale of home appliances	211	Over 50%	N
Quietside LLC (Samsung HVAC America, LLC)	2001.07	Sale of Air-conditioner	42,556	Over 50%	N
SmartThings, Inc.	2012.04	Sale of smart-home devices	219,398	Over 50%	Y
Samsung Oak Holdings, Inc.	2016.06	Holding company	171,546	Over 50%	Y
Joyent, Inc.	2005.03	Cloud services	240,548	Over 50%	Y
Samsung Pay, Inc.	2006.03	Develop and provide mobile payment services	318,244	Over 50%	Y
Stellus Technologies, Inc.	2015.11	Production and sales of storage systems	6,475	Over 50%	N
Prismview, LLC	2007.10	LED display panel production and sales	62,453	Over 50%	N
Samsung Semiconductor Inc.	1983.07	Sale of semiconductors and display panels	7,804,698	Over 50%	Y
Samsung Electronics Canada Inc.	1980.07	Sale of electronic goods	728,783	Over 50%	Y
PrinterOn Inc.	2000.04	Sale of printing solutions	5,914	Over 50%	N
PrinterOn America Corporation	1986.04	Sale of printing solutions	502	Over 50%	N
AdGear Technologies Inc.	2010.08	Digital advertising platform	6,120	Over 50%	N
Viv Labs, Inc.	2012.09	Artificial Intelligence services	265,895	Over 50%	Y
NewNet Communication Technologies(Canada), Inc.	2009.07	Develop text messaging services	819	Over 50%	N
RT SV CO-INVEST, LP	2014.02	Investment in venture firms	13,622	Over 50%	N
Samsung Research America, Inc	1988.10	R&D	629,484	Over 50%	Y
Samsung Next LLC	2016.08	Holding company	60,441	Over 50%	N
Samsung Next Fund LLC	2016.08	Investment in venture firms and new technologies	60,566	Over 50%	N
Samsung International Inc.	1983.10	Production of TVs and monitors	51,309	Over 50%	N
Samsung Mexicana S.A. de C.V	1988.03	Production of electronic goods	917,188	Over 50%	Y
Samsung Austin Semiconductor LLC.	1996.02	Production of semiconductors	4,940,748	Over 50%	Y
Samsung Electronics Mexico S.A. De C.V.	1995.07	Sale of electronic goods	1,136,282	Over 50%	Y



Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2016 Assets	% ownership	Classified as major subsidiary (Y/N)
SEMES America Inc.	1998.10	Semiconductor equipment	1,090	Over 50%	N
Samsung Electronics Digital Appliance Mexico, SA de CV	2012.12	Production of electronic goods	497,064	Over 50%	Y
Samsung Electronics Latinoamerica Miami, Inc.	1995.05	Sale of electronic goods	247,467	Over 50%	Y
Samsung Electronics Latinoamerica (Zona Libre)	1989.04	Sale of electronic goods	370,058	Over 50%	Y
Samsung Electronics Venezuela, C.A.	2010.05	Marketing and services	1,361	Over 50%	N
Samsung Electronica Colombia S.A.	1997.03	Sale of electronic goods	410,668	Over 50%	Y
Samsung Electronics Panama. S.A.	2012.07	Consulting	1,572	Over 50%	N
Samsung Electronica da Amazonia Ltda.	1995.01	Production and sale of electronic goods	5,200,799	Over 50%	Y
Simpres Comercio, Locacao e Servicos S.A.	2005.02	Sale of printing solutions	148,581	Over 50%	Y
Samsung Electronics Argentina S.A.	1996.06	Marketing and services	60,558	Over 50%	N
Samsung Electronics Chile Limitada	2002.12	Sale of electronic goods	438,074	Over 50%	Y
Samsung Electronics Peru S.A.C.	2010.04	Sale of electronic goods	280,653	Over 50%	Y
Kngine, Inc.	2011.05	S/W development	446	Over 50%	N
AMX Holding Corporation	1982.04	Holding Company	0	Over 50%	N
AMX LLC	2006.01	Holding Company	495,948	Over 50%	Y
Harman Becker Automotive Systems, Inc.	1981.06	Production and sale of audio products, R&D	4,043,677	Over 50%	Y
Harman Connected Services Inc.	2002.02	Connected Service Provider	92,836	Over 50%	Y
Harman Connected Services Engineering Corp.	2002.02	Connected Service Provider	19,555	Over 50%	N
Harman Connected Services Holding Corp.	2002.02	Connected Service Provider	858,333	Over 50%	Y
Harman Connected Services South America S.R.L.	2015.04	Connected Service Provider	325	Over 50%	N
Harman da Amazonia Industria Electronica e Participacoes Ltda.	2005.04	Production and sale of audio products	67,945	Over 50%	N
Harman de Mexico S. de R.L. de C.V.	1988.01	Production of audio products	90,368	Over 50%	Y
Harman do Brasil Industria Electronica e Participacoes Ltda.	1973.03	Sale of audio products, R&D	189,579	Over 50%	Y
Harman Financial Group, LLC	2014.06	Management Company	0	Over 50%	N
Harman International Industries Canada Ltd.	2005.12	Sale of audio products	0	Over 50%	N
Harman International Industries, Inc.	1980.01	Holding Company	7,651,766	Over 50%	Y
Harman International Mexico S de RL de CV	2014.11	Sale of audio products	16,687	Over 50%	N
Harman Investment Group, LLC	2015.12	Financing Company	559,299	Over 50%	Y
Harman KG Holding, LLC	2009.03	Holding Company	0	Over 50%	N
Harman Professional, Inc.	1994.08	Sale of audio products, R&D	839,019	Over 50%	Y
Red Bend Software Inc.	2001.03	S/W design	31,293	Over 50%	N
S1NN USA, Inc.	2011.02	R&D	371	Over 50%	N
Southern Vision Systems, Inc	2003.04	Development of vision sensors	29,572	Over 50%	N
Triple Play Integration LLC	2013.11	Connected Service Provider	6,327	Over 50%	N
Beijing Integrated Circuit Industry International Fund, L.P	2014.12	Investment in venture firms	29,229	Over 50%	N

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2016 Assets	% ownership	Classified as major subsidiary (Y/N)
Samsung Electronics (UK) Ltd.	1995.07	Sale of electronic goods	1,520,376	Over 50%	Y
Samsung Electronics(London) Ltd.	1999.01	Holding company	6,503	Over 50%	N
Samsung Electronics Holding GmbH	1982.02	Holding company	532,697	Over 50%	Y
Samsung Semiconductor Europe GmbH	1987.12	Sale of semiconductors and display panels	708,694	Over 50%	Y
Samsung Electronics GmbH	1984.12	Sale of electronic goods	1,621,827	Over 50%	Y
Samsung Electronics Iberia, S.A.	1989.01	Sale of electronic goods	794,238	Over 50%	Y
Samsung Electronics France S.A.S	1988.01	Sale of electronic goods	1,207,985	Over 50%	Y
Samsung Electronics Hungarian Private Co. Ltd.	1989.10	Production and sale of electronic goods	1,743,979	Over 50%	Y
Samsung Electronics Czech and Slovak s.r.o.	2010.01	Sale of electronic goods	160,497	Over 50%	Y
Samsung Electronics Italia S.P.A.	1991.04	Sale of electronic goods	901,906	Over 50%	Y
Samsung Electronics Europe Logistics B.V.	1991.05	Logistics	2,887,230	Over 50%	Y
Samsung Electronics Benelux B.V.	1995.07	Sale of electronic goods	1,319,479	Over 50%	Y
Samsung Display Slovakia s.r.o.	2007.03	Display panel processing	147,955	Over 50%	Y
Samsung Electronics Romania LLC	2007.09	Sale of electronic goods	201,775	Over 50%	Y
Samsung Electronics Polska, SP.Zo.o	1996.04	Sale of electronic goods	526,135	Over 50%	Y
Samsung Electronics Portuguesa S.A.	1982.09	Sale of electronic goods	157,324	Over 50%	Y
Samsung Electronics Nordic Aktiebolag	1992.03	Sale of electronic goods	961,566	Over 50%	Y
Samsung Semiconductor Europe Ltd.	1997.04	Sale of semiconductors and display panels	94,095	Over 50%	Y
Samsung Electronics Austria GmbH	2002.01	Sale of electronic goods	303,737	Over 50%	Y
Samsung Electronics Switzerland GmbH	2013.05	Sale of electronic goods	160,434	Over 50%	Y
Samsung Electronics Slovakia s.r.o	2002.06	Production of TVs and monitors	2,053,467	Over 50%	Y
Samsung Electronics Baltics SIA	2001.10	Sale of electronic goods	111,574	Over 50%	Y
Samsung Electronics Europe Holding Cooperatief U.A.	2008.10	Holding company	8,643,308	Over 50%	Y
Samsung Electronics Poland Manufacturing SP.Zo.o	2010.02	Production of home appliances	336,490	Over 50%	Y
Samsung Electronics Greece S.A.	2010.04	Sale of electronic goods	89,948	Over 50%	Y
Samsung Electronics Air Conditioner Europe B.V.	2017.04	Sale of Air-conditioner	0	Over 50%	N
Samsung Nanoradio Design Center	2004.02	R&D	24,330	Over 50%	N
Samsung Denmark Research Center ApS	2012.09	R&D	21,170	Over 50%	N
Samsung France Research Center SARL	2012.10	R&D	15,729	Over 50%	N
Samsung Cambridge Solution Centre Limited	2012.09	R&D	115,546	Over 50%	Y
PrinterOn Europe Limited	2013.11	Sale of printing solutions	59	Over 50%	N
Joyent Ltd.	2014.04	Cloud services	1,615	Over 50%	N
Samsung Electronics Overseas B.V.	1997.01	Sale of electronic goods	126,485	Over 50%	Y
Aditi Technologies Europe GmbH	2013.03	Sale of audio products, etc.	0	Over 50%	N
AKG Acoustics GmbH	1940.01	Production and sale of audio products	378,592	Over 50%	Y

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2016 Assets	% ownership	Classified as major subsidiary (Y/N)
AMX GmbH	2008.03	Sale of audio products	9,556	Over 50%	N
AMX UK Limited	1993.03	Sale of audio products	9,945	Over 50%	N
Duran Audio B.V.	1987.08	Sale of audio products, R&D	565,015	Over 50%	Y
Duran Audio Iberia Espana S.L.	2012.11	Sale of audio products	0	Over 50%	N
Endeleo Limited	2003.05	Sale of audio product, R&D	0	Over 50%	N
Harman Automotive UK Limited	2012.10	Production of audio products	725,859	Over 50%	Y
Harman Becker Automotive Systems GmbH	2012.06	Production and sale of audio products, R&D	1,175,168	Over 50%	Y
Harman Becker Automotive Systems Italy S.R.L.	2005.12	Sale of audio products	754	Over 50%	N
Harman Becker Automotive Systems Manufacturing Kft	1997.12	Production of audio products, R&D	1,461,389	Over 50%	Y
Harman Belgium SA	1994.12	Sale of audio products	565	Over 50%	N
Harman Connected Services AB.	1984.10	Connected Service Provider	42,059	Over 50%	N
Harman Connected Services Finland OY	1983.05	Connected Service Provider	1,141	Over 50%	N
Harman Connected Services GmbH	2005.12	Connected Service Provider	50,070	Over 50%	N
Harman Connected Services Limited	1992.12	Connected Service Provider	5,329	Over 50%	N
Harman Connected Services Poland Sp.zoo	2007.06	Connected Service Provider	2,622	Over 50%	N
Harman Connected Services UK Ltd.	2008.09	Connected Service Provider	24,711	Over 50%	N
Harman Consumer Division Nordic A/S	1991.01	Sale of audio products	21,110	Over 50%	N
Harman Consumer Finland OY	2002.07	Sale of audio products	2	Over 50%	N
Harman Consumer Nederland B.V.	1995.12	Sale of audio products	36,295	Over 50%	N
Harman Deutschland GmbH	1998.03	Sale of audio products	0	Over 50%	N
Harman Finance International GP S.a.r.l	2015.04	Holding Company	0	Over 50%	N
Harman France SNC	1995.07	Sale of audio products	153,505	Over 50%	Y
Harman Holding GmbH & Co. KG	2012.03	Management Company	1,046,654	Over 50%	Y
Harman Hungary Financing Ltd.	2012.06	Financing Company	538,830	Over 50%	Y
Harman Inc. & Co. KG	2012.03	Holding Company	16	Over 50%	N
Harman International Estonia OU	2015.05	R&D	166	Over 50%	N
Harman International Industries Limited	1980.03	Sale of audio products, etc.	529,173	Over 50%	Y
Harman International Romania SRL	2014.12	R&D	130	Over 50%	N
Harman Finance International SCA	2015.04	Financing Company	459,415	Over 50%	Y
Harman International s.r.o	2015.02	Production of audio products	186	Over 50%	N
Harman International SNC	1995.07	Sale of audio products	4,403	Over 50%	N
Harman Management GmbH	2002.05	Holding Company	6	Over 50%	N
Harman Professional Kft	2014.12	Production of audio products, R&D	90,250	Over 50%	Y
Inspiration Matters Limited	2002.06	Sale of audio products, R&D	0	Over 50%	N
Knight Image Limited	1989.06	Sale of audio products, R&D	0	Over 50%	N

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2016 Assets	% ownership	Classified as major subsidiary (Y/N)
Martin Manufacturing (UK) Ltd	1985.05	Production of audio products	4,322	Over 50%	N
Harman Professional ApS	1987.07	Sale of audio products, R&D	221,325	Over 50%	Y
Harman Professional France SAS	1989.09	Sale of audio products	641	Over 50%	N
Martin Professional GmbH	1999.12	Sale of audio products	952	Over 50%	N
Martin Professional Ltd.	1991.02	Sale of audio products	5,443	Over 50%	N
R&D International BVBA	1989.12	Production of audio products	1,593	Over 50%	N
Red Bend Software Ltd.	2004.08	S/W design	8,836	Over 50%	N
Red Bend Software SAS France	2002.10	S/W design	26,110	Over 50%	N
Studer Professional Audio GmbH	2003.12	Sale of audio products, R&D	17,130	Over 50%	N
Samsung Electronics Rus Company LLC	2006.10	Sale of electronic goods	981,971	Over 50%	Y
Samsung Electronics Ukraine Company LLC	2008.09	Sale of electronic goods	112,569	Over 50%	Y
Samsung R&D Institute Rus LLC	2011.11	R&D	15,344	Over 50%	N
Samsung Electronics Central Eurasia LLP	2008.09	Sale of electronic goods	71,570	Over 50%	N
Samsung Electronics Caucasus Co., Ltd.	2014.10	Marketing	1,968	Over 50%	N
Samsung Electronics Rus Kaluga LLC	2007.07	Production of TVs	902,533	Over 50%	Y
Harman Connected Services OOO	1998.11	Connected Service Provider	16,742	Over 50%	N
Harman RUS CIS LLC	2011.08	Sale of audio products	27,790	Over 50%	N
Samsung Electronics West Africa	2010.03	Marketing	67,349	Over 50%	N
Samsung Electronics East Africa	2011.12	Marketing	37,782	Over 50%	N
Samsung Gulf Electronics Co., Ltd.	1995.05	Sale of electronic goods	873,034	Over 50%	Y
Samsung Electronics Egypt S.A.E	2012.07	Production and sale of electronic goods	610,030	Over 50%	Y
Samsung Electronics Israel Ltd.	2012.09	Marketing	8,054	Over 50%	N
Samsung Electronics Tunisia S.A.R.L	2012.09	Marketing	3,163	Over 50%	N
Samsung Electronics Pakistan(Private) Ltd.	2012.11	Marketing	2,581	Over 50%	N
Samsung Electronics South Africa(Pty) Ltd.	1994.06	Sale of electronic goods	491,077	Over 50%	Y
Samsung Electronics South Africa Production (pty) Ltd.	2014.07	Production of TV and monitors	59,970	Over 50%	N
Samsung Electronics Turkey	1984.12	Sale of electronic goods	630,056	Over 50%	Y
Samsung Semiconductor Israel R&D Center, Ltd.	2007.10	R&D	43,985	Over 50%	N
Samsung Electronics Levant Co.,Ltd.	2009.07	Sale of electronic goods	306,299	Over 50%	Y
Samsung Electronics Maghreb Arab	2009.11	Sale of electronic goods	180,605	Over 50%	Y
Broadsense Ltd.	2007.03	Service	0	Over 50%	N
Global Symphony Technology Group Private Ltd.	2002.01	Holding Company	0	Over 50%	N
Harman Connected Services Morocco	2014.01	Connected Service Provider	2,333	Over 50%	N
Harman Industries Holdings Mauritius Ltd.	2009.10	Holding Company	55,181	Over 50%	N
iOnRoad Ltd	2011.08	R&D	0	Over 50%	N

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2016 Assets	% ownership	Classified as major subsidiary (Y/N)
iOnRoad Technologies Ltd	2012.01	R&D	7,078	Over 50%	N
Red Bend Ltd.	1998.02	Production of audio products	277,567	Over 50%	Y
TowerSec Ltd.	2008.04	R&D	93,304	Over 50%	Y
Samsung Japan Corporation	1975.12	Sale of electronic goods	661,483	Over 50%	Y
Samsung R&D Institute Japan Co. Ltd	1992.08	R&D	156,447	Over 50%	Y
Samsung Electronics Japan Co., Ltd.	2008.09	Sale of electronic goods	538,719	Over 50%	Y
Samsung Electronics Display (M) Sdn. Bhd.	1995.03	Production and sale of electronic goods	212,535	Over 50%	Y
Samsung Medison India Private Ltd.	2009.01	Medical equipment	5	Over 50%	N
Samsung Electronics (M) Sdn. Bhd.	1989.09	Production of home appliances	136,334	Over 50%	Y
Samsung Vina Electronics Co., Ltd.	1995.01	Sale of electronic goods	217,496	Over 50%	Y
Samsung Asia Private Ltd.	2006.07	Sale of electronic goods	5,528,472	Over 50%	Y
Samsung India Electronics Private Ltd.	1995.08	Production and sale of electronic goods	4,563,407	Over 50%	Y
Samsung R&D Institute India-Bangalore Private Ltd.	2005.05	R&D	190,083	Over 50%	Y
Samsung Electronics Australia Pty. Ltd.	1987.11	Sale of electronic goods	431,774	Over 50%	Y
Samsung Electronics New Zealand Limited	2013.09	Sale of electronic goods	77,356	Over 50%	Y
PT Samsung Electronics Indonesia	1991.08	Production and sale of electronic goods	1,204,467	Over 50%	Y
PT Samsung Telecommunications Indonesia	2003.03	Sale of telecom systems and services	2,052	Over 50%	N
Thai Samsung Electronics Co., Ltd.	1988.10	Production and sale of electronic goods	2,079,865	Over 50%	Y
Laos Samsung Electronics Sole Co., Ltd	2016.09	Marketing	355	Over 50%	N
Samsung Electronics Philippines Corporation	1996.03	Sale of electronic goods	228,183	Over 50%	Y
Samsung Display Vietnam Co., Ltd	2014.07	Display panel production	3,165,239	Over 50%	Y
Samsung Malaysia Electronics (SME) Sdn. Bhd.	2003.05	Sale of electronic goods	313,299	Over 50%	Y
Samsung R&D Institute BanglaDesh	2010.08	R&D	8,290	Over 50%	N
Samsung Electronics Vietnam Co., Ltd.	2008.03	Production of electronic goods	9,134,023	Over 50%	Y
Samsung Electronics Vietnam THAINGUYEN Co., Ltd.	2013.03	Production of telecom products	7,646,828	Over 50%	Y
Samsung Electronics HCMC CE Complex Co. Ltd.,	2015.02	Production and sale of electronic goods	1,814,566	Over 50%	Y
AMX Products And Solutions Private Limited	2008.02	Sale of audio products	0	Over 50%	N
Harman Connected Services Technologies Pvt. Ltd.	1994.07	Connected Service Provider	82,663	Over 50%	Y
Harman Connected Services Corp. India Pvt. Ltd.	2002.04	Connected Service Provider	346,732	Over 50%	Y
Harman Connected Services Japan Co. Ltd.	2009.12	Connected Service Provider	275	Over 50%	N
Harman International (India) Private Limited	2009.01	Sale of audio products, R&D	226,154	Over 50%	Y
Harman International Industries PTY, Ltd.	2014.12	Holding Company	7,354	Over 50%	N
Harman International Japan Co. Ltd.	1991.06	Sale of audio products, R&D	69,027	Over 50%	N
Harman International Singapore Pte. Ltd.	1993.12	Sale of audio products	5,176	Over 50%	N
Harman Malaysia Sdn. Bhd.	2008.07	Sale of audio products	0	Over 50%	N

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2016 Assets	% ownership	Classified as major subsidiary (Y/N)
Harman Professional Singapore Pte. Ltd	2007.08	Sale of audio products	8,397	Over 50%	N
I.P.S.G. International Product Solution Group PTY. LTD.	2005.07	Sale of audio products, R&D	0	Over 50%	N
INSP India Software Development Pvt. Ltd.	2007.06	S/W development and supply	0	Over 50%	N
Martin Professional Pte. Ltd.	1995.06	Sale of audio products	4,202	Over 50%	N
Red Bend Software KK	2005.11	S/W design	3,277	Over 50%	N
Studer Japan, Ltd.	1982.12	Holding Company	5,381	Over 50%	N
VFX Systems PTY Ltd.	2008.01	Connected Service Provider	0	Over 50%	N
Samsung Display Dongguan Co., Ltd.	2001.11	Display panel production	1,584,504	Over 50%	Y
Samsung Display TianJin Co., Ltd.	2004.06	Display panel production	1,128,400	Over 50%	Y
Samsung Electronics Hong Kong Co., Ltd.	1988.09	Sale of electronic goods	1,256,625	Over 50%	Y
Suzhou Samsung Electronics Co., Ltd.	1995.04	Production of home appliances	604,198	Over 50%	Y
Samsung Suzhou Electronics Export Co., Ltd.	1995.04	Production of home appliances	379,356	Over 50%	Y
Samsung (CHINA) Investment Co., Ltd.	1996.03	Sale of electronic goods	13,632,938	Over 50%	Y
Samsung Mobile R&D Center, China-Guangzhou	2010.01	R&D	58,274	Over 50%	N
Samsung Tianjin Mobile Development Center	2010.08	R&D	31,391	Over 50%	N
Samsung R&D Institute China-Shenzhen	2013.03	R&D	12,187	Over 50%	N
Samsung Electronics Suzhou Semiconductor Co., Ltd.	1994.12	Semiconductor processing	866,173	Over 50%	Y
SEMES (XIAN) Co., Ltd.	2013.07	Semiconductor equipment	899	Over 50%	N
Samsung Electronics (Shandong) Digital Printing Co., Ltd.	1993.03	Production of printers	917,909	Over 50%	Y
Samsung Electronics Huizhou Co., Ltd.	1992.12	Production of electronic goods	6,174,579	Over 50%	Y
Tianjin Samsung Electronics Co., Ltd.	1993.04	Production of TV and monitors	831,374	Over 50%	Y
Samsung Electronics Taiwan Co., Ltd.	1994.11	Sale of electronic goods	1,857,017	Over 50%	Y
Beijing Samsung Telecom R&D Center	2000.09	R&D	74,740	Over 50%	N
Tianjin Samsung Telecom Technology Co., Ltd.	2001.03	Production of telecom products	1,354,396	Over 50%	Y
Shanghai Samsung Semiconductor Co., Ltd.	2001.10	Sale of semiconductor and display panels	5,862,409	Over 50%	Y
Samsung Electronics Suzhou Computer Co., Ltd.	2002.09	Production of electronic goods	923,116	Over 50%	Y
Samsung Suzhou Module Co., Ltd	2002.09	Display panel processing	734,785	Over 50%	Y
Samsung Suzhou LCD Co., Ltd	2011.07	Display panel production	2,499,917	Over 50%	Y
Shenzhen Samsung Electronics Telecommunication Co., Ltd.	2002.02	Production of telecom products	147,439	Over 50%	Y
Samsung Semiconductor (China) R&D Co., Ltd.	2003.04	R&D	26,219	Over 50%	N
Samsung Electronics China R&D Center	2004.05	R&D	41,552	Over 50%	N
Samsung (China) Semiconductor Co., Ltd.	2012.09	Production of semiconductors	9,749,448	Over 50%	Y
Samsung SemiConductor Xian	2016.04	Sale of semiconductor and display panels	318,010	Over 50%	Y
Samsung Electronics (Beijing) Service Company Limited	2005.01	Services	151,158	Over 50%	Y
Tianjin Samsung LED Co., Ltd.	2009.05	LED production	391,711	Over 50%	Y

Name of Subsidiaries	Date of Establishment	Major business	Dec 31, 2016 Assets	% ownership	Classified as major subsidiary (Y/N)
Tianjin Samsung Opto-Electronics Co., Ltd.	1994.02	Camera/camcorder production	87,314	Over 50%	Y
Harman (China) Technologies Co. Ltd.	2011.03	Production of audio products	83,641	Over 50%	Y
Harman (Suzhou) Audio and Infotainment Systems Co. Ltd.	2013.03	Sale of audio products	23,244	Over 50%	N
Harman Automotive Electronic Systems (Suzhou) Co. Ltd	2006.09	Production of audio products, R&D	309,662	Over 50%	Y
Harman Commercial (Shanghai) Co. Ltd.	2010.10	Sale of audio products	2,784	Over 50%	N
Harman Connected Services (Beijing) Solutions Co. Ltd.	2007.03	Connected Service Provider	361	Over 50%	N
Harman Connected Services (Chengdu) Solutions Co. Ltd.	2007.08	Connected Service Provider	11,286	Over 50%	N
Harman Connected Services Taiwan Inc.	2005.08	Connected Service Provider	39	Over 50%	N
Harman Holding Limited	2007.07	Sale of audio products	129,821	Over 50%	Y
Harman International (China) Holdings Co. Ltd	2009.06	Sale of audio products, R&D	279,049	Over 50%	Y
Harman Neusoft Automotive Infotech (Dalian) Co. Ltd	2013.12	S/W development and supply	998	Over 50%	N
Harman Technology (Shenzhen) Co. Ltd.	2004.07	Sale of audio products, R&D	9,032	Over 50%	N
Martin Trading Zhuhai Ltd.	2012.08	Sale of audio products	19	Over 50%	N
Samsung Display	2012.04	Production and sale of display panels	43,305,405	Over 50%	Y
SU Materials	2011.08	Production of display panel component	28,558	Over 50%	N
STECO	1995.06	Production of semiconductor component	112,968	Over 50%	Y
SEMES	1993.01	Semiconductor/FPD manufacturing equipment	889,089	Over 50%	Y
Samsung Electronics Service	1998.10	Electronics goods repair services	295,007	Over 50%	Y
Samsung Electronics Sales	1996.07	Sales of electronic goods	597,695	Over 50%	Y
Samsung Electronics Logitech	1998.04	Total logistics services	143,800	Over 50%	Y
Samsung Medison	1985.07	Medical equipment	303,561	Over 50%	Y
S-Printing Solution Co., Ltd.	2016.11	Sale of printing solutions	573,390	Over 50%	Y
Mirero System	1994.01	Semiconductor S/W	17,254	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	99,815	Over 50%	Y
SVIC #22 Venture Capital Union	2011.11	Investment in venture firms and new technologies	143,315	Over 50%	Y
SVIC #23 Venture Capital Union	2012.10	Investment in venture firms and new technologies	32,075	Over 50%	N
SVIC #26 Venture Capital Union	2014.11	Investment in venture firms and new technologies	169,961	Over 50%	Y
SVIC #27 Venture Capital Union	2014.09	Investment in venture firms and new technologies	15,131	Over 50%	N
SVIC #28 Venture Capital Union	2015.02	Investment in venture firms and new technologies	175,205	Over 50%	Y
SVIC #29 Venture Capital Union	2015.04	Investment in venture firms and new technologies	28,317	Over 50%	N
SVIC #32 Venture Capital Union	2016.08	Investment in venture firms and new technologies	39,936	Over 50%	N
SVIC #33 Venture Capital Union	2016.11	Investment in venture firms and new technologies	5,008	Over 50%	N
Private Equity Fund for semiconductor growth	2017.03	Investment in semiconductor	0	Over 50%	N
Harman International Korea	2005.01	S/W development and supply	15,220	Over 50%	N
Red Bend Software Korea	2007.02	S/W development and supply	320	Over 50%	N

- ※ Companies with over KRW 75 billion in total assets as of December 31, 2016, are classified as major subsidiaries.
- ※ See 『II. Businesses Overview』 for additional information about major business segments.
- ※ During the first half of 2017, Martin Professional ApS changed its name to Harman Professional ApS, and Martin Professional France SAS changed its name to Harman Professional France SAS.



**(Changes in Subsidiaries)**

	AMER	Europe/ MEA/ CIS	Asia	China	Domestic	Total	Increase	Decrease
Dec 31, 2012	30	61	23	32	20	166		
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 THAINGUYEN Co., Ltd., Samsung Electronics New Zealand Ltd.</p> <p>[China: 3] Samsung Network R&amp;D Center China-Shenzhen, Samsung R&amp;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&amp;D Center B.V, Samsung LCD Netherlands R&amp;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 &amp; Venture Enterprises Growth Promotion Investment Limited Partnership(TSUNAMI)</p> <p>[China: 2] Samsung LCD Netherlands R&amp;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</p> <p>[America: 6] Simpres Comercio, Locacao e Servicos S.A., Samsung Pay, Inc. (formerly LooPay, Inc.), Prismview LLC(formerly YESCO Electronics LLC), Paymate Global, Inc., Beijing Integrated Circuit Industry International Fund, Stellus Technologies</p> <p>[Asia: 2] Samsung Electronics HCMC CE Complex Co. Ltd. Future Technology &amp; Service</p>	<p>[Domestic: 3] RAY High Pioneer Private Investment Trust #1, SVIC #6 Venture Capital Union</p> <p>[America: 3] Samsung Telecommunications America, Paymate Global, Nvelo</p> <p>[China: 2] Samsung Electronics Hainan Fiberoptics, Samsung Medison Shanghai Medical Instrument</p> <p>[Europe: 1] Nanoradio Hellas</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 &amp; Service  [China: 2]  Samsung R&amp;D Institute China-Xian,  Samsung Electronics Shanghai  Telecommunication Co., Ltd.</p>
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June 30, 2017	65	108	39	41	23	276	<p>[Domestic : 3] Private Equity Fund for semiconductor growth Harman International Korea Red Bend Software Korea [America: 23] Kngine, Inc. AMX Holding Corporation AMX LLC Harman Becker Automotive Systems, Inc. Harman Connected Services Inc. Harman Connected Services Engineering Corp. Harman Connected Services Holding Corp. Harman Connected Services South America S.R.L. Harman da Amazonia Industria Electronica e Participacoes Ltda. Harman de Mexico S. de R.L. de C.V. Harman do Brasil Industria Electronica e Participacoes Ltda. Harman Financial Group, LLC Harman International Industries Canada Ltd. Harman International Industries, Inc. Harman International Mexico S de RL de CV Harman Investment Group, LLC Harman KG Holding, LLC Harman Professional, Inc. Red Bend Software Inc. S1NN USA, Inc. Southern Vision Systems, Inc TowerSec Inc. Triple Play Integration LLC [Europe/CIS/MEA: 59] Samsung Electronics Air Conditioner Europe B.V. Aditi Technologies Europe GmbH AKG Acoustics GmbH AMX GmbH AMX UK Limited Duran Audio B.V. Duran Audio Iberia Espana S.L. Endeleo Limited Harman Automotive UK Limited Harman Becker Automotive Systems GmbH Harman Becker Automotive Systems Italy S.R.L. Harman Becker Automotive Systems Manufacturing Kft Harman Belgium SA Harman Connected Services AB. Harman Connected Services Finland OY Harman Connected Services GmbH Harman Connected Services Limited Harman Connected Services Poland Sp.zoo Harman Connected Services UK Ltd. Harman Consumer Division Nordic A/S Harman Consumer Finland OY Harman Consumer Nederland B.V. Harman Deutschland GmbH Harman Finance International GP S.a.r.l Harman France SNC Harman Holding GmbH &amp; Co. KG Harman Hungary Financing Ltd. Harman Inc. &amp; Co. KG Harman International Estonia OU Harman International Industries Limited Harman International Romania SRL Harman Finance International SCA Harman International s.r.o Harman International SNC Harman Management GmbH Harman Professional Kft Inspiration Matters Limited Knight Image Limited Martin Manufacturing (UK) Ltd Harman Professional ApS Harman Professional France SAS. Martin Professional GmbH Martin Professional Ltd. R&amp;D International BVBA Red Bend Software Ltd.</p>	<p>[America: 2] Samsung Receivables Corporation TowerSec Inc. [Europe/CIS: 4] Samsung Electronics Rus LLC Samsung Electronics Ukraine LLC Surfkitchen Limited AMX LLC (Russia)</p>
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						<p>Red Bend Software SAS France.,  Studer Professional Audio GmbH  Surfkitchen Limited  AMX LLC (Russia)  Harman Connected Services OOO  Harman RUS CIS LLC  Broadsense Ltd.  Global Symphony Technology Group Private Ltd.  Harman Connected Services Morocco  Harman Industries Holdings Mauritius Ltd.  iOnRoad Ltd  iOnRoad Technologies Ltd  Red Bend Ltd.  TowerSec Ltd.  [Asia: 16]  AMX Products And Solutions Private Limited  Harman Connected Services Technologies Pvt. Ltd.  Harman Connected Services Corp. India Pvt. Ltd.  Harman Connected Services Japan Co. Ltd.  Harman International (India) Private Limited  Harman International Industries PTY, Ltd.  Harman International Japan Co. Ltd.  Harman International Singapore Pte. Ltd.  Harman Malaysia Sdn. Bhd.  Harman Professional Singapore Pte. Ltd  I.P.S.G. International Product Solution Group PTY. LTD.  INSP India Software Development Pvt. Ltd.  Martin Professional Pte. Ltd.  Red Bend Software KK  Studer Japan, Ltd.  VFX Systems PTY Ltd.  [China: 12]  Harman (China) Technologies Co. Ltd.  Harman (Suzhou) Audio and Infotainment Systems Co. Ltd.  Harman Automotive Electronic Systems (Suzhou) Co. Ltd  Harman Commercial (Shanghai) Co. Ltd.  Harman Connected Services (Beijing) Solutions Co. Ltd.  Harman Connected Services (Chengdu) Solutions Co. Ltd.  Harman Connected Services Taiwan Inc.  Harman Holding Limited  Harman International (China) Holdings Co. Ltd  Harman Neusoft Automotive Infotech (Dalian) Co. Ltd  Harman Technology (Shenzhen) Co. Ltd.  Martin Trading Zhuhai Ltd.</p>	
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※ 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 June 30, 2017, 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)

2012.01.19	Acquired remaining shares of S-LCD Corporation (50%) from SONY
2012.04.01	Spun-off 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 Display merged with Samsung Mobile Display and S-LCD
2012.09.01	Samsung Medison, a subsidiary of SEC, merged with Prosonic
2012.12.01	Merged SEHF Korea into SEC
2013.01.01	SEMES, a subsidiary of SEC, merged with SECRON with GES
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.)
2017.03.10	SEA acquired shares of Harman International Industries, Inc. (100%)

※ 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 August 14, 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.

In June 2017, the System LSI business was divided into Foundry and System LSI businesses.

[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)



[As of June 2017]

	Before	After
Business organization	CE Division (Visual display, Digital appliances, 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, Foundry, DP)
	-	Harman Division
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 June 30, 2017, SEC has issued 130,668,494 shares of registered common stock and 18,643,580 shares of registered preferred stock without voting rights (excluding canceled shares). SEC has cumulatively canceled 24,940,843 shares of common stock and 5,249,847 shares of preferred stock in accordance with the resolution of the board of directors.

As of June 30, 2017, the number of floating common stock is 121,038,051 shares and the number of floating preferred stock is 16,868,834 shares, excluding treasury shares (of 9,630,443 shares of common stock and 1,774,746 shares of preferred stock).

[As of June 30, 2017]

(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	24,940,843	5,249,847	30,190,690	-
1. Capital Reduction	-	-	-	-
2. Number of shares canceled	24,940,843	5,249,847	30,190,690	Cancellation of treasury shares
3. Redemption of redeemable shares	-	-	-	-
4. Others	-	-	-	-
IV. Number of outstanding shares (II-III)	130,668,494	18,643,580	149,312,074	-
V. Treasury shares	9,630,443	1,774,746	11,405,189	-
VI. Number of floating shares (IV-V)	121,038,051	16,868,834	137,906,885	-

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

## B. Treasury Shares

In the first half of 2017, Samsung Electronics acquired 1,659,600 shares of common stock and 414,900 shares of preferred stock and cancelled 10,010,843 shares of common stock and 1,869,847 shares of preferred stock, for enhancing shareholder return.

As of June 30, 2017, SEC holds 9,630,443 shares of common stock and 1,774,746 shares of preferred stock as treasury shares.

[As of June 30, 2017]

(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	17,981,686	1,659,600	-	10,010,843	9,630,443
	Preferred	3,229,693	414,900	-	1,869,847	1,774,746
Total	Common	17,981,686	1,659,600	-	10,010,843	9,630,443
	Preferred	3,229,693	414,900	-	1,869,847	1,774,746

## 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 June 30, 2017, the total number of outstanding preferred stock is 18,643,580 shares.

## 5. Voting Shares

SEC has 130,668,494 shares of common stock outstanding, which represents 26.1% of the total number of authorized shares of 500 million (500,000,000). There are 18,643,580 shares of preferred stock outstanding (with no voting rights). SEC holds 9,630,443 shares of common stock (with no voting rights) in its treasury, and 12,506,577 shares of common stock have limited voting rights under applicable laws. Thus, the total number of shares with voting rights is 108,531,474.

[As of June 30, 2017]

(Unit: Shares)

Classification	Share type	Number of shares	Note
Number of outstanding shares (A)	Common	130,668,494	-
	Preferred	18,643,580	-
Shares with no voting rights (B)	Common	9,630,443	Treasury stock according to Korean Commercial Act
Shares with no voting rights according to Articles of Incorporation (C)	Preferred	18,643,580	1,774,746 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	108,531,474	-
	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		2017.1H	2016	2015
Par value per share (won)		5,000	5,000	5,000
Net profit (million won)		18,288,474	22,415,655	18,694,628
EPS (won)		131,615	157,967	126,305
Total cash dividend (million won)		1,937,721	3,991,892	3,068,737
Total stock dividend (million won)		-	-	-
Dividend payout ratio (%)		10.6	17.8	16.4
Cash dividend yield (%)	Common	0.6	1.6	1.6
	Preferred	0.7	2.0	1.9
Stock dividend yield (%)	Common	-	-	-
	Preferred	-	-	-
Cash dividend per share (won)	Common	14,000	28,500	21,000
	Preferred	14,000	28,550	21,050
Stock dividend per share (share)	Common	-	-	-
	Preferred	-	-	-

※ March quarterly dividend of 2017 is KRW 972,373 million (KRW 7,000 per share), and June quarterly dividend is KRW 965,348 million (KRW 7,000 per share). June quarterly dividend of 2016 was KRW 141,539 million (KRW 1,000 per share).

※ 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 276 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, five (5) regional headquarters for Device Solutions (“DS”) Division, and subsidiaries of Harman.

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, NAND Flash, Mobile APs, and other semiconductor and semiconductor-related products, and the Display Panel (“DP”) business which manufactures and sells TFT-LCD and OLED panels for TVs, monitors, notebook PCs, and mobile devices.

Also, the Harman Division (acquired during the first half of 2017) manufactures and sells products such as Headunits, Infotainment System, Telematics, and Speakers.

<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	DRAM, NAND Flash, Mobile AP, etc.
	DP	TFT-LCD, OLED, etc.
Harman Division		Headunits, Infotainment System, Telematics, Speakers, etc.

The Company maintains its corporate headquarters and twenty-three (23) 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 locations: Suwon (CE Division and R&D Center); Gumi (IM Division); Giheung, Hwasung and Pyeongtaek (Semiconductor business); and Gwangju (Home Appliance business). The Company has 23 unlisted domestic subsidiaries, including 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 253 overseas subsidiaries for product manufacturing, sales, and R&D.

In the Americas, we have 65 subsidiaries including SEA (New Jersey, United States) which is responsible for sales of set products such as TVs and HHPs in the States, SAMEX (Tijuana, Mexico) which is responsible for manufacturing TVs, SAS (Austin, United States) which is responsible for manufacturing semiconductor products, and Harman.

In Europe, we operate 78 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 39 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 41 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 30 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. However, 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 continuous 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. By product, LCD-TVs (including LED-TV), which takes up more than 99% of the market was sold 221.50 million units, a decrease of 1.3% year-on-year, and OLED TVs and CRT TVs were sold 720,000 and 500,000 units respectively.

In 2017, overall TV demand is expected to be 221.54 million units. LCD-TVs are projected to be sold 220 million units, maintaining its share of more than 99%. OLED TV demand is expected to be 1.38 million, a growth from the previous year, but its share in the market is expected to remain at 0.6%.

Also, as needs for high-definition large-sized screens will continue to increase, UHD TVs are expected to be sold 81 million units, a 40% increase from the previous year, making up more than 35% of overall TV demand. Ultra large-sized TVs above 60" are projected to be sold approximately 15 million units, increased by 30% from the previous year. By region, the increase of demand is likely to come from emerging markets than advanced markets. Emerging market such as Asia, Middle East, and Africa is expected to increase by almost 2 to 3 %, driving demand growth.

### □ 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. 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 improving usability and users’ convenience. 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, the Company focused on increasing its usability, securing access to various content, and strengthening the platform.

In 2015, as we saw the changing ecosystem of TV contents, we achieved an innovation in smart UX, enabling consumers to enjoy diverse contents in TV. In 2016, we introduced Smart TVs that automatically identify connected devices, allowing users to control the peripheral devices with a single remote. Also, they enabled consumers to utilize even more diverse entertainment sources on one screen in an easily accessible manner, providing users with an easier viewing experience.

In 2017, we will expand the technologies to mobile devices in order to provide consumers with more viewing experience. Consumers will be able to use smart hub and control TVs through their mobile devices. Also, our connectivity will enable users to watch contents stored on their mobile devices on large-screen TVs with superior image quality, providing them



with a more consistent and combined experience. Furthermore, based on intelligent voice recognition feature, users can adjust volume, switch channels, or change screen mode, easily utilizing various TV controlling features.

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

Product	2017.1H	2016	2015
TV	20.5%	21.6%	21.0%

※ 2015 and 2016 market share data is from research firm, *IHS* (global market share in quantity). Market share as of 2017.1H is the Company's estimation.

□ **Business Condition**

We have maintained the top position in the overall TV market, FPTVs, and LCD TVs 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, and consolidated 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 services so that every member of family can enjoy.

In 2013, we released 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 premium market. In 2016, by introducing the 2<sup>nd</sup> generation Quantum dot and HDR 1000 technologies, we obtained high image quality.

In 2017, the Company will create a new category with QLED TV, offering 100% color volume that can express perfect color regardless of different level of brightness and showing up to 2000 nits. By doing so, we will provide undisputedly ultimate image quality.

Furthermore, we realized a technology to address the consumers' pain point. We have removed the wiring complexity that a number of different remote controls were required when a TV is connected with peripheral devices. Instead, we will enable consumers to use one transparent optical cable and one single remote controller to control all connected devices including set-top box and game consoles. We aim to introduce a new concept of TV, as the industry leader.

The Company also worked hard to offer a TV product which is in line with consumers' lifestyle moving forward, and as a result, we announced a new TV called The Frame, with the concept of 'Screen Everywhere.' The Frame will allow users to hang it anywhere because it can blend seamlessly into any living space. As a leading company in the TV market, we will continue to introduce innovative products, in order to satisfy consumers' needs.

## [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 1.59 billion units, increased by 10% 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. June '17 data for Smartphone, June '17 data for Tablet)

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

Product	2017.1H	2016	2015
HHP	21.1%	19.2%	20.7%

※ 2015, 2016 and 2017.1H market share data is 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.

We will continue to ensure that consumer safety is our highest priority while pursuing innovation, and work hard to enhance consumer trust, by improving product quality and safety.

## [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, mobiles, and servers is the biggest market. System LSI products are used in many product categories such as household electronics, network, and games. The Company manufactures Mobile APs for smartphone and tablets, image sensors, and other customized system LSI semiconductor products.

The growth of the 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 and server products and delays in the tech migration of suppliers. Meanwhile, concentrated demand on the Company is likely remain 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 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	2017.1H	2016	2015
DRAM	47.5%	48.0%	45.3%

※ 2015, 2016 and 2017. 1H 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 3<sup>rd</sup> generation 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.

The System LSI market, which used to focus on mobile products, is diversifying into products for Automotive and IoT. With the expanding markets into new product categories, the growth of System LSI industry is projected to accelerate.

To respond to this market trend, the Company will continue its growth through the development cutting-edge process ahead of others and early launch of products based on differentiated technologies. For AP and modem integrated chips, we have introduced cutting-edge process ahead of competitors, and are actively addressing both the premium and mid to low-end markets.

In the Foundry market, we are cooperating with large Fabless companies based on our cutting-edge technologies. We started supplying 10nm products from the fourth quarter of 2016, for the first time in the industry, and we are focusing our effort on the timely development of 7nm process, in order to lead the market.

## - DP

### □ 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 Company has not only led the large-sized TFT-LCD market, but also maintained unrivalled share in the mid to small-sized OLED market since 2007 when it successfully commercialized the world’s first OLED product.

In 2017, we expect that major smartphone customers will increasingly adopt OLED panels, flexible panels in particular, in their products, and the trend toward using higher resolution and large panels will last throughout the year. However, some risks are projected, such as increasing competition with LTPS LCD products in mid- to low price-range market.

Meanwhile, with regards to large-size panels, the UHD TV market will continue to grow and the trend toward large-size panels is likely to persist. We expect to see stable supply-demand conditions for some time, but some uncertainties remain,

as the supply is likely to increase in the industry in the second half of this year.

< Market Share of the DP Business' Main Product >

Product	2017.1H	2016	2015
Display Panel	15.5%	17.1%	21.1%

※ 2015, 2016 and 2017.1H market share data is from research firm, *IHS* (global market share, large-size panel in amount).

□ **Business Condition**

The Company maintains high utilization rate and continuously strengthens the business competitiveness by constantly improving yield, reducing cost, and building closer cooperation system with customers.

For the mid to small-size OLED business, the Company is actively responding to major customers' demand and improving product mix. In 2017, the Company aims to maintain solid earnings by actively responding to external customers' demand. By doing so, we plan to expand supply of flexible products. For the large-size LCD business, although our capacity decreased due to the strategic decision to convert one production line, the portion of high value-added products such as ultra large-size panels and UHD panels increased, under stabilizing ASPs as well as favorable supply and demand conditions.

The Company will continue to strengthen product competitiveness of high-end products and expand sales of differentiated products such as Frameless/Curved, for improving profitability.

[**Harman Division**]

□ **Industry Overview**

In the next 12 months, global automobile production is projected to remain relatively flat with an expected production increase of approximately 1% (Source: July 2017 LMC Automotive Global Production File).

Within the Automotive Industry there has been increased demand for connectivity and entertainment systems in recent years. We expect demand to continue to increase as automakers seek to stay in the forefront of technological advances, particularly with the dual trends of autonomous vehicles and shared mobility shaping the industry.

The Professional/Consumer Audio Industry (connected home, headphones, smart audio, etc.) is projected to grow approximately 6% annually through 2020 within the Consumer Audio space while the Professional Audio segment is projected to grow approximately 2% annually during that same time period. (Source: Futuresource)

Industry demand has increased considerably as a result of technological innovation (particularly in the connected home and smart audio spaces). We anticipate that this growth will continue as the technology in the space continues to advance and worldwide GDP maintains its growth.

□ **Market Condition**

The Automotive and Professional/Consumer Audio markets are intensely competitive and rapidly evolving.

Within the Connected Car space, there are several major players (Alpine, Continental, Delphi, Mitsubishi, Panasonic, etc.) working with automotive manufacturers. As consumers continue to demand the most advanced technology from automakers in connected cars, the space will likely remain contested between the current major players with the distinct possibility of new entrants looking to join the rapidly growing shared mobility and autonomous vehicle markets.

Similarly, the Car Audio System space is very competitive with several major players (Bose, Pioneer, and Panasonic) installing original equipment in vehicles. The expectation is that the technology will continue to develop in the future with different audio providers differentiating themselves with a variety of sound management solutions. Thus, this space will also likely continue to be very competitive going forward.

Within the Professional/Consumer Audio Industry there are a few top operators (Amazon, Beats, Bose, QSC and Crestron, etc.) with relatively little market share concentration. Going forward we anticipate the industry remaining competitive between the existing players along with new entrants coming from different industries, particularly as connected home and smart speaker devices continue to saturate the market.

< Market Share of Harman Business' Main Product >

Product	2017.1H	2016	2015
Headunits	19.4%	18.2%	18.3%

※ 2015, 2016 and 2017.1H market share data is Company's estimates based on data from *IHS*, a research firm.

**□ Business Condition**

Harman is focused on continuing its strong performance in the Automotive and Professional/Consumer Audio markets. In this pursuit, it will continue to grow through innovation, acquisitions, and its renowned brand offerings.

Harman is poised to remain a leader in the Automotive Market. The Company plans to continue leveraging its wide variety of brands to accommodate vehicles ranging from the mass market to the luxury while maintaining the quality that Harman brands are synonymous with. Additionally, Harman's never-ending focus on innovation in the audio and connectivity spaces will help ensure that automakers stay with the Company.

Additionally, Harman has continued to develop its Connected Services offerings with industry leading OTA and software servicing products.

The same factors that Harman relies on within the Automotive Market will also be used in the Professional/Consumer Audio Market. With 3 GRAMMY Awards, and 2 Academy Awards, Harman brands have developed a strong reputation amongst everyday consumers and audiophiles. New product offerings in up-and-coming segments such as connected wireless and smart audio continue to help bring new consumers to Harman products while further enhancing the brands' reputations.

Through these efforts, and others, the Company is confident that Harman will maintain its role as a preeminent player in each of the industries that it operates.

## B. Financial Summary by Division

(Unit: KRW million, %)

Division	Classification	2017.1H		2016		2015		
		Amount	Portion	Amount	Portion	Amount	Portion	
CE	Total sales	48,139,737	18.2%	104,870,428	21.8%	115,378,019	23.4%	
	Internal sales	26,879,629	17.6%	59,767,666	21.3%	70,576,753	24.2%	
	Net sales	21,260,108	19.1%	45,102,762	22.3%	44,801,266	22.3%	
	Operating profit	699,039	2.9%	2,712,148	9.3%	1,448,568	5.5%	
	Total asset	46,444,692	10.8%	47,202,301	12.0%	42,540,738	11.9%	
IM	Total sales	112,751,891	42.7%	211,523,973	43.9%	222,023,600	45.0%	
	Internal sales	59,242,418	38.9%	111,221,861	39.7%	118,469,345	40.5%	
	Net sales	53,509,473	48.0%	100,302,112	49.7%	103,554,255	51.6%	
	Operating profit	6,122,117	25.5%	10,807,569	37.0%	10,142,022	38.4%	
	Total asset	111,219,301	25.8%	111,574,049	30.5%	98,463,323	27.4%	
DS	Semi-conductor	Total sales	63,004,312	23.9%	99,527,926	20.6%	90,600,806	18.4%
		Internal sales	29,768,562	19.5%	48,370,924	17.3%	43,014,054	14.7%
		Net sales	33,235,750	29.8%	51,157,002	25.3%	47,586,752	23.7%
		Operating profit	14,345,000	59.9%	13,595,004	46.5%	12,787,297	48.4%
		Total asset	113,034,983	26.7%	102,251,069	28.0%	98,989,253	27.6%
	DP	Total sales	31,293,228	11.9%	55,884,739	11.6%	55,120,243	11.2%
		Internal sales	16,291,891	10.7%	28,956,095	10.3%	27,633,382	9.4%
		Net sales	15,001,337	13.4%	26,928,644	13.3%	27,486,861	13.7%
		Operating profit	3,016,920	12.6%	2,226,626	7.6%	2,295,367	8.7%
		Total asset	63,077,922	14.9%	57,240,065	15.6%	50,147,263	14.0%
	Total	Total sales	96,645,936	36.6%	159,473,455	33.1%	149,974,731	30.4%
		Internal sales	48,547,513	31.9%	81,325,252	29.0%	74,948,617	25.6%
		Net sales	48,098,423	43.1%	78,148,203	38.7%	75,026,114	37.4%
		Operating profit	17,280,387	72.1%	15,850,986	54.2%	14,887,262	56.4%
		Total asset	201,636,669	46.7%	183,951,625	50.3%	174,264,841	48.5%
Harman	Total sales	3,538,747	1.3%	-	-	-	-	
	Internal sales	846,556	0.6%	-	-	-	-	
	Net sales	2,692,191	2.4%	-	-	-	-	
	Operating profit	28,385	0.1%	-	-	-	-	
	Total asset	15,421,852	3.6%	-	-	-	-	

※ Sales for each business unit includes intersegment sales.



- ※ For CE division, the financial information was restated to exclude Printing Solution business.
- ※ For Harman, the financial information is consolidated after the date of Acquisition.

Cumulative net sales for 1H 2017 were KRW 111,548 billion. By Division, CE reported net sales of KRW 21,260 billion (19.1%) and IM reported net sales of KRW 53,509 billion (48.0%). The DS Division contributed approximately 43.1% of net sales: KRW 33,236 billion (29.8%) by the Semiconductor Sub-Division and KRW 15,001 billion (13.4%) by the DP Business Unit. The Harman division reported net sales of KRW 2,692 billion (2.4%).

Cumulative operating profit for 1H 2017 was KRW 23,965 billion. The CE Division accounted for 2.9% with KRW 699 billion, the IM Division accounted for 25.5% with KRW 6,122 billion and the DS Division accounted for 72.1% with KRW 17,280 billion. The Harman division posted operating profit of 28.4 billion, contributing 0.1% of the cumulative operating profit for 1H 2017.

### 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 and cannot be directly allocated 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 the first half of 2017, the CE Division's revenue of KRW 21,260 billion accounted for 19.1% of the total net revenue; the IM Division accounted for 48.0% with KRW 53,509 billion; and the DS Division accounted for 43.1% with KRW 48,098 billion. The Harman division accounted for 2.4% with KRW 2,692 billion.

The Company's net revenue by Division as of June 30, 2017 is as follows:

(Unit: KRW 100 million, %)

Division		Major Products	Net Revenue	Portion
CE		TV, monitor, refrigerator, washing machine, air conditioner, medical equipment, etc.	212,601	19.1%
IM		HHP, network system, computer, etc.	535,095	48.0%
DS	Semiconductor	DRAM, NAND flash, Mobile AP, etc.	332,358	29.8%
	DP	TFT-LCD, OLED, etc.	150,013	13.4%
	Sub-Total		480,984	43.1%
Harman		Infotainment System, Telematics, Speakers, Headphones, etc.	26,922	2.4%
Others		-	-140,121	-12.6%
Total			1,115,481	100.0%

※ Includes sales between Divisions (on consolidated basis).

※ For Harman, the financial information was consolidated after the date of Acquisition.

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



## **B. Average Selling Price (ASP) Changes**

In the first half of 2017, the ASP of TVs increased by 8.8% compared to the previous year, and ASP of HHPs increased 3.5% from the previous year. Both the ASPs of memory products and display panels increased, by 25% and 15% respectively, compared to the previous year. The ASPs of headunits decreased by 3% compared to the previous year.

### 3. Key Raw Materials

(On consolidated basis as of June 30, 2017)

(Unit: KRW 100 million, %)

Division	Type	Item	Specific usage	Purchase price	Portion	Note (supplier)
CE	Raw material	Display panel	Color picture signaler	30,738	29.1%	AUO, BOE, etc.
	Raw material	Others		74,743	70.9%	
	Division Total			105,481	100.0%	
IM	Raw material	Baseband Chip	CPU	16,308	9.0%	Qualcomm, etc.
	Raw material	Camera Module	Mobile phone camera	19,614	10.8%	Samsung Electro-Mechanics, etc.
	Raw material	Mobile display panel	Color picture signaler	14,615	8.0%	Iljin Display, etc.
	Raw material	Others		131,399	72.2%	
	Division Total			181,936	100.0%	
DS	Raw material	Window	Tempered glass	10,760	10.2%	BIEL, etc.
	Raw material	POL	Polarizer plate	8,579	8.1%	Dongwoo Fine-Chem, NITTO, etc.
	Raw material	Glass	Glass substrate for display	5,584	5.3%	Corning Precision Materials, etc.
	Raw material	Others		80,416	76.3%	
	Division Total			105,339	100.0%	
Harman	Raw material	Memory	Chips for vehicles	1,269	20.3%	AVNET, MICROCHIP, etc.
	Raw material	System-on-Chip	Chips for vehicles	1,196	19.2%	NVIDIA, RENESAS, etc.
	Raw material	Others		3,778	60.5%	
	Division Total			6,243	100.0%	
Others				4,293	-	
Total				403,292	-	

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

※ For Harman, the financial information was consolidated after the date of Acquisition.

For the CE Division, key raw materials include display panel modules for TVs and monitors. 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 window, polarizers (“POL”) and 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.

For the Harman division, key raw materials include memory products for in-vehicle solutions and SoC (System-on-Chips) products. Memory products are supplied by AVNET, MICROCHIPS, etc., and SoC products are supplied by NVIDIA, RENESAS, etc.

### **(Raw Materials Price Trends)**

The price of TV and monitor display panels, which are the major raw materials for the CE Division, declined 2% on average since 2016. For the IM Division, since 2016, the price of mobile display panels have decreased by 8%, and the price of baseband chips have increased by 32%. For the DS Division, the price of windows for tempered glass, which is one of its major raw materials, has declined by around 7%, and the price of glass for display panels has declined by 10% since the previous year. For the Harman division, the prices of memories and SoC products have decreased by 8% and 4% respectively, compared to the previous year.

## 4. Production and Facilities

### A. Production Capacity, Output, Utilization Rate

#### (Capacity)

(Unit: 1,000)

Division	Item	2017.1H	2016	2015
		Quantity	Quantity	Quantity
CE	TV	21,178	52,308	50,450
IM	HHP	205,800	447,200	497,050
DS	Memory	234,223,000	415,026,000	268,630,000
	Display Panel	4,309	10,028	9,459
Harman	Headunits	2,341	-	-

※ Global production capacity for major product categories

※ For Harman, the financial information was consolidated after the date of Acquisition.

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)

Harman's production capacity for Headunits is calculated as follows:

The number of production (assembly and test) cells for each customer/product (x) the average production capacity per hour by production cell (x) the average operation hours per day (x) the days of operation

#### (Output)

(Unit: 1,000)

Division	Item	2017.1H	2016	2015
		Quantity	Quantity	Quantity
CE	TV	18,462	47,428	45,821
IM	HHP	196,003	389,838	423,058
DS	Memory	234,223,000	415,026,000	268,630,000
	Display Panel	3,828	8,307	8,284
Harman	Headunits	1,871	-	-

※ Global output for major product categories

※ For Harman, the financial information was consolidated after the date of Acquisition.

In the first half of 2017, the CE Division's output of TVs was 18,462 thousand units (major production sites: Korea, China, Mexico, Brazil, and Hungary). The IM Division's output of HHPs was 196,003 thousand units (major production sites: Korea, China, Vietnam, and Brazil). The DS Division's memory output (1GB equivalent) was 234,223 million (major production sites: Korea and China). The DS Division's output of display panels was 3,828 thousand units (major production sites: Korea, China, and Slovakia). The Harman Division's output was 1,871 thousand units.

**(Utilization Rate)**

(Unit: 1,000)

Division	Item	2017.1H Production capacity	2017.1H Actual output	Utilization Rate
CE	TV	21,178	18,462	87.2%
IM	HHP	205,800	196,003	95.2%

In the first half of 2017, CE and IM utilization rates were calculated as actual output relative to production capacity. The utilization rates were 87.2% for TVs and 95.2% for HHPs.

(Unit: hours)

Division	Item	2017.1H Potential Production Time	2017.1H Actual Production Time	Utilization Rate
DS	Memory	30,480	30,480	100.0%
	Display Panel	34,852	33,062	94.9%

The DS Division operates memory and display panel production in three shifts (24 hours a day). Cumulative operating days in the first half of 2017 including holidays were 181 days. The utilization rate was calculated as actual hours [181 days (x) number of production lines (x) 24 hours] relative to production capacity.

(Unit: 1,000)

Division	Item	2017.1H Production capacity	2017.1H Actual output	Utilization Rate
Harman	Headunits	2,341	1,871	79.9%

In the first half of 2017, Harman's the utilization rate was 79.9%, and was calculated as actual output 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—operations in Suwon, Gumi, Giheung, Onyang, Gwangju, 9 regional headquarters under the CE and IM Divisions and 5 under the DS Division in North America, Europe, and China, and subsidiaries of Harman.

#### [Operations]

Region	Operations	Location
Korea (12)	Seocho	Seoul, Korea
	Woomyeon	Seoul, Korea
	Suwon	Suwon, Korea
	Gumi1	Gumi, Korea
	Gumi2	Gumi, Korea
	Giheung	Yongin, Korea
	Onyang	Asan, Korea
	Hwaseong	Hwaseong, Korea
	Pyeongtaek	Pyeongtaek, 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
Harman	North America HQ	Stamford, US

※ Harman's Connected Car business is mainly based in the US (Novi), and its Lifestyle Audio business is located in Germany (Garching), etc. Professional Solutions business operates mainly in the US (Northridge), and Connected Services business is based in US (Mt. View), etc.

The Company's property, plant and equipment include land, buildings and structures, machinery and equipment, and construction in progress. As of June 30, 2017, their total book value is KRW 103,695 billion, which is an increase of KRW 12,222 billion from year-end 2016. In the first half of 2017, new acquisitions of KRW 22,493 billion and depreciation of KRW 9,616 billion were recorded.

(Unit: KRW million)

Classification		Land	Buildings and Structures	Machinery and Equipment	Construction in -progress	Others	Total
At 1 January 2017	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)
Increase (Decrease)	General acquisition and capital expenditure	1,567,730	3,804,237	13,474,624	3,005,733	640,776	22,493,100
	Acquisition as a result of business combination	13,643	184,845	419,927	90,958	149,423	858,796
	Depreciation	-	(865,291)	(8,303,179)	-	(447,290)	(9,615,760)
	Disposal/Discard	(2,752)	(5,876)	(56,371)	19	(26,291)	(91,271)
	Impairment	-	-	(1,121)	-	20	(1,101)
	Re-classification to assets held-for-sale	-	261	2,344	(1,202)	319	1,722
	Others	(10,562)	(564,208)	(403,747)	(285,778)	(158,996)	(1,423,287)
Balance at 30 June 2017	Book value	9,437,739	26,929,795	43,434,532	21,583,718	2,309,457	103,695,240
	Acquisition cost	9,437,739	39,746,416	163,487,073	21,583,718	7,021,451	241,276,397
	Accumulated depreciation (Including accumulated impairment loss)	-	(12,816,620)	(120,052,541)	-	(4,711,994)	(137,581,157)

※ Acquisition as a result of business combination: Includes an increased amount as a result of SEA (Samsung Electronics America, a subsidiary of SEC)'s acquisition of 100% shares of Harman and its subsidiaries.

※ 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

During the first half of 2017, the Company invested KRW 22.5 trillion in CAPEX, including upgrading production lines of the Semiconductor and the DP. The total CAPEX for 2017 is yet to be finalized, but is expected to increase significantly compared to the previous year.

### [CAPEX by Division]

(Unit: KRW 100 million)

Business	Purpose	Period	Assets	Investment in 2017.1H
Semiconductor	Establishment, addition, upgrade	Jan '17 ~ Jun '17	Buildings, facilities	124,816
DP	Establishment, addition, upgrade	Jan '17 ~ Jun '17	Buildings, facilities	86,394
Other	Other	Jan '17 ~ Jun '17	Buildings, facilities	13,721
Total				224,931



## 5. Sales and Distribution

### A. Sales

In the first half of 2017, the Company recorded KRW 111,548 billion of total revenue, an increase of 10.8% compared to the same period in the previous year. By Division, when compared to the first half of 2016, CE Division's revenue increased by 0.7%, IM Division's revenue decreased by 1.2% and DS Division's revenue increased by 35.1%.

(Unit: KRW 100 million)

Division		Sales types	Product categories	2017.1H	2016	2015
CE		Goods Products Service Others	TV, monitor, air conditioner, refrigerator, washing machine, medical equipment, etc.	212,601	451,028	448,013
IM		Goods Products Service Others	HHP, Network System, Computer, etc.	535,095	1,003,021	1,035,543
DS	Semiconductor	Goods Products Service Others	DRAM, NAND Flash, Mobile AP, etc.	332,358	511,570	475,868
	DP	Goods Products Service Others	TFT-LCD, OLED, etc.	150,013	269,286	274,869
	Division total			480,984	781,482	750,261
Harman		Goods Products Service Others	Infotainment System, Telematics, Speakers, Headphones, etc.	26,922	-	-
Others		Other revenue	-	-140,121	-216,864	-227,282
Total				1,115,481	2,018,667	2,006,535

※ Includes internal sales between Divisions. (on a consolidated basis)

※ CE division was restated to exclude Printing Solution business.

#### Sales by Major Product (on a consolidated basis)

(Unit: KRW 100 million)

Classification	2017.1H	2016	2015
Image Devices	126,338	287,241	292,194
Mobile Devices	513,897	977,494	1,005,117
Memory	260,634	378,594	342,917
Display Panel	150,013	269,286	274,869

※ Including internal sales between Divisions.

## □ Sales by Type

(Unit: KRW 100 million)

Classification	2017.1H	2016	2015
Products	1,103,737	2,006,326	1,988,452
Service and other Sales	11,744	12,341	18,083
Total	1,115,481	2,018,667	2,006,535

※ Other sales consists of royalty income and etc.

## □ Sales by Region (on a separate basis)

(Unit: KRW 100 million)

Classification	2017.1H	2016	2015
Domestic	85,237	140,656	145,908
Americas	226,454	426,448	425,042
Europe	87,019	170,850	173,583
Asia and Africa	166,719	281,021	291,473
China	201,665	320,497	316,044
Total	767,093	1,339,472	1,352,050

## B. Sales Channels

### □ Domestic

Seller	Sales Channel	Consumer	
Manufacturer (Facility)	Retailer	Consumer	
	Distributor (General Merchandise Store, Discount Store, Department Store, Home-Shopping, Internet)		
	Retailer		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, Automotive OEM			
	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	25%	24%	44%	7%

※ On a global basis

## C. Sales Methods and Conditions

### Domestic

Classification	Channel	Collection	Incidental expense sharing
Exclusive	Retailer	- 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

During the first half of 2017, major customers included Apple, AT&T, Deutsche Telekom, Sprint and Verizon(in alphabetical order). Sales to our five major customers accounted for approximately 11% of total sales.

## 6. Long-term Contracts

As of the first half of 2017, 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. In addition, the Company uses derivative financial instruments to hedge certain risk exposure.

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, the Company operates local finance centers in major overseas regions (United States, United Kingdom, Singapore, China, Brazil and Russia) to manage global financial risks.

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 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 Indian Rupee.

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. In addition, the Company makes use of derivative instruments to minimize uncertainty of cash flows and fluctuation of profit or loss occurring from foreign exchange risk. 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 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.

#### **(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 of June 30, 2017 and December 31, 2016, a price fluctuation in relation to marketable equity securities by 1% would result in changes in other comprehensive income (before income tax) of KRW 27,113 million and KRW 23,622 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 Group is exposed to interest rate risk mainly through interest bearing liabilities and assets. The Group's position with regard to interest rate risk exposure is mainly driven by its floating interest rate debt obligations and interest-bearing deposits. The Group 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.

### **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 Group 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 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.

## 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 previous fiscal year. The Company has maintained "A+ " and "A1" credit ratings from S&P and Moody's, respectively.

The total liabilities to equity ratio as of June 30, 2017 and December 31, 2016 are as follows:

(Unit: KRW million)

	June 30, 2017	December 31, 2016
Total liabilities	76,883,688	69,211,291
Total equity	200,705,748	192,963,033
Total liabilities to equity ratio	38.3%	35.9%

## E. Fair Value Measurement

- Carrying amounts and fair values of financial instruments by category as of June 30, 2017 and December 31, 2016 are as follows:

(Unit: KRW million)

Classification	June 30, 2017		December 31, 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Cash and cash equivalents	29,007,086	(1)	32,111,442	(1)
Short-term financial instruments	37,796,229	(1)	52,432,411	(1)
Short-term available-for-sale financial assets	3,698,772	3,698,772	3,638,460	3,638,460
Trade and other receivables	27,585,923	(1)	24,279,211	(1)
Long-term available-for-sale financial assets <sup>(2)</sup>	7,565,787	6,449,482	6,804,276	5,826,507
Other <sup>(4)</sup>	6,281,569	1,289,350	3,459,863	919,071
<b>Total Financial assets</b>	<b>111,935,366</b>		<b>122,725,663</b>	
Financial liabilities				
Trade payables	9,075,774	(1)	6,485,039	(1)
Short-term borrowings	13,767,140	(1)	12,746,789	(1)
Other payables <sup>(3)</sup>	11,281,471	330,059	10,225,271	(1)
Current portion of long-term borrowings	26,585	(1)	1,232,817	(1)
Debentures	1,000,508	1,017,611	58,542	76,129
Long-term borrowings	1,917,571	1,925,261	1,244,238	1,225,455
Long-term other payables	1,613,911	1,611,595	3,009,659	3,022,821
Other <sup>(4)</sup>	9,340,680	117,543	11,942,469	74,697
<b>Total Financial liabilities</b>	<b>48,023,640</b>		<b>46,944,824</b>	

<sup>1</sup> Assets and liabilities whose carrying amount is reasonable approximations of their fair value are excluded from the fair value disclosures.

<sup>2</sup> Amount measured at cost (2017.1H: KRW 1,116,305 million and 2016: KRW 977,769 million) is excluded, as the range of reasonable fair value estimates are significant and the probabilities of the various estimates cannot be reasonably assessed.

<sup>3</sup> KRW 10,951,412 million (2016: KRW 10,225,271 million) is excluded from the fair value disclosures, as the carrying amount is reasonable approximations of its fair value.

<sup>4</sup> Assets of KRW 4,947,467 million (2016: KRW 2,452,118 million) and liabilities of KRW 9,223,137 million (2016: KRW 11,867,772 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 June 30, 2017			Total balance
	Level 1	Level 2	Level 3	
<b>Assets</b>				
Short-term available-for-sale financial assets	-	3,698,772	-	3,698,772
Long-term available-for-sale financial assets	2,711,346	-	3,738,136	6,449,482
Other	-	1,289,350	-	1,289,350
<b>Liabilities</b>				
Other payables	-	-	330,059	330,059
Debentures	-	1,017,611	-	1,017,611
Long-term borrowings	-	1,925,261	-	1,925,261
Long-term other payables	-	1,611,595	-	1,611,595
Other	-	81,297	36,246	117,543

(In millions of Korean won)	As of December 31, 2016			Total balance
	Level 1	Level 2	Level 3	
<b>Assets</b>				
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
<b>Liabilities</b>				
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

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. 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 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 a derivative 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)
<b>Long-term available-for-sale financial assets</b>				
Maltani	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	3,714,351	Trinomial model	Risk adjusted discount rate Price volatility	5.26% ~ 7.26% (6.26%) 27.30% ~ 33.30% (30.30%)
<b>Other payables</b>				
Contingent liabilities	330,059	Discounted cash flow	Discount rate	3.81% ~ 4.65% (4.23%)
<b>Others</b>				
Contingent liabilities	29,301	Monte-Carlo Simulation	Discount rate Risk free rate Asset volatility Credit spread	10.50% 0.97% 34.54% 2.12%
Contingent liabilities	5,299	Discounted cash flow	Discount rate	17.57%
Contingent liabilities	1,646	Probability-weighted discounted cash flow	Weighted average cost of capital Credit risks	8.60% 2.12%

### - Changes in Level 3 Instruments:

(In millions of Korean won)

Financial Assets	2017.1H	2016.1H
Balance as of January 1	3,464,272	3,488,344
Purchases	-	65,059
Disposals	-	(66,713)
Amount recognized in profit or loss	-	(11,740)
Amount recognized in other comprehensive income	273,864	376,065
Other	-	4,238
Balance as of June 30	3,738,136	3,855,253

(In millions of Korean won)

Financial Liabilities	2017.1H	2016.1H
Balance as of January 1	342,702	312,738
Disposals	(2,258)	-
Amount recognized in profit or loss	(12,643)	10,643
Acquisition as a result of business combination	39,083	-
Others	(579)	-
Balance as of June 30	366,305	323,381

### - 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 <sup>1</sup>	-	180,459	-	(171,339)
Long-term other payables <sup>2</sup>	1,157	1,157	(1,162)	(1,162)
Total	1,157	181,616	(1,162)	(172,501)

<sup>1</sup> 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.

<sup>2</sup> For 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

The Company and its subsidiaries hold convertible preferred shares of Corning Incorporated and its value as of June 30, 2017 is as follows.

(Unit: KRW million)

	Purchasing Price	Fair Value	Valuation Gain	Valuation Loss
Convertible Preferred Shares	2,434,320	3,714,351	1,280,031	-

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

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.

As of June 30, 2017, the Company has 1,669 currency forward contracts involving 36 foreign currencies including USD/EUR/JPY. Currency forwards as of June 30, 2017 are as follows.

(Unit: KRW million)

	Asset	Liabilities	Valuation Gain	Valuation Loss
Currency forwards	125,120	62,491	51,784	54,910
Total	125,120	62,491	51,784	54,910

## 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 operational advantage 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 operational advantage 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 operational advantage 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 operational advantage 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

※ 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)

		2017.1H	2016	2015
Total R&D expenditure		7,936,268	14,792,343	14,848,754
Accounting	Capitalization of development expenses (intangible asset)	-195,911	-680,962	-1,143,059
	R&D costs (expenses)	7,740,357	14,111,381	13,705,695
R&D expenses/sales Ratio		7.1%	7.3%	7.4%

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

As of June 30, 2017, the Company's R&D expenses were KRW 7,936 billion. The Company capitalized KRW 196 billion and recognized KRW 7,740 billion as current expenditure.

### B. R&D Organization and Operations

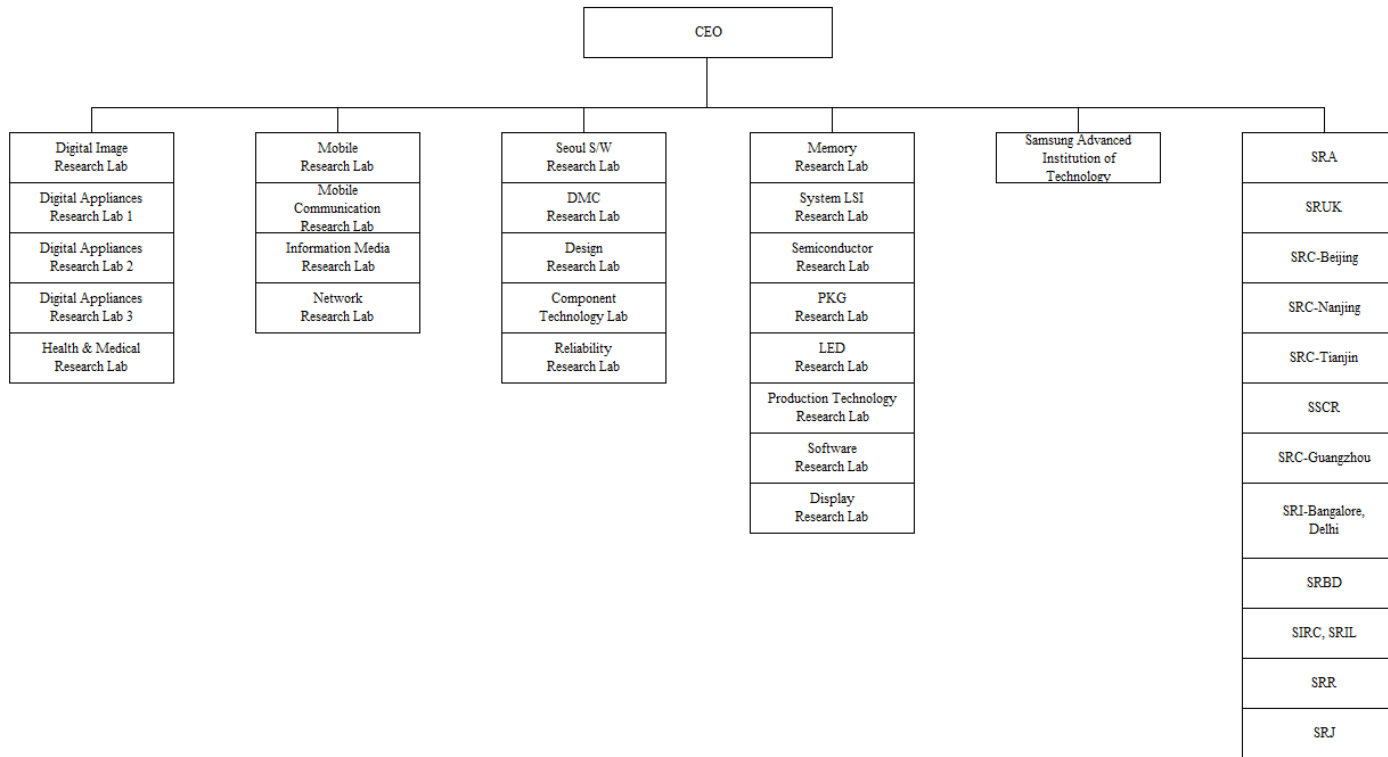
#### Korea

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 June 30, 2017

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



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

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

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

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 (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"
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"

Research Project	Research Results and Expected Effect	In case applied to a product, name of the product and application
Exynos 7 Quad	<ul style="list-style-type: none"> <li>□ Connectivity integrated mobile SoC</li> <li>- Increased performance by 70% and power efficiency by 30% vs. the previous 28nm products</li> <li>- Reduced the size by 20% by integrating major features such as the modem, connectivity and PMIC.</li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : Aug '16</li> <li>□ Name: S5E7570</li> </ul>
Dishwasher (DW9900M)	<ul style="list-style-type: none"> <li>□ Product Concept</li> <li>- 2<sup>nd</sup> Generation WaterWall technology</li> <li>- Improved Zone booster</li> <li>- Wi-Fi application and differentiated Rack feature</li> <li>- Sump &amp; New Filter System</li> <li>- Hidden control, Touch Type display</li> </ul>	<ul style="list-style-type: none"> <li>□ Region : North America</li> <li>□ Launch : Dec '16</li> </ul>
Residential Air-conditioner (AR5500M)	<ul style="list-style-type: none"> <li>□ Product Concept</li> <li>- Adopt environment-friendly (Low-GWP) R32 refrigerant to respond to market trends</li> <li>- Applied S-Inv to strengthened the competitiveness of Inv-type products</li> <li>- N-PFC, R32 8-pole compressor</li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : Dec '16</li> </ul>
Exynos 9	<ul style="list-style-type: none"> <li>□ 10nm FinFET process based Premium AP</li> <li>- Cutting-edge 10nm process based model, low power consumption, high performance</li> <li>- Gygabit-class LTE modem-integrated chip</li> <li>- Provide unrivalled performance such as 2<sup>nd</sup> generation custom CPU and next-generation GPU</li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : 1Q '17</li> </ul>
UHD TV (MU7000)	<ul style="list-style-type: none"> <li>□ Flat UHD TV</li> <li>□ Design: Slim Unibody, Real 360, Bezel-less, Screw-less, Branch Stand</li> <li>□ Specification and Effects</li> <li>- Platform (H/W,S/W): Kant-M, Tizen OS</li> <li>- Image quality: UHD 120Hz, Flat, Local Dimming</li> <li>- Feature: Provide optimal convenience in terms of connectivity though One Connect mini</li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : Feb '17</li> <li>□ Inch: 49"/55"/65"</li> </ul>
UHD TV (MU6500)	<ul style="list-style-type: none"> <li>□ UHD Curved TV</li> <li>□ Design: Metal Design, Bolt-less Clean Back, Ultimate Slim Design, Y-Shape Stand</li> <li>□ Specification and Effects</li> <li>- Platform (H/W,S/W): Kant-M, Tizen OS</li> <li>- Image quality: Active Crystal Color (DCI 92%)</li> <li>- Feature: New Smart features (Eden 2.0, Eden Mobile) provides users with easier and more convenient content experiences</li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : Mar '17</li> <li>□ Inch: 49"/55"/65"</li> </ul>
UHD TV (MU6400)	<ul style="list-style-type: none"> <li>□ UHD Curved TV</li> <li>□ Design: Metal Design, Bolt-less Clean Back, Ultimate Slim Design, Y-Shape Stand</li> <li>□ Specification and Effects</li> <li>- Platform (H/W,S/W): Kant-M, Tizen OS</li> <li>- Image quality: Active Crystal Color (DCI 92%)</li> <li>- Feature: New Smart features (Eden 2.0, Eden Mobile) provides users with easier and more convenient content experiences</li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : Mar '17</li> <li>□ Inch: 40"/49"/55"/65"</li> </ul>
UHD TV (MU6300 /MU6100)	<ul style="list-style-type: none"> <li>□ UHD Curved TV</li> <li>□ Design: Minimalism Design, V-Shape Stand</li> <li>□ Specification and Effects</li> <li>- Platform (H/W,S/W): Kant-M, Tizen OS</li> <li>- Image quality: Active Crystal Color (DCI 92%)</li> <li>- Feature: New Smart features (Eden 2.0, Eden Mobile) provides users with easier and more convenient content experiences</li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : Mar '17</li> <li>□ Inch: 40"/43"/49"/50"/55"/65"/75"</li> </ul>
QLED TV (Q8C)	<ul style="list-style-type: none"> <li>□ Curved QLED TV</li> <li>□ Design: 4 Sides Bezel-less, Simple Edge, Metal Back Stainless Silver stand (Type-U), Slim Wall Mount</li> <li>□ Specification and Effects</li> <li>- Platform (H/W,S/W): Kant-M, Tizen OS</li> <li>- Concept: 4 Sides Bezel-less Design QLED TV</li> <li>- Image quality: Highest-level of brightness, expanded color volume, accurate image, better viewing angles and deeper black levels</li> <li>- Feature: With Optical Cable and One connect, provides users with optimal convenience in terms of connectivity</li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : Apr '17</li> <li>□ Inch: 75"</li> </ul>

Research Project	Research Results and Expected Effect	In case applied to a product, name of the product and application
UHD TV (MU6100)	<ul style="list-style-type: none"> <li>□ UHD Flat TV</li> <li>□ Design: Minimalism Design, V-Shape Stand</li> <li>□ Specification and Effects               <ul style="list-style-type: none"> <li>- Platform (H/W,S/W): Kant-M, Tizen OS</li> <li>- Image quality: Active Crystal Color (DCI 92%)</li> <li>- Feature: New Smart features (Eden 2.0, Eden Mobile) provides users with easier and more convenient content experiences</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : Apr '17</li> <li>□ Inch: 49"/55"/58"/75"</li> </ul>
UHD TV (LS003)	<ul style="list-style-type: none"> <li>□ Lifestyle TV</li> <li>□ Design: Frame Edge Design, Zero Gap Wall Mount</li> <li>□ Specification and Effects               <ul style="list-style-type: none"> <li>- Platform (H/W,S/W): Kant-M, Tizen OS</li> <li>- Image quality: Active Crystal Color (DCI 92%) Paper Look</li> <li>- Feature: Art Mode on Paper like PQ, Mobile Control, Samsung Collection, Invisible Connection, Replaceable Deco Frame</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : May '17</li> <li>□ Inch: 55"/65"</li> </ul>
Exynos i (T200)	<ul style="list-style-type: none"> <li>□ SoC optimized for IoT               <ul style="list-style-type: none"> <li>- 28nm HKMG process-based, multi-core performance</li> <li>- Encode/Decode features, enhanced security function with hardware block system which prevents illegal copy</li> <li>- Certified by WiFi Alliance, supports IoT protocol standard 'IoTivity'</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>□ Region : Global</li> <li>□ Launch : May '17</li> <li>□ Inch: S5JT200</li> </ul>



## 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 5,683 US patents. In the first half of 2017, the Company registered 3,021 patents in the US, by investing KRW 7.9 trillion in R&D.

<Number of Patents Registered in Each Country (as of June 30, 2017, cumulative)>

(Unit: # of Patents)

	Korea	US	Europe	China	Japan	Others
<i>Number</i>	28,814	45,963	17,815	10,775	6,956	9,165

The Company registered its first US patent in 1984, and now holds 119,488 patents around the world. The Company holds the highest number of patents (cumulative number) in the US and aims to address conflicts in the US more effectively.

<Number of Patent Registrations Per Year>

(Unit: # of Patents)

	'17.1H	'16	'15	'14	'13	'12	'11	'10
<i>Korea</i>	1,420	3,462	3,002	3,985	2,775	2,024	1,616	1,620
<i>US</i>	3,021	5,683	5,220	5,085	4,802	5,194	4,991	4,653

These patents are mostly related to smartphone, smart TV, 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 signed cross-licensing agreements with Google (on January 2014, a permanent license), Nokia (on July 2016), and WD (on December 2016, till 2024), through which the Company has secured an extensive patent protection in mainstay businesses as well as in the fields of new business.

The Company has also been focusing on securing design patents to protect its original design applied to smartphones and LED TVs. In the first half of 2017, the Company acquired 310 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 <sub>2</sub> 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

#### INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

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

	Notes	June 30, 2017 KRW	December 31, 2016 KRW	June 30, 2017 USD	December 31, 2016 USD
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	3	29,007,086	32,111,442	25,405,560	28,124,479
Short-term financial instruments	3	37,796,229	52,432,411	33,103,441	45,922,392
Short-term available-for-sale financial assets	3	3,698,772	3,638,460	3,239,532	3,186,708
Trade receivables	3	27,585,923	24,279,211	24,160,849	21,264,699
Non-trade receivables	3	3,197,546	3,521,197	2,800,538	3,084,004
Advances		1,757,708	1,439,938	1,539,471	1,261,155
Prepaid expenses		3,705,124	3,502,083	3,245,095	3,067,264
Inventories	5	23,020,912	18,353,503	20,162,631	16,074,728
Other current assets	3	1,521,698	1,315,653	1,332,764	1,152,302
Assets held-for-sale	28	881,683	835,806	772,213	732,032
<b>Total current assets</b>		<b>132,172,681</b>	<b>141,429,704</b>	<b>115,762,094</b>	<b>123,869,763</b>
<b>Non-current assets</b>					
Long-term available-for-sale financial assets	3, 4	7,565,787	6,804,276	6,626,417	5,959,456
Investment in associates and joint ventures	6	5,814,880	5,837,884	5,092,903	5,113,051
Property, plant and equipment	7	103,695,240	91,473,041	90,820,418	80,115,729
Intangible assets	8	15,221,308	5,344,020	13,331,427	4,680,505
Long-term prepaid expenses		3,200,623	3,834,831	2,803,233	3,358,698
Net defined benefit assets	11	302,335	557,091	264,797	487,922
Deferred income tax assets		5,368,206	5,321,450	4,701,688	4,660,738
Other non-current assets	3	4,248,376	1,572,027	3,720,898	1,376,844
<b>Total assets</b>		<b>277,589,436</b>	<b>262,174,324</b>	<b>243,123,875</b>	<b>229,622,706</b>

## INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

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

	Notes	June 30, 2017 KRW	December 31, 2016 KRW	June 30, 2017 USD	December 31, 2016 USD
<b>Liabilities and Equity</b>					
<b>Current liabilities</b>					
Trade payables	3	9,075,774	6,485,039	7,948,924	5,679,855
Short-term borrowings	3, 9	13,767,140	12,746,789	12,057,809	11,164,145
Other payables	3	12,878,541	11,525,910	11,279,539	10,094,851
Advances received		1,230,965	1,358,878	1,078,128	1,190,159
Withholdings		792,770	685,028	694,340	599,975
Accrued expenses	3	9,942,883	12,527,300	8,708,373	10,971,908
Income tax payable		3,472,232	2,837,353	3,041,119	2,485,067
Current portion of long-term liabilities	3, 9, 10	26,585	1,232,817	23,284	1,079,750
Provisions	12	6,404,954	4,597,417	5,609,714	4,026,601
Other current liabilities	3	445,164	351,176	389,892	307,573
Liabilities held-for-sale	28	431,423	356,388	377,857	312,139
<b>Total current liabilities</b>		<b>58,468,431</b>	<b>54,704,095</b>	<b>51,208,979</b>	<b>47,912,023</b>
<b>Non-current liabilities</b>					
Debentures	3, 10	1,000,508	58,542	876,285	51,273
Long-term borrowings	3, 9	1,917,571	1,244,238	1,679,485	1,089,753
Long-term other payables	3	1,927,517	3,317,054	1,688,196	2,905,208
Net defined benefit liabilities	11	540,759	173,656	473,618	152,095
Deferred income tax liabilities		9,803,623	7,293,514	8,586,403	6,387,950
Provisions	12	571,930	358,126	500,919	313,661
Other non-current liabilities	3	2,653,349	2,062,066	2,323,909	1,806,040
<b>Total liabilities</b>		<b>76,883,688</b>	<b>69,211,291</b>	<b>67,337,794</b>	<b>60,618,003</b>

## INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

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

		June 30, 2017	December 31, 2016	June 30, 2017	December 31, 2016
	Notes	KRW	KRW	USD	USD
<b>Equity attributable to owners of the parent</b>					
Preference shares	14	119,467	119,467	104,634	104,634
Ordinary shares	14	778,047	778,047	681,445	681,445
Share premium		4,403,893	4,403,893	3,857,105	3,857,105
Retained earnings	15	199,223,959	193,086,317	174,488,271	169,112,680
Other components of equity	16	(10,870,453)	(11,934,586)	(9,520,776)	(10,452,786)
Accumulated other comprehensive income attributable to assets held-for-sale	28	(452)	(28,810)	(396)	(25,233)
		193,654,461	186,424,328	169,610,283	163,277,845
<b>Non-controlling interests</b>		7,051,287	6,538,705	6,175,798	5,726,858
<b>Total equity</b>		200,705,748	192,963,033	175,786,081	169,004,703
<b>Total liabilities and equity</b>		277,589,436	262,174,324	243,123,875	229,622,706

## INTERIM CONSOLIDATED STATEMENTS OF PROFIT OR LOSS

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

	Notes	For the three months ended June 30,				For the six months ended June 30,			
		2017	2016	2017	2016	2017	2016	2017	2016
		KRW	KRW	USD	USD	KRW	KRW	USD	USD
<b>Revenue</b>		61,000,537	50,937,120	53,426,698	44,612,757	111,548,063	100,719,372	97,698,233	88,214,034
<b>Cost of sales</b>	17	32,399,829	29,609,118	28,377,060	25,932,844	60,555,426	59,982,976	53,036,852	52,535,477
<b>Gross profit</b>		28,600,708	21,328,002	25,049,638	18,679,913	50,992,637	40,736,396	44,661,381	35,678,557
Selling and administrative expenses	17, 18	14,534,161	13,184,052	12,729,597	11,547,117	27,027,729	25,916,634	23,671,961	22,698,820
<b>Operating profit</b>		14,066,547	8,143,950	12,320,041	7,132,796	23,964,908	14,819,762	20,989,420	12,979,737
Other non-operating income	19	344,215	275,724	301,477	241,490	660,638	978,317	578,613	856,849
Other non-operating expense	19	223,405	515,453	195,667	451,454	500,639	854,089	438,480	748,045
Share of profit of associates and joint ventures	6	22,353	4,276	19,578	3,745	41,691	13,423	36,515	11,756
Financial income	20	1,727,174	1,986,063	1,512,728	1,739,473	3,824,326	5,065,992	3,349,497	4,436,997
Financial expense	20	1,524,619	1,822,601	1,335,322	1,596,307	3,414,083	4,828,961	2,990,190	4,229,395
<b>Profit before income tax</b>		14,412,265	8,071,959	12,622,835	7,069,743	24,576,841	15,194,444	21,525,375	13,307,899
Income tax expense	21	3,358,414	2,224,566	2,941,432	1,948,364	5,838,636	4,094,248	5,113,709	3,585,905
<b>Profit for the period</b>		11,053,851	5,847,393	9,681,403	5,121,379	18,738,205	11,100,196	16,411,666	9,721,994
Profit attributable to owners of the parent		10,799,942	5,826,178	9,459,019	5,102,799	18,288,474	11,089,684	16,017,773	9,712,787
Profit attributable to non-controlling interests		253,909	21,215	222,384	18,580	449,731	10,512	393,893	9,207
Earnings per share for profit attributable to owners of the parent (in Korean Won, in US dollars)	22								
- Basic		78,018	40,904	68.33	35.83	131,615	77,266	115.27	67.67
- Diluted		78,018	40,904	68.33	35.83	131,615	77,266	115.27	67.67

## INTERIM CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

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

	Notes	For the three months ended June 30,				For the six months ended June 30,			
		2017	2016	2017	2016	2017	2016	2017	2016
		KRW	KRW	USD	USD	KRW	KRW	USD	USD
<b>Profit for the period</b>		11,053,851	5,847,393	9,681,403	5,121,379	18,738,205	11,100,196	16,411,666	9,721,994
<b>Other comprehensive income (loss)</b>									
<b>Items not to be reclassified to profit or loss subsequently:</b>									
Remeasurement of net defined benefit liabilities (assets), net of tax	16	(17,753)	(24,262)	(15,549)	(21,250)	(56,851)	(47,045)	(49,792)	(41,204)
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	16	(1,192)	(1,730)	(1,044)	(1,515)	(1,308)	(1,367)	(1,146)	(1,197)
<b>Items to be reclassified to profit or loss subsequently:</b>									
Changes in value of available-for-sale financial assets, net of tax	16	340,151	(44,680)	297,918	(39,133)	505,306	29,915	442,567	26,201
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	16	69,582	(22,907)	60,943	(20,063)	14,230	(134,849)	12,463	(118,106)
Foreign currency translation, net of tax	16	2,628,939	211,703	2,302,529	185,419	(2,380,295)	110,275	(2,084,757)	96,583
Gain (loss) on valuation of derivatives	16	(51,291)	-	(44,923)	-	(44,695)	-	(39,146)	-
<b>Other comprehensive income (loss) for the period, net of tax</b>		2,968,436	118,124	2,599,874	103,458	(1,963,613)	(43,071)	(1,719,811)	(37,723)
<b>Total comprehensive income for the period</b>		14,022,287	5,965,517	12,281,277	5,224,837	16,774,592	11,057,125	14,691,855	9,684,271
<b>Comprehensive income attributable to:</b>									
Owners of the parent		13,675,417	5,956,247	11,977,474	5,216,718	16,266,746	11,026,386	14,247,063	9,657,349
Non-controlling interests		346,870	9,270	303,803	8,119	507,846	30,739	444,792	26,922

## INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In millions of Korean won)

2016 KRW	Notes	Preference shares	Ordinary shares	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
<b>Balance as at January 1, 2016</b>		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		-	-	-	11,089,684	-	-	11,089,684	10,512	11,100,196
Changes in value of available-for-sale financial assets, net of tax		-	-	-	-	10,491	(23,797)	(13,306)	43,221	29,915
Share of other comprehensive income (loss) of associates and joint ventures, net of tax		-	-	-	-	(136,232)	-	(136,232)	16	(136,216)
Foreign currency translation, net of tax		-	-	-	-	133,283	-	133,283	(23,008)	110,275
Remeasurement of net defined benefit liabilities (assets), net of tax		-	-	-	-	(47,043)	-	(47,043)	(2)	(47,045)
<b>Total comprehensive income (loss)</b>		-	-	-	11,089,684	(39,501)	(23,797)	11,026,386	30,739	11,057,125
Dividends		-	-	-	(2,919,820)	-	-	(2,919,820)	(14,889)	(2,934,709)
Capital transaction under common control		-	-	-	-	(205)	-	(205)	5,326	5,121
Acquisition of treasury stock		-	-	-	-	(5,347,031)	-	(5,347,031)	-	(5,347,031)
Retirement of treasury stock		-	-	-	(7,381,390)	7,381,390	-	-	-	-
Others		-	-	-	-	2,256	-	2,256	(51)	2,205
<b>Total transactions with owners</b>		-	-	-	(10,301,210)	2,036,410	-	(8,264,800)	(9,614)	(8,274,414)
<b>Balance as at June 30, 2016</b>		119,467	778,047	4,403,893	185,920,488	(15,583,542)	-	175,638,353	6,204,163	181,842,516

## INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

*(In thousands of US dollars (Note 2.3))*

2016 USD	Notes	Preference shares	Ordinary shares	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
<b>Balance as at January 1, 2016</b>		104,634	681,445	3,857,105	162,145,985	(15,397,659)	20,842	151,412,352	5,415,351	156,827,703
Profit for the period		-	-	-	9,712,787	-	-	9,712,787	9,207	9,721,994
Changes in value of available-for-sale financial assets, net of tax		-	-	-	-	9,188	(20,842)	(11,654)	37,855	26,201
Share of other comprehensive income (loss) of associates and joint ventures, net of tax		-	-	-	-	(119,317)	-	(119,317)	14	(119,303)
Foreign currency translation, net of tax		-	-	-	-	116,735	-	116,735	(20,152)	96,583
Remeasurement of net defined benefit liabilities (assets), net of tax		-	-	-	-	(41,202)	-	(41,202)	(2)	(41,204)
<b>Total comprehensive income (loss)</b>		-	-	-	9,712,787	(34,596)	(20,842)	9,657,349	26,922	9,684,271
Dividends		-	-	-	(2,557,295)	-	-	(2,557,295)	(13,040)	(2,570,335)
Capital transaction under common control		-	-	-	-	(180)	-	(180)	4,665	4,485
Acquisition of treasury stock		-	-	-	-	(4,683,143)	-	(4,683,143)	-	(4,683,143)
Retirement of treasury stock		-	-	-	(6,464,915)	6,464,915	-	-	-	-
Others		-	-	-	-	1,976	-	1,976	(45)	1,931
<b>Total transactions with owners</b>		-	-	-	(9,022,210)	1,783,568	-	(7,238,642)	(8,420)	(7,247,062)
<b>Balance as at June 30, 2016</b>		104,634	681,445	3,857,105	162,836,562	(13,648,687)	-	153,831,059	5,433,853	159,264,912



## INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In millions of Korean won)

2017 KRW	Notes	Preference shares	Ordinary shares	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
<b>Balance as at January 1, 2017</b>		119,467	778,047	4,403,893	193,086,317	(11,934,586)	(28,810)	186,424,328	6,538,705	192,963,033
Profit for the period		-	-	-	18,288,474	-	-	18,288,474	449,731	18,738,205
Changes in value of available-for-sale financial assets, net of tax	16	-	-	-	-	465,023	-	465,023	40,283	505,306
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	16	-	-	-	-	14,009	-	14,009	(1,087)	12,922
Foreign currency translation, net of tax	16	-	-	-	-	(2,399,257)	-	(2,399,257)	18,962	(2,380,295)
Remeasurement of net defined benefit liabilities (assets), net of tax	16	-	-	-	-	(56,808)	-	(56,808)	(43)	(56,851)
Gain (loss) on valuation of derivatives	16	-	-	-	-	(44,695)	-	(44,695)	-	(44,695)
Classified as held-for-sale	28	-	-	-	-	(28,358)	28,358	-	-	-
<b>Total comprehensive income (loss)</b>		-	-	-	18,288,474	(2,050,086)	28,358	16,266,746	507,846	16,774,592
Dividends		-	-	-	(4,822,724)	-	-	(4,822,724)	(2,100)	(4,824,824)
Capital transaction under common control		-	-	-	-	(630)	-	(630)	6,433	5,803
Acquisition of treasury stock	16	-	-	-	-	(4,214,232)	-	(4,214,232)	-	(4,214,232)
Retirement of treasury stock	16	-	-	-	(7,328,108)	7,328,108	-	-	-	-
Others		-	-	-	-	973	-	973	403	1,376
<b>Total transactions with owners</b>		-	-	-	(12,150,832)	3,114,219	-	(9,036,613)	4,736	(9,031,877)
<b>Balance as at June 30, 2017</b>		119,467	778,047	4,403,893	199,223,959	(10,870,453)	(452)	193,654,461	7,051,287	200,705,748

## INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In thousands of US dollars (Note 2.3))

2017 USD	Notes	Preference shares	Ordinary shares	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
<b>Balance as at January 1, 2017</b>		104,634	681,445	3,857,105	169,112,680	(10,452,786)	(25,233)	163,277,845	5,726,858	169,004,703
Profit for the period		-	-	-	16,017,773	-	-	16,017,773	393,893	16,411,666
Changes in value of available-for-sale financial assets, net of tax	16	-	-	-	-	407,286	-	407,286	35,281	442,567
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	16	-	-	-	-	12,270	-	12,270	(953)	11,317
Foreign currency translation, net of tax	16	-	-	-	-	(2,101,365)	-	(2,101,365)	16,608	(2,084,757)
Remeasurement of net defined benefit liabilities (assets), net of tax	16	-	-	-	-	(49,755)	-	(49,755)	(37)	(49,792)
Gain (loss) on valuation of derivatives	16	-	-	-	-	(39,146)	-	(39,146)	-	(39,146)
Classified as held-for-sale	28	-	-	-	-	(24,837)	24,837	-	-	-
<b>Total comprehensive income (loss)</b>		-	-	-	16,017,773	(1,795,547)	24,837	14,247,063	444,792	14,691,855
Dividends		-	-	-	(4,223,933)	-	-	(4,223,933)	(1,839)	(4,225,772)
Capital transaction under common control		-	-	-	-	(552)	-	(552)	5,634	5,082
Acquisition of treasury stock	16	-	-	-	-	(3,690,992)	-	(3,690,992)	-	(3,690,992)
Retirement of treasury stock	16	-	-	-	(6,418,249)	6,418,249	-	-	-	-
Others		-	-	-	-	852	-	852	353	1,205
<b>Total transactions with owners</b>		-	-	-	(10,642,182)	2,727,557	-	(7,914,625)	4,148	(7,910,477)
<b>Balance as at June 30, 2017</b>		104,634	681,445	3,857,105	174,488,271	(9,520,776)	(396)	169,610,283	6,175,798	175,786,081

## INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS

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

<b>For the six months ended June 30,</b>				
Notes	2017	2016	2017	2016
	KRW	KRW	USD	USD
<b>Cash flows from operating activities</b>				
Profit for the period	18,738,205	11,100,196	16,411,666	9,721,994
Adjustments	23	16,849,218	15,606,076	13,668,422
Changes in assets and liabilities arising from operating activities	23	(8,852,117)	(7,753,036)	(1,133,478)
Cash generated from operations	26,735,306	25,412,111	23,415,845	22,256,938
Interest received	855,926	739,934	749,654	648,064
Interest paid	(234,578)	(213,162)	(205,453)	(186,696)
Dividends received	116,632	197,904	102,151	173,332
Income tax paid	(4,449,853)	(4,073,652)	(3,897,358)	(3,567,866)
<b>Net cash generated from operating activities</b>	<b>23,023,433</b>	<b>22,063,135</b>	<b>20,164,839</b>	<b>19,323,772</b>
<b>Cash flows from investing activities</b>				
Net decrease (increase) in short-term financial instruments	14,228,691	(3,736,033)	12,462,054	(3,272,166)
Proceeds from disposal of short-term available-for-sale financial assets	141,491	2,810,743	123,923	2,461,761
Acquisition of short-term available-for-sale financial assets	-	(2,104,714)	-	(1,843,392)
Proceeds from disposal of long-term financial instruments	18,427	589,858	16,139	516,621
Acquisition of long-term financial instruments	(632,632)	(20,283)	(554,084)	(17,765)
Proceeds from disposal of long-term available-for-sale financial assets	158,960	299,941	139,223	262,700
Acquisition of long-term available-for-sale financial assets	(149,752)	(67,606)	(131,159)	(59,212)
Proceeds from disposal of investment in associates and joint ventures	356,087	1,537,457	311,875	1,346,566
Acquisition of investment in associates and joint ventures	(12,850)	(24,104)	(11,255)	(21,111)
Disposal of property, plant and equipment	74,551	63,954	65,295	56,013
Purchases of property, plant and equipment	(21,144,265)	(8,743,821)	(18,518,989)	(7,658,186)
Disposal of intangible assets	889	518	779	454
Purchases of intangible assets	(410,758)	(617,473)	(359,758)	(540,807)
Cash outflows from business combinations	(8,624,973)	(198,164)	(7,554,095)	(173,560)
Others	(106,588)	32,733	(93,353)	28,668
<b>Net cash used in investing activities</b>	<b>(16,102,722)</b>	<b>(10,176,994)</b>	<b>(14,103,405)</b>	<b>(8,913,416)</b>

## INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS

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

Notes	For the six months ended June 30,			
	2017	2016	2017	2016
	KRW	KRW	USD	USD
<b>Cash flows from financing activities</b>				
Net increase (decrease) in short-term borrowings	289,091	(755,922)	253,197	(662,067)
Acquisition of treasury stock	(4,214,232)	(5,347,031)	(3,690,992)	(4,683,143)
Proceeds from long-term borrowings and debentures	692,445	299,187	606,471	262,040
Repayment of long-term borrowings and debentures	(1,121,754)	(46,067)	(982,477)	(40,347)
Dividends Paid	(4,823,973)	(2,924,524)	(4,225,028)	(2,561,414)
Net increase in non-controlling interests	7,017	5,869	6,147	5,140
<b>Net cash used in financing activities</b>	<b>(9,171,406)</b>	<b>(8,768,488)</b>	<b>(8,032,682)</b>	<b>(7,679,791)</b>
Effect of exchange rate changes on cash and cash equivalents	(853,661)	86,362	(747,671)	75,639
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(3,104,356)</b>	<b>3,204,015</b>	<b>(2,718,919)</b>	<b>2,806,204</b>
<b>Cash and cash equivalents</b>				
<b>Beginning of the period</b>	<b>32,111,442</b>	<b>22,636,744</b>	<b>28,124,479</b>	<b>19,826,161</b>
<b>End of the period</b>	<b>29,007,086</b>	<b>25,840,759</b>	<b>25,405,560</b>	<b>22,632,365</b>

## 2. Notes to Consolidated Financial Statements

### 1. General Information

#### 1.1 Company Overview

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

SEC and its subsidiaries (collectively referred to as the “Company”) operate four business divisions: Consumer Electronics (“CE”), Information technology & Mobile communications (“IM”), Device Solutions (“DS”) and Harman. 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, Foundry and System LSI in the semiconductor business (“Semiconductor”), and LCD and OLED panels in the display business (“DP”). The Harman division includes connected car systems, audio and visual products, enterprise automation solutions and connected services. The Company is domiciled in the Republic of Korea and the address of its registered office is Suwon, the Republic of Korea.

These interim consolidated financial statements have been prepared in accordance with Korean International Financial Reporting Standards (“Korean IFRS”) 1110, *Consolidated Financial Statements*. SEC, as the controlling company, consolidates its 276 subsidiaries including Samsung Display and Samsung Electronics America. The Company also applies the equity method of accounting for its 39 affiliates, including Samsung Electro-Mechanics.

#### 1.2 Consolidated Subsidiaries

(A) The consolidated subsidiaries as at June 30, 2017 are as follows:

Area	Subsidiaries	Industry	Percentage of ownership <sup>1</sup>
Domestic	Samsung Display (SDC)	Manufacture and sale of display panels	84.8
	SU Materials	Manufacture of display 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	81.0
	S-Printing Solution	Business of printing solutions	100.0
Growth type private equity trust specialized in semiconductors	Investment on semiconductor industry	66.7	
Harman International Korea	Software development and supply etc.	100.0	
Red Bend Software Korea	Software development and supply	100.0	

<sup>1</sup> Ownership represents the Company’s ownership of voting rights in each entity.

Area	Subsidiaries	Industry	Percentage of ownership <sup>1</sup>
	Samsung Electronics America (SEA)	Sale of electronic devices	100.0
	NexusDX (Nexus)	Medical equipment	100.0
	Kngine	Software development	100.0
	NeuroLogica	Medical equipment	100.0
	Samsung Semiconductor (SSI)	Sale of semiconductor/display panels	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 (Samsung HVAC)	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
	Simpress	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

<sup>1</sup> Ownership represents the Company's ownership of voting rights in each entity.

Area	Subsidiaries	Industry	Percentage of ownership <sup>1</sup>
America	AMX Holding Corporation	Holding Company	100.0
	AMX LLC	Holding Company	100.0
	Harman Becker Automotive Systems	Manufacture and sale of audio products, R&D	100.0
	Harman Connected Services Engineering	Connected Service Provider	100.0
	Harman Connected Services Holding	Connected Service Provider	100.0
	Harman Connected Services	Connected Service Provider	100.0
	Harman Connected Services South America	Connected Service Provider	100.0
	Harman da Amazonia Industria Electronica e Participacoes	Manufacture and sale of audio products	100.0
	Harman de Mexico S. de R.L.	Manufacture of audio products	100.0
	Harman do Brasil Industria Electronica e Participacoes.	Sale of audio products, R&D	100.0
	Harman Financial Group	Management Company	100.0
	Harman International Industries Canada	Sale of audio products	100.0
	Harman International Industries, Inc.	Holding Company	100.0
	Harman International Mexico S de RL de CV	Sale of audio products	100.0
	Harman Investment Group, LLC	Financing Company	100.0
	Harman KG Holding, LLC	Holding Company	100.0
	Harman Professional	Sale of audio products, R&D	100.0
	Red Bend Software	Software design	100.0
	SINN USA	R&D	100.0
	Southern Vision Systems	Development of image sensing device	100.0
Triple Play Integration	Connected Service Provider	100.0	

<sup>1</sup> Ownership represents the Company's ownership of voting rights in each entity.

Area	Subsidiaries	Industry	Percentage of ownership <sup>1</sup>
	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/display panels	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 display panels	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/display panels	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
Europe/CIS	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 Air Conditioner Europe B.V.(SEACE)	Sale of heating and cooling products	100.0
	Samsung Electronics Rus Company (SERC)	Sale of electronic devices	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
	Harman Connected Services OOO	Connected Service Provider	100.0
	Harman RUS CIS LLC	Sale of audio products	100.0
	Aditi Technologies Europe	Sale of audio products, etc.	100.0
	AKG Acoustics	Manufacture and sale of audio products	100.0

<sup>1</sup> Ownership represents the Company's ownership of voting rights in each entity.



Area	Subsidiaries	Industry	Percentage of ownership <sup>1</sup>
Europe/CIS	AMX (Germany)	Sale of audio products	100.0
	AMX UK	Sale of audio products	100.0
	Duran Audio B.V.	Sale of audio products, R&D	100.0
	Duran Audio Iberia Espana	Sale of audio products	100.0
	Endeleo	Sale of audio products, R&D	100.0
	Harman Automotive UK	Manufacture of audio products	100.0
	Harman Becker Automotive Systems (Germany)	Manufacture and sale of audio products, R&D	100.0
	Harman Becker Automotive Systems Italy	Sale of audio products	100.0
	Harman Becker Automotive Systems Manufacturing Kft	Manufacture of audio products, R&D	100.0
	Harman Belgium	Sale of audio products	100.0
	Harman Connected Services AB.	Connected Service Provider	100.0
	Harman Connected Services Finland OY	Connected Service Provider	100.0
	Harman Connected Services (Germany)	Connected Service Provider	100.0
	Harman Connected Services	Connected Service Provider	100.0
	Harman Connected Services Poland Sp.zoo	Connected Service Provider	100.0
	Harman Connected Services UK	Connected Service Provider	100.0
	Harman Consumer Division Nordic A/S	Sale of audio products	100.0
	Harman Consumer Finland OY	Sale of audio products	100.0
	Harman Consumer Nederland B.V.	Sale of audio products	100.0
	Harman Deutschland	Sale of audio products	100.0
	Harman Finance International GP S.a.r.l	Holding Company	100.0
	Harman Finance International SCA	Financing Company	100.0
	Harman France SNC	Sale of audio products	100.0
	Harman Holding & Co. KG	Management Company	100.0
	Harman Hungary Financing	Financing Company	100.0
	Harman Inc. & Co. KG	Holding Company	100.0
	Harman International Estonia OU	R&D	100.0
	Harman International Industries (UK)	Sale of audio products, etc.	100.0
	Harman International Romania SRL	R&D	100.0
	Harman International s.r.o	Manufacture of audio products	100.0
	Harman International SNC	Sale of audio products	100.0
	Harman Management	Holding Company	100.0
	Harman Professional Kft	Manufacture of audio products, R&D	100.0
	Inspiration Matters	Sale of audio products, R&D	100.0
	Knight Image	Sale of audio products, R&D	100.0
	Martin Manufacturing (UK)	Manufacture of audio products	100.0
	Harman Professional ApS (formerly Martin Professional ApS)	Sale of audio products, R&D	100.0
	Harman Professional France SAS (formerly Martin Professional France)	Sale of audio products	100.0
	Martin Professional GmbH	Sale of audio products	100.0
	Martin Professional	Sale of audio products	100.0
R&D International	Manufacture of audio products	100.0	
Red Bend Software (UK)	Software design	100.0	
Red Bend Software SAS France	Software design	100.0	
Studer Professional Audio	Sale of audio products, R&D	100.0	

<sup>1</sup> Ownership represents the Company's ownership of voting rights in each entity.

Area	Subsidiaries	Industry	Percentage of ownership <sup>1</sup>
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
	Broadsense	Service	100.0
	Global Symphony Technology Group	Holding Company	100.0
	Harman Connected Services Morocco	Connected Service Provider	100.0
	Harman Industries Holdings Mauritius	Holding Company	100.0
	iOnRoad	R&D	100.0
iOnRoad Technologies	R&D	100.0	
Red Bend	Manufacture of audio products	100.0	
Towersec (Israel)	R&D	100.0	

<sup>1</sup> Ownership represents the Company's ownership of voting rights in each entity.

Area	Subsidiaries	Industry	Percentage of ownership <sup>1</sup>
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 service of electronic devices	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 display panels	100.0
	Samsung Electronics HCMC CE Complex (SEHC)	Manufacture and sale of electronic devices	100.0
	Laos Samsung Electronics Sole(LSE)	Marketing	100.0
	AMX Products and Solutions Private	Sale of audio products	100.0
	Harman Connected Services India	Connected Service Provider	100.0
	Harman Connected Services Technologies	Connected Service Provider	100.0
	Harman International (India) Private	Sale of audio products, R&D	100.0
	Harman International Industries PTY	Holding Company	100.0
	Harman International Singapore	Sale of audio products	100.0
	Harman Malaysia Sdn. Bhd.	Sale of audio products	100.0
	Harman Professional Singapore Pte.	Sale of audio products	100.0
	I.P.S.G. International Product Solution Group PTY.	Sale of audio products, R&D	100.0
	INSP India Software Development Pvt.	Software development and supply	100.0
	Martin Professional Pte.	Sale of audio products	100.0
VFX Systems PTY	Connected Service Provider	100.0	
Harman Connected Services Japan	Connected Service Provider	100.0	
Harman International Japan	Sale of audio products, R&D	100.0	
Red Bend Software KK	Software design	100.0	
Studer Japan	Holding Company	100.0	

<sup>1</sup> Ownership represents the Company's ownership of voting rights in each entity.

Area	Subsidiaries	Industry	Percentage of ownership <sup>1</sup>
China	Samsung Display Dongguan (SDD)	Manufacture of display panels	100.0
	Samsung Display Tianjin (SDT)	Manufacture of display panels	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/display panels	100.0
	Samsung Electronics Suzhou Computer (SESC)	Manufacture of electronic devices	100.0
	Samsung Suzhou Module (SSM)	Toll processing of display panels	100.0
	Samsung Suzhou LCD (SSL)	Manufacture of display panels	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/display panels	100.0
	Harman (China) Technologies	Manufacture of audio products	100.0
	Harman (Suzhou) Audio and Infotainment Systems	Sale of audio products	100.0
	Harman Automotive Electronic Systems (Suzhou)	Manufacture of audio products, R&D	100.0
	Harman Commercial (Shanghai)	Sale of audio products	100.0
	Harman Connected Services Taiwan	Connected Service Provider	100.0
	Harman Holding	Sale of audio products	100.0
	Harman International (China) Holdings	Sale of audio products, R&D	100.0
	Harman Neusoft Automotive Infotech (Dalian) Co.	Software development and supply	100.0
	Harman Technology (Shenzhen)	Sale of audio products, R&D	100.0
	Martin Trading Zhuhai	Sale of audio products	100.0
	Harman Connected Services (Beijing) Solutions	Connected Service Provider	100.0
	Harman Connected Services (Chengdu) Solutions	Connected Service Provider	100.0

<sup>1</sup> 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) 2017

<i>(In millions of Korean won)</i>	As at June 30, 2017		For the three months ended June 30, 2017		For the six months ended June 30, 2017	
	Assets	Liabilities	Sales	Net Income (Loss)	Sales	Net Income (Loss)
Samsung Display (SDC)	45,584,473	8,373,785	6,451,196	1,002,128	12,911,982	2,019,898
Samsung Electronics America (SEA)	28,590,557	9,800,314	9,914,282	350,197	15,638,178	312,511
Harman and its subsidiaries <sup>1</sup>	15,421,852	5,971,779	2,154,442	2,082	2,692,191	26,531
Samsung (China) Investment(SCIC)	12,760,175	10,808,629	1,233,598	(55,172)	2,681,324	53,787
Samsung Semiconductor(SSI)	9,835,853	4,832,719	6,623,455	19,801	12,205,126	36,941
Samsung Electronics Vietnam(SEV)	9,774,021	1,757,875	5,591,772	617,853	9,167,646	1,022,395
Samsung (China) Semiconductor(SCS)	9,727,255	4,044,805	1,029,282	378,881	2,077,036	511,469
Samsung Electronics Vietnam THANGUYEN(SEVT)	9,621,163	2,539,003	8,251,277	1,135,179	14,507,523	1,922,491
Samsung Electronics Europe Holding(SEEH)	8,651,443	6,555,439	-	11,128	-	13,879
Samsung Display Vietnam(SDV)	7,706,987	7,478,405	3,413,993	426,876	5,637,704	479,392
Samsung Electronics Huizhou(SEHZ)	6,534,826	1,347,246	3,772,299	120,143	6,481,127	277,237
Samsung India Electronics(SIEL)	6,037,155	3,344,758	2,913,895	198,335	5,751,705	402,358
Samsung Asia Private(SAPL)	5,802,099	638,169	480,184	487,487	937,081	500,397
Samsung Electronica da Amazonia(SEDA)	5,659,330	1,676,193	1,746,582	233,080	3,417,350	579,503
Samsung Austin Semiconductor(SAS)	5,158,419	525,391	864,920	25,227	1,678,062	54,203
Shanghai Samsung Semiconductor(SSS)	5,028,707	4,244,542	5,887,045	54,071	11,915,268	107,756
Samsung Electronics Europe Logistics(SELS)	2,282,374	1,966,167	3,102,374	6,368	6,424,127	191,881
Samsung Suzhou LCD(SSL)	2,277,770	1,116,237	435,697	42,698	880,850	72,638
Thai Samsung Electronics(TSE)	2,185,528	455,233	1,189,087	6,922	2,322,415	32,041
Samsung Electronics Slovakia(ESK)	2,096,578	371,871	716,780	28,592	1,593,935	61,607
Samsung Electronics HCMC CE Complex(SEHC)	1,941,854	1,608,045	997,333	68,094	1,774,095	105,989
Samsung Electronics GmbH(SEG)	1,802,261	1,776,995	1,646,514	55,498	3,164,299	20,531
Samsung Electronics (UK)(SEUK)	1,625,220	1,069,713	1,250,180	98,563	2,248,424	127,208
Samsung Electronics Hungarian(SEH)	1,556,890	352,445	658,808	37,550	1,321,074	55,870
Samsung Electronics Benelux(SEBN)	1,443,341	387,719	566,720	14,875	1,168,116	19,804

<sup>1</sup> Consolidated financial data of an intermediate company that includes Harman International Industries, Inc. and its subsidiaries.

(2) 2016

<i>(In millions of Korean won)</i>	As at December 31, 2016		For the three months ended June 30, 2016		For the six months ended June 30, 2016	
	Assets	Liabilities	Sales	Net Income (Loss)	Sales	Net Income (Loss)
Samsung Display (SDC)	43,305,405	8,361,256	5,807,777	153,288	11,420,937	572
Samsung Electronics America (SEA)	21,810,492	9,496,649	9,099,726	190,936	17,670,847	27,392
Samsung (China) Investment(SCIC)	13,632,938	11,672,755	2,522,321	(15,394)	5,301,429	88,538
Samsung (China) Semiconductor(SCS)	9,749,448	4,564,793	1,054,482	369,578	2,103,893	644,479
Samsung Electronics Vietnam(SEV)	9,134,023	1,258,948	5,482,505	771,399	10,662,841	1,385,902
Samsung Electronics Europe Holding(SEEH)	8,643,308	6,661,092	-	16,453	-	22,191
Samsung Semiconductor(SSI)	7,804,698	3,746,687	4,849,323	2,601	9,021,494	11,168
Samsung Electronics Vietnam THAINGUYEN(SEVT)	7,646,828	2,179,023	5,522,072	759,242	11,004,894	1,399,117
Samsung Electronics Huizhou(SEHZ)	6,174,579	1,106,633	3,205,157	226,278	7,033,925	467,933
Shanghai Samsung Semiconductor(SSS)	5,862,409	5,166,385	4,647,341	35,762	8,939,123	75,420
Samsung Asia Private(SAPL)	5,528,472	592,320	395,296	509,944	752,657	510,320
Samsung Electronica da Amazonia(SEDA)	5,200,799	1,510,972	1,507,404	192,378	2,879,384	352,458
Samsung Austin Semiconductor(SAS)	4,940,748	1,293,458	966,551	31,251	2,086,872	60,702
Samsung India Electronics(SIEL)	4,563,407	2,256,194	2,139,741	201,769	4,466,484	449,395
Samsung Display Vietnam(SDV)	3,165,239	3,437,791	1,267,303	(44,584)	2,224,732	(33,562)
Samsung Electronics Europe Logistics(SELS)	2,887,230	2,779,296	3,294,910	259,322	6,632,626	541,650
Samsung Suzhou LCD(SSL)	2,499,917	1,376,439	323,993	(35,919)	540,713	(86,577)
Thai Samsung Electronics(TSE)	2,079,865	364,518	1,083,132	48,735	2,194,690	108,880
Samsung Electronics Slovakia(SESK)	2,053,467	440,402	834,121	23,903	1,655,983	56,134
Samsung Electronics Taiwan(SET)	1,857,017	1,540,478	781,966	(13,582)	1,648,452	(1,720)
Samsung Electronics HCMC CE Complex(SEHC)	1,814,566	1,572,982	484,607	38,951	598,776	38,787
Samsung Electronics Hungarian(SEH)	1,743,979	633,975	558,887	38,000	1,192,919	77,297
Samsung Electronics GmbH(SEG)	1,621,827	1,618,305	1,596,360	(8,624)	3,260,378	17,447
Samsung Display Dongguan(SDD)	1,584,504	518,511	1,284,168	53,275	2,561,987	78,156
Samsung Electronics (UK)(SEUK)	1,526,879	1,103,579	1,207,332	36,667	2,426,266	77,758

(C) Changes in scope for consolidation

(1) Subsidiaries excluded from the consolidation for the six months ended June 30, 2017:

Area	Subsidiary	Description
America	Samsung Receivables(SRC)	Liquidation
America	TowerSec	Merger <sup>1</sup>
Europe/CIS	Samsung Electronics Rus(SER)	Merger <sup>2</sup>
Europe/CIS	Samsung Electronics Ukraine(SEU)	Liquidation
Europe/CIS	AMX LLC (Russia)	Liquidation
Europe/CIS	Surfkitchen	Liquidation

<sup>1</sup> TowerSec merged into Harman International Industries, Inc., a subsidiary of the Company, in May 2017.

<sup>2</sup> Samsung Electronics Rus (SER) merged into Samsung R&D Institute Rus (SRR), a subsidiary of the Company, in January 2017.

(2) Subsidiaries newly included in the consolidation for the six months ended June 30, 2017:

Area	Subsidiary	Description
Domestic	Growth type private equity trust specialized in semiconductors	Incorporation
	Harman International Korea	Acquisition of shares
	Red Bend Software Korea	Acquisition of shares
America	Kngine	Acquisition of shares
	AMX Holding Corporation	Acquisition of shares
	AMX LLC	Acquisition of shares
	Harman Becker Automotive Systems	Acquisition of shares
	Harman Connected Services Engineering	Acquisition of shares
	Harman Connected Services Holding	Acquisition of shares
	Harman Connected Services	Acquisition of shares
	Harman Connected Services South America	Acquisition of shares
	Harman da Amazonia Industria Electronica e Participacoes	Acquisition of shares
	Harman de Mexico S. de R.L.	Acquisition of shares
	Harman do Brasil Industria Electronica e Participacoes.	Acquisition of shares
	Harman Financial Group	Acquisition of shares
	Harman International Industries Canada	Acquisition of shares
	Harman International Industries, Inc.	Acquisition of shares
	Harman International Mexico S de RL de CV	Acquisition of shares
	Harman Investment Group, LLC	Acquisition of shares
	Harman KG Holding, LLC	Acquisition of shares
	Harman Professional	Acquisition of shares
	Red Bend Software	Acquisition of shares
	SINN USA	Acquisition of shares
Southern Vision Systems	Acquisition of shares	
TowerSec	Acquisition of shares	
Triple Play Integration	Acquisition of shares	

Area	Subsidiary	Description
	AMX LLC (Russia)	Acquisition of shares
	Harman Connected Services OOO	Acquisition of shares
	Harman RUS CIS LLC	Acquisition of shares
	Aditi Technologies Europe	Acquisition of shares
	AKG Acoustics	Acquisition of shares
	AMX (Germany)	Acquisition of shares
	AMX UK	Acquisition of shares
	Duran Audio B.V.	Acquisition of shares
	Duran Audio Iberia Espana	Acquisition of shares
	Endeleo	Acquisition of shares
	Harman Automotive UK	Acquisition of shares
	Harman Becker Automotive Systems (Germany)	Acquisition of shares
	Harman Becker Automotive Systems Italy	Acquisition of shares
	Harman Becker Automotive Systems Manufacturing Kft	Acquisition of shares
	Harman Belgium	Acquisition of shares
	Harman Connected Services AB.	Acquisition of shares
	Harman Connected Services Finland OY	Acquisition of shares
	Harman Connected Services (Germany)	Acquisition of shares
	Harman Connected Services	Acquisition of shares
	Harman Connected Services Poland Sp.zoo	Acquisition of shares
	Harman Connected Services UK	Acquisition of shares
Europe/CIS	Harman Consumer Division Nordic A/S	Acquisition of shares
	Harman Consumer Finland OY	Acquisition of shares
	Harman Consumer Nederland B.V.	Acquisition of shares
	Harman Deutschland	Acquisition of shares
	Harman Finance International GP S.a.r.l	Acquisition of shares
	Harman Finance International SCA	Acquisition of shares
	Harman France SNC	Acquisition of shares
	Harman Holding & Co. KG	Acquisition of shares
	Harman Hungary Financing	Acquisition of shares
	Harman Inc. & Co. KG	Acquisition of shares
	Harman International Estonia OU	Acquisition of shares
	Harman International Industries (UK)	Acquisition of shares
	Harman International Romania SRL	Acquisition of shares
	Harman International s.r.o	Acquisition of shares
	Harman International SNC	Acquisition of shares
	Harman Management	Acquisition of shares
	Harman Professional Kft	Acquisition of shares
	Inspiration Matters	Acquisition of shares
	Knight Image	Acquisition of shares
	Martin Manufacturing (UK)	Acquisition of shares
	Harman Professional ApS (formerly Martin Professional ApS)	Acquisition of shares
	Harman Professional France SAS (formerly Martin Professional France)	Acquisition of shares



Area	Subsidiary	Description
Europe/CIS	Martin Professional GmbH	Acquisition of shares
	Martin Professional	Acquisition of shares
	R&D International	Acquisition of shares
	Red Bend Software (UK)	Acquisition of shares
	Red Bend Software SAS France	Acquisition of shares
	Samsung Electronics Air Conditioner Europe B.V.(SEACE)	Incorporation
	Studer Professional Audio	Acquisition of shares
	Surfkitchen	Acquisition of shares
Middle East and Africa	Broadsense	Acquisition of shares
	Global Symphony Technology Group	Acquisition of shares
	Harman Connected Services Morocco	Acquisition of shares
	Harman Industries Holdings Mauritius	Acquisition of shares
	iOnRoad	Acquisition of shares
	iOnRoad Technologies	Acquisition of shares
	Red Bend	Acquisition of shares
TowerSec (Israel)	Acquisition of shares	
Asia (Except China)	AMX Products and Solutions Private	Acquisition of shares
	Harman Connected Services India	Acquisition of shares
	Harman Connected Services Technologies	Acquisition of shares
	Harman International (India) Private	Acquisition of shares
	Harman International Industries PTY	Acquisition of shares
	Harman International Singapore	Acquisition of shares
	Harman Malaysia Sdn. Bhd.	Acquisition of shares
	Harman Professional Singapore Pte.	Acquisition of shares
	I.P.S.G. International Product Solution Group PTY.	Acquisition of shares
	INSP India Software Development Pvt.	Acquisition of shares
	Martin Professional Pte.	Acquisition of shares
	VFX Systems PTY	Acquisition of shares
	Harman Connected Services Japan	Acquisition of shares
	Harman International Japan	Acquisition of shares
Red Bend Software KK	Acquisition of shares	
Studer Japan	Acquisition of shares	
China	Harman (China) Technologies	Acquisition of shares
	Harman (Suzhou) Audio and Infotainment Systems	Acquisition of shares
	Harman Automotive Electronic Systems (Suzhou)	Acquisition of shares
	Harman Commercial (Shanghai)	Acquisition of shares
	Harman Connected Services Taiwan	Acquisition of shares
	Harman Holding	Acquisition of shares
	Harman International (China) Holdings	Acquisition of shares
	Harman Neusoft Automotive Infotech (Dalian) Co.	Acquisition of shares
	Harman Technology (Shenzhen)	Acquisition of shares
	Martin Trading Zhuhai	Acquisition of shares
	Harman Connected Services (Beijing) Solutions	Acquisition of shares
	Harman Connected Services (Chengdu) Solutions	Acquisition of shares

## 2. Summary of Significant Accounting Policies

### 2.1 Basis of Presentation

The interim consolidated financial statements for the six months ended June 30, 2017, have been prepared in accordance with Korean IFRS 1034, *Interim Financial Reporting*. These interim consolidated financial statements have been prepared in accordance with the K-IFRS standards and interpretations effective at the reporting date.

#### (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, 2017:

##### *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. There is no material impact of the application of this amendment on the consolidated financial statements.

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

New standards, amendments and interpretations issued but not effective for the annual period beginning on January 1, 2017, and not early adopted by the Company, are as follows:

##### *Korean IFRIC 2122, Foreign Currency Transaction and Advance Consideration*

According to these enactments, the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. If there are multiple payments or receipts in advance, the entity shall determine a date of the transaction for each payment or receipt of advance consideration. These enactments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Company does not expect the enactments to have a significant impact on the consolidated financial statements.

##### *Korean IFRS 1109, Financial Instruments*

The new standard for financial instruments issued on September 25, 2015 is effective for annual period 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 standard for the annual period 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 *Korean 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 2017 financial statements based on the current situation and available information as at June 30, 2017. 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 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
<b>Hold the financial asset for the collection of the contractual cash flows</b>	Measured at amortized cost <sup>1</sup>	
<b>Hold the financial asset for the collection of the contractual cash flows and trading</b>	Recognized at fair value through other comprehensive income <sup>1</sup>	Recognized at fair value through profit or loss <sup>2</sup>
<b>Hold for trading</b>	Recognized at fair value through profit or loss	

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

<sup>2</sup> 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 June 30, 2017, the Company owns loan and trade receivables amounting to ₩100,532,244 million, financial assets available-for-sale amounting to ₩11,264,559 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 asset 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 June 30, 2017, the Company measured loan and trade receivables amounting to ₩100,532,244 million held at amortized cost.

According to the results of our preliminary impact assessment, when applying *Korean IFRS 1109* to the financial assets as at June 30, 2017, 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 payment of the principal and interest on a due date, where the purpose of holding the debt investment is to collect contractual cash flows and trade. As at June 30, 2017, the Company has debt investments classified as available-for-sale financial assets amounting to ₩3,872,910 million.

According to the results of our preliminary impact assessment, when applying *Korean IFRS 1109* to the debt investments classified as available-for-sale as at June 30, 2017, 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 June 30, 2017, the Company's equity investments classified as available-for-sale financial assets amount to ₩7,391,649 million and the cumulative unrealized profit or loss on available-for-sale equity investments amounting to ₩10,617 million was recycled from equity to profit or loss as a reclassification adjustment for the six months ended June 30, 2017.

According to the preliminary impact assessment, the Company will designate long-term 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 June 30, 2017, the remaining cumulative profit or loss which is comprehensive income not subject to subsequent recycle from equity to profit or loss is ₩1,855,647 million.

According to *Korean IFRS 1109*, debt investments of which the contractual terms of cash flows are not solely representing payments of principal and interest or which are held for trading are classified as fair value through profit or loss. Equity investments not designated at fair value through comprehensive income are also measured at fair value through profit or loss. As at June 30, 2017, the Company did not have debt or equity investments classified as financial instruments at fair value through profit or loss.

## (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 June 30, 2017, total financial liabilities account for ₩48,023,639 million of which ₩423,162 million are designated to be 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 June 30, 2017 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 <sup>1</sup>	Loss allowance
1 No significant increase in credit risk after initial recognition <sup>2</sup>	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	

<sup>1</sup> 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 can elect 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 can also elect to measure the loss allowance at an amount equal to Lifetime expected credit losses for lease receivables.

<sup>2</sup> 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*, an 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.

The Company owns loan and trade receivables amounting to ₩101,159,792 million and debt investments classified as available-for-sale financial assets measured at fair value through other comprehensive income amounting to ₩3,872,910 million. The related loss allowance is ₩627,548 million as at June 30, 2017.

#### (d) Hedge Accounting

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

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

When the Company first applies *Korean IFRS 1109*, it may choose its accounting policy to continue to apply all of the hedge accounting requirements of *Korean IFRS 1039* instead of the requirements of *Korean IFRS 1109*.

The Company has performed a preliminary assessment based on the assumption that the Company will apply hedge accounting in accordance with *Korean IFRS 1109*, although the Company has not decided whether to elect to apply *Korean IFRS 1109* or *Korean IFRS 1039* when first adopting *Korean IFRS 1109*. The Company applies hedge accounting for risks of changes in cash flows from various transactions including inventory purchases. As most of the hedge transactions meet the retrospective qualification of high effectiveness (80~125%) for hedge accounting in accordance with *Korean IFRS 1039*, there would be no material impact of adopting *Korean IFRS 1109*.

### *Korean IFRS 1115, Revenue from Contracts with Customers*

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

The Company will apply *Korean IFRS 1115 Revenue from Contracts with Customers* for annual reporting periods beginning on or after January 1, 2018. Accumulated effects of the adoption of *Korean IFRS 1115* would be reflected in beginning retained earnings or other equity components, if applicable. Based on the transition rule in *Korean IFRS 1115*, the Company will apply the standard retrospectively to prior periods only for the ongoing contracts at the first adoption date, with no restatement for completed contracts.

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 contracts with customers can be recognized:

- Identify contracts with customers
- Identify the separate performance obligations
- 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.

In the course of preparing to apply *Korean IFRS 1115*, the Company has organized a task force team which consists of finance and IT personnel, if necessary, as at June 30, 2017. The Company is in the process of analyzing the financial impact of adopting *Korean IFRS 1115* and will disclose the results in the notes to the financial statements in 2017.

Based on the information available at the end of the reporting period, the Company performed a preliminary assessment of the potential impact on the financial statements for the financial year 2017 when applying *Korean IFRS 1115*, and the interim results of potential impact of adopting the standard are set out below. This preliminary analysis is subject to change as the Company considers additional information.

#### (a) Identification of performance obligations

The Company's IM (information technology & mobile communications) business consists of mobile phones, communication systems and computers. The Company manufactures, sells and installs network communication systems for customers. In 2017, the related revenue from such activities did not account for a large portion of total revenue. When applying *Korean IFRS 1115*, an integrated contract may include multiple performance obligations, such as (1) product sales, (2) installation service, and (3) maintenance, which includes technical support. The timing of revenue recognition may change depending on whether each performance obligation is fulfilled at a point in time or over a period of time.

The Company is in the process of analyzing the financial impact of separating performance obligations. However, based on the results of our preliminary assessment for the six months ended June 30, 2017, the impact on the Company's revenue will not be material.

(b) Variable consideration

As the Company allows returns when selling products and merchandise, contracts are subject to variable consideration. When applying Korean IFRS 1115, the Company plans to estimate the variable consideration using an expectation-value method that is expected to better anticipate the consideration to which the Company is entitled, and recognizes revenue by including variable consideration 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.

The Company is in the process of analyzing the financial impact of variable consideration. However, based on the results of our preliminary assessment for the six months ended June 30, 2017, the impact on the Company's revenue will not be material.

(c) Allocation 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 profit margin to the transactions.

The Company is in the process of analyzing the financial impact of allocating transaction prices based on relative individual selling prices. However, based on the results of our preliminary assessment for the six months ended June 30, 2017, the impact on the Company's revenue will not be material.

(d) Warranties

The Company provides a warranty over the period required by the Consumer Protection Law, in connection with the sale of a product. As a customer has an option to purchase an extended warranty, the extended warranty is a distinct service per Korean IFRS 1115.

The Company is in the process of analyzing the financial impact of separating the warranty obligation as the Company will account for the warranties as a separate performance obligation and allocate a portion of the transaction price to that performance obligation. However, based on the results of our preliminary assessment for the six months ended June 30, 2017, the impact on the Company's revenue will not be material.

(e) Licensing – a right to use

In certain contracts with customers, the Company grants patent licenses without the obligation to transfer other goods or services to the customer.

According to Korean IFRS 1115, a right to use license is a contract to use the Company's intellectual property as it exists at the point in time at which the license is granted, as the customer has the ability to direct the use of, and obtain substantially all of the remaining benefits from the asset at the time of transferring the license. The Company is in the process of analyzing the financial impact of the revenue recognition for licensing a right to use intellectual property. However, based on the results of our preliminary assessment for the six months ended June 30, 2017, the impact on the Company's revenue will not be material.



## **2.2 Accounting Policies**

Significant accounting policies and estimates adopted in the preparation of the interim consolidated financial statements are consistent with those adopted in the preparation of the annual consolidated financial statements for the year ended December 31, 2016, except changes in accounting policies applied in the financial year beginning on January 1, 2017 (Note 2.1) and as described below.

Income tax expense for the interim period is recognized based on management's best estimate of the weighted average annual effective income tax rate expected for the full financial year. The estimated average annual tax rate is applied to the pre-tax income.

## **2.3 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 US dollars at the rate of ₩1141.76 to US \$1, the average exchange rate for the six month period ended in June 30, 2017. 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 U.S. dollars at this or at any other rate.

## **2.4 Critical Accounting Estimates and Assumptions**

In preparing the interim consolidated financial statements, the management of the Company makes estimates and assumptions on matters which affect the application of policies and reported amounts of assets, liabilities, income and expenses. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates, by definition, seldom equal the related actual results.

Critical accounting estimates and assumptions made in the preparation of the interim consolidated financial statements are consistent with those made in the preparation of the annual consolidated financial statements for the year ended December 31, 2016, except for the estimation methodologies applied in deriving corporate income tax.

### 3. Financial Instruments by Category

Categorizations of financial assets and liabilities as at June 30, 2017 and December 31, 2016, are as follows:

(1) As at June 30, 2017

<i>(In millions of Korean won)</i>	<b>Assets at fair value through profit and loss</b>		<b>Loans and receivables</b>		<b>Available-for-sale financial assets</b>		<b>Other financial assets<sup>1</sup></b>		<b>Total</b>	
<b>Assets</b>										
Cash and cash equivalents	₩	-	₩	29,007,086	₩	-	₩	-	₩	29,007,086
Short-term financial instruments		-		37,796,229		-		-		37,796,229
Short-term available-for-sale financial assets		-		-		3,698,772		-		3,698,772
Trade receivables		-		27,585,923		-		-		27,585,923
Long-term available-for-sale financial assets		-		-		7,565,787		-		7,565,787
Others		58,332		6,143,006		-		80,231		6,281,569
<b>Total</b>	₩	58,332	₩	100,532,244	₩	11,264,559	₩	80,231	₩	111,935,366

<sup>1</sup> Other financial assets include derivatives designated as hedging instruments, which are not subject to categorizations.

<i>(In millions of Korean won)</i>	<b>Liabilities at fair value through profit and loss</b>		<b>Financial liabilities measured at amortized cost</b>		<b>Other financial liabilities<sup>1</sup></b>		<b>Total</b>		
<b>Liabilities</b>									
Trade payables		₩	-	₩	9,075,774	₩	-	₩	9,075,774
Short-term borrowings			-		1,605,723		12,161,417		13,767,140
Other payables			330,059		10,951,412		-		11,281,471
Current portion of long-term liabilities			-		26,585		-		26,585
Debentures			-		1,000,508		-		1,000,508
Long-term borrowings			-		1,917,571		-		1,917,571
Long-term other payables			-		1,613,911		-		1,613,911
Others			93,103		9,223,137		24,440		9,340,680
<b>Total</b>		₩	423,162	₩	35,414,621	₩	12,185,857	₩	48,023,640

<sup>1</sup> Other financial liabilities include collateralized borrowings and derivatives designated as hedging instruments, which are not subject to categorizations.

(2) As at December 31, 2016

<i>(In millions of Korean won)</i>	<b>Assets at fair value through profit or loss</b>		<b>Loans and receivables</b>	<b>Available-for-sale financial assets</b>		<b>Total</b>		
<b>Assets</b>								
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
Others		63,208		3,396,655		-		3,459,863
<b>Total</b>	₩	63,208	₩	112,219,719	₩	10,442,736	₩	122,725,663

<i>(In millions of Korean won)</i>	<b>Liabilities at fair value through profit and loss</b>		<b>Financial liabilities measured at amortized cost</b>	<b>Other financial liabilities<sup>1</sup></b>		<b>Total</b>		
<b>Liabilities</b>								
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
Others		74,697		11,867,772		-		11,942,469
<b>Total</b>	₩	417,399	₩	35,597,657	₩	10,929,768	₩	46,944,824

<sup>1</sup> Other financial liabilities include collateralized borrowings, which are not subject to categorizations.

#### 4. Long-Term Available-for-Sale Financial Assets

(A) Details of long-term available-for-sale financial assets as at June 30, 2017 and December 31, 2016, are as follows:

<i>(In millions of Korean won)</i>	<b>June 30, 2017</b>		<b>December 31, 2016</b>	
Equity securities - Listed	₩	2,711,346	₩	2,362,235
Equity securities - Non-listed		4,680,303		4,337,328
Debt securities <sup>1</sup>		174,138		104,713
<b>Total</b>	₩	<b>7,565,787</b>	₩	<b>6,804,276</b>

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

(B) Details of listed equity securities as at June 30, 2017 and December 31, 2016, are as follows:

<i>(In millions of Korean won, number of shares and percentage)</i>	<b>June 30, 2017</b>			<b>December 31, 2016</b>	
	<b>Number of Shares Owned</b>	<b>Percentage of Ownership (%)</b>	<b>Acquisition Cost</b>	<b>Book Amount (Market Value)</b>	<b>Book Amount (Market Value)</b>
Samsung Heavy Industries	65,930,982	16.9	473,727	820,841	609,862
Hotel Shilla	2,004,717	5.1	13,957	114,469	96,527
iMarket Korea	647,320	1.8	324	8,804	6,732
SFA <sup>1</sup>	3,644,000	10.2	38,262	163,798	117,519
Wonik Holdings	3,518,342	4.6	30,821	29,378	23,714
Wonik IPS	3,701,872	9.0	32,428	109,761	96,989
ASML	6,297,787	1.5	363,012	937,018	851,395
Wacom	8,398,400	4.9	62,013	30,768	26,647
BYD	52,264,808	1.9	528,665	438,037	449,872
Others			53,632	58,472	82,978
<b>Total</b>			₩ 1,596,841	₩ 2,711,346	₩ 2,362,235

<sup>1</sup> As SFA executed a capital increase without consideration, the Company's number of SFA shares owned increased.

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).

## 5. Inventories

Inventories as at June 30, 2017 and December 31, 2016, are as follows:

<i>(In millions of Korean won)</i>	June 30, 2017			December 31, 2016		
	Gross Amount	Valuation Allowance <sup>1</sup>	Book Amount	Gross Amount	Valuation Allowance <sup>1</sup>	Book Amount
Finished goods	₩ 8,608,363	₩ (1,771,251)	₩ 6,837,112	₩ 7,982,850	₩ (2,077,511)	₩ 5,905,339
Work in process	6,218,971	(365,216)	5,853,755	5,334,607	(317,223)	5,017,384
Raw materials and supplies	10,552,843	(1,076,303)	9,476,540	7,526,608	(1,032,442)	6,494,166
Materials in transit	853,505	-	853,505	936,614	-	936,614
Total	₩26,233,682	₩ (3,212,770)	₩23,020,912	₩21,780,679	₩ (3,427,176)	₩18,353,503

<sup>1</sup> Inventories for which the Company has suspended sales or production, are evaluated based on net realizable value. Valuation allowance is recorded if the net realizable value is less than the book amount.

## 6. Investments in Associates and Joint Ventures

(A) Changes in investments in associates and joint ventures for the six months ended June 30, 2017 and 2016, are as follows:

<i>(In millions of Korean won)</i>	June 30, 2017	June 30, 2016
Balance as at January 1	₩ 5,837,884	₩ 5,276,348
Acquisition	12,850	24,104
Disposal <sup>1</sup>	(52,204)	(1,341,108)
Share of profit	41,691	13,423
Others <sup>2</sup>	(25,341)	(30,242)
Balance as at June 30	₩ 5,814,880	₩ 3,942,525

<sup>1</sup> The Company sold its entire stake in Samsung Card for the six months ended June 30, 2016.

<sup>2</sup> Others consist of dividends, impairment and reclassification.

(B) Major investments in associates and joint ventures as at June 30, 2017, are as follows:

(1) Investments in associates

Investee	Nature of Relationship with Associate	Percentage of Ownership <sup>1</sup> (%)	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 <sup>2</sup>	Manufacture and supply electronics including secondary cell batteries	19.6	Korea
Cheil Worldwide	Advertising agency	25.2	Korea

<sup>1</sup> Ownership represents the Company's ownership of ordinary shares issued in each entity.

<sup>2</sup> The Company's ownership of ordinary shares outstanding is 20.6%.

## (2) Investments in joint ventures

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

<sup>1</sup> Ownership represents the Company's ownership ordinary shares issued in each entity.

(C) Details of investments in associates and joint ventures as at June 30, 2017 and December 31, 2016, are as follows:

## (1) Investments in associates

(In millions of Korean won)

Investee	June 30, 2017				
	Acquisition cost		Net asset value of equity shares <sup>1</sup>		Book amount
Samsung Electro-Mechanics	₩	359,237	₩	1,009,144	₩ 1,007,092
Samsung SDS		147,963		1,189,910	1,215,082
Samsung Biologics		443,193		1,266,861	1,270,506
Samsung SDI		1,242,605		2,200,272	1,214,594
Cheil Worldwide		506,162		222,197	520,977
Other		593,814		194,956	355,034
<b>Total</b>	₩	3,292,974	₩	6,083,340	₩ 5,583,285

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

(In millions of Korean won)

Investee	December 31, 2016				
	Acquisition cost		Net asset value of equity shares <sup>1</sup>		Book amount
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
<b>Total</b>	₩	3,341,696	₩	5,946,525	₩ 5,613,385

<sup>1</sup> 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)

Investee	June 30, 2017				
	Acquisition cost		Net asset value of equity shares <sup>1</sup>		Book amount
Samsung Corning Advanced Glass	₩	215,000	₩	169,300	₩ 169,275
Others		259,994		65,558	62,320
<b>Total</b>	₩	474,994	₩	234,858	₩ 231,595

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

(In millions of Korean won)

December 31, 2016

Investee	Acquisition cost		Net asset value of equity shares <sup>1</sup>		Book amount	
Samsung Corning Advanced Glass	₩	215,000	₩	169,521	₩	169,485
Others		259,977		59,342		55,014
<b>Total</b>	₩	474,977	₩	228,863	₩	224,499

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

(D) Details of the valuation of investments in associates and joint ventures under the equity method, are as follows:

(1) For the six months ended June 30, 2017

(In millions of Korean won)	Balance as at January 1		Gain/loss on valuation		Other comprehensive income/loss		Others <sup>1</sup>		Balance as at June 30	
Samsung Electro-Mechanics	₩	997,022	₩	1,122	₩	17,795	₩	(8,847)	₩	1,007,092
Samsung SDS		1,185,703		52,078		(9,596)		(13,103)		1,215,082
Samsung Biologics		1,289,351		(17,419)		(1,425)		(1)		1,270,506
Samsung SDI		1,232,986		(18,236)		13,306		(13,462)		1,214,594
Cheil Worldwide		517,885		14,474		(2,671)		(8,711)		520,977
Samsung Corning Advanced Glass		169,485		(210)		-		-		169,275
Others		445,452		9,882		(3,320)		(34,660)		417,354
<b>Total</b>	₩	5,837,884	₩	41,691	₩	14,089	₩	(78,784)	₩	5,814,880

<sup>1</sup> Others consist of acquisitions, disposals, dividends, impairment and reclassification.

(2) For the six months ended June 30, 2016

(In millions of Korean won)	Balance as at January 1		Gain/loss on valuation		Other comprehensive income/loss		Others <sup>1</sup>		Balance as at June 30	
Samsung Card	₩	1,338,679	₩	-	₩	-	₩	(1,338,679)	₩	-
Samsung Electro-Mechanics		994,489		4,884		(22,085)		(8,846)		968,442
Samsung SDS		1,060,396		56,852		(2,960)		(8,737)		1,105,551
Samsung Biologics		1,310,202		(27,817)		(252)		12,682		1,294,815
Samsung Corning Advanced Glass		188,371		(10,317)		-		-		178,054
Others		384,211		(10,179)		3,553		18,078		395,663
<b>Total</b>	₩	5,276,348	₩	13,423	₩	(21,744)	₩	(1,325,502)	₩	3,942,525

<sup>1</sup> Others consist of acquisitions, disposals, dividends, impairment and reclassification.

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

(1) A summary of condensed financial information of major associates and dividends received from associates as at June 30, 2017 and December 31, 2016, and for the six months ended June 30, 2017 and 2016, is as follows:

(In millions of Korean won)

Investee	2017				
	Samsung Electro-Mechanics	Samsung SDS	Samsung Biologics	Samsung SDI	Cheil Worldwide
<b>1. Condensed financial information</b>					
<b>Condensed statements of financial position:</b>					
Current assets	₩ 2,789,832	₩ 4,903,641	₩ 685,968	₩ 3,490,835	₩ 1,732,094
Non-current assets	5,262,562	2,177,788	6,429,076	11,753,252	291,774
Current liabilities	2,819,341	1,401,512	2,199,634	2,353,420	1,184,509
Non-current liabilities	825,299	257,200	892,635	1,732,101	55,412
Non-controlling interests	93,947	152,965	-	229,976	8,291
<b>Condensed statements of comprehensive income:</b>					
Revenue	₩ 3,280,346	₩ 4,523,661	₩ 170,865	₩ 2,759,090	₩ 1,499,685
Profit(Loss) from continuing operations <sup>1</sup>	35,537	229,566	(55,172)	273,935	54,388
Other comprehensive income (loss) <sup>1</sup>	76,067	(42,496)	(4,432)	93,755	(8,209)
Total comprehensive income (loss) <sup>1</sup>	111,604	187,070	(59,604)	367,690	46,179
<b>2. Dividends from associates</b>					
Dividends	₩ 8,847	₩ 13,104	₩ -	₩ 13,463	₩ 8,711

<sup>1</sup> Income (Loss) attributable to owners of the parent.

(In millions of Korean won)

Investee	2016				
	Samsung Electro-Mechanics	Samsung SDS	Samsung Biologics	Samsung SDI	Cheil Worldwide
<b>1. Condensed financial information</b>					
<b>Condensed statements of financial position:</b>					
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
<b>Condensed statements of comprehensive income:</b>					
Revenue	₩ 3,220,720	₩ 3,797,127	₩ 136,289	₩ -	₩ -
Profit(Loss) from continuing operations <sup>1</sup>	47,790	250,067	(75,401)	-	-
Other comprehensive income (loss) <sup>1</sup>	(94,408)	(13,111)	(2,888)	-	-
Total comprehensive income (loss) <sup>1</sup>	(46,618)	236,956	(78,289)	-	-
<b>2. Dividends from associates</b>					
Dividends	₩ 8,847	₩ 8,736	₩ -	₩ -	₩ -

<sup>1</sup> Income (Loss) attributable to owners of the parent



(2) A summary of the condensed financial information of major joint ventures and dividends received from joint ventures as at June 30, 2017 and December 31, 2016, and for the six months ended June 30, 2017 and 2016, is as follows:

<i>(In millions of Korean won)</i>	<b>Samsung Corning Advanced Glass</b>			
	<b>2017</b>		<b>2016</b>	
<b>1. Condensed financial information</b>				
<b>Condensed statements of financial position:</b>				
Current assets	₩	147,027	₩	170,614
- Cash and cash equivalent		15,645		16,021
Non-current assets		228,742		209,881
Current liabilities		36,252		41,076
- Current financial liabilities <sup>1</sup>		18,652		14,779
Non-current liabilities		916		377
<b>Condensed statements of comprehensive income<sup>2</sup>:</b>				
Revenue	₩	122,873	₩	131,501
Depreciation and amortization		709		864
Interest income		413		571
Income tax expense		(462)		(952)
Net loss from continuing operations <sup>3</sup>		(441)		(9,266)
Other comprehensive income (loss) <sup>3</sup>		-		47
Total comprehensive loss <sup>3</sup>		(441)		(9,219)
<b>2. Dividends from joint ventures</b>				
Dividends	₩	-	₩	-

<sup>1</sup> Trade payables, other payables, and provisions are excluded.

<sup>2</sup> Amounts relate to the six months ended June 30, 2017 and 2016.

<sup>3</sup> Profit (Loss) attributable to owners of the parent.

(3) Profit (loss) amounts attributable to owners of the parent from associates and joint ventures which are not individually material for the six months ended June 30, 2017 and 2016, are as follows:

<i>(In millions of Korean won)</i>	<b>2017</b>				<b>2016</b>			
	<b>Investee</b>	<b>Associates</b>	<b>Joint ventures</b>		<b>Associates</b>	<b>Joint ventures</b>		
Income (loss) from continuing operations <sup>1</sup>	₩	4,556	₩	5,326	₩	(12,002)	₩	1,822
Other comprehensive income (loss) <sup>1</sup>		(5,784)		2,464		1,476		6,987
Total comprehensive income (loss) <sup>1</sup>	₩	(1,228)	₩	7,790	₩	(10,526)	₩	8,809

<sup>1</sup> Income (Loss) attributable to owners of the parent.

(F) Fair value of marketable investments in associates as at June 30, 2017 and December 31, 2016, is as follows:

<i>(In millions of Korean won and number of shares)</i>	<b>June 30, 2017</b>		<b>December 31, 2016</b>		
	<b>Number of shares held</b>	<b>Market value</b>	<b>Market value</b>		
Samsung Electro-Mechanics	17,693,084	₩	1,804,695	₩	898,809
Samsung SDS	17,472,110		3,223,604		2,437,359
Samsung Biologics	20,836,832		6,084,355		3,146,362
Samsung SDI	13,462,673		2,308,848		1,467,431
Cheil Worldwide	29,038,075		534,301		457,350

## 7. Property, Plant and Equipment

(A) Changes in property, plant and equipment for the six months ended June 30, 2017 and 2016, are as follows:

<i>(In millions of Korean won)</i>	<b>2017</b>		<b>2016</b>	
Balance as at January 1	₩	91,473,041	₩	86,477,110
Acquisition and capital expenditures		22,493,100		8,751,936
Business combinations <sup>1</sup>		858,796		6,079
Depreciation		(9,615,760)		(9,951,595)
Disposals/scrap/impairment		(92,372)		(71,131)
Other <sup>2</sup>		(1,421,565)		(577,436)
Balance as at June 30	₩	103,695,240	₩	84,634,963

<sup>1</sup> Samsung Electronics America, the Company's subsidiary, acquired 100% of the equity shares of Harman International Industries and its subsidiaries (Refer to Note 27).

<sup>2</sup> 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 six months ended June 30, 2017 and 2016, are as follows:

<i>(In millions of Korean won)</i>	<b>2017</b>		<b>2016</b>	
Cost of sales	₩	8,557,135	₩	8,980,250
Selling and administrative expenses and others		1,058,625		971,345
<b>Total</b>	₩	9,615,760	₩	9,951,595

## 8. Intangible Assets

(A) Changes in intangible assets for the six months ended June 30, 2017 and 2016, are as follows:

<i>(In millions of Korean won)</i>	<b>2017</b>		<b>2016</b>	
Balance as at January 1	₩	5,344,020	₩	5,396,311
Internally generated (development costs)		195,911		442,062
External acquisitions		214,847		175,411
Business combinations <sup>1</sup>		10,013,241		192,022
Amortization		(771,910)		(686,242)
Disposals/scrap/impairment		(4,548)		(380,109)
Other <sup>2</sup>		229,747		108,342
<b>Balance as at June 30</b>	<b>₩</b>	<b>15,221,308</b>	<b>₩</b>	<b>5,247,797</b>

<sup>1</sup> Samsung Electronics America, the Company's subsidiary, acquired 100% of the equity shares of Harman International Industries and its subsidiaries (Refer to Note 27).

<sup>2</sup> Other includes effects of changes in foreign currency exchange rates and others.

(B) Details of amortization of intangible assets for the six months ended June 30, 2017 and 2016, are as follows:

<i>(In millions of Korean won)</i>	<b>2017</b>		<b>2016</b>	
Cost of sales	₩	479,912	₩	465,770
Selling and administrative expenses and others		291,998		220,472
<b>Total</b>	<b>₩</b>	<b>771,910</b>	<b>₩</b>	<b>686,242</b>

## 9. Borrowings

Details of the carrying amounts of borrowings as at June 30, 2017 and December 31, 2016 are as follows:

<i>(In millions of Korean won)</i>	<b>Financial Institutions</b>	<b>Annual Interest Rates (%) as at June 30, 2017</b>	<b>June 30, 2017</b>	<b>December 31, 2016</b>
<b>Short-term borrowings</b>				
Collateralized borrowings <sup>1</sup>	Woori Bank and others	0.1 ~ 10.0	₩ 12,161,417	₩ 10,929,768
Non-collateralized borrowings	Citibank and others	0.3 ~ 17.2	1,605,723	1,817,021
<b>Total</b>			₩ 13,767,140	₩ 12,746,789
<b>Current portion of long-term borrowings</b>				
Bank borrowings	-	-	-	₩ 684
Financial lease liabilities <sup>2</sup>	CSSD and others	1.1 ~ 15.7	21,052	18,599
<b>Total</b>			₩ 21,052	₩ 19,283
<b>Long-term borrowings</b>				
Bank borrowings	Citibank and others	LIBOR+0.4 ~ 19.8	₩ 1,852,540	₩ 1,179,111
Financial lease liabilities <sup>2</sup>	CSSD and others	1.1 ~ 15.7	65,031	65,127
<b>Total</b>			₩ 1,917,571	₩ 1,244,238

<sup>1</sup> Collateralized borrowings are secured by trade receivables.

<sup>2</sup> Leased property, plant and equipment were pledged as collateral.

## 10. Debentures

Details of foreign currency denominated debentures as at June 30, 2017 and December 31, 2016 are as follows:

<i>(In millions of Korean Won)</i>	<b>Issue Date</b>	<b>Due Date</b>	<b>Annual Interest Rates (%) as of June 30, 2017</b>	<b>June 30, 2017</b>	<b>December 31, 2016</b>
US dollar denominated straight bonds <sup>1</sup>	1997.10.2	2027.10.1	7.7	₩ 62,678 (US\$55 million)	₩ 66,468 (US\$55 million)
US dollar denominated unsecured bonds <sup>2</sup>	2012.4.10	2017.4.10	-	-	1,208,500 (US\$1,000 million)
US dollar denominated debenture bonds <sup>3</sup>	2015.5.6	2025.5.15	4.2	455,840 (US\$400 million)	-
EURO denominated debenture bonds <sup>4</sup>	2015.5.20	2022.5.27	2.0	456,398 (EUR€350 million)	-
Less: Current Portion				(5,698)	(1,214,543)
Less: Discounts				(1,642)	(1,883)
More: Premium				32,932	-
<b>Total</b>				₩ 1,000,508	₩ 58,542

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

<sup>2</sup> Samsung Electronics America issued dollar denominated unsecured bonds. The amount was repaid during 2017.

<sup>3</sup> Harman International Industries issued dollar denominated debenture bonds. Repayment of these debentures is due on the date of maturity and interest is paid semi-annually.

<sup>4</sup> Harman Finance International SCA issued euro denominated debenture bonds. Repayment of these debentures is due on the date of maturity and interest is paid annually.

## 11. Net Defined Benefit Liabilities (Assets)

(A) Details of net defined benefit liabilities (assets) recognized on the statements of financial position as at June 30, 2017 and December 31, 2016 are as follows:

<i>(In millions of Korean won)</i>	<b>June 30, 2017</b>		<b>December 31, 2016</b>	
Present value of funded defined benefit obligations	₩	7,426,399	₩	7,167,929
Present value of unfunded defined benefit obligations		418,985		110,885
Subtotal		7,845,384		7,278,814
Fair value of plan assets		(7,606,960)		(7,662,249)
Total	₩	238,424	₩	(383,435)

(B) The amounts recognized in the statements of profit or loss for the six months ended June 30, 2017 and 2016 relating to defined benefit plans are as follows:

<i>(In millions of Korean won)</i>	<b>2017</b>		<b>2016</b>	
Current service cost	₩	443,381	₩	540,179
Net interest cost(income)		(7,051)		5,520
Others		2,350		(3,833)
Total	₩	438,680	₩	541,866

(C) The pension expenses related to defined benefit plans by line item recognized on the statements of profit or loss for the six months ended June 30, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	<b>2017</b>		<b>2016</b>	
Cost of sales	₩	174,795	₩	236,986
Selling and administrative expenses and others		263,885		304,880
Total	₩	438,680	₩	541,866

## 12. Provisions

Changes in the provisions for the six months ended June 30, 2017 are as follows:

<i>(In millions of Korean won)</i>	<b>Warranty (A)</b>	<b>Royalty expenses (B)</b>	<b>Long-term incentives (C)</b>	<b>Bonus (D)</b>	<b>Others (E, F)</b>	<b>Total</b>
Balance as at January 1	₩ 1,747,857	₩ 1,588,037	₩ 716,252	₩ -	₩ 903,397	₩ 4,955,543
Charged (credited) to the statement of income	1,077,525	287,640	353,297	2,212,270	85,711	4,016,443
Payment	(1,003,186)	(8,635)	(504,018)	(45,447)	(660,422)	(2,221,708)
Others <sup>1</sup>	236,127	(50,909)	2,028	43,795	(4,435)	226,606
Balance as at June 30	₩ 2,058,323	₩ 1,816,133	₩ 567,559	₩ 2,210,618	₩ 324,251	₩ 6,976,884

<sup>1</sup> Other includes effects of changes in foreign currency exchange rates, business combination, 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 of payment depends on the settlement of the negotiation.
- (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 provides bonuses for its executives and employees, which are determined based on current-period performance. The estimated bonus cost for the accrued period has been recognized as a provision.
- (E) The Company records provisions for the estimated expenses occurring from discontinuing production and sale of products.
- (F) The Company makes provisions for the carrying amounts of emission rights held by the Company and the emission in excess of the emission rights for the applicable years. Details of emission rights and liabilities as at June 30, 2017 are as follows:

(1) Allocated amount of emission permits and estimated amount of emission as at June 30, 2017 are as follows:

<i>(In ten thousand metric tons)</i>	<b>2017</b>
Allocated emission permits	1,137
Estimated volume of emission	1,260

(2) Changes in the emission permits rights for the six months ended June 30, 2017 are as follows:

<i>(In millions of Korean won)</i>	<b>2017</b>
Balance as at January 1	₩ 15,067
Acquisition	5,626
Disposal	(5,934)
Balance as at June 30	₩ 14,759

(3) Changes in the provisions for emissions liabilities for the six months ended June 30, 2017 are as follows:

<i>(In millions of Korean won)</i>	<b>2017</b>
Balance as at January 1	₩ 12,692
Charged to the statement of profit of loss	5,367
Balance as at June 30	₩ 18,059

### 13. Commitments and Contingencies

#### (A) Guarantees

Details of guarantees of debt provided by the Company as at June 30, 2017 and December 31, 2016 are as follows:

<i>(In millions of Korean won)</i>	<b>June 30, 2017</b>		<b>December 31, 2016</b>	
Guarantees of debt for housing rental <sup>1</sup>	₩	52,507	₩	56,752

<sup>1</sup> 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 by Medicapital from Dime Investment and other companies in the amount of ₩ 2,264 million.

## (B) 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 8, 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. On February 26, 2016, a panel of appellate court reversed the first trial judgment of November 25, 2014 and ruled that the Company had not infringed Apple’s some patents and its remaining patents were invalid. On March 30, 2016, Apple filed a petition for an en banc rehearing about the rulings of the panel. On October 7, 2016, the en banc appellate court reversed the panel rulings, affirming the first trial judgment that the Company had infringed Apple’s patent. On March 10, 2017, the Company appealed to the Supreme Court against the rulings of the en banc appellate Court. 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.

(C) Other commitments

Samsung Display 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 June 30, 2017.

#### 14. Share Capital

The Company's total number of authorized shares is 500,000,000 shares (₩5,000 per share). The Company has issued 130,668,494 shares of ordinary shares and 18,643,580 shares of preference shares as at June 30, 2017, excluding retired shares. Due to the retirement of shares, the total par value of the shares issued is ₩746,560 million (ordinary shares ₩653,342 million and preference shares ₩93,218 million), which does not agree with paid-in capital of ₩897,514 million.

#### 15. Retained Earnings

(A) Retained earnings as at June 30, 2017 and December 31, 2016 consist of:

<i>(In millions of Korean won)</i>	<b>June 30, 2017</b>	<b>December 31, 2016</b>
Appropriated	₩ 139,286,062	₩ 143,007,192
Unappropriated	59,937,897	50,079,125
<b>Total</b>	<b>₩ 199,223,959</b>	<b>₩ 193,086,317</b>

(B) On April 27, 2017, and July 27, 2017, the Company declared cash dividends to shareholders of ordinary shares and preference shares as quarterly dividends for the three months ended March 31, 2017, and June 30, 2017.

Details of interim dividends for the six months ended June 30, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>		<b>2017</b>		<b>2016</b>		
1 <sup>st</sup> quarter	Number of shares eligible for dividends	Ordinary shares	121,840,851	-		
		Preferred shares	17,069,534	-		
	Dividend rate (based on par value)	140%		-		
	Dividend amount	Ordinary shares	₩	852,886	-	
Preferred shares				-		
Total		₩	972,373	-		
2 <sup>nd</sup> quarter	Number of shares eligible for dividends	Ordinary shares	121,038,051	123,958,561		
		Preferred shares	16,868,834	17,580,920		
	Dividend rate (based on par value)	140%		20%		
	Dividend amount	Ordinary shares	₩	847,266	₩	123,958
		Preferred shares			17,581	
		Total	₩	965,348	₩	141,539

## 16. Other Components of Equity

(A) Other components of equity as at June 30, 2017 and December 31, 2016 consist of:

<i>(In millions of Korean won)</i>	<b>June 30, 2017</b>		<b>December 31, 2016</b>	
Treasury stock	₩	(6,636,450)	₩	(9,750,326)
Unrealized gains on available-for-sale financial assets	1,855,647		1,390,624	
Share of other comprehensive income of associates and joint ventures	108,703		94,694	
Foreign currency translation	(5,332,390)		(2,902,076)	
Remeasurements of net defined benefit liabilities (assets)	(865,638)		(811,529)	
Others	(325)		44,027	
<b>Total</b>	₩	(10,870,453)	₩	(11,934,586)

(B) The Company repurchases registered ordinary shares and non-voting preference shares 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 June 30, 2017 and December 31, 2016 consists of the following:

<i>(In millions of Korean won and number of shares)</i>	<b>June 30, 2017</b>		<b>December 31, 2016</b>	
	<b>Ordinary Shares</b>	<b>Preference Shares</b>	<b>Ordinary Shares</b>	<b>Preference Shares</b>
Number of shares	9,630,443	1,774,746	17,981,686	3,229,693
Acquisition cost	₩ 5,907,485	₩ 728,965	₩ 8,871,509	₩ 878,817

## 17. Expenses by Nature

Expenses by nature for the three and six months ended June 30, 2017 and 2016 consist of the following:

<i>(In millions of Korean won)</i>	June 30, 2017		June 30, 2016	
	3 Months	6 Months	3 Months	6 Months
Changes in finished goods and work in process	₩ (756,111)	₩ (1,768,144)	₩ 544,893	₩ 430,461
Raw materials used and merchandise purchased and others	20,330,238	37,397,849	17,826,020	36,692,950
Wages and salaries	5,681,627	10,778,379	4,765,275	9,640,094
Pension	240,312	477,096	297,731	590,094
Depreciation	4,846,261	9,615,760	4,830,220	9,951,595
Amortization	399,951	771,910	339,298	686,242
Welfare	1,016,407	1,948,925	924,426	1,836,056
Commission and service charges	1,916,215	3,759,921	2,099,558	4,296,835
Other expenses	13,259,090	24,601,459	11,165,749	21,775,283
<b>Total<sup>1</sup></b>	₩ 46,933,990	₩ 87,583,155	₩ 42,793,170	₩ 85,899,610

<sup>1</sup> Equal to the sum of cost of sales and selling and administrative expenses on the interim consolidated statements of income.

## 18. Selling and Administrative Expenses

Selling and administrative expenses for the three and six months ended June 30, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2017		June 30, 2016	
	3 Months	6 Months	3 Months	6 Months
<b>1) Selling and administrative expenses</b>				
Wages and salaries	₩ 1,799,454	₩ 3,387,757	₩ 1,371,882	₩ 2,836,904
Pension	63,293	126,100	72,452	138,932
Commission and service charges	1,916,215	3,759,921	2,099,558	4,296,835
Depreciation	239,275	450,308	195,531	388,951
Amortization	107,795	175,284	54,245	112,585
Advertising	1,543,615	2,362,493	1,190,427	2,312,595
Sales promotion	1,816,476	3,190,681	1,719,811	3,380,323
Transportation	944,229	1,729,873	832,437	1,587,331
Warranty	714,822	1,566,925	792,637	1,557,509
Others	1,418,582	2,538,030	1,356,371	2,239,451
<b>2) Research and development expenses</b>				
Total expenses	4,077,480	7,936,268	3,695,571	7,507,280
Capitalized expenses	(107,075)	(195,911)	(196,870)	(442,062)
<b>Total</b>	₩ 14,534,161	₩ 27,027,729	₩ 13,184,052	₩ 25,916,634

## 19. Other Non-Operating Income and Expense

Details of other non-operating income for the three and six months ended June 30, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2017		June 30, 2016	
	3 Months	6 Months	3 Months	6 Months
<b>Non-operating income</b>				
Dividend income	₩ 41,467	₩ 73,400	₩ 57,788	₩ 181,871
Rental income	34,713	68,078	23,104	46,496
Gain on disposal of investments	40,049	114,497	28,346	387,299
Gain on disposal of property, plant and equipment	21,743	37,358	27,341	43,462
Gain on disposal of assets classified as held-for-sale	-	-	-	69,924
Others	206,243	367,305	139,145	249,265
<b>Total</b>	₩ 344,215	₩ 660,638	₩ 275,724	₩ 978,317

Details of other non-operating expense for the three and six months ended June 30, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2017		June 30, 2016	
	3 Months	6 Months	3 Months	6 Months
<b>Non-operating expense</b>				
Loss on disposal of property, plant and equipment	₩ 27,775	₩ 65,060	₩ 31,929	₩ 45,000
Donations	112,460	139,714	43,224	175,393
Impairment losses on intangible assets	97	97	298,281	355,365
Others	83,073	295,768	142,019	278,331
<b>Total</b>	₩ 223,405	₩ 500,639	₩ 515,453	₩ 854,089

## 20. Financial Income and Costs

(A) Details of financial income and costs for the three and six months ended June 30, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2017		June 30, 2016	
	3 Months	6 Months	3 Months	6 Months
<b>Financial income</b>				
Interest income:	₩ 361,125	₩ 761,731	₩ 331,749	₩ 724,730
Interest income from loans and receivables	360,964	761,093	322,286	696,791
Interest income from available-for-sale financial assets	161	638	9,463	27,939
Foreign exchange differences	1,230,068	2,715,125	1,452,304	3,881,744
Gains from derivatives	135,981	347,470	202,010	459,518
<b>Total</b>	₩ 1,727,174	₩ 3,824,326	₩ 1,986,063	₩ 5,065,992

<i>(In millions of Korean won)</i>	June 30, 2017		June 30, 2016	
	3 Months	6 Months	3 Months	6 Months
<b>Financial costs</b>				
Interest expense:	₩ 160,816	₩ 309,206	₩ 117,922	₩ 284,403
Interest expense from financial liabilities measured at amortized cost	85,407	175,705	62,041	175,631
Other financial liabilities	75,409	133,501	55,881	108,772
Foreign exchange differences	1,185,693	2,678,217	1,519,523	4,078,150
Losses from derivatives	178,110	426,660	185,156	466,408
<b>Total</b>	₩ 1,524,619	₩ 3,414,083	₩ 1,822,601	₩ 4,828,961

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

## 21. Income Tax Expense

Income tax expense is recognized based on management's best estimate of the weighted average annual effective income tax rate expected for the full financial year. The average annual tax rate expected as at June 30, 2017 to be effective for the year ended December 31, 2017 is 23.8%.

## 22. Earnings per Share

### (A) Basic earnings per share

Basic earnings per share for the three and six months ended June 30, 2017 and 2016 are calculated as follows:

#### (1) Common stock

<i>(In millions of Korean won and thousands of shares, except per share data)</i>	June 30, 2017		June 30, 2016	
	3 Months	6 Months	3 Months	6 Months
Profit attributable to owners of the Parent company	₩ 10,799,942	₩ 18,288,474	₩ 5,826,178	₩ 11,089,684
Profit available for common stock	9,478,704	16,050,504	5,102,304	9,711,826
Weighted-average number of common shares outstanding	121,494	121,951	124,739	125,693
Basic earnings per share (in Korean won)	₩ 78,018	₩ 131,615	₩ 40,904	₩ 77,266

#### (2) Preferred stock

<i>(In millions of Korean won and thousands of shares, except per share data)</i>	June 30, 2017		June 30, 2016	
	3 Months	6 Months	3 Months	6 Months
Profit attributable to owners of the Parent company	₩ 10,799,942	₩ 18,288,474	₩ 5,826,178	₩ 11,089,684
Profit available for preferred stock	1,321,238	2,237,970	723,874	1,377,858
Weighted-average number of preferred shares outstanding	16,983	17,097	17,773	18,016
Basic earnings per preferred share (in Korean won)	₩ 77,798	₩ 130,898	₩ 40,728	₩ 76,479

### (B) Diluted earnings per share

The Company does not have potential ordinary shares and as a result, basic earnings per share and diluted earnings per share are the same for the three and six months ended June 30, 2017 and 2016.

### 23. Cash Generated from Operation

Adjustments and changes in assets and liabilities arising from operating activities for the six months ended June 30, 2017 and 2016 are as follows:

- Adjustments

<i>(In millions of Korean won)</i>	<b>2017</b>	<b>2016</b>
Adjustments for:		
Income tax expense	₩ 5,838,636	₩ 4,094,248
Finance income	(1,834,235)	(1,707,389)
Finance costs	1,242,698	1,440,314
Severance and retirement benefits	477,096	590,094
Depreciation	9,615,760	9,951,595
Amortization	771,910	686,242
Bad debt expenses	394,482	364,587
Gain on valuation of equity method	(41,691)	(13,423)
Gain on disposal of property, plant and equipment	(37,358)	(43,462)
Loss on disposal of property, plant and equipment	65,060	45,000
Impairment losses on intangible assets	97	355,365
Obsolescence and scrapping of inventories	769,841	727,437
Gain on disposal of investments	(114,497)	(387,299)
Gain on disposal of assets classified as held-for-sale	-	(69,924)
Dividend income	(73,400)	(181,871)
Other income/expense	(225,181)	(245,438)
<b>Total</b>	₩ 16,849,218	₩ 15,606,076

- Changes in assets and liabilities arising from operating activities

<i>(In millions of Korean won)</i>	<b>2017</b>	<b>2016</b>
Changes in assets and liabilities :		
Increase in trade receivables	₩ (2,378,447)	₩ (605,860)
Decrease in other receivables	112,720	330,764
(Increase) decrease in advances	(183,539)	44,095
Decrease (increase) in prepaid expenses	763,798	(469,240)
(Increase) decrease in inventories	(4,880,235)	278,205
Increase in trade payables	2,033,038	973,643
Decrease in other payables	(1,398,283)	(1,320,082)
Decrease in advances received	(112,978)	(65,749)
Increase in withholdings	110,462	244,035
Decrease in accrued expenses	(3,053,028)	(1,379,940)
Increase in provisions	1,753,676	65,109
Payment of severance benefits	(281,697)	(256,200)
Others	(1,337,604)	867,059
<b>Total</b>	₩ (8,852,117)	₩ (1,294,161)

## 24. 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. In addition, the Company uses derivative financial instruments to hedge certain risk exposure.

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.

The Company also operates local finance centers in accordance with global financial risk management across major regions including the United States, United Kingdom, Singapore, China, Brazil and Russia.

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

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 Indian Rupee.

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. In addition, the Company makes use of derivative instruments to minimize uncertainty of cash flows and fluctuation of profit or loss occurring from foreign exchange risk. 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.

#### (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 June 30, 2017 and December 31, 2016, a price fluctuation in relation to marketable equity securities by 1% would result in changes in other comprehensive income (before income tax) of ₩27,113 million and ₩23,622 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.

### (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 finance costs.

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.

#### (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 previous fiscal year. 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 of June 30, 2017 and December 31, 2016 are as follows:

<i>(In millions of Korean won)</i>	<b>June 30, 2017</b>	<b>December 31, 2016</b>
Total liabilities	₩ 76,883,688	₩ 69,211,291
Total equity	200,705,748	192,963,033
Total liabilities to equity ratio	38.3%	35.9%

#### (E) Fair value estimation

(1) Carrying amounts and fair values of financial instruments by category as at June 30, 2017 and December 31, 2016 are as follows:

<i>(In millions of Korean won)</i>	<b>June 30, 2017</b>		<b>December 31, 2016</b>	
	<b>Carrying amount</b>	<b>Fair value</b>	<b>Carrying amount</b>	<b>Fair value</b>
<b>Financial assets</b>				
Cash and cash equivalents	₩ 29,007,086	₩ 1	₩ 32,111,442	₩ 1
Short-term financial instruments	37,796,229	1	52,432,411	1
Short-term available-for-sale financial assets	3,698,772	3,698,772	3,638,460	3,638,460
Trade receivables	27,585,923	1	24,279,211	1
Long-term available-for-sale financial assets <sup>2</sup>	7,565,787	6,449,482	6,804,276	5,826,507
Others <sup>4</sup>	6,281,569	1,289,350	3,459,863	919,071
<b>Total financial assets</b>	₩ 111,935,366		₩ 122,725,663	
<b>Financial liabilities</b>				
Trade payables	₩ 9,075,774	₩ 1	₩ 6,485,039	₩ 1
Short-term borrowings	13,767,140	1	12,746,789	1
Other payables <sup>3</sup>	11,281,471	330,059	10,225,271	1
Current portion of long-term liabilities	26,585	1	1,232,817	1
Debentures	1,000,508	1,017,611	58,542	76,129
Long-term borrowings	1,917,571	1,925,261	1,244,238	1,225,455
Long-term other payables	1,613,911	1,611,595	3,009,659	3,022,821
Others <sup>4</sup>	9,340,680	117,543	11,942,469	74,697
<b>Total financial liabilities</b>	₩ 48,023,640		₩ 46,944,824	

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

<sup>2</sup> Amounts measured at cost of ₩ 1,116,305 million (December 31, 2016: ₩977,769 million) are excluded as the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed.

<sup>3</sup> Amounts measured at cost of ₩10,951,412 million (December 31, 2016: ₩10,225,271 million) are excluded as the carrying amount is a reasonable approximation of fair value.

<sup>4</sup> Assets measured at cost of ₩ 4,947,467million (December 31, 2016: ₩2,452,118 million) and liabilities measured at cost of ₩ 9,223,137 million (December 31, 2016: ₩11,867,772) are excluded as the carrying amount is a reasonable approximation of fair value.

(2) Fair value hierarchy classifications of the financial instruments that are measured at fair value or its fair value is disclosed as at June 30, 2017, are as follows :

<b>June 30, 2017</b>				
<i>(In millions of Korean won)</i>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total balance</b>
<b>1) Assets</b>				
Short-term available-for-sale financial assets	₩ -	₩ 3,698,772	₩ -	₩ 3,698,772
Long-term available-for-sale financial assets	2,711,346	-	3,738,136	6,449,482
Others	-	1,289,350	-	1,289,350
<b>2) Liabilities</b>				
Other payables	₩ -	₩ -	₩ 330,059	₩ 330,059
Debentures	-	1,017,611	-	1,017,611
Long-term borrowings	-	1,925,261	-	1,925,261
Long-term other payables	-	1,611,595	-	1,611,595
Others	-	81,297	36,246	117,543

<b>December 31, 2016</b>				
<i>(In millions of Korean won)</i>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total balance</b>
<b>1) Assets</b>				
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
Others	-	919,071	-	919,071
<b>2) Liabilities</b>				
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
Others	-	74,697	-	74,697

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 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 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 amount 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 using 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)
<b>Long-term available-for-sale financial assets</b>				
Maltani	₩ 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 preference shares	3,714,351	Trinomial model	Risk adjusted discount rate Price volatility	5.26%~7.26% (6.26%) 27.30%~33.30% (30.30%)
<b>Other payables</b>				
Contingent financial liability	330,059	Discounted cash flow	Discount rate	3.81%~4.65% (4.23%)
<b>Others</b>				
Contingent financial liability	29,301	Monte Carlo simulation	Discount rate	10.50%
			Risk free rate	0.97%
			Asset volatility	34.54%
			Credit spread	2.12%
Contingent financial liability	5,299	Discounted cash flow	Discount rate	17.57%
Contingent financial liability	1,646	Probability-weighted discounted cash flow	Weighted average cost of capital	8.60%
			Credit risk	2.12%

(4) Changes in Level 3 instruments:

(In millions of Korean won)

June 30, 2017

June 30, 2016

**Financial Assets**

Balance as at January 1	₩	3,464,272	₩	3,488,344
Purchases		-		65,059
Disposals and others		-		(66,713)
Amount recognized in profit or loss		-		(11,740)
Amount recognized in other comprehensive income		273,864		376,065
Others		-		4,238
Balance as at June 30	₩	3,738,136	₩	3,855,253

(In millions of Korean won)

June 30, 2017

June 30, 2016

**Financial Liabilities**

Balance as at January 1	₩	342,702	₩	312,738
Disposals and others		(2,258)		-
Amount recognized in profit or loss		(12,643)		10,643
Acquisition in the business combination		39,083		-
Others		(579)		-
Balance as at June 30	₩	366,305	₩	323,381

(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 major financial instruments which are 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 <sup>1</sup>	₩ -	₩ 180,459	₩ -	₩ (171,339)
Other payables <sup>2</sup>	1,157	1,157	(1,162)	(1,162)
Total	₩ 1,157	₩ 181,616	₩ (1,162)	₩ (172,501)

<sup>1</sup> For equity securities, changes in fair value are calculated with the correlation between discount rate and growth rate (-1%~1%), which are significant unobservable inputs.

<sup>2</sup> The fair value of other payables is calculated by increasing or decreasing the discount rate by 10%, which is significant unobservable input.

## 25. 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 Company'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, Harman 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 six months ended June 30, 2017

<i>(In millions of Korean won)</i>	<b>DS</b>						<b>Total<sup>1</sup></b>	<b>Intercompany elimination within the Company</b>	<b>Consolidated</b>
	<b>CE</b>	<b>IM</b>	<b>Total<sup>1</sup></b>	<b>Semi- conductor</b>	<b>DP</b>	<b>Harman</b>			
Total segment revenue	48,139,737	112,751,891	96,645,936	63,004,312	31,293,228	3,538,747	263,913,310	(152,365,247)	111,548,063
Intercompany revenue	(26,879,629)	(59,242,418)	(48,547,513)	(29,768,562)	(16,291,891)	(846,556)	(152,365,247)	152,365,247	-
Net revenue <sup>2</sup>	21,260,108	53,509,473	48,098,423	33,235,750	15,001,337	2,692,191	111,548,063	-	111,548,063
Depreciation	300,045	647,002	8,415,227	6,175,549	2,141,359	70,234	9,615,760	-	9,615,760
Amortization	31,565	78,144	493,135	423,868	60,797	65,787	771,910	-	771,910
Operating profit	699,039	6,122,117	17,280,387	14,345,000	3,016,920	28,385	23,964,908	-	23,964,908

<sup>1</sup> Includes other amounts not included in specific operating segments.

<sup>2</sup> Segment net revenue includes intersegment revenues.

#### (2) For the three months ended June 30, 2017

<i>(In millions of Korean won)</i>	<b>DS</b>						<b>Total<sup>1</sup></b>	<b>Intercompany elimination within the Company</b>	<b>Consolidated</b>
	<b>CE</b>	<b>IM</b>	<b>Total<sup>1</sup></b>	<b>Semi- conductor</b>	<b>DP</b>	<b>Harman</b>			
Total segment revenue	24,481,624	64,310,418	50,815,846	33,504,359	16,005,643	2,818,742	144,175,047	(83,174,510)	61,000,537
Intercompany revenue	(13,557,220)	(34,299,300)	(25,566,031)	(15,929,036)	(8,296,591)	(664,300)	(83,174,510)	83,174,510	-
Net revenue <sup>2</sup>	10,924,404	30,011,118	25,249,815	17,575,323	7,709,052	2,154,442	61,000,537	-	61,000,537
Depreciation	152,994	319,020	4,226,211	3,072,470	1,110,970	57,065	4,846,261	-	4,846,261
Amortization	15,864	38,754	241,280	206,953	30,349	48,772	399,951	-	399,951
Operating profit	318,978	4,056,779	9,688,392	8,031,005	1,711,971	5,918	14,066,547	-	14,066,547

<sup>1</sup> Includes other amounts not included in specific operating segments.

<sup>2</sup> Segment net revenue includes intersegment revenues.

(3) For the six months ended June 30, 2016

<i>(In millions of Korean won)</i>	<b>DS</b>						<b>Intercompany elimination within the Company</b>	<b>Consolidated</b>
	<b>CE<sup>3</sup></b>	<b>IM</b>	<b>Total<sup>1</sup></b>	<b>Semi-conductor</b>	<b>DP</b>	<b>Total<sup>1</sup></b>		
Total segment revenue	50,543,821	113,168,491	72,765,179	45,549,412	25,364,270	239,698,430	(138,979,058)	100,719,372
Intercompany revenue	(29,431,203)	(59,009,689)	(37,161,524)	(22,400,280)	(12,912,639)	(138,979,058)	138,979,058	-
Net revenue <sup>2</sup>	21,112,618	54,158,802	35,603,655	23,149,132	12,451,631	100,719,372	-	100,719,372
Depreciation	268,931	654,722	8,807,062	6,461,034	2,234,898	9,951,595	-	9,951,595
Amortization	31,087	84,444	469,090	393,745	67,103	686,242	-	686,242
Operating profit	1,498,203	8,212,544	5,113,715	5,276,475	(128,014)	14,819,762	-	14,819,762

<sup>1</sup> Includes other amounts not included in specific operating segments.

<sup>2</sup> Segment net revenue includes intersegment revenues.

<sup>3</sup> CE is restated in correspondence to the reclassification of the Printing Solutions business segment, in which the composition of reportable segment has been changed from CE to others.

(4) For the three months ended June 30, 2016

<i>(In millions of Korean won)</i>	<b>DS</b>						<b>Intercompany elimination within the Company</b>	<b>Consolidated</b>
	<b>CE<sup>3</sup></b>	<b>IM</b>	<b>Total<sup>1</sup></b>	<b>Semi-conductor</b>	<b>DP</b>	<b>Total<sup>1</sup></b>		
Total segment revenue	25,598,379	55,134,263	37,718,103	23,661,694	13,129,953	120,061,157	(69,124,037)	50,937,120
Intercompany revenue	(14,559,400)	(28,575,398)	(19,289,960)	(11,664,503)	(6,713,929)	(69,124,037)	69,124,037	-
Net revenue <sup>2</sup>	11,038,979	26,558,865	18,428,143	11,997,191	6,416,024	50,937,120	-	50,937,120
Depreciation	133,512	319,234	1,143,430	3,213,438	1,111,683	4,830,220	-	4,830,220
Amortization	13,492	41,113	39,189	197,143	33,364	339,298	-	339,298
Operating profit	995,268	4,318,387	2,786,549	2,644,895	137,205	8,143,950	-	8,143,950

<sup>1</sup> Includes other amounts not included in specific operating segments.

<sup>2</sup> Segment net revenue includes intersegment revenues.

<sup>3</sup> CE is restated in correspondence to the reclassification of the Printing Solutions business segment, in which the composition of reportable segment has been changed from CE to others.

(B) Regional information

The regional segment information provided to the Management Committee for the reportable segments as at and for the three and six months ended June 30, 2017 and 2016, is as follows:

(1) For the six months ended June 30, 2017

<i>(In millions of Korean won)</i>	<b>Korea</b>	<b>America</b>	<b>Europe</b>	<b>Asia and Africa</b>	<b>China</b>	<b>Intercompany elimination within the Company</b>	<b>Consolidated</b>
Net segment revenue	12,313,551	36,639,567	20,763,484	22,565,275	19,266,186	-	111,548,063
Non-current assets <sup>1</sup>	78,744,969	11,614,728	6,286,621	12,670,060	10,423,712	(617,732)	119,122,358

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

(2) For the three months ended June 30, 2017

<i>(In millions of Korean won)</i>	<b>Korea</b>	<b>America</b>	<b>Europe</b>	<b>Asia and Africa</b>	<b>China</b>	<b>Intercompany elimination within the Company</b>	<b>Consolidated</b>
Net segment revenue	6,416,112	21,255,139	11,482,288	11,919,295	9,927,703	-	61,000,537
Non-current assets <sup>1</sup>	78,744,969	11,614,728	6,286,621	12,670,060	10,423,712	(617,732)	119,122,358

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

(3) For the six months ended June 30, 2016

<i>(In millions of Korean won)</i>	<b>Korea</b>	<b>America</b>	<b>Europe</b>	<b>Asia and Africa</b>	<b>China</b>	<b>Intercompany elimination within the Company</b>	<b>Consolidated</b>
Net segment revenue	10,388,062	33,497,405	19,230,610	20,706,935	16,896,360	-	100,719,372
Non-current assets <sup>1</sup>	62,461,306	6,916,874	750,562	8,251,433	12,118,838	(616,253)	89,882,760

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



(4) For the three months ended June 30, 2016

<i>(In millions of Korean won)</i>	<b>Korea</b>	<b>America</b>	<b>Europe</b>	<b>Asia and Africa</b>	<b>China</b>	<b>Intercompany elimination within the Company</b>	<b>Consolidated</b>
Net segment revenue	5,130,272	17,523,793	9,486,475	10,104,764	8,691,816	-	50,937,120
Non-current assets <sup>1</sup>	62,461,306	6,916,874	750,562	8,251,433	12,118,838	(616,253)	89,882,760

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

## 26. Related Party Transactions

### (A) Sale and purchase transactions

Sale and purchase transactions with related parties for the six months ended June 30, 2017 and 2016, are as follows:

<i>(In millions of Korean won)</i>	<b>Name of Company<sup>1</sup></b>	<b>2017</b>				
		<b>Sales</b>	<b>Disposal of fixed assets</b>	<b>Purchases</b>	<b>Purchase of fixed assets</b>	
Associates and Joint ventures	Samsung SDS	₩ 33,550	₩ -	₩ 896,677	₩ 130,183	
	Samsung Electro-Mechanics	24,296	-	1,060,933	302	
	Samsung SDI <sup>2</sup>	37,488	-	490,439	19,395	
	Cheil Worldwide <sup>3</sup>	10,575	-	320,846	667	
	Other	223,902	-	4,254,680	79,382	
	<b>Total (Associates and Joint ventures)</b>	₩ 329,811	₩ -	₩7,023,575	₩ 229,929	
Other related parties	Samsung C&T	₩ 85,569	₩ 68	₩ 189,575	₩1,599,365	
	Other	87,781	35	443,286	115,277	
	<b>Total (Other related parties)</b>	₩ 173,350	₩ 103	₩ 632,861	₩1,714,642	
Others <sup>4</sup>	Samsung Engineering	₩ 5,19	₩ -	₩ 15,464	₩ 751,610	
	S-1	24,070	-	172,441	42,077	
	Other	35,040	3	71,834	365	
	<b>Total (Others)</b>	₩ 64,306	₩ 3	₩ 259,739	₩ 794,052	

<sup>1</sup> Transactions with separate entities that are related parties of the Company.

<sup>2</sup> For the year ended December 31, 2016, Samsung SDI was included in associates as the Company's ownership of ordinary shares outstanding was increased.

<sup>3</sup> For the year ended December 31, 2016, Cheil Worldwide was included in associates due to acquisition of shares.

<sup>4</sup> 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.

2016

(In millions of Korean won)	Name of Company <sup>1</sup>	2016			
		Sales	Disposal of fixed assets	Purchases	Purchase of fixed assets
Associates and Joint ventures	Samsung SDS	₩ 22,667	₩ -	₩ 757,405	₩ 67,852
	Samsung Electro-Mechanics	14,807	-	1,348,148	-
	Other	118,039	36	2,713,638	110,151
	<b>Total (Associates and Joint ventures)</b>	₩ 155,513	₩ 36	₩4,819,191	₩ 178,003
Other related parties	Samsung C&T	₩ 10,349	₩ 74	₩ 121,186	₩ 980,716
	Samsung SDI	34,639	-	565,105	7,277
	Other	63,085	90	614,103	209,574
	<b>Total (Other related parties)</b>	₩ 108,073	₩ 164	₩1,300,394	₩1,197,567
Others <sup>2</sup>	Samsung Engineering	₩ 10,434	₩ -	₩ 11,109	₩ 840,194
	S-1	15,448	-	161,554	6,092
	Other	29,847	923	321,892	60
	<b>Total (Others)</b>	₩ 55,729	₩ 923	₩ 494,555	₩ 846,346

<sup>1</sup> Transactions with separate entities that are related parties of the Company.

<sup>2</sup> 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 of June 30, 2017 and December 31, 2016, are as follows:

(In millions of Korean won)	Name of Company <sup>1</sup>	June 30, 2017	
		Receivables	Payables
Associates and Joint ventures	Samsung SDS	₩ 5,718	₩ 354,822
	Samsung Electro-Mechanics	1,309	192,301
	Samsung SDI <sup>2</sup>	87,354	114,160
	Cheil Worldwide <sup>3</sup>	224	317,393
	Other	144,150	855,555
	<b>Total (Associates and Joint ventures)</b>	₩ 238,755	₩ 1,834,231
Other related parties	Samsung C&T	₩ 249,139	₩ 570,300
	Other	26,791	1,365,405
	<b>Total (Other related parties)</b>	₩ 275,930	₩ 1,935,705
Others <sup>4</sup>	Samsung Engineering	₩ 4,141	₩ 93,618
	S-1	4,661	54,471
	Other	1,927	24,034
	<b>Total (Others)</b>	₩ 10,729	₩ 172,123

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

<sup>2</sup> For the year ended December 31, 2016, Samsung SDI was included in associates as the Company's ownership of ordinary shares outstanding was increased.

<sup>3</sup> For the year ended December 31, 2016, Cheil Worldwide was included in associates due to acquisition of shares.

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

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

<sup>2</sup> For the year ended December 31, 2016, Samsung SDI was included in associates as the Company's ownership of ordinary shares outstanding was increased.

<sup>3</sup> For the year ended December 31, 2016, Cheil Worldwide was included in associates due to acquisition of shares.

<sup>4</sup> 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) For the six months ended June 30, 2017, the Company invested ₩12,850 million in associates and joint ventures. For the six months ended June 30, 2016 the Company invested ₩24,104 million in associates and joint ventures.

(D) For the six months ended June 30, 2017, the Company declared ₩829,901 million of dividends (For the six months ended June 30, 2016: ₩481,270 million) to related parties. Dividends declared for the six months ended June 30, 2017 include the quarterly dividend amounting to ₩168,385 million for the current fiscal year. As at June 30, 2017 and December 31, 2016, there are no unpaid dividends to related parties. Also, for the six months ended June 30, 2017, the Company declared ₩64,045 million of dividends (For the six months ended June 30, 2016: ₩37,127 million) to the entities that are not related parties of the Company in accordance with Korean IFRS 1024, but belong to the same conglomerate according to the Monopoly Regulation and Fair Trade Act. Dividends declared for the six months ended June 30, 2017 include the quarterly dividend amounting to ₩12,995 million for the current fiscal year. As at June 30, 2017 and December 31, 2016, there are no unpaid dividends to these entities.

#### (E) 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 six months ended June 30, 2017 and 2016 consists of:

(In millions of Korean won)	2017		2016	
Salaries and other short-term employee benefits	₩	11,974	₩	4,290
Termination benefits		396		320
Other long-term benefits		4,308		4,158

## 27. Business Combination

Significant business combination for the six months ended June 30, 2017 is as follow:

To strengthen automotive electronics and audio business, Samsung Electronics America, the Company's subsidiary, acquired 100% of the equity shares of Harman and its subsidiaries on March 10, 2017.

### (1) Overview of the acquired company

Name of the acquired company	Harman International Industries, Inc. and 109 subsidiaries
Headquarters location	Stamford, CT, USA
Representative director	Dinesh Paliwal
Industry	Design, development, manufacture and sale of audio and video system components

### (2) Purchase price allocation

<i>(In millions of Korean Won)</i>	<b>Amount</b>
I. Consideration transferred	₩ 9,272,702
II. Identifiable assets and liabilities	
Cash and cash equivalents	647,729
Trade and other receivables	1,533,437
Inventory	1,068,865
Property, plant and equipment	858,790
Intangible assets	5,564,309
Other assets	902,824
Trade and other payables	3,436,020
Deferred tax liabilities	1,442,527
Other liabilities	873,637
Total net identifiable assets	4,823,770
III. Goodwill (I – II)	₩ 4,448,932

Had Harman and the subsidiaries been consolidated from January 1, 2017, the revenue and net income would be ₩4,170,215 million and ₩30,803 million, respectively. The revenue and net income contributed by Harman and the subsidiaries since the acquisition amount to ₩2,692,191 million and ₩26,531 million, respectively.

## 28. Non-current Assets and Liabilities Held-for-Sale (Assets of disposal group)

### (A) Summary

- Sale of Printing Solutions business segment

For the year 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 through the due diligence.

(B) Details of assets and liabilities reclassified as held-for-sale, as at June 30, 2017 and December 31, 2016 are as follows:

<i>(In millions of Korean Won)</i>	<b>June 30, 2017</b>		<b>December 31, 2016</b>	
<b>Assets held-for-sale</b>				
Trade receivables	₩	265,075	₩	182,738
Inventories		283,762		270,642
Other current assets		84,517		115,037
Property, plant and equipment		83,146		84,869
Intangible assets		122,664		124,571
Other non-current assets		42,519		57,949
<b>Total</b>	<b>₩</b>	<b>881,683</b>	<b>₩</b>	<b>835,806</b>
<b>Liabilities held-for-sale</b>				
Current liabilities	₩	338,264	₩	272,726
Non-current liabilities		93,159		83,662
<b>Total</b>	<b>₩</b>	<b>431,423</b>	<b>₩</b>	<b>356,388</b>

(C) Details of cumulative income or expense recognized in other comprehensive income relating to the disposal group classified as held-for-sale as at June 30, 2017 and December 31, 2016 are as follows:

<i>(In millions of Korean won)</i>	<b>June 30, 2017</b>		<b>December 31, 2016</b>	
Remeasurement of net defined benefit liabilities	₩	(2,669)	₩	-
Foreign currency translation		2,247		(28,810)
<b>Total</b>	<b>₩</b>	<b>(452)</b>	<b>₩</b>	<b>(28,810)</b>

## 29. Events after the Reporting Period

According to the resolution of the board of directors on July 27, 2017, the Company decided to buy back and retire ordinary and preferred shares. The estimated total number of shares to be repurchased is 0.838 million (ordinary shares 0.67 million, preferred shares 0.168 million) and the period of repurchase will be expected to end on October 27, 2017. All repurchased shares will be retired.

### 3. Other Financial Information

#### A. Restatement of Financial Statements and Other Matters to Note

(1) Restatement of financial statements: N/A

(2) Acquisition, divestment, asset transfer and transfer of business (Separate only)

There are no major merger transactions in the past three business years on a parent basis(separate basis). 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 divestiture

- Company Name: S-Printing Solution Corp.
- Location: 129 Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do
- Purpose of split: To improve the competitiveness of S-Printing Solution
- Date of Approval: October 27, 2016 (at the extraordinary general meeting of shareholders)
- Date of split: November 1, 2016

(Unit: KRW million)

Company	Account	Forecast		Actual			
		1st Year	2nd Year (‘17.1H)	1st Year		2nd Year(‘17.HQ)	
				Actual	Difference	Actual	Difference
S-Printing Solution	Sales	2,094	7,460	2,186	4.40%	7,784	4.34%
	Operating Income	-29	480	-61	111.48%	511	6.46%
	Net Income	-67	489	-10	-84.72%	525	7.36%

Details of the above statement can be found in the “Important Matters Report“, published at DART (<http://dart.fss.or.kr/>).

The 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 June 30, 2017, the Company provided a debt guarantee of KRW 34,145 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 52,507 million. The Company has provided guarantees against business investment in Medicapital up to 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	2018-06-13	1,000,000	0	1,000,000	0	1,423,000
SEM	Subsidiary	Santander , etc	2018-06-13	0	0	0	0	546,000
SAMCOL	Subsidiary	Citibank , etc	2018-06-13	83,585	0	22,256	61,329	156,000
SEDA	Subsidiary	HSBC , etc	2018-06-13	0	0	0	0	769,000
SECH	Subsidiary	Citibank , etc	2018-06-13	0	15,034	0	15,034	178,000
SEPR	Subsidiary	BBVA , etc	2018-06-13	68,739	0	31,709	37,030	180,000
SSA	Subsidiary	Citibank , etc	2018-06-13	34,327	0	34,327	0	335,000
SEMAG	Subsidiary	SocGen , etc	2017-12-16	0	0	0	0	110,000
SETK	Subsidiary	BTMU , etc	2018-06-13	187,867	80,923	0	268,790	590,000
SECE	Subsidiary	Citibank , etc	2017-12-16	0	0	0	0	94,000
SEEG	Subsidiary	HSBC	2018-06-13	0	0	0	0	50,000
SEIN	Subsidiary	BNP , etc	2018-06-13	0	0	0	0	186,000
SJC	Subsidiary	Mizuho Bank , etc	2018-05-31	0	36,514	0	36,514	887,765
SEUC	Subsidiary	Credit Agricole , etc	2018-06-13	0	0	0	0	175,000
SEDAM	Subsidiary	Citibank , etc	2018-06-13	101,326	0	34,271	67,055	391,000
SECA	Subsidiary	Nova Scotia	2017-10-10	0	0	0	0	11,546
SELA	Subsidiary	Citibank	2017-12-16	0	0	0	0	30,000
SEEH	Subsidiary	HSBC , etc	2018-06-13	0	0	0	0	727,000
SERK	Subsidiary	BNP , etc	2018-06-28	0	0	0	0	345,000
SELV	Subsidiary	Citibank	2017-12-16	0	0	0	0	10,000
SAPL	Subsidiary	BOA , etc	2018-06-13	0	0	0	0	411,000
SEV	Subsidiary	SCB	2017-11-08	0	0	0	0	15,000
SAVINA	Subsidiary	SCB , etc	2018-06-13	0	0	0	0	71,000
SET	Subsidiary	SCB	2017-11-08	0	0	0	0	30,000
SCIC	Subsidiary	HSBC , etc	2018-06-13	0	0	0	0	350,000
SME	Subsidiary	SCB	2017-11-08	0	0	0	0	110,000
SAMEX	Subsidiary	Citibank	2017-12-16	0	0	0	0	5,000
SEASA	Subsidiary	Citibank	2017-12-16	0	0	0	0	1,000
SSAP	Subsidiary	SCB	2017-11-08	10,282	0	10,282	0	30,000
Simpress	Subsidiary	BNP	2017-11-08	44,529	0	949	43,580	60,000
SEHK	Subsidiary	HSBC	2018-06-13	0	0	0	0	2,000
SEPM	Subsidiary	HSBC	2018-06-13	86,870	21,018	0	107,888	125,000
Adgear	Subsidiary	BOA	2017-11-08	0	1,539	0	1,539	2,000
Harman Finance International, S.C.A.	Subsidiary	JP Morgan , etc	2022-05-27	367,115	33,370	0	400,485	400,485
Total				1,984,640	188,398	1,133,794	1,039,244	8,806,796

※ 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 debt by account over the past 3 years are as follows:

(Unit: KRW million, %)

Period	Account	Receivables Amount	Allowance Amount	Allowance (%)
2017.1H	Trade receivables	28,168,875	582,952	2.1%
	Short-term loans	6,770	81	1.2%
	Other receivables	3,223,544	25,998	0.8%
	Advances	1,760,591	2,883	0.2%
	Trade receivables (Long-term)	1,918,776	10,784	0.6%
	Other receivables (Long-term)	208,745	351	0.2%
	Advances (Long-term)	137,869	877	0.6%
	Long-term loans	200,678	7,650	3.8%
	Total	35,625,848	631,576	1.8%
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%

※ Receivables amount represents the value after deducting present value discount account (Consolidated)



## Allowance for bad debt by year

(Unit: KRW million)

	2017.1H	2016	2015
1. Allowance for bad debt (beginning balance)	457,957	383,194	294,157
2. Net bad debt expense (① - ②±③)	22,889	29,843	11,373
① Bad debt expense (Write-off)	12,298	31,334	14,149
② Bad debt recovered	847	1,491	2,776
③ Others	34,340	-	-
3. Bad debts expense	150,730	104,606	100,410
4. Allowance for bad debts (Ending balance)	631,576	457,957	383,194

※ Based on consolidated financial statements.

## The guideline for bad debt allowances for trade receivables

### (1) Calculation of bad debt allowance

- Bad debt allowance is calculated based on write-off experience rate and future expected bad debt amount.

### (2) Calculation basis of write-off experience rate and future expected bad debt:

- Experience rate of write-off is calculated based on the actual write-off rate for the average receivables balance of previous three years.
- Future expected bad debt is determined within the range of 1% ~ 100% of the receivable balance, taking into consideration cases of debtor bankruptcy, compulsory execution, death, disappearance, etc.

[Bad debt allowance by circumstance]

Circumstance	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 has been 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)

	<b>Less than 6 months</b>	<b>6 months ~ 1 year</b>	<b>1 year ~ 3 years</b>	<b>More than 3 years</b>	<b>Total</b>
Amount	29,831,063	93,176	125,875	37,537	30,087,651
Ratio	99.2%	0.3%	0.4%	0.1%	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	2017.1H	2016	2015	Note
CE		Finished Goods	2,149,219	2,045,068	1,679,255	
		Work In Process	153,660	109,934	73,060	
		Raw Material	3,063,336	1,826,473	1,671,254	
		Material In Transit	1,581,045	1,957,076	1,607,908	
		Total	6,947,260	5,938,551	5,031,477	
IM		Finished Goods	2,015,512	2,032,004	1,924,116	
		Work In Process	767,567	531,628	347,780	
		Raw Material	4,606,298	2,851,438	2,471,314	
		Material In Transit	738,465	594,955	492,149	
		Total	8,127,842	6,010,025	5,235,359	
DS	Semi-Conductor	Finished Goods	804,473	1,598,617	777,450	
		Work In Process	3,932,200	4,740,937	3,677,543	
		Raw Material	662,733	505,226	419,398	
		Material In Transit	50,380	109,333	121,477	
		Total	5,449,786	6,954,113	4,995,868	
	DP	Finished Goods	372,177	398,342	409,516	
		Work In Process	671,605	483,084	244,324	
		Raw Material	589,784	265,206	281,223	
		Material In Transit	66,870	49,957	55,176	
		Total	1,700,436	1,196,589	990,239	
	DS Total	Finished Goods	1,236,823	2,014,630	1,228,783	
		Work In Process	4,916,203	5,353,650	4,105,675	
		Raw Material	1,363,864	804,420	750,929	
		Material In Transit	87,087	162,897	178,218	
		Total	7,603,977	8,335,597	6,263,605	
Harman		Finished Goods	375,923	-	-	
		Work In Process	76,303	-	-	
		Raw Material	339,986	-	-	
		Material In Transit	37,275	-	-	
		Total	829,487	-	-	
Total		Finished Goods	6,837,112	5,905,339	5,769,460	
		Work In Process	5,853,755	5,017,384	5,779,303	
		Raw Material	9,476,540	6,494,166	5,859,262	
		Material In Transit	853,505	936,614	1,403,769	
		Total	23,020,912	18,353,503	18,811,794	

Inventory Ratio (%)– Total Assets [Inventory ÷ Total Assets]	8.3%	7.0%	7.8%
Inventory Turn-over [ Yearly CGS ÷{(Beginning of Inventory + End of Inventory)÷2}]	5.9	6.5	6.8

※ For CE division, the financial information was restated to exclude Printing Solution business.

## Inventory Counts

### (1) Inspection Date

- End of May and November (twice a year)
- For the difference in inventory values between the inspection date and at the end of the year, check the all warehouse record for the period in order to confirm the existence of the inventories as of the date of the financial statements.

### (2) Inspection Method

- Internal warehouse: Closed & Total Inspection
- ※ Sample check in semiconductor and DP inventory, SVC materials
- Outside warehouse  
Perform check for the possession confirmation documents and sample tests at the third party warehouse and Inventory in transit
- External auditors join and observe the inspection and carry out sample tests to check the existence and completeness.

## Inventory Aging and Valuation

Inventories are stated at the lower of cost or net realizable value. Inventory as at June 30, 2017 is as follows:

(Unit : KRW million)

Category	Acquisition Cost	Inventory Valuation Reserve	Balance	Note
Finished Goods	8,608,363	-1,771,251	6,837,112	
Work In Process	6,218,971	-365,216	5,853,755	
Raw Material	10,552,843	-1,076,303	9,476,540	
Material In Transit	853,505	-	853,505	
Total	26,233,682	-3,212,770	23,020,912	

※ 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 June 30, 2017)

(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	113,960	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	1,134,600	1.8	A+(S&P), A1(Moody's)	2017.04.10	Redemption	Goldman Sachs et al.
Harman International Industries, Inc	Corporate Bonds	Public Offering	2015.05.06	455,840	4.15	Baa2 (Moody's), BBB+ (S&P)	2025.05.15	Unredeemed	J.P.Morgan et al.
Harman Finance International, S.C.A	Corporate Bonds	Public Offering	2015.05.20	456,398	2.0	Baa2 (Moody's), BBB+ (S&P)	2022.05.27	Unredeemed	HSBC et al.
Total	-	-	-	2,160,798	-	-	-	-	-

※ The exchange rate as of the base date has been applied.

※ SEA Corporate Bond was redeemed on April 2017.

## Details and Compliance of the Bond Management Contract (Samsung Electronics)

(Base Date of Preparation: June 30, 2017)

(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	113,960	1997.10.02	The Bank of New York Mellon Trust Company, N.A.

Base Date of Implementation: June 30, 2017

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 0.2% of the total during '17.1H)
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.

### Commercial Paper Balance

(Base Date : June 30, 2017)

(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 : June 30, 2017)

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 : June 30, 2017)

(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	5,698	5,698	5,698	5,698	5,698	940,728	5,698	974,916
	Private	-	-	-	-	-	-	-	-
	Total	5,698	5,698	5,698	5,698	5,698	940,728	5,698	974,916

※ The exchange rate as of the base date has been applied.

- Corporate Bond Unredeemed Balance (Samsung Electronics)

(Base Date : June 30, 2017)

(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	5,698	5,698	5,698	5,698	5,698	28,490	5,698	62,678
	Total	5,698	5,698	5,698	5,698	5,698	28,490	5,698	62,678

※ The exchange rate as of the base date has been applied.

- Corporate Bond Unredeemed Balance (Harman)

(Base Date : June 30, 2017)

(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	-	-	-	-	-	912,238	-	912,238
	Total	-	-	-	-	-	912,238	-	912,238

※ The exchange rate as of the base date has been applied.



### Hybrid Bond Outstanding Balance

(Base Date : June 30, 2017)

(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 : June 30, 2017)

(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 reviewed the interim consolidated/separate financial position of the Company as at June 30, 2017, and the related interim consolidated/separate statements of profit or loss, comprehensive income, changes in equity and cash flows for the three months and six-month periods ended June 30, 2017, and the interim consolidated/separate statements of changes in equity and cash flows for the six-month periods ended June 30, 2017. Nothing has come to attention that causes them to believe the accompanying interim consolidated/separate financial statements are not presented fairly, in all material respects, in accordance with K-IFRS 1034, Interim Financial Reporting. Samil PwC also conducted audits on the consolidated/separate financial statement of financial position of the Company as at December 31, 2015 and 2016, and the related consolidated/separate statements of profit or loss, comprehensive income, changes in equity and cash flows for the year then ended and expressed an unqualified opinion on those financial statements.

There are 276 subsidiaries as at June 30, 2017. The subsidiary, Samsung Electronics Iberia(SESIA), has changed the external auditor to E&Y, Samsung Electronics(SIEL) has changed the external auditor to KPMG and Mirero System has changed the external auditor to PwC for the six-month periods ended June 30, 2017. The newly acquired entity, Harman International Industries, Inc., and newly incorporated entity, Samsung Electronics Air Conditioner Europe B.V.(SEACE), appointed PwC as the external auditor at their own decision.

Period end	Group Auditor	Audit(Review) Opinion	Remarks
30 June 2017	Samil PwC	Not applicable	Not applicable
31 December 2016	Samil PwC	Unqualified	Not applicable
31 December 2015	Samil PwC	Unqualified	Not applicable

< Review plan for three-month and six-month period ended June 30, 2017 >

Review Period		Planned dates
2017 1Q	Pre-review	2017.03.06 ~ 2017.03.24
	Review	2017.04.07 ~ 2017.05.12
2017 2Q	Pre-review	2017.06.05 ~ 2017.06.23
	Review	2017.07.07 ~ 2017.08.11

[Audit Contract Description]

*(In millions of Korean won)*

Fiscal Year	Group Auditor	Description	Compensation	Total Hours
Six-month periods ended June 30, 2017	Samil PwC	- Review of the interim consolidated/separate financial statements	1,314	15,107
Year ended December 31, 2016	Samil PwC	- Review of the interim consolidated/separate financial statements - Audit on 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

Samil PwC has performed non-audit services and has been paid KRW 279 million by the Company for the six-month periods ended June 30, 2017.

[Non-Audit Service Contract Description]

(In millions of Korean won)

Fiscal Year	Contract Date	Non-audit Service Description	Period for Service	Compensation	Note
Six-month periods ended March 31, 2017	January 2017	Tax Advisory	2017.1~2017.6	28	
	December 2016	Custom Tax Advisory	2017.1~2017.6	251	
	Subtotal			279	
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	

## V. Management Discussion and Analysis

Pursuant to the reporting guidelines set forth by the *Financial Supervisory Service* of South Korea, the Management Discussion and Analysis section, reported in the annual Business Report, is not included in quarterly and half year reports.

## VI. Corporate Governance

### 1. Board of Directors

#### A. Overview of Board of Directors

As of June 30, 2017, 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 Governance 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	Jae-Wan Bahk
Jan 24, 2017	① Approval of FY2016 financial statements and annual business report ② Buyback and cancellation of treasury stocks ③ Panel development contract with Samsung Display  <b>✳ Reported Item</b> ① Report on the internal accounting management system ② Assessment of the internal accounting management system	Approved Approved Approved	For For For	For For For	For For For	For For For	For For For
Feb 24, 2017	① Decision to convene the 48 <sup>th</sup> (FY2017) AGM ② Decision of the 48th AGM agenda items - report items: 1) FY2016 annual audit report 2) FY2016 annual business report - Item 1: Approval of FY2016 financial statements, including balance sheet, income statement, and the statement of appropriation of retained earnings, etc. - Item 2: Approval of remuneration limit for Directors ③ Guidelines for external contributions ④ Application for product liability insurance  <b>✳ Reported Item</b> ① Progress on initiatives to enhance shareholder value	Approved Approved  Approved Approved	For For	For For	For For	For For	For For
Mar 24, 2017	① Setting the remuneration of directors ② Approval of management plans for Social Contribution Fund for 2017 ③ Sponsoring the WorldSkills Competition  <b>✳ Reported Item</b> ① Establishment and operation (draft) of Governance Committee	Approved Approved Approved	For For For	For For For	For For For	For For For	Absent Absent Absent
Apr 27, 2017	① Approval of the 49 <sup>th</sup> 1Q17 financial statements, business report and March quarterly dividend ② Buyback and cancellation of treasury stocks ③ Cancellation of shares held in treasury ④ Revision to CSR committee regulations ⑤ Donation ⑥ Property leasing contract with Samsung Display and compensation for the disposal of a property	Approved  Approved Approved Approved Approved	For  For For For For	For  For For For For	For  For For For For	For  For For For For	For  For For For For

	⑦ Facility development contract with Samsung Display ※ <i>Reported Item</i> ① Result of the Holding company review	Approved	For	For	For	For	For
Jun 12, 2017	① Property leasing contract with Samsung Display ② Approval of test facility supply transactions with Samsung Display	Approved Approved	For For	For For	For For	For For	For For

## C. The Committees of BOD

### (1) Composition of the BOD Committees as of June 30, 2017

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	
Governance	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) Governance Committee

- *Responsibility*: Fulfill corporate social responsibility and enhance shareholder value
- *Authority*

- 1) Matters related to corporate social responsibility
- 2) Matters related to shareholder value enhancement
  - Preliminary review on shareholder return policies
  - Activities for improving shareholders' rights and interests
  - Other important management matters that can significantly impact shareholder value
- 3) Establishment, composition, operation of organizations under the committee including research groups, councils, etc.
- 4) 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 24, 2017	① Memory investment ② S.LSI investment	Approved Approved	N/A (All comprised of executive directors)
Feb 24, 2017	① Memory investment ② Liquidation of an overseas subsidiary	Approved Approved	
Mar 8, 2017	① Closing of shareholder register for quarterly dividend	Approved	
Apr 24, 2017	① S.LSI investment ② Investment in Pyeongtaek complex ③ Capital increase for regional office ④ Rental contract	Approved Approved Approved Approved	
Jun 12, 2017	① Memory investment ② Investment in TP center ③ Closing of shareholder register for quarterly dividend ④ Withdrawal of a subsidiary liquidation plan	Approved Approved Approved 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 23, 2017	- Report on 4Q16 related party transaction	-	-	-	-
Feb 22, 2017	- Prior review on large-scale related party transactions 1) Application for product liability insurance	-	-	-	-
Apr 26, 2017	- Prior review on large-scale related party transactions 1) Donation 2) Property leasing contract with Samsung Display and	-	-	-	-



	compensation for the disposal of a property - Report on 1Q17 related party transactions	-	-	-	-
Jun 12, 2017	- Prior review on large-scale related party transactions 1) Property leasing contract with Samsung Display	-	-	-	-

#### □ 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 22, 2017	① Appointment of the head of compensation committee	Approved	For	For	For
	② Preliminary review on remuneration limit for Directors	Approved	For	For	For

#### □ The Governance 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				
Feb 24, 2017	※ <i>Reported Item</i> ① Report on 1Q17 results of CSR risk management council	-	-	-	-	-	-
Apr 24, 2017	※ <i>Reported Item</i> ① Report on updates of IR activities	-	-	-	-	-	-
	② Report on 2Q17 results of CSR risk management council	-	-	-	-	-	-
Jun 12, 2017	① Review on establishment of corporate governance charter	Approved	For	For	For	For	For
	② Review on Governance Committee operation	Approved	For	For	For	For	For

※ According to the resolution of the board of directors on April 27, 2017, the Governance Committee was established, merging the old CSR committee.

## 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 general meeting.

The Board submits shareholders' proposal for appointment of Directors at the 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 June 30, 2017]

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**

### 1) Support team for independent directors

- Support team: HR team of Corporate Management Office
- Major tasks: Supports the Board of Directors' operation and independent directors' performance of their duties
- Responsible Staff: five persons

### 2) Education programs to provide them with updates on key management issues

#### (1) Inspection of domestic business sites

- Period: Every year in May (on a regular basis)
- Organizer: HR team and management team of the region where the inspection takes place
- Content: On-site inspection to check the status of the business operation

#### (2) Inspection of overseas business sites

- Period: Every year in August (on a regular basis)
- Organizer: HR team and management team of the region where the inspection takes place
- Content: On-site inspection to check the status of the business operation

## 2. Audit System

### A. Profile of the member of the Audit Committee

As of June 30, 2017, SEC operates an Audit Committee consisting of three (3) Independent Directors.

Name	Career	Note
In-Ho Lee	<ul style="list-style-type: none"> <li>- Corporate Advisor, Shinhan Bank (2009-2011)</li> <li>- Chief Executive Officer, Shinhan Financial Group (2005-2009)</li> <li>- President &amp; CEO, Shinhan Bank (1999-2003)</li> </ul>	Independent director
Han-Joong Kim	<ul style="list-style-type: none"> <li>- Professor Emeritus, Yonsei University (2012-Present)</li> <li>- President, Yonsei University (2008-2012)</li> <li>- Professor, Dept. of Preventive Medicine &amp; Public Health (1982-2012)</li> </ul>	Independent director
Kwang-Soo Song	<ul style="list-style-type: none"> <li>- Advisor, Kim &amp; Chang Law Office (2007-Present)</li> <li>- Prosecutor General, Supreme Prosecutors' Office (2003-2005)</li> <li>- Chief Prosecutor, Daegu High Prosecutors' Office (2002-2003)</li> </ul>	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 23, 2017	- Report on 2016 financial statement and business report - Report on 2016 internal accounting management system activities - Report on 4Q16 non-audit activities - Report on 2016 audit activities - Report on plans to appoint external auditor	- - - -	- - - -	- - - -	- - - -
Feb 22, 2017	- Approval of appointment of external auditor	Approved	For	For	For
Feb 24, 2017	- Review on the 48th AGM agenda - Assessment of 2016 activities of internal compliance system	- -	- -	- -	- -
Apr 26, 2017	- Report on the 49 <sup>th</sup> 1Q17 financial statement and business report - Report on 1Q17 non-audit activities - Report on 1Q17 external contributions	- - -	- - -	- - -	- - -

### 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 June 30, 2017]

(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	3.54	4,985,464	3.82	-
Kun-Hee Lee	Major shareholder	Preferred	12,398	0.06	12,398	0.07	-
Samsung C&T	Affiliate	Common	5,976,362	4.25	5,976,362	4.57	-
Samsung Welfare Foundation	Affiliate	Common	89,683	0.06	89,683	0.07	-
Samsung Foundation Of Culture	Affiliate	Common	37,615	0.03	37,615	0.03	-
Ra-Hee Hong	Affiliate	Common	1,083,072	0.77	1,083,072	0.83	-
Jae-Yong Lee	Affiliate	Common	840,403	0.60	840,403	0.64	-
Samsung Life Insurance	Affiliate	Common	10,622,814	7.55	10,622,814	8.13	-
Samsung Life Insurance	Affiliate	Preferred	879	0.00	879	0.00	-
Samsung Life Insurance (special accounts)	Affiliate	Common	467,320	0.33	460,927	0.35	Open market sales
Samsung Life Insurance (special accounts)	Affiliate	Preferred	51,614	0.25	29,460	0.16	Open market sales
Samsung Fire & Marine Insurance	Affiliate	Common	1,856,370	1.32	1,856,370	1.42	-
Oh-Hyun Kwon	Affiliate	Common	1,300	0.00	1,300	0.00	-
Total		Common	25,960,403	18.45	25,954,010	19.86	-
		Preferred	64,891	0.32	42,737	0.23	-

※ The definition of 'major shareholder' is as defined in the Monopoly Regulation and Fair Trade Act of Korea.

[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 June 30, 2017, 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 June 30, 2017]

(Unit: Shares)

Classification	Name	Number of shares owned	Share ratio	Note
Shareholders with over 5% voting shares	National Pension Service	12,611,979	9.65	-
	Samsung Life Insurance	11,083,741	8.48	-
	The Capital Group Companies, Inc.	6,843,590	5.24	Based on the Report on the Holding of Stocks (disclosed on July 10, 2017)
Employee Stock Ownership Association		-	-	-

※ Note: According to the shareholder register, as of June 30, 2017.

(The ownership information of Capital Group Companies, Inc. is as of June 20, 2017)

※ The number of shares owned and share ratio of Samsung Life Insurance includes special accounts.

## 3. Minority Shareholders

[As of June 30, 2017]

(Unit: Person, Shares, %)

Classification	Shareholder		Shares owned		Note
	# of shareholders	Portion	# of shares	Portion	
Minority shareholder	87,669	99.90	78,017,670	59.71	Shareholders with shares less than 1/100 of total issued stocks
Total	87,759	100.00	130,668,494	100.00	

※ Note: According to the shareholder register, as of June 30, 2017.

※ 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"> <li>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.</li> <li>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"> <li>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;</li> <li>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;</li> <li>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;</li> <li>d. If the Company issues new shares by public offering in accordance with Article 11-3;</li> <li>e. If new shares are issued by the exercise of stock options in accordance with Article 11-4;</li> <li>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.</li> </ol> </li> </ol> <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"> <li>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.</li> <li>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.</li> </ol>
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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"> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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"> <li>a. In case the relevant officer or employee voluntarily retires from his/her office or leaves the Company after the grant of stock options;</li> <li>b. In case the relevant officer or employee causes substantial damages to the Company due to his/her willful misconduct or negligence;</li> <li>c. In case any of the causes for cancellation set forth in the stock option agreement occurs.</li> </ol> </li> </ol>			
	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		January '17	February	March	April	May	June	
Common stock	Stock price	Highest	1,995,000	1,978,000	2,128,000	2,231,000	2,351,000	2,415,000
		Lowest	1,778,000	1,879,000	1,981,000	2,014,000	2,232,000	2,234,000
		Average	1,874,300	1,928,550	2,058,318	2,097,950	2,277,526	2,328,714
	Volume	Highest (day)	359,844	341,859	424,996	460,645	468,219	348,069
		Lowest (day)	93,012	149,716	148,482	104,495	148,489	151,988
		Monthly	4,410	4,770	5,253	4,765	5,161	4,626
Preferred stock	Stock price	Highest	1,615,000	1,577,000	1,649,000	1,753,000	1,806,000	1,921,000
		Lowest	1,414,000	1,489,000	1,540,000	1,559,000	1,727,000	1,749,000
		Average	1,492,050	1,537,600	1,594,818	1,616,950	1,770,789	1,856,905
	Volume	Highest (day)	1,587,462	53,250	60,571	105,630	151,918	56,600
		Lowest (day)	10,822	17,375	24,038	7,485	22,612	21,078
		Monthly	2,240	646	801	647	1,083	722

※ 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		January '17	February	March	April	May	June	
Common stock	Stock price	Highest	854.50	866.50	944.00	981.00	1,035.00	1,053.00
		(Converted to KRW)	994,296	993,702	1,054,920	1,108,628	1,171,724	1,195,366
		Lowest	750.00	817.50	841.50	882.50	990.00	997.50
		(Converted to KRW)	905,025	941,678	952,662	1,005,874	1,119,393	1,119,993
		Average	797.79	842.10	901.22	925.25	1,009.88	1,026.82
	Volume	Highest (day)	96,964	54,281	57,095	55,329	51,557	76,863
		Lowest (day)	10,177	13,430	10,237	8,228	10,592	8,361
		Monthly	636	456	650	456	522	514

※ 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		January '17	February	March	April	May	June	
Preferred stock	Stock price	Highest	680.00	689.00	730.00	766.00	804.00	841.00
		(Converted to KRW)	793,016	790,145	813,220	865,657	898,872	954,703
		Lowest	593.00	653.00	652.00	681.00	763.00	781.00
		(Converted to KRW)	715,573	743,702	738,129	776,204	865,624	876,126
		Average	633.14	670.35	698.13	712.56	784.24	817.14
	Volume	Highest (day)	15,952	17,198	25,065	10,322	37,396	7,514
		Lowest (day)	359	577	804	580	262	330
		Monthly	119	115	136	43	114	53

※ 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 June 30, 2017]

(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	64 mo.	2018.03.15
Boo-Keun Yoon	M	1953.02	CEO	Registered executive	Full time	Head of CE Division	Head of CE Division	0	0	52 mo.	2019.03.14
Jong-Kyun Shin	M	1956.01	CEO	Registered executive	Full time	Head of IM Division	Head of IM Division	0	0	52 mo.	2019.03.14
Jae-Yong Lee	M	1968.06	Executive Director	Registered executive	Full time	Overall management of the Company's operation	Vice Chairman	840,403	0	9 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	88 mo.	2019.03.18
Han-Joong Kim	M	1948.11	Independent Director	Registered executive	Part time	Overall management of the Company	Former President of Yonsei University	0	0	64 mo.	2018.03.15
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	52 mo.	2019.03.14
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	64 mo.	2018.03.15
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	16 mo.	2019.03.11

## B. Concurrent Position with Other Companies

[As of June 30, 2017]

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

※ Above persons who serve concurrent positions do not hold shares of the companies.

※ Executive director Jae-Yong Lee has resigned his post as an independent director on the board of Exor N.V. on April 5, 2017.

## C. Employees

[As of June 30, 2017]

(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	11,238	88	-	11,326	13.1	-	-
CE	F	2,409	23	-	2,432	8.4	-	-
IM	M	19,774	200	-	19,974	11.4	-	-
IM	F	7,653	31	-	7,684	9.2	-	-
DS	M	33,210	168	-	33,378	10.3	-	-
DS	F	14,207	17	-	14,224	9.9	-	-
Others	M	7,381	128	-	7,509	13.6	-	-
Others	F	1,985	29	-	2,014	9.2	-	-
Gender Total	M	71,603	584	-	72,187	11.4	3,466,811	49
Gender Total	F	26,254	100	-	26,354	9.5	760,236	32
Total		97,857	684	-	98,541	10.9	4,227,047	45

※ 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.

According to the updated reporting standards, the number of employees includes employees on leave. The number of employees as of the first quarter of 2017 is 97,888, including persons on leave.

※ Average compensation per employee was calculated based on total average employee figure of 94,216 (male: 70,500; female: 23,716)

## 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	55,000	-

※ 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 auditors]

(Unit: KRW million)

Number of Persons	Total amount of remuneration	Average remuneration per Director	Note
9	25,147	2,794	-

※ 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	24,933	6,233	-
Independent Director (not including audit committee members)	2	79	39	-
Audit Committee member	3	135	45	-
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	13,980	-
Boo-Keun Yoon	CEO	5,057	-
Jong-Kyun Shin	CEO	5,050	-
Jae-Yong Lee	Executive Director	847	-

#### (2) Criteria and Methodology

(Unit: KRW million)

Name	Type of remuneration	Total amount	Criteria and methodology
Oh-Hyun Kwon (CEO)	Salary	937	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 156 million per month.
	Bonus	5,017	- Traditional holiday bonus: 100% of monthly wage - Target Achievement Incentive: Paid biannual basis within the range of 0~200% of monthly wage, and CEO decides the amount according to the level of target achieved. (Adjusted according to division performance) - 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.  ※ Bonus awarded based on his contributions and consideration for his performance; As the Company's CEO, he improved profitability by expanding shipments of high value-added products in the component and DP businesses.
		Profit from exercising stock option	-	n/a
		Other Income	8,026	- Fringe benefits are provided in line with the internal regulation for executive treatment (Board resolution) - Special bonus (one-time)
	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	864	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	4,176	- Traditional holiday bonus: 100% of monthly wage - Target Achievement Incentive: Paid biannual basis within the range of 0~200% of monthly wage, and CEO decides the amount according to the level of target achieved. (Adjusted according to division performance) - 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.  ※ Bonus awarded based on his contributions and consideration for his performance; Under his leadership, the Company focused on improving earnings by expanding shipments of premium TVs, and has generated strong results by actively addressing the peak seasonal demand for air conditioners.
		Profit from exercising stock option	-	n/a
		Other Income	17	- 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	864	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	4,176	<ul style="list-style-type: none"> <li>- Traditional holiday bonus: 100% of monthly wage</li> <li>- Target Achievement Incentive: Paid biannual basis within the range of 0~200% of monthly wage, and CEO decides the amount according to the level of target achieved. (Adjusted according to division performance)</li> <li>- 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)</li> <li>- 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.</li> </ul> <p>※ Bonus awarded based on his contributions and consideration for his performance; His leadership enabled the Company to maintain the global status in the mobile category by increasing marketing activities for flagship products.</p>
	Profit from exercising stock option	-	n/a
	Other Income	10	- 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	318	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.
	Bonus	529	<ul style="list-style-type: none"> <li>- Traditional holiday bonus: 100% of monthly wage</li> <li>- Target Achievement Incentive: Paid biannual basis within the range of 0~200% of monthly wage, and CEO decides the amount according to the level of target achieved. (Adjusted according to division performance)</li> <li>- 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)</li> <li>- 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.</li> </ul> <p>※ Bonus awarded based on his contributions and consideration for his performance; He contributed to securing future growth engines, by successfully made a large-scale strategic M&amp;A deals such as the acquisition of Harman.</p>
	Profit from exercising stock option	-	n/a
	Other Income	-	- Fringe benefits are provided in line with the internal regulation for executive treatment (Board resolution)
	Retirement Income	-	n/a
	Other Income	-	n/a

## **A. 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 June 30, 2017, there is no accumulated-basis unexercised stock option.

## IX. Affiliates and Subsidiaries

### 1. Affiliates & Subsidiaries

#### A. Affiliates

- Name of affiliated group: Samsung

As at June 30, 2017, Samsung Group had a total of sixty-two (62) domestic affiliates, where four (4) affiliates (Samsung Active Asset Management, Samsung Hedge Asset Management, Harman International Korea, Red Bend Software Korea) were added. Among the Samsung Group's sixty-two (62) domestic affiliates, sixteen (16) affiliates including Samsung Electronics are listed, and forty-six (46) affiliates are unlisted.

[As of June 30, 2017]

	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	46	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, Samsung Active Asset Management, Samsung Hedge Asset Management, Harman International Korea, Red Bend Software Korea
Total	62	

## 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		4.6			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	8.5	0.1	0.3	3.3	7.5	0.1	0.1	5.5	0.1		14.8	
Samsung Fire & Marine Insurance	1.4	1.4					0.2		1.0				
Samsung Securities.						3.1			1.3				
Samsung Card						1.3		3.0	1.9				
SDC													
Samsung BioLogics													
Samsung Asset Management													
Miracom													
Harman International Industries													
Red Bend Software													
Total	6.3	14.5	19.7	24.0	23.2	17.1	18.9	28.4	20.8	39.8	67.5	100.0	70.0

※ (% of Ownership; As of June 30, 2017; 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	31.5					
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								0.1					
Samsung Fire & Marine Insurance													
Samsung Securities.													
Samsung Card													
SDC										50.0	50.0		
Samsung BioLogics									94.6				
Samsung Asset Management													
Miracom													
Harman International Industries													
Red Bend Software													
Total	91.5	99.3	100.0	100.0	100.0	100.0	68.5	75.0	94.6	50.0	50.0	49.5	100.0

※ (% of Ownership; As of June 30, 2017; 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													
Samsung Asset Management													
Miracom												0.5	
Harman International Industries													
Red Bend Software													
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 June 30, 2017; 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				29.4
Samsung Fire & Marine Insurance										100.0	100.0	100.0	
Samsung Securities.													
Samsung Card													
SDC													
Samsung BioLogics													
Samsung Asset Management													
Miracom													
Harman International Industries													
Red Bend Software													
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	29.4

※ (% of Ownership; As of June 30, 2017; Based on Common shares)

Investee Investor	Samsung Card	S-Printing Solution	Samsung Card Customer Service	Samsung Asset Management	Samsung Futures	Samsung Venture Investment	Samsung Active Asset Management	Samsung Hedge Asset Management	Harman International Korea	Red Bend Software Korea
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										
Samsung Asset Management							100.0	100.0		
Miracom										
Harman International Industries									100.0	
Red Bend Software										100.0
Total	71.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

※ (% of Ownership; As of June 30, 2017; Based on Common shares)



## 2) Overseas

Investor	Investee	Ownership
Samwoo Architects & Engineers	SAMOO DESIGNERS & ENGINEERS INDIA PRIVATE LIMITED	100.0
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.	Samsung Solar Energy LLC	100.0
Samsung C&T America Inc.	S-sprint 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 Renewable Energy Inc.	SRE Summerside Construction GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Summerside Construction 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

Investor	Investee	Ownership
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	35.0
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
SRE Summerside Construction GP Inc.	SRE Summerside Construction LP	0.0
Samsung Solar Energy LLC	Samsung Solar Energy 1 LLC	100.0
Samsung Solar Energy 1 LLC	CS SOLAR LLC	50.0
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. Otelinex S.A	94.3
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-sprint 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

Investor	Investee	Ownership
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 Portuguesa 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

Investor	Investee	Ownership
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	Novalad 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
Studer Japan, Ltd.	Harman International Japan Co., Ltd	100.0
Samsung Electronics America, Inc.	NexusDX, Inc.	100.0
Samsung Electronics America, Inc.	NeuroLogica Corp.	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
Samsung Electronics America, Inc.	Harman International Industries 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 Research America, Inc	Knigine, Inc.	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
Harman International Industries Inc	Studer Japan, Ltd.	100.0
Harman International Industries Inc	Harman International Industries Canada Ltd.	100.0
Harman International Industries Inc	Harman Becker Automotive Systems, Inc.	100.0
Harman International Industries Inc	Harman Professional, Inc.	100.0
Harman International Industries Inc	Red Bend Software Inc.	100.0
Harman International Industries Inc	S1NN USA, Inc.	100.0
Harman International Industries Inc	Harman Connected Services Holding Corp.	100.0
Harman International Industries Inc	AMX Holding Corporation	100.0
Harman International Industries Inc	Harman Financial Group, LLC	100.0
Harman International Industries Inc	Harman Belgium SA	100.0
Harman International Industries Inc	Harman Consumer Division Nordic A/S	100.0

Investor	Investee	Ownership
Harman International Industries Inc	Harman Consumer Finland OY	100.0
Harman International Industries Inc	Harman France SNC	100.0
Harman International Industries Inc	Harman International SNC	0.0
Harman International Industries Inc	Harman Inc. & Co. KG	66.0
Harman International Industries Inc	Harman KG Holding, LLC	100.0
Harman International Industries Inc	Harman Becker Automotive Systems Italy S.R.L.	100.0
Harman International Industries Inc	Harman Finance International SCA	100.0
Harman International Industries Inc	Harman Finance International GP S.a.r.l	100.0
Harman International Industries Inc	Harman Malaysia Sdn. Bhd.	100.0
Harman International Industries Inc	Harman International Singapore Pte. Ltd.	100.0
Harman International Industries Inc	Harman Industries Holding Mauritius, Ltd	100.0
Harman International Industries Inc	Harman International Mexico S de RL de CV	100.0
AMX LLC	AMX UK Limited	100.0
AMX LLC	Knight Image Limited	100.0
AMX LLC	Inspiration Matters Limited	100.0
AMX LLC	Endeleo Limited	100.0
AMX LLC	Harman Professional Singapore Pte. Ltd	100.0
Harman Becker Automotive Systems, Inc.	Harman International Estonia	100.0
Harman Investment Group, LLC	Harman Becker Automotive Systems Manufacturing Kft	5.0
Harman Investment Group, LLC	Harman Do Brasil Industria Eletronica E Participacoes Ltda.	100.0
Harman Professional, Inc.	AMX LLC	35.5
Harman Professional, Inc.	Southern Vision Systems, Inc.	100.0
Harman Professional, Inc.	Harman da Amazonia Industria Electronic e Participacoes	0.0
Harman Professional, Inc.	Harman Do Brasil Industria Eletronica E Participacoes Ltda.	0.0
Red Bend Software Inc.	Red Bend Software SAS France	100.0
Harman Connected Services Inc.	Harman Connected Services Engineering Corp.	100.0
Harman Connected Services Inc.	Triple Play Integration LLC	100.0
Harman Connected Services Inc.	Harman Connected Services South America S.R.L.	100.0
Harman Connected Services Inc.	Harman Connected Services UK Ltd.	100.0
Harman Connected Services Inc.	Global Symphony Technology Group Private Ltd.	100.0
Harman Connected Services Holding Corp.	Harman Connected Services Inc.	100.0
Harman Connected Services Holding Corp.	Harman Connected Services AB.	100.0
AMX Holding Corporation	AMX LLC	64.5
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 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 Aktiefolag	Samsung Nanoradio Design Center	100.0
AKG Acoustics GmbH	Harman Professional ApS	100.0

Investor	Investee	Ownership
AKG Acoustics Gmbh	Studer Professional Audio Gmbh	100.0
Harman Professional ApS	R&D International BVBA	100.0
Harman Professional ApS	Harman Professional France SAS	100.0
Harman Professional ApS	Martin Professional Gmbh	100.0
Harman Professional ApS	Martin Professional Ltd. (UK)	100.0
Harman Professional ApS	Martin Manufacturing UK Ltd.	100.0
Harman Professional ApS	Martin Professional Pte. Ltd.	100.0
Harman Professional ApS	Martin Trading Zhuhai Ltd.	100.0
Harman France SNC	Harman International SNC	100.0
Harman Becker Automotive Systems Gmbh	Harman International Romania SRL	0.0
Harman Becker Automotive Systems Gmbh	Ionroad Technologies, Ltd.	100.0
Harman Holding Gmbh & Co. Kg	Harman Becker Automotive Systems Gmbh	100.0
Harman Holding Gmbh & Co. Kg	Harman Deutschland Gmbh	100.0
Harman Holding Gmbh & Co. Kg	Harman Becker Automotive Systems Manufacturing Kft	95.0
Harman Holding Gmbh & Co. Kg	Duran Audio B.V.	100.0
Harman Holding Gmbh & Co. Kg	Harman RUS CIS, LLC	100.0
Harman Inc. & Co. KG	Harman Holding Gmbh & Co. Kg	100.0
Harman Inc. & Co. KG	Harman Management Gmbh	100.0
Harman Inc. & Co. KG	Harman Hungary Financing Ltd.	100.0
Harman Connected Services AB.	Harman Connected Services OOO	100.0
Harman KG Holding, LLC	Harman Inc. & Co. KG	34.0
Harman Becker Automotive Systems Manufacturing Kft	Harman International s.r.o	100.0
Harman Becker Automotive Systems Manufacturing Kft	Harman Professional Kft	100.0
Harman Becker Automotive Systems Manufacturing Kft	Harman Consumer Nederland B.V.	100.0
Harman Becker Automotive Systems Manufacturing Kft	Harman International Romania SRL	100.0
Harman Becker Automotive Systems Manufacturing Kft	Red Bend Ltd.	100.0
Harman Becker Automotive Systems Manufacturing Kft	TowerSec Ltd.	100.0
Harman Hungary Financing Ltd.	Harman International Industries Limited	100.0
Harman Finance International GP S.a.r.l	Harman Finance International SCA	0.0
Harman Consumer Nederland B.V.	AKG Acoustics Gmbh	100.0
Harman Consumer Nederland B.V.	Harman Holding Limited	100.0
Duran Audio B.V.	Harman Investment Group, LLC	100.0
Duran Audio B.V.	Duran Audio Iberia Espana S.L.	100.0
Harman Connected Services AB.	Harman Connected Services Japan Co. Ltd.	100.0
Harman Connected Services AB.	Harman Connected Services Finland OY	100.0
Harman Connected Services AB.	Harman Connected Services GmbH	100.0
Harman Connected Services AB.	Harman Connected Services Poland Sp.zoo	100.0
Harman Connected Services AB.	Harman Connected Services Limited	100.0
Harman Connected Services AB.	Harman Connected Services (Beijing) Solutions Co. Ltd.	100.0
Harman Connected Services AB.	Harman Connected Services (Chengdu) Solutions Co. Ltd.	100.0
Harman Connected Services AB.	Harman Connected Services Taiwan Inc.	100.0
AMX UK Limited	AMX Gmbh	100.0
Harman Automotive UK Limited	Harman De Mexico S De RI De C.V.	100.0
Harman International Industries Limited	Harman Automotive UK Limited	100.0
Harman International Industries Limited	Harman International Industries PTY. Ltd.	100.0
Harman Connected Services UK Ltd.	Harman Connected Services Morocco	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 Electronics Air Conditioner Europe B.V.	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.	Novalad 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



Investor	Investee	Ownership
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 THAINGUYEN 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 Samsung Electronics Sole Co., Ltd	100.0
Harman International Industries PTY. Ltd.	VFX Systems PTY Ltd.	100.0
Harman International Industries PTY. Ltd.	I.P.S.G. International Product Solution Group PTY Ltd.	100.0
Harman Professional Singapore Pte. Ltd	AMX Products And Solutions Private Limited	100.0
Harman Connected Services Technologies Pvt. Ltd.	Aditi Technologies Europe GmbH	100.0
Harman Connected Services Technologies Pvt. Ltd.	INSP India Software Development Private Limited	100.0
Harman Connected Services Corp. India Pvt. Ltd.	Harman Connected Services Technologies Pvt. 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
Harman International (China) Holdings Co., Ltd	Harman Neusoft Automotive Infotech (Dalian) Co., Ltd.	100.0
Harman International (China) Holdings Co., Ltd	Harman (Suzhou) Audio And Infotainment Systems Co., Ltd	100.0
Harman International (China) Holdings Co., Ltd	Harman Technology (Shenzhen) Co., Ltd.	100.0
Harman International (China) Holdings Co., Ltd	Harman (China) Technologies Co. Ltd.	100.0
Harman Holding Limited	Harman Commerical (Shanghai) Co., Ltd.	100.0
Harman Holding Limited	Harman International (China) Holdings Co., Ltd	100.0
Harman Holding Limited	Harman Automotive Electronic Systems (Suzhou) Co., Ltd	100.0
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
Harman Industries Holding Mauritius, Ltd	Harman International (India) Private Limited	100.0
Global Symphony Technology Group Private Ltd.	Harman Connected Services Corp. India Pvt. Ltd.	100.0
Ionroad Technologies, Ltd.	iOnRoad Limited	100.0
Red Bend Ltd.	Red Bend Software KK	100.0
Red Bend Ltd.	Red Bend Software Ltd.	100.0
Red Bend Ltd.	Broadsense Ltd.	100.0
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.	Simpress Comercio, Locacao e Servicos S.A.	100.0
Samsung Electronica da Amazonia Ltda.	Samsung Electronics Argentina S.A.	2.0
Harman Do Brasil Industria Eletronica E Participacoes Ltda.	Harman da Amazonia Industria Electronic e Participacoes	100.0
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

Investor	Investee	Ownership
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	Novalad 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	Samsung SDI(Wuxi) Battery Systems Co., Ltd.	50.0
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-Mechanics 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 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



Investor	Investee	Ownership
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	Agriplam 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	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	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

Investor	Investee	Ownership
Samsung C&T Corporation	SCNT Power Kelar Inversiones Limitada	100.0
Samsung C&T Corporation	Samsung C&T Corporation Rus LLC	100.0
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 UK Ltd.	100.0
Samsung SDS	Samsung GSCL Sweden AB	100.0
Samsung SDS	Samsung SDS Global SCL France SAS	100.0
Samsung SDS	Samsung SDS Global SCL Greece Societe Anonyme	100.0
Samsung SDS	Samsung SDS Global SCL Baltics, SIA	100.0
Samsung SDS	Samsung SDS Global SCL Italy S.R.L. A Socio Unico	100.0
Samsung SDS	Samsung SDS Global Supply Chain Logistics Spain S.L.U	100.0
Samsung SDS	Samsung SDS Global SCL Netherlands Cooperatief U.A	100.0
Samsung SDS	Samsung SDS Global SCL Germany GmbH	100.0
Samsung SDS	Samsung GSCL Portugal, Sociedade Unipessoal Lda	100.0
Samsung SDS	Samsung SDS Global SCL Austria GmbH	100.0
Samsung SDS	Samsung SDS Asia Pacific Pte. Ltd.	100.0
Samsung SDS	Samsung Data Systems India Private Limited	100.0
Samsung SDS	SAMSUNG SDS VIETNAM CO., LTD.	100.0
Samsung SDS	Samsung SDS India Private Limited	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.	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

Investor	Investee	Ownership
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 Co. Ltd.	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 Greece Societe Anonyme	0.0
Samsung SDS Global SCL Netherlands Cooperatief U.A	Samsung SDS Global SCL Rus Limited Liability Company	0.0
Samsung SDS China, Ltd.	Samsung SDS Global SCL Beijing Co., Ltd	100.0
Samsung IT Services (Beijing) Co., Ltd.	Samsung SDS Global Development Center Xi'an	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	Muharraq Wastewater Services Company W.L.L.	64.8
Samsung Engineering	Muharraq STP Company B.S.C.	4.6
Samsung Engineering	Muharraq 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.	Muharraq 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
Muharraq Holding Company 1 Ltd.	Muharraq Holding Company 2 Ltd.	100.0
Muharraq Holding Company 2 Ltd.	Muharraq STP Company B.S.C.	89.9
S1 Corporation	SOCM LLC	100.0
S1 Corporation	S-1 CORPORATION VIETNAM CO., LTD	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	72.2
Cheil Worldwide	Cheil Europe Ltd.	100.0

Investor	Investee	Ownership
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
Hotel Shilla	Shilla Travel Retail Hong Kong Limited	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
Iris Canada Holdings Ltd	Pricing Solutions Ltd	75.1
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 Canada Holdings Ltd	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

Investor	Investee	Ownership
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	Pricing Solutions (UK) Limited	75.0
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 Worldwide (Thailand) Limited	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 Ventures (Worldwide) Limited	THE ELEPHANT ROOM LIMITED	49.0
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
Samsung Shilla Business Service Beijing Co., Ltd.	Samsung Hospitality China Co.,Ltd	100.0
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	100.0
Cheil Rus LLC	One RX Russia LLC	0.1

※ (% of Ownership; As of June 30, 2017; 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:  
May 1, 2017

(2) Summary of Regulation

- Restriction on cross-holdings
- Restriction on debt guarantee between affiliates
- Restriction on affiliate voting rights of financial & insurance companies
- Decision making of board committee and public disclosure of large-scale inter-affiliate transactions
- Public disclosure of important matters of unlisted companies
- Other public disclosures related to Group status

## D. Concurrent Position with Other Affiliates

[As of June 30, 2017]

Name	Concurrent Position		
	Name of company	Position	Full/Part Time
OH-HYUN KWON	Samsung Display	CEO	Full Time
DONGSOO JUN	Samsung Medison	CEO	Full Time
YONGSHIK KIM	SEMES	CEO	Full Time
JaeHo Shin	SEMES	Auditor	Part Time
JEONGJUN CHOI	Samsung Electronics Logitech	Auditor	Part Time
	Samsung Electronics Sales	Auditor	Part Time
	Samsung Electronics Service	Auditor	Part Time
	Samsung Display	Auditor	Part Time
Sooncheol Park	Samsung Medison	Auditor	Part Time
	S-Printing Solution	Auditor	Part Time
	Samsung Venture Investment	Auditor	Part Time
Kwang-Chae PARK	Samsung Medison	Executive director	Full Time
Wonjoon Lee	SERI	Auditor	Part Time
Joe Hur	STECO	Non-Executive director	Part Time
Jason Oh	STECO	Auditor	Part Time
Taeyang Yoon	SEMES	Non-Executive director	Part Time
SE-YEON JANG	SEMES	Non-Executive director	Part Time
GIHO SEO	SEMES	Non-Executive director	Part Time

## E. Equity Investments in other corporations

(1) The total book value of equity investments in other corporations as of June 30, 2017 is KRW 57,032 billion (for the purpose of business operations, etc.)

[As of June 30, 2017]

(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				17,693	23.69	445,244	7,662,629	22,914
Unlisted	STECO	1995.06	Management	24,000	2,590	70	35,861				2,590	70	35,861	112,968	334
Unlisted	SEMES	1992.12	Management	1,000	2,173	91.54	71,906				2,173	91.54	71,906	889,089	55,962
Unlisted	SERI	1991.05	Business	320	3,576	29.8	24,942				3,576	29.8	24,942	110,400	33
Listed	Samsung SDS	1992.07	Business	6,160	17,472	22.58	560,827				17,472	22.58	560,827	6,842,004	514,328
Unlisted	Samsung Electronics Service	1998.01	Management	30,000	6,000	99.33	48,121				6,000	99.33	48,121	296,820	-4,578
Unlisted	Samsung Electronics Sales	2000.12	Management	3,100	1,767	100	247,523				1,767	100	247,523	597,695	1,730
Unlisted	Samsung Electronics Logitech	1999.04	Management	76	1,011	100	46,669				1,011	100	46,669	143,800	11,562
Unlisted	Samsung Display	2012.04	Management	16,009,547	221,969	84.78	18,509,307				221,969	84.78	18,509,307	43,305,405	1,498,628
Unlisted	SVIC #21	2011.11	Management	19,800	1	99	97,570	0	-11,484		1	99	86,086	99,815	6,525
Unlisted	SVIC #22	2011.11	Management	19,800	1	99	147,282	0	-7,920		1	99	139,362	143,315	-14,804
Unlisted	SVIC #26	2014.11	Management	19,800	2	99	183,744	0	-17,820		2	99	165,924	169,961	-6,288

※ 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 #27	2014.09	Management	5,940	0	99	15,642				0	99	15,642	15,131	-1,430
Unlisted	SVIC #28	2015.02	Management	7,425	2	99	159,984	0	-4,940		2	99	155,044	175,205	-1,228
Unlisted	SVIC #32	2016.08	Management	19,800	0	99	40,194	0	7,623		0	99	47,817	39,936	-1,924
Unlisted	SVIC #33	2016.11	Management	4,950	0	99	4,950	0	27,720		0	99	32,670	5,008	-692
Unlisted	Samsung Medison	2011.02	Management	286,384	87,350	68.45	477,648				87,350	68.45	477,648	303,561	-24,455
Unlisted	S-Printing Solution	2016.11	Business	218,370	10,000	100	218,370				10,000	100	218,370	568,549	-1,029
Unlisted	Samsung BioLogics	2011.04	Business	30,000	20,837	31.49	443,193				20,837	31.49	443,193	7,533,016	-176,823
Unlisted	Intellectual Discovery	2011.05	Business	5,000	1,784	15.71	5,241				1,784	15.71	5,241	42,653	-4,067
Listed	Samsung Heavy Industries	1977.09	Business	125	65,931	16.91	609,862			210,979	65,931	16.91	820,841	17,217,463	-138,777
Listed	Hotel Shilla	1979.12	Business	252	2,005	5.11	96,527			17,942	2,005	5.11	114,469	2,040,955	27,830
Listed	Cheil Worldwide	1988.09	Business	185	29,038	25.24	491,599				29,038	25.24	491,599	2,151,432	90,648
Listed	A-Tech Solution	2009.11	Business	26,348	1,592	15.92	16,636			-3,773	1,592	15.92	12,863	159,802	1,285
Listed	iMarket Korea	2000.12	Business	1,900	647	1.8	6,732			2,071	647	1.8	8,804	1,334,065	35,590
Listed	KT Skylife	2001.12	Business	3,344	240	0.5	4,152			-228	240	0.5	3,924	777,948	68,863
Listed	Samsung SDI	1977.01	Business	304	13,463	19.58	1,242,605				13,463	19.58	1,242,605	14,900,311	211,111

※ 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	Wonik IPS	2016.04	Business	16,214	1,851	4.48	48,495			6,386	1,851	4.48	54,880	280,654	22,519
Listed	Wonik Holdings	2013.12	Business	15,411	1,759	2.28	11,857			2,832	1,759	2.28	14,689	862,636	198,964
Unlisted	SSLM	2012.04	Business	52,296	220	0.39	0	-220	0		0	0	0	176,271	-32,484
Unlisted	Kihyup Technology Banking	1995.01	Business	5,000	1,000	17.24	5,000				1,000	17.24	5,000	97,792	1,117
Unlisted	The Korea Economic Daily	1987.05	Business	150	72	0.39	365				72	0.39	365	265,249	22,122
Unlisted	Samsung Venture Investment	1999.11	Business	4,900	980	16.33	7,515				980	16.33	7,515	93,335	7,076
Unlisted	Cyber Bank	2000.12	Business	8,000	1,083	7.46	0				1,083	7.46	0	0	0
Unlisted	FineChips	2001.12	Business	10	2	3.81	10				2	3.81	10	4,476	686
Unlisted	SK Telink	2010.11	Business	4,357	15	1.13	4,357				15	1.13	4,357	445,376	59,598
Unlisted	Inkel	2006.11	Business	130	0	0	0				0	0	0	113,368	-22,459
Listed	Yongpyong Resort	2007.05	Business	1,869	400	0.83	3,432			1,428	400	0.83	4,860	928,946	14,321
Unlisted	Sambo Computer	2012.09	Withdrawal	0	0	0.01	0				0	0.01	0	37,789	2,315
Unlisted	Icube #1	2009.12	Business	4,000	0	16.23	4,000		-2,386		0	16.23	1,614	8,650	-4,350
Unlisted	KT Wibro	2010.07	Business	60,000	600	24.2	48,500	-600	-48,500		0	0	0	274,821	4,692
Unlisted	Shinsung Eng & Construction	2010.07	Withdrawal	1	0	0.01	0				0	0.01	0	50,934	-1,211

※ 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	Woobang	2010.07	Withdrawal	0	1	0	0				1	0	0	334,186	37,017
Unlisted	Heehoon Design & Global	2010.07	Withdrawal	0	2	0.02	0	-2	0		0	0	0	0	0
Unlisted	Daewoo Development	2012.12	Withdrawal	0	0	0.02	0				0	0.02	0	164,940	7,845
Unlisted	Daewoo Songdo Development	2012.12	Withdrawal	0	9	0.02	0				9	0.02	0	21,715	-1,162
Unlisted	Zyle Motor Sales	2012.12	Withdrawal	0	1	0	0				1	0	0	279,358	5,590
Unlisted	Woojung Construction	2014.04	Withdrawal	0	5	0.35	0	-5	0		0	0	0	0	0
Unlisted	Hyunjin	2014.04	Withdrawal	0	23	0.25	0				23	0.25	0	21,785	-5,511
Unlisted	Sungwon Construction	2014.04	Withdrawal	0	1	0.03	0				1	0.03	0	27,744	-627
Unlisted	Inhee	2014.04	Withdrawal	0	2	0.17	0				2	0.17	0	10,092	38
Unlisted	Samsung Solution	2014.04	Withdrawal	0	4	6.7	0				4	6.7	0	8,607	387
Unlisted	STX Construction	2014.04	Withdrawal	0	0	0.01	0				0	0.01	0	76,758	-10,907
Unlisted	Poonglim	2014.05	Withdrawal	0	52	0.37	0				52	0.37	0	263,815	-60,461
Unlisted	Semiconductor Growth Fund	2017.03	Business	500	0	0	0	14,500,000	14,500		14,500,000	66.67	14,500	0	0
Unlisted	JNT	2011.02	Business	1,800	0	24	2,496	0	-384		0	24	2,112	9,937	-915
Unlisted	SV	2011.02	Business	1,850	0	14.85	2,292				0	14.85	2,292	19,502	-940

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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	Seoul Investment Partners	2011.1	Business	1,550	0	19.38	2,689		-221		0	19.38	2,468	11,627	-186
Unlisted	Daishin Aju IB	2011.08	Business	258	0	3	726				0	3	726	24,396	-8,781
Unlisted	TS	2011.11	Business	1,700	0	20.48	1,204				0	20.48	1,204	12,718	20
Unlisted	IMM	2011.11	Business	760	0	7.6	708		-224		0	7.6	485	4,885	-4,145
Unlisted	L&S	2012.07	Business	848	0	7.46	1,756				0	7.46	1,756	23,455	4,759
Unlisted	Maltani Corp.	2012.04	Business	16,544	45	15	16,270				45	15	16,270	73,361	1,318
Unlisted	Pantech	2013.06	Business	53,000	53,000	10.03	0				53,000	10.03	0	60,155	-399
Unlisted	KTCNP-GC	2013.12	Business	960	0	3.56	5,255		-563		0	3.56	4,692	137,299	-7,731
Unlisted	Postech Technology Investment	2013.12	Business	600	0	10	600				0	10	600	5,762	-45
Unlisted	AI Research Institute	2016.07	Business	3,000	600	14.29	3,000				600	14.29	3,000	19,927	1,149
Unlisted	SECA	1992.08	Position Security	3,823	0	100	90,922				0	100	90,922	728,783	48,727
Unlisted	SEA	1978.07	Position Security	59,362	492	100	10,063,081		6,990,725		492	100	17,053,807	21,810,492	246,141
Unlisted	SELA	1989.04	Position Security	319	40	100	86,962				40	100	86,962	371,630	41,466
Unlisted	SEM	1995.07	Position Security	3,032	3,837	63.58	165,638				3,837	63.58	165,638	1,136,282	95,024
Unlisted	SEASA	1996.06	Position Security	4,696	21,854	98	6,779				21,854	98	6,779	60,558	582

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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	SEDA	1994.01	Position Security	13,224	77,205,709	87.04	647,620				77,205,709	87.04	647,620	5,200,799	966,821
Unlisted	SECH	2002.12	Position Security	597	0	4.1	597				0	4.1	597	438,074	17,303
Unlisted	SESA	1989.01	Position Security	3,276	8,021	100	142,091				8,021	100	142,091	794,238	34,156
Unlisted	SENA	1992.03	Position Security	392	1,000	100	69,372				1,000	100	69,372	961,566	24,867
Unlisted	SEH	1991.05	Position Security	1,954	753	100	650,157				753	100	650,157	1,743,979	89,712
Unlisted	SEP	1982.09	Position Security	204	1,751	100	37,616				1,751	100	37,616	157,324	6,821
Unlisted	SEF	1991.08	Position Security	230	2,700	100	234,115				2,700	100	234,115	1,207,985	56,790
Unlisted	SEUK	1995.07	Position Security	33,908	109,546	100	433,202				109,546	100	433,202	1,526,879	107,243
Unlisted	SEHG	1982.02	Position Security	28,042	0	100	354,846				0	100	354,846	532,697	96,966
Unlisted	SEAG	2002.01	Position Security	40	0	100	32,162				0	100	32,162	303,737	14,268
Unlisted	SEI	1993.05	Position Security	862	677	100	143,181				677	100	143,181	901,906	53,567
Unlisted	SEBN	1995.07	Position Security	236	539,138	100	914,751				539,138	100	914,751	1,319,479	27,363
Unlisted	SELS	1991.05	Position Security	18,314	1,306	100	24,288				1,306	100	24,288	2,887,230	36,768
Unlisted	SEPOL	1996.04	Position Security	5,462	106	100	78,267				106	100	78,267	526,135	39,215
Unlisted	SSA	1998.12	Position Security	263	2,000	100	32,622				2,000	100	32,622	491,077	18,583

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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	SESK	2002.06	Position Security	8,976	0	55.68	263,767				0	55.68	263,767	2,053,467	115,387
Unlisted	SEEH	2008.01	Position Security	4,214	0	100	1,369,992				0	100	1,369,992	8,643,308	350,974
Unlisted	SEO	1997.01	Position Security	120	0	100	-10,043				0	100	-10,043	126,485	-941
Unlisted	SERC	2006.01	Position Security	24,877	0	100	188,290				0	100	188,290	981,971	59,986
Unlisted	SERK	2007.07	Position Security	4,600	0	100	204,555				0	100	204,555	902,533	112,741
Unlisted	SEAU	1987.11	Position Security	392	53,200	100	111,964				53,200	100	111,964	431,774	1,274
Unlisted	SEMA	1989.09	Position Security	4,378	16,247	100	153,602				16,247	100	153,602	136,334	14,555
Unlisted	SGE	1995.05	Position Security	827	0	100	32,836				0	100	32,836	873,034	-62,828
Unlisted	SEEG	2012.07	Position Security	23	0	0.05	39				0	0.05	39	610,030	48,512
Unlisted	SEIN	1991.08	Position Security	7,463	46	99.99	118,909				46	99.99	118,909	1,204,467	84,705
Unlisted	SDMA	1995.03	Position Security	21,876	71,400	75	244,382		-225,642		71,400	75	18,741	212,535	9,595
Unlisted	SIEL	1995.08	Position Security	5,414	216,787	100	75,263				216,787	100	75,263	4,563,407	753,164
Unlisted	SRI-B	2005.05	Position Security	7,358	17	100	31,787				17	100	31,787	190,083	45,529
Unlisted	SAVINA	1995.01	Position Security	5,839	0	100	28,365				0	100	28,365	217,496	50,399
Unlisted	TSE	1988.01	Position Security	1,390	11,020	91.83	279,163				11,020	91.83	279,163	2,079,865	198,980

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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	STE	1996.01	Position Security	4,206	2,499	49	0				2,499	49	0	6,772	0
Unlisted	SME	2003.05	Position Security	4,796	17,100	100	7,644				17,100	100	7,644	313,299	19,309
Unlisted	SAPL	2006.07	Position Security	793	877,133	100	981,483				877,133	100	981,483	5,528,472	1,056,956
Unlisted	SEHK	1988.09	Position Security	349	274,250	100	79,033				274,250	100	79,033	1,256,625	20,902
Unlisted	SET	1994.11	Position Security	456	27,270	100	112,949				27,270	100	112,949	1,857,017	-36,178
Unlisted	SESS	1994.12	Position Security	18,875	0	100	504,313				0	100	504,313	866,173	79,963
Unlisted	SCIC	1996.03	Position Security	23,253	0	100	640,452				0	100	640,452	13,632,938	298,373
Unlisted	SEHZ	1992.12	Position Security	792	0	89.56	255,535				0	89.56	255,535	6,174,579	764,426
Unlisted	SSEC	1995.04	Position Security	32,128	0	69.06	130,551				0	69.06	130,551	604,198	55,944
Unlisted	TSEC	1993.04	Position Security	15,064	0	48.2	138,101				0	48.2	138,101	831,374	125,192
Unlisted	SSDP	1993.08	Position Security	4,446	0	87.1	65,319				0	87.1	65,319	917,909	56,095
Unlisted	TSTC	2001.03	Position Security	10,813	0	90	490,041				0	90	490,041	1,354,396	225,537
Unlisted	SSET	2002.02	Position Security	6,009	0	95	121,624				0	95	121,624	147,439	11,604
Unlisted	SESC	2002.09	Position Security	5,471	0	73.7	34,028				0	73.7	34,028	923,116	41,963
Unlisted	SSS	2001.01	Position Security	1,200	0	100	19,189				0	100	19,189	5,862,409	181,041

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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	SSCR	2006.09	Position Security	3,405	0	100	9,332				0	100	9,332	26,219	2,455
Unlisted	TSOE	2010.04	Position Security	33,837	0	82	73,893				0	82	73,893	87,314	-31,551
Unlisted	TSLED	2012.04	Position Security	119,519	0	100	119,519				0	100	119,519	391,711	49,608
Unlisted	SCS	2012.09	Position Security	111,770	0	100	3,888,196		137,204		0	100	4,025,400	9,749,448	1,113,218
Unlisted	SSCX	2016.04	Position Security	1,141	0	100	1,141				0	100	1,141	318,010	11,537
Unlisted	SJC	1975.12	Position Security	273	1,560	100	370,647				1,560	100	370,647	661,483	4,886
Unlisted	SRJ	1992.08	Position Security	3,120	122	100	117,257				122	100	117,257	156,447	3,543
Unlisted	TSST Japan	2004.03	Business	1,639	30	49.03	0				30	49.03	0	850	-41
Unlisted	SDIB	1996.09	Business	3,110	586	0.08	0				586	0.08	0	27,730	1,472
Unlisted	Semiconductor Portal	2002.12	Business	38	0	1.21	10				0	1.21	10	1,682	57
Unlisted	Nanosys, Inc	2010.08	Business	4,774	1,747	1.43	2,387				1,747	1.48	2,387	23,824	-13,454
Unlisted	ONE BLUE LLC	2011.07	Business	1,766	0	16.67	1,766				0	16.67	1,766	37,111	1,263
Unlisted	TidalScale	2013.08	Business	1,112	2,882	8.87	1,112				2,882	8.28	1,112	6,275	-6,077
Unlisted	Sentiance	2012.12	Business	3,422	7	10.85	3,422				7	8.41	3,422	5,688	-2,661
Unlisted	Mantis Vision	2014.01	Business	1,594	355	2.93	1,980				355	2.93	1,980	4,471	-7,191

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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	Argus Cyber Security	2015.09	Business	356	10	0.39	356	373			383	0.39	356	27,464	-5,640
Unlisted	INEDA	2014.04	Business	3,181	6,100	7.42	5,397				6,100	3.19	5,397	7,225	-15,654
Unlisted	Leman	2014.08	Business	1,019	17	3.66	1,019				17	3.66	1,019	3,369	-3,240
Unlisted	Alces	2014.09	Business	4,832	421	18.5	4,832				421	18.5	4,832	2,878	-3,397
Unlisted	Keyssa	2016.01	Business	3,332	1,235	2.58	3,332				1,235	2.23	3,332	34,786	-23,422
Unlisted	Zyomed	2016.01	Business	2,044	1,464	2.88	2,044				1,464	2.88	2,044	17,136	-2,908
Unlisted	SensiFree	2016.01	Business	2,111	490	17.88	2,111				490	17.88	2,111	2,411	-2,642
Unlisted	Bot Home Automation	2016.03	Business	2,307	540	0.89	2,307				540	0.89	2,307	209,182	-57,704
Unlisted	Unispectral	2016.02	Business	1,112	115	8.83	1,112	1,616	502		1731	11.37	1,614	2,220	-2,336
Unlisted	Quobyte	2016.04	Business	2,865	729	11.83	2,865				729	11.83	2,865	3,995	-1,773
Unlisted	Afero	2016.05	Business	5,685	723	5.6	5,685				723	5.72	5,685	7,480	-12,184
Unlisted	Graphcore	2016.06	Business	3,494	3,000	7.73	3,494				3,000	5.08	3,494	27,974	-10,171
Unlisted	Soundhound	2016.12	Business	7,059	306	1.24	7,059				306	1.2	7,059	48,723	-23,483

※ 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 June 30, 2017)

- 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.	2018-06-13	1,000,000	0	1,000,000	0	1,423,000
SEM	Subsidiary	Santander, etc.	2018-06-13	0	0	0	0	546,000
SAMCOL	Subsidiary	Citibank, etc.	2018-06-13	83,585	0	22,256	61,329	156,000
SEDA	Subsidiary	HSBC, etc.	2018-06-13	0	0	0	0	769,000
SECH	Subsidiary	Citibank, etc.	2018-06-13	0	15,034	0	15,034	178,000
SEPR	Subsidiary	BBVA, etc.	2018-06-13	68,739	0	31,709	37,030	180,000
SSA	Subsidiary	Citibank, etc.	2018-06-13	34,327	0	34,327	0	335,000
SEMAG	Subsidiary	SocGen, etc.	2017-12-16	0	0	0	0	110,000
SETK	Subsidiary	BTMU, etc.	2018-06-13	187,867	80,923	0	268,790	590,000
SECE	Subsidiary	Citibank, etc.	2017-12-16	0	0	0	0	94,000
SEEG	Subsidiary	HSBC	2018-06-13	0	0	0	0	50,000
SEIN	Subsidiary	BNP, etc.	2018-06-13	0	0	0	0	186,000
SJC	Subsidiary	Mizuho Bank, etc.	2018-05-31	0	36,514	0	36,514	887,765
SEUC	Subsidiary	Credit Agricole, etc.	2018-06-13	0	0	0	0	175,000
SEDAM	Subsidiary	Citibank, etc.	2018-06-13	101,326	0	34,271	67,055	391,000
SECA	Subsidiary	Nova Scotia	2017-10-10	0	0	0	0	11,546
SELA	Subsidiary	Citibank	2017-12-16	0	0	0	0	30,000
SEEH	Subsidiary	HSBC, etc.	2018-06-13	0	0	0	0	727,000
SERK	Subsidiary	BNP, etc.	2018-06-28	0	0	0	0	345,000
SELV	Subsidiary	Citibank	2017-12-16	0	0	0	0	10,000
SAPL	Subsidiary	BOA, etc.	2018-06-13	0	0	0	0	411,000
SEV	Subsidiary	SCB	2017-11-08	0	0	0	0	15,000
SAVINA	Subsidiary	SCB, etc.	2018-06-13	0	0	0	0	71,000
SET	Subsidiary	SCB	2017-11-08	0	0	0	0	30,000
SCIC	Subsidiary	HSBC, etc.	2018-06-13	0	0	0	0	350,000
SME	Subsidiary	SCB	2017-11-08	0	0	0	0	110,000
SAMEX	Subsidiary	Citibank	2017-12-16	0	0	0	0	5,000
SEASA	Subsidiary	Citibank	2017-12-16	0	0	0	0	1,000
SSAP	Subsidiary	SCB	2017-11-08	10,282	0	10,282	0	30,000
Simpres	Subsidiary	BNP	2017-11-08	44,529	0	949	43,580	60,000
SEHK	Subsidiary	HSBC	2018-06-13	0	0	0	0	2,000
SEPM	Subsidiary	HSBC	2018-06-13	86,870	21,018	0	107,888	125,000
Adgear	Subsidiary	BOA	2017-11-08	0	1,539	0	1,539	2,000
Harman Finance International, S.C.A	Subsidiary	JP Morgan, etc.	2022-05-27	367,115	33,370	0	400,485	400,485
Total				1,984,640	188,398	1,133,794	1,039,244	8,806,796

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

During the first half of 2017, the Company sold its assets to affiliates including SAS (Samsung Austin Semiconductor LLC.) to increase the production capacity of such affiliates. Also, the Company acquired assets including facility equipment from affiliates to improve efficiency of domestic production.

(Unit: KRW million)

Company	Relationship	Transaction Type	Transaction Date	Date based on	Asset	Amount	Gain or Loss on Disposal
SAS	Affiliates	Asset sale	2017.05.11	Date of sale	Machinery, etc.	67,379	58,136
SCS	Affiliates	Asset sale/purchase	2017.06.29	Date of sale/purchase	Machinery, etc.	43,669	3,297
SESS	Affiliates	Asset sale/purchase	2017.06.14	Date of sale/purchase	Machinery, etc.	8,702	1,588
SSEC	Affiliates	Asset purchase	2017.03.16	Date of purchase	Machinery, etc.	2,549	-
SEV	Affiliates	Asset sale/purchase	2017.03.16	Date of sale/purchase	Machinery, etc.	1,167	-6
SSEC(E)	Affiliates	Asset purchase	2017.05.23	Date of purchase	Machinery, etc.	1,068	-
TSE	Affiliates	Asset sale	2017.03.01	Date of sale	Machinery, etc.	842	19
SEVT	Affiliates	Asset sale	2017.06.23	Date of sale	Machinery, etc.	507	-38
SEUK	Affiliates	Asset purchase	2017.02.28	Date of purchase	Machinery, etc.	426	-
SEHC	Affiliates	Asset sale	2017.05.17	Date of sale	Machinery, etc.	416	29
SESK	Affiliates	Asset sale	2017.06.01	Date of sale	Machinery, etc.	232	12
SEDA	Affiliates	Asset sale	2017.03.14	Date of sale	Machinery, etc.	203	125
TSLED	Affiliates	Asset purchase	2017.05.28	Date of purchase	Machinery, etc.	106	-

- ※ Transaction amount was properly calculated by an appropriate method based upon market value assessment.
- ※ Acquisitions and disposals of assets with affiliates and subsidiaries listed above are not subject to BOD decision.
- ※ 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	2017.01 - 2017.06	Purchase/sales of HHP and Home Appliance, etc.	12,430,608
SSI	Subsidiary	Sales/Purchases	2017.01 - 2017.06	Purchase/sales of semiconductors, etc	10,266,539
SEVT	Subsidiary	Sales/Purchases	2017.01 - 2017.06	Purchase/sales of HHP, etc	10,153,860
SSS	Subsidiary	Sales/Purchases	2017.01 - 2017.06	Purchase/sales of semiconductors, etc	8,212,606

During the first half of 2017, SEC conducted purchase and sales transactions with SEA (Samsung Electronics America, Inc.), etc.

#### 4. Transactions with Stakeholders other than Affiliates and Subsidiaries

As of June 30, 2017, the Company's outstanding loan amount is KRW 134.5 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 7.9 billion for employees' loans from financial institutions relating to housing rental.

(Unit: KRW million)

Company	Relationship	Loans				
		Account title	Transaction			End of period (June 30, 2017)
			Beginning of period (January 1, 2017)	Increase	Decrease	
SEST Co., Ltd., etc	Partner company	Short-term loans	31,271	532	1,574	30,229
Bumjin I&D, etc	Partner company and employee	Long-term loans	84,383	54,776	34,887	104,272
Total			115,653	55,308	36,461	134,500

※ 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 June 30, 2017]

Date	Agenda	Results
The 48th annual general meeting of shareholders ('17.3.24)	1. Approval of Balance Sheet, Income Statement, and Statement of Appropriation of Retained Earnings (Draft), etc. for FY2016	Approved
	2. Approval of the limit on the remuneration for Directors	Approved
The 48th 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
The 47th 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	Approved
	2.1.2: Kwang-Soo Song	Approved
	2.1.3: Jae-Wan Bahk	Approved
	2.2: Appointment of Executive Director	
	2.2.1: Boo-Keun Yoon	Approved
2.2.2: Jong-Kyun Shin	Approved	
2.2.3: Sang-Hoon Lee	Approved	
2.3: Appointment of Members of Audit Committee		
2.3.1: In-Ho Lee	Approved	
2.3.2: Kwang-Soo Song	Approved	
3. Approval of the Remuneration Limit for the Directors	Approved	
4. Approval of amendments to the Articles of Incorporation	Approved	
The 46th 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	Approved
	2.1.2: Byeong-Gi Lee	Approved
2.2: Appointment of Executive Director (Oh-Hyun Kwon)	Approved	
2.3: Appointment of Member of Audit Committee (Han-Joong Kim)	Approved	
3. 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 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 company’s certiorari petition related to the design patent infringement and on March 22, 2016, the District court stayed remand proceedings including a hearing for supplemental damages and re-trial which was supposed to start from March 28, 2016. On June 1, 2016, the Company submitted written arguments in the design-related appeal, and on June 8, 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 for Apple. On August 29, 2016, the Company submitted a written rebuttal. Oral hearing for the appeal was held at the Supreme Court on October 11, 2016. On December 6, 2016, the Supreme Court issued a ruling accepting the Company’s appeal and returned the case to the Court of Appeals. On February 7, 2017, the Court of Appeals remanded the case to the District Court.

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. On February 26, 2016, the appellate court reversed the first trial judgment of November 25, 2014 ruling that Apple’s technology patents were not infringed and were invalid. On March 30, 2016, Apple filed a petition for an en banc rehearing about the rulings of the appellate court. On October 7, 2016, the en banc appellate court reversed the rulings of the appellate court, affirming that the Company had infringed Apple’s patent and awarded the damage. On March 10, 2017, the Company appealed to the Supreme Court against the rulings of the en banc appellate Court. 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.

#### 4. Guarantees

- Domestic: As of June 30, 2017, the Company provided a debt guarantee of KRW 34,145 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 52,507 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.	2018-06-13	1,000,000	0	1,000,000	0	1,423,000
SEM	Subsidiary	Santander, etc.	2018-06-13	0	0	0	0	546,000
SAMCOL	Subsidiary	Citibank, etc.	2018-06-13	83,585	0	22,256	61,329	156,000
SEDA	Subsidiary	HSBC, etc.	2018-06-13	0	0	0	0	769,000
SECH	Subsidiary	Citibank, etc.	2018-06-13	0	15,034	0	15,034	178,000
SEPR	Subsidiary	BBVA, etc.	2018-06-13	68,739	0	31,709	37,030	180,000
SSA	Subsidiary	Citibank, etc.	2018-06-13	34,327	0	34,327	0	335,000
SEMAG	Subsidiary	SocGen, etc.	2017-12-16	0	0	0	0	110,000
SETK	Subsidiary	BTMU, etc.	2018-06-13	187,867	80,923	0	268,790	590,000
SECE	Subsidiary	Citibank, etc.	2017-12-16	0	0	0	0	94,000
SEEG	Subsidiary	HSBC	2018-06-13	0	0	0	0	50,000
SEIN	Subsidiary	BNP, etc.	2018-06-13	0	0	0	0	186,000
SJC	Subsidiary	Mizuho Bank, etc.	2018-05-31	0	36,514	0	36,514	887,765
SEUC	Subsidiary	Credit Agricole, etc.	2018-06-13	0	0	0	0	175,000
SEDAM	Subsidiary	Citibank, etc.	2018-06-13	101,326	0	34,271	67,055	391,000
SECA	Subsidiary	Nova Scotia	2017-10-10	0	0	0	0	11,546
SELA	Subsidiary	Citibank	2017-12-16	0	0	0	0	30,000
SEEH	Subsidiary	HSBC, etc.	2018-06-13	0	0	0	0	727,000
SERK	Subsidiary	BNP, etc.	2018-06-28	0	0	0	0	345,000
SELV	Subsidiary	Citibank	2017-12-16	0	0	0	0	10,000
SAPL	Subsidiary	BOA, etc.	2018-06-13	0	0	0	0	411,000
SEV	Subsidiary	SCB	2017-11-08	0	0	0	0	15,000
SAVINA	Subsidiary	SCB, etc.	2018-06-13	0	0	0	0	71,000
SET	Subsidiary	SCB	2017-11-08	0	0	0	0	30,000
SCIC	Subsidiary	HSBC, etc.	2018-06-13	0	0	0	0	350,000
SME	Subsidiary	SCB	2017-11-08	0	0	0	0	110,000
SAMEX	Subsidiary	Citibank	2017-12-16	0	0	0	0	5,000
SEASA	Subsidiary	Citibank	2017-12-16	0	0	0	0	1,000
SSAP	Subsidiary	SCB	2017-11-08	10,282	0	10,282	0	30,000
Simpress	Subsidiary	BNP	2017-11-08	44,529	0	949	43,580	60,000

SEHK	Subsidiary	HSBC	2018-06-13	0	0	0	0	2,000
SEPM	Subsidiary	HSBC	2018-06-13	86,870	21,018	0	107,888	125,000
Adgear	Subsidiary	BOA	2017-11-08	0	1,539	0	1,539	2,000
Harman Finance International, S.C.A	Subsidiary	JP Morgan, etc.	2022-05-27	367,115	33,370	0	400,485	400,485
Total				1,984,640	188,398	1,133,794	1,039,244	8,806,796

※ 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 Article 266 of Occupational Safety and Health Act (regarding the installment of shut-off valve) 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 Article 46 of Toxic Chemicals Control Act (Recording and Preservation of Documents). 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 on Career Level 4, with 20 years of continuous employment, a manager in charge of toxic chemicals on Career Level 3 with 8 years of continuous employment, retired, and a manager of chemicals supply management on Career Level 2 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's appeal was received and is being processed. 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 Article 24 of Toxic Chemicals Control Act (Standards for Control of Poisonous Substances) and not wearing safety devices, 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 in August 2013 for violating the Article 9 of Toxic Chemicals Control Act (Confirmation of Chemicals) and not reporting the importation of certain chemicals, 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, and also advisor, 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 Article 24 of Occupational Safety and Health Act (Health Measures) 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 Article 49-2 (7) of Occupational Safety and Health Act (Submission of Process Safety Reports) 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 Article 49-2 (7) of Occupational Safety and Health Act (Submission of Process Safety Reports) 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. External Contributions

Contribution	Amount	Details	Others
Management plans for the Social Contribution Fund for 2017	KRW 12.59 billion	<ul style="list-style-type: none"> <li>- The Social Contribution Fund consists of voluntary contributions of employees and matching funds raised by SEC. SEC plans to contribute KRW 12.59 billion in matching funds in 2017.</li> <li>- The contributions will be spent on sponsoring domestic and overseas volunteer programs as well as supporting local social contribution activities.</li> </ul>	The BoD approved this action at the meeting held on March 24, 2017.
Sponsoring WorldSkills Competition	EUR 1.35 million (approximately KRW 1.63 billion)	- The Company will be sponsoring the WorldSkills Competition Abu Dhabi 2017 as a Global Premium Partner and WorldSkills International, the organizing committee of WorldSkills Competition, from 2017 to 2018.	
Ho-Am Foundation	KRW 4 billion	- The donation was made to support the foundation's activities such as 'Ho-Am prize.'	The BoD approved this action at the meeting held on April 27, 2017.
Samsung Press Foundation	KRW 1.7 billion	- The donation was made to support the foundation's activities to promote the development of the press infrastructure, such as Samsung Journalism Award.	
Samsung Welfare Foundation	KRW 24 billion	- The donation was made to support the learning of low-income middle school students.	
Samsung Life Public Welfare Foundation	KRW 37.7 billion	- The donation was made to support the operation of Samsung Medical Center.	
Sungkyunkwan University	KRW 15 billion	- The donation was made to support the Samsung Scholarship program.	

## 8. Subsequent Events

According to the resolution of the board of directors on July 27, 2017, the Company decided the share buyback and retirement of ordinary and preferred shares. Estimated total number of shares to be repurchased is 0.838 million (ordinary shares 0.67 million, preferred shares 0.168 million) and the period of repurchase will be expected to end on Oct 27, 2017. All repurchased shares will be retired after the buyback is completed.

According to the resolution of the board of directors on July 27, 2017, the Company decided quarterly dividend. Total dividend amount is KRW 965,348 million (KRW 7,000 per share) and subjected to be paid on Aug 16<sup>th</sup>, 2017.

In July 2017, S&P upgraded SEC's credit rating from 'A+' to 'AA-' and in August, Moody's changed investment outlook from 'stable' to 'positive'.

## 9. 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
- Date of approval: October 27, 2016 (temporary shareholders' meeting)
- Date of split: November 1, 2016

(Unit: KRW million)

Company	Account	Forecast		Actual			
		1st Year	2nd Year ( '17.1H)	1st Year		2nd Year('17.1H)	
				Actual	Difference	Actual	Difference
S-Printing Solution	Sales	2,094	7,460	2,186	4.40%	7,784	4.34%
	Operating Income	-29	480	-61	111.48%	511	6.46%
	Net Income	-67	489	-10	-84.72%	525	7.36%

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.

## 10. 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 18 valid Green Technology Certifications as of June 30, 2017. In addition, the Company has acquired 66 ‘Green Technology’ product certificates (546 models), for commercialized products.

Certified Green Technologies as of June 30, 2017 are as follows:

Division	Business	Name of green technology and green projects	No.
CE		Low-power consumption SoC design technology for digital TVs, etc.	13
IM		Pentile display power-saving technology that adapts to level of illumination of the surroundings, etc.	5
Total			18

※ 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.