

CANADA  
PROVINCE OF QUÉBEC  
District of Montréal

SUPERIOR COURT

Class Action

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No.: 500-06-000923-181

**GAY HAZAN,**

Plaintiff

vs.

**MICRON TECHNOLOGY INC.,**

-and-

**MICRON SEMICONDUCTOR PRODUCT  
INC.,**

-and-

**SAMSUNG ELECTRONICS CO., LTD.,**

-and-

**SAMSUNG SEMICONDUCTOR INC.,**

-and-

**SAMSUNG ELECTRONICS CANADA  
INC.,**

-and-

**SK HYNIX INC. (formerly known as  
HYNIX SEMICONDUCTOR INC.),**

-and-

**SK HYNIX AMERICA, INC. (formerly  
known as HYNIX SEMICONDUCTOR  
INC.)**

Defendants

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**APPLICATION BY THE DEFENDANTS SAMSUNG ELECTRONICS CO.,  
LTD., SAMSUNG SEMICONDUCTOR INC., AND SAMSUNG  
ELECTRONICS CANADA INC. FOR LEAVE TO ADDUCE EVIDENCE**  
(Articles 574 and 575 of the *Code of civil procedure*)

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TO THE HONOURABLE JUSTICE DONALD BISSON, S.C.J., THE DEFENDANTS  
SAMSUNG ELECTRONICS CO., LTD., SAMSUNG SEMICONDUCTOR INC., AND  
SAMSUNG ELECTRONICS CANADA INC. STATE AS FOLLOWS:

## I- INTRODUCTION

1. On April 30, 2018, Plaintiff filed in the present file an Application for Authorization to Institute a Class Action (the "**Application**") on behalf of the following members (the "**Proposed Class**"):

All persons or entities in Canada (subsidiarily in Quebec) who, between at least June 1, 2016 and February 1, 2018, acquired dynamic random-access memory ("**DRAM**") directly from one of the Defendants (the "**Direct Purchasers**") or who acquired DRAM and/or products containing DRAM either from a Direct Purchaser or from another indirect purchaser at a different level in the distribution chain (the "**Indirect Purchasers**"), or any other Group(s) or Sub-Group(s) to be determined by the Court;

2. Plaintiff alleges he and the class members artificially paid inflated prices for DRAM and products containing DRAM as a result of an alleged conspiracy among Defendants Samsung Electronics Co., Ltd., Samsung Semiconductor Inc. and Samsung Electronics Canada Inc. (collectively referred to as "**Samsung**") with Defendants Micron Technology, Inc. and Micron Semiconductor Products, Inc. (collectively, "**Micron**") and Defendants SK Hynix, Inc. and SK Hynix America, Inc. (collectively, "**SK Hynix**").
3. Plaintiff further alleges at paragraph 52 of the Application that Defendants began to engage in controlled supply of DRAM through statements to investors and the industry.
4. Plaintiff filed no evidence of any purported statements in support of this allegation, but included as Exhibit R-1 a copy of a class action complaint, Michele Jones et al. v. Micron Technology, Inc. et al, filed before the United States District Court for the Northern District of California on April 27, 2018 (the "**US Complaint**"), the whole as appears from the Court Record.
5. The US Complaint contains partial and out-of-context excerpts of or references to public statements of Samsung's representatives.

6. Samsung submits that no inference can be drawn from the US Complaint itself for the purposes of class action authorization because allegations in a foreign legal claim have no evidentiary value and do not meet the threshold for the burden of demonstration.
7. As a result, Samsung submits that no weight should be given to the US complaint by this Court.
8. Nevertheless, to the extent that the Plaintiff may attempt to rely on selected quotes contained in the US Complaint, and if (but only if) this Honorable Court may choose to consider such quotes (which we submit it should not), the proposed evidence is relevant for the authorization hearing as it demonstrates that the US complaint is unreliable given that it includes mischaracterized and incomplete quotes from Samsung representatives.
9. This evidence also demonstrates that the only specific allegation in the Application regarding purported statements by Samsung's representatives to investors and the industry to control supply of DRAM<sup>1</sup> is mischaracterized by Plaintiff.

## **II- THE EVIDENCE SAMSUNG SEEKS LEAVE TO ADDUCE**

10. Samsung seeks to file the following transcripts of earnings calls from which some of the partial public statements referred to in the US Complaint originate:
  - a. Samsung's earnings call transcript for the third quarter of 2015, dated October 29, 2015 (Exhibit S-1) in response to, among other things, paragraph 67 of the US Complaint;
  - b. Samsung's earnings call transcript for the first quarter of 2016, dated April 28, 2016 (Exhibit S-2) in response to, among other things, paragraph 54 of the Application and paragraphs 6 and 91 of the US Complaint;

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<sup>1</sup> Paragraph 54 of the Application.

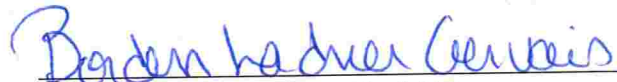
- c. Samsung's earnings call transcript for the second quarter of 2016, dated July 28, 2016 (Exhibit S-3) in response to, among other things, paragraph 54 of the Application and paragraphs 6, 91 and 97 of the US Complaint;
  - d. Samsung's earnings call transcript for the third quarter of 2016, dated October 27, 2016 (Exhibit S-4) in response to, among other things, paragraphs 72 and 100 of the US Complaint;
  - e. Samsung's earnings call transcript for the first quarter of 2017, dated April 27, 2017 (Exhibit S-5) in response to, among other things, paragraph 113 of the US Complaint.
11. In light of the foregoing, and if the allegations of the US Complaint are considered to be evidence for the purposes of this Application for Authorization (which once again we submit it should not), the filing of the above-mentioned documents is necessary and relevant as it demonstrates that the US Complaint cannot be relied upon.
12. This evidence could assist the Court in determining whether the authorization criteria of article 575 *CCP* are met and, in particular, whether Plaintiffs have shown an arguable case (para. 575 (2) *CCP*).
13. The present Application for Leave to Adduce Evidence is well founded in fact and law.

**FOR THESE REASONS, MAY IT PLEASE THIS HONOURABLE COURT TO:**

- A. GRANT** the present *Application for Leave to Adduce Evidence*;
- B. AUTHORIZE** the Defendants Samsung Electronics Co. Ltd., Samsung Semiconductor Inc. and Samsung Electronics Canada Inc. to file the following evidence into the Court record:
  - a. Samsung's earnings call transcript for the third quarter of 2015, dated October 29, 2015, attached as **Exhibit S-1**;

- b. Samsung's earnings call transcript for the first quarter of 2016, dated April 28, 2016, attached as **Exhibit S-2**;
  - c. Samsung's earnings call transcript for the second quarter of 2016, dated July 28, 2016, attached as **Exhibit S-3**;
  - d. Samsung's earnings call transcript for the third quarter of 2016, dated October 27, 2016, attached as **Exhibit S-4**;
  - e. Samsung's earnings call transcript for the first quarter of 2017, dated April 27, 2017, attached as **Exhibit S-5**;
- C. **THE WHOLE**, without costs, save in the event of contestation.

Montréal, October 26, 2020



**Borden Ladner Gervais LLP**

Lawyers for Defendants Samsung  
Electronics Co., Ltd., Samsung  
Semiconductor Inc., and Samsung  
Electronics Canada Inc.

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## AFFIDAVIT

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I, the undersigned, Karine Chênevert, practising my profession as a lawyer at Borden Ladner Gervais LLP, located at 1000 De La Gauchetière Street West, Suite 900, Montréal, Province of Québec, H3B 5H4, declare under oath that:

- (1) I am one of the lawyers for Defendants Samsung Electronics Co., Ltd., Samsung Semiconductor Inc., and Samsung Electronics Canada Inc. in the present case;
- (2) I have read the attached *Application for Leave to Adduce Evidence* and all the facts set forth are true.

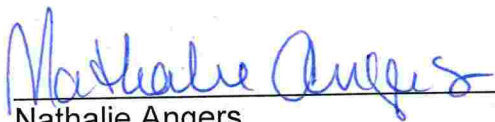
AND I HAVE SIGNED in Montréal, QC, this October 26, 2020:



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Karine Chênevert

DECLARED UNDER OATH REMOTELY by technological means before me at Montréal, Québec, this October 26, 2020.



Nathalie Angers  
Commissioner of Oaths #137908  
Commissioner for Oaths for Québec



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## NOTICE OF PRESENTATION

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**TO :** Mtre David Assor  
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Plaintiff's lawyer

**AND:** Mtre Sidney Elbaz  
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Lawyers for Defendants SK Hynix, Inc.  
and SK Hynix America, Inc.

**TAKE NOTICE** that the present *Application for Leave to Adduce Evidence* will be presented for hearing and allowance at a time and a place to be determined by the Honourable Justice Donald Bisson of the Superior Court of Québec.

DO GOVERN YOURSELVES ACCORDINGLY.

Montréal, October 26, 2020

*Borden Ladner Gervais*

**Borden Ladner Gervais LLP**

Lawyers for Defendants Samsung  
Electronics Co., Ltd., Samsung  
Semiconductor Inc., and Samsung  
Electronics Canada Inc.



**S-1**

THOMSON REUTERS STREETEVENETS

# EDITED TRANSCRIPT

005930.KS - Q3 2015 Samsung Electronics Co Ltd Earnings Call

EVENT DATE/TIME: OCTOBER 29, 2015 / 12:30AM GMT

## OVERVIEW:

Co. reported 3Q15 QoverQ revenue growth of approx. 6%.



## CORPORATE PARTICIPANTS

**Robert Yi** *Samsung Electronics Co Ltd - Senior VP IR*

**Jeeho Baek** *Samsung Electronics Co Ltd - Senior VP, Semiconductor Business.*

**ChangHoon Lee** *Samsung Electronics Co Ltd - VP, Samsung Display*

**Jin Young Park** *Samsung Electronics Co Ltd - VP, Mobile Communications Business*

**Young Lak Jung** *Samsung Electronics Co Ltd - VP, Visual Display Business*

## CONFERENCE CALL PARTICIPANTS

**Young Park** *Hyundai Securities - Analyst*

**Nicolas Gaudois** *UBS - Analyst*

**Minjoon Yoo** *Korea Investment & Securities - Analyst*

**C.W. Chang** *Nomura - Analyst*

**Peter Yu** *BNP Paribas - Analyst*

**Sang-eun Lee** *Korea Investment & Securities - Analyst*

**Mark Newman** *Sanford Bernstein - Analyst*

**Peter Lee** *NH Investment & Securities - Analyst*

**Xu-Liang Sun** *HSBC - Analyst*

**S.C. Bae** *Barclays - Analyst*

## PRESENTATION

### Operator

Good morning and good evening. First of all, thank you all for joining this conference call. And now we will begin the conference of the fiscal year 2015 third-quarter earnings results by Samsung Electronics. (Operator instructions). Now we shall commence the presentation on the fiscal year 2015 third-quarter earnings results by Samsung Electronics.

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### Robert Yi - Samsung Electronics Co Ltd - Senior VP IR

Good morning. This is Robert Yi from Investor Relations. Thank you for joining our third quarter earnings call. With me, representing the business units are Mr. Baek Jeeho, Senior VP of Memory Marketing, Mr. Hong Kyushik, VP of System LSI Marketing, Park Jin Young, VP of IT Mobile Business, Jung Young Lak, the VP of Visual Display, and Lee ChangHoon, the VP of Samsung Display, as well as Kim SangHyo, the Vice President of IR.

I would like to remind you that some of the statements we'll be making today are forward looking, based on the environment as we currently see it. And all such statements are subject to certain risks and uncertainties that could cause our actual results to be materially different from those expressed in today's discussion.

Before we go into third-quarter results, let me share a few points regarding Samsung Electronics' shareholder return that was just announced. We've been focused on investing in technologies and scale advantages to ensure our current and future growth. We placed highest priority in creating business structure that delivers sustainable growth.



We are proud of what we have accomplished over the years as we have strong technology leadership in many of our businesses as well as solid financial strength to continue to build for the future. Despite annually investing more than KRW20b in capital expenditure and KRW4b in R&D during the past several years, we were able to have positive free cash flow to add to our cash balance. We have been looking for ways to use the cash to create long-term value to the Company, as well as to our shareholders.

Over the several past months, we had extensive discussions internally about the best course of the action to increase the return to our shareholders and to optimize capital management. Also, we have reached out to our shareholders and investment community, and have heard back from many of you. We would like to express our gratitude and appreciation for your frank and honest feedback on many of these issues we are about to address today. The initiatives that we are about to announce -- which we have announced today are based on comprehensive review of our business and shareholder needs.

The first part of our shareholder return initiative is a share buyback and cancellation of KRW11.3 trillion, which is equivalent to \$10b. The Company believes that the current share price and the market value of Samsung Electronics are severely undervalued, both in terms of the ability to generate earnings and also in terms of the underlying assets, or the equity value of the Company.

Considering the severely undervalued nature of the share price, we feel that a share buyback at these levels is the correct decision. All the shares we purchase will be cancelled, as cancelling the shares and thus reducing the capital stock of the Company will be the most effective method to returning value to existing and long-term shareholders.

Over the years many shareholders have expressed a view that buying back and cancelling preferred shares, which are traded at a discount to common shares, is more efficient use of capital as we can buy and cancel more number of shares with the same amount of money, thus increasing the effectiveness of any future capital return to the remaining shareholders. The Company shares the same view.

Therefore, we plan to increase the portion of preferred shares for repurchase and cancellation under this buyback program as long as the price discount to common share is greater than 10%. We expect this will bring further increase to the future dividend per share as we can reduce higher number of shares outstanding, therefore having positive impact on both common and preferred shareholders.

We anticipate the buyback will take next few quarters, as the regulations in Korea that governs share buybacks stipulate that each share buyback authorized by the Board must be completed within three months, with a specified number of shares for each plan.

The Board today approved KRW4.2 trillion for the first phase of this buyback program. It will start on October 30 and last for approximately three months. As of the date before the Board's decision, preferred shares traded at about 22% discount to the common share. Therefore, we will increase the percent of preferred shares to be repurchased to 35% of the total shares to be purchased. Based on these facts, we will purchase 2.23m of common stock and 1.24m shares of preferred during this first phase.

The second part of our shareholder return initiative is three-year shareholder return policy. As we have explained, after detailed review the Company has decided to implement a rolling three-year shareholder return policy that will have the following components. First, the Company will return 30% to 50% of annual free cash flow to shareholders for the next three years. The annual shareholder return will consist of dividend and share buyback. Third, the next three years, annual shareholder return will focus primarily on dividends, with the remaining allocated capital to be utilized for share buybacks. Fourth, any shares that are to be repurchased will also be cancelled.

We will announce 2015 year-end dividend in January of 2016, when the Board makes the decision. We hope the size and the direction of the shareholder return to be announced will be able to meet the expectations of our shareholders.

Meanwhile, we are currently reviewing the introduction and implementation of quarterly dividend policy for 2016. We would welcome any feedback from our shareholders on this matter.

In concluding, I hope that these decisions clearly show our commitment to creating shareholder value through not only business growth, but also through capital allocation decisions which are beneficial to our shareholders, and that our shareholders will share our confidence in sustained



growth in our business and shareholder value. The fact remains that we are in a difficult operating environment. However, the opportunities to secure long-term growth through organic and inorganic ways also exist. We hope that our long-term shareholders will continue to trust and support our efforts as we do our best to ensure consistent and sustainable value enhancement.

Now I'll go over our third-quarter results. The overall revenue increased by approximately 6% compared to the previous quarter, mainly driven by semiconductor and display. The gross profit for the total Company also increased by KRW0.5 trillion. Our SG&A expenditure remained flat even though revenue increased, and the percent of revenue decreased due to our efforts to improve efficiencies across major categories.

The operating profit increased by KRW500b quarter on quarter and the operating margin also improved slightly. The third quarter operating profit was higher than the market expectations due to positive exchange rate impact from continued weak won against the currencies.

For your reference, the exchange rate impact was approximately KRW800b, mostly on the component businesses, which have greater US dollar long positions.

Other non-operating profit decreased significantly Q on Q due to one-off gain that we experienced on sale of investment in Samsung Techwin and Samsung General Chemical in the second quarter.

The business unit representatives will discuss their business results in more detail shortly.

Now I would like to make a few comments on the future outlook. In the fourth quarter we expect earnings to decline compared to the previous quarter, as we do not expect the positive exchange rate impact to continue into the fourth quarter. In terms of the overall businesses, we expect to maintain solid earnings led by earnings improvements of system LSI and an increase in the set business sales under strong seasonality.

For our component business, we are entering into weaker seasonal demand for memory products and weak LCD supply and demand balance. However, we expect system LSI earnings to improve led by an expansion of 14-nano foundry supply and we also expect OLED to maintain solid earnings. For the set business, we expect earnings to improve for the consumer electronics business, by actively expanding sales under year-end seasonality. And we will strive to maintain solid earnings of IM business by expanding Galaxy Note 5 sales as well as improving Galaxy S6 profitability.

It is too early to form a firm outlook of the global economy and the IT industry for 2016, at this time. However, our goal is to continue the growth and achieve strong profitability, by enhancing business competitiveness through our efforts to improve technology leadership and reinforce software and service capacity.

We expect various dynamic factors to affect the industry supply and demand conditions for the semiconductor business in 2016. We will focus on expanding high value-added memory products, increasing V-NAND technology capability, and diversifying 14-nano customer base.

For the display business, we will focus on improving cost as LCD supply and demand condition may worsen from increasing supply. For OLED, we will continue to expand external customer bases.

For our IM business, amid slowed growth of smartphone demand, we will strive to maintain profitability by reinforcing smartphone competitiveness through product differentiation, and strengthening services and software capabilities, including Samsung Pay, as well as by effectively managing cost.

For our consumer electronic business, we expect TV demand to increase led by global sporting events, such as the Olympics.

A few comments on capital expenditure plan. We expect our total capital expenditure in 2015 to be KRW27 trillion, approximately 14% increase from the previous year. By business areas, capital expenditure for semiconductor will be KRW15 trillion, the ratio of memory to system LSI of approximately 8 to 2, and for display it will be about KRW5.5 trillion. The increases are mainly from reinforcing our leadership of cutting-edge technologies, such as V-NAND, and for enhancing cost efficiencies of LCD production capacity.

During the third quarter we spent about KRW6 trillion on capital expenditure, KRW3.7 trillion for semi and KRW1.4 trillion for display. This brings the year-to-date capital expenditure to KRW19.2 trillion, which is approximately 72% of the annual plan.

As usually, I would like to share several data points for key business areas for your reference. For DRAM, the third quarter our bit growth was mid-teens and we experienced low teens of ASP decline. In Q4 we expect market DRAM bit growth to come in about mid-single-digit and we expect to outgrow the market -- I'm sorry, we will grow in line with the market in Q4. And for 2015 DRAM, we expect the market growth to be low to mid 20% and our bit growth for the year will low 30%.

For NAND flash, in third quarter our bit growth was low teens and we experienced low teens of ASP decline quarter on quarter. For Q4 we expect the market NAND bit growth to be low 20% and again we will grow in line with the market in Q4. That will bring the 2015 total market NAND bit growth at high 30%. We believe that our NAND bit growth for the year will be over 50%.

For large LCD panel business, in terms of revenue the LCD revenue represented about low 50% of the total display panel revenue and we experienced the ASP of low teens decline quarter on quarter. For the Q4 LCD panel business we expect the revenue mix to remain similar level as Q3. The LCD panel shipment in Q4, we expect to see increase of high-single-digit and we are expecting also ASP increase of high-single-digit.

For mobile business, our total handset shipment in Q3 was 105m units, and tablet sales of 8m units. Our blended ASP in the third quarter was about a mid-\$180, and within the smartphone sales the smartphone mix was about 80%. In Q4 we expect a small increase of total handset shipment. We do expect the blended ASP for the handset to increase in Q4. And the smartphone mix within total handset sales will rise to about mid 80%.

For TV business, in Q3 we shipped about 11m units of LCD TV and in Q4 our TV shipment is expected to grow about a 40% range.

Now I'll turn the conference call over to the gentlemen from the business units to share their views, starting with the semiconductor.

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**Jeeho Baek** - Samsung Electronics Co Ltd - Senior VP, Semiconductor Business.

Good morning. This is Jeeho Baek from the memory marketing team. I'm going to present our business results for the third quarter and market outlook for the next quarter.

For the third quarter, for DRAM, although set unit growth was slower than the industry forecast, average DRAM content growth led overall demand. In particular, demand increased driven by flagship smartphone launches and solid data center demand, led by cloud and service expansion. We focused on reinforcing profitability and market leadership by expanding 20-nanometer migration and by actively responding to increasing demand for high value-added products, such as DDR4 and LPDDR4.

On NAND, high-density and mobile [street] demand increased from new smartphone launches. Also SSD demand increased due to growing PC SSD adoption and expanding high-density enterprise SSD demand. While we secure the profitability by expanding sales of high-end solution products, such as SSD and UFS, we have reinforced the core competitiveness by introducing third-generation V-NAND to the market.

Next I will comment on the memory market outlook and our strategy for the fourth quarter. For DRAM, even with the weak seasonality, compared to previous four quarters, we expect continued solid demand for mobile and server, driven by increased density of embedded DRAM and accelerated conversion of new enterprise product, such as DDR4 and LPDDR4. Also we expect DDR4 demand for PC to increase, led by new platform and OS products.

For Samsung Electronics, we will reinforce product competitiveness by actively responding to demand for our high-value-added and leading-edge products, such 8 gigabit DDR4 and LPDDR4. Also we will focus on profitability and continue to expand 20-nanometer process for our competitiveness.

For NAND, demand for solution products is expected to increase driven by new mobile product launches with high-density storage and by increasing SSD adoption rate in both PC and enterprise. We will continue to secure product competitiveness by expanding third-generation V-NAND supply

and 10 nanometer class migration. Also we will strengthen our market leadership by actively responding to demand for enterprise and PC SSD, and high-density mobile storage.

In the fourth quarter, although economic uncertainties are expected, such as exchange rate fluctuations, we will make the best effort to maintain profitability with advanced technology and flexible product mix.

Considering current global economic forecast, demand growth in 2016 is expected to be very similar to 2015. However, uncertainties are expected in the supply side, especially in ramping up leading-edge technology, such as 20-nanometers DRAM, with the vertical NAND and the finer geometry planar NAND.

We will strengthen market leadership and secure competitiveness by expanding supply of our main products, such as 20-nanometer high-density DDR4 and LPDDR4, and 10-nanometer class NAND, along with V-NAND.

Now moving on to the System LSI business. In the third quarter, under seasonality, earnings improved, driven by 14-nanometer foundry supply and solid LSI demand, such as CMOS imaging sensor. In the fourth quarter, despite slower seasonal demand, we expect earnings to improve from the third quarter, with the increase in 14-nanometer foundry supply. In 2016 we will continue to strengthen the basis for stable growth by diversifying applications, customer base, and product line-up, with our industry-leading 14-nanometer process technology.

Thank you for listening.

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**ChangHoon Lee** - Samsung Electronics Co Ltd - VP, Samsung Display

Good morning. This is ChangHoon Lee from the panel department of Samsung Display.

For LCD panel, in the third quarter, despite tough market conditions, such as decreased overall panel shipments and ASP, we brought solid results, led by increasing sales and shipment area, thanks to the continued trend towards larger sized panel and strong demand for UHD TV panels. However, risk factors exist in the first quarter that could bring about overall oversupply and the decline in ASP, due to an increase in the industrial capacity and a decrease in demand of TV set makers from exchange rate fluctuations in the emerging markets. We will focus on cost reduction and inventory management in response to these tough market conditions of the fourth quarter.

For OLED panel, in the third quarter our earnings increased Q on Q, due to the release of new high-end smartphone panels for major customers, expansion of the customer base, and higher operation ratio. In the first quarter, although we expect competition among panel makers to intensify further, due to slowing growth of the smartphone market, we will make the best effort to expand external customer base and to increase the line utilization ratio.

Now I would like to present the outlook for the display market and our core strategies in 2016. For LCD panel, while we expect overall shipment area to increase YOY, it seems that total shipment may decrease. Furthermore, we expect the industrial capacity to increase YOY. We will appropriately respond to these tough market conditions in 2016, by continuously monitoring the market conditions, as well as by focusing on cost reduction and inventory management.

For OLED panel, while we expect the smartphone market growth to slow down YoY, growth will come mostly from emerging and low-end markets. Under this circumstance, we will efforts to reinforce product line-ups and expand customer base.

Furthermore, we will reinforce our market and technology leadership through technological improvement and mass production of flexible display, which is our mid, long-term growth engine. At the same time we will strive to secure new growth engines by reinforcing technical development of new applications, such as transparent, [gyro], head mount, and automotive display. Thanks for listening.



**Jin Young Park** - Samsung Electronics Co Ltd - VP, Mobile Communications Business

Good morning, everyone. I am Jin Young Park, from the mobile communications business. Today I would like to present our solid quarter business result for the IT and mobile communications division, and our outlook for the coming future.

In the third quarter overall market demand for both smartphones and tablets slightly increased QOQ due to typical seasonality. Our smartphone shipments largely increased, compared to the previous quarter, thanks to increased sales of new models, including the Galaxy Note 5, S6 Edge Plus, and the Galaxy A and J series. However, revenue of the mobile communications business slightly increased and the profit of IM division decreased Q on Q due to price repositioning of the Galaxy S6 and S6 Edge, and impacts of product mix.

Our largest screened flagship models, Galaxy Note 5 and S6 Edge Plus, newly released in the third quarter are receiving positive feedback from the market. Accordingly, we expect shipments to exceed their predecessors. The sales volume of the Galaxy A series expanded, as shipment of existing models and newly-launched Galaxy A8 increased. The Galaxy A8 is showing strong sales trend, mainly in China and Southeast Asia, which are the reasons, with strong demand for larger screened smartphones. Also the Galaxy J series received favorable responses from the emerging markets.

As for tablets, shipments remained at a similar level to the previous quarter.

In our networks business, business performance improved Q on Q mainly from increased LTE investment by our major overseas customers.

Now let's turn to outlook for the fourth quarter of 2015. Market demand for both smartphones and tablets is expected to increase Q on Q as we enter the year-end peak season. Meanwhile, we also forecast competition in the market to intensify further.

As for our Company, marketing expenses are expected to slightly increase due to seasonality. However, we will respond by increasing shipment volume of new smartphones for each price segment that were introduced in the third quarter and by continuously increasing efficiency in our expenses. Through these efforts, we will maintain our profit at a similar level to the previous quarter. Moving on to our tablets, we expect tablet shipments to increase QoQ, mainly with the Galaxy Tab S2 and A series. And for our networks business, business performance is expected to improve with expansion of overseas LTE business.

Finally, turning to the outlook for the year 2016, next year smartphone and tablet market is expected to grow Y on Y, but its growth rate will slow down, compared to the previous years. As for our smartphones, we will continue on with our meaningful innovations, to strengthen our position in the market. Moreover, we plan to globally expand Samsung Pay, our safe and simple mobile payments, that is receiving positive feedback from the market. We believe Samsung Pay will be able to give more customers differentiated experience that only our Galaxy Smartphones can provide. Also we will reinforce the competitiveness of our tablet and wearable devices to satisfy market need.

With the intensifying competition due to market growth slowdown, there may be some difficulties with our business. However, we will respond to tough market circumstances by strengthening our premium product competitiveness, while maintaining our key strategy of optimized product portfolio. With these efforts, we will do our best to expand smartphone sales and maintain solid business performance. Thank you.

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**Young Lak Jung** - Samsung Electronics Co Ltd - VP, Visual Display Business

Good morning. I am Young Lak Jung, from the visual display marketing team. Now let me brief you on the third-quarter market conditions in the business regions.

In the third quarter as seasonal peak approaches the flat TV market demand increased Q on Q. However, due to continued currency depreciation in the emerging markets, demand decreased, compared to the same period last year. Under these market conditions our performance improved both Q on Q and year on year, powered by the growth of premium product sales, especially of UHD and the large-sized TVs. Moreover, our sales proportion of UHD TV increased, as we introduced affordable premium line up, and the profitability was enhanced, as model mix improved.



Next, moving on to the digital appliance business, in the third quarter North America continued its economic growth, but due to economy recession in the emerging markets, market demand decreased Q on Q. Under these local circumstances, we've expanded premium product sales in all advanced markets and strengthened sales of region-specific innovative products. As a result, our earnings improved compared to the previous quarter.

Moving on to the fourth quarter outlook, as the holiday peak season is around the corner, we are expecting a substantial increase in TV demand, mainly from North America and other advanced markets. However, due to a downturn in emerging markets caused by a lower consumer confidence, we expect a decrease in global demand by a small margin versus the same period last year.

Meanwhile, intense competition in the peak season is expected as TV sets makers are aiming to boost sales based on their year-end promotions in order to make up for their low performance in the first half. Under such market conditions, we'll actively seek to capture year-end season opportunities by offering our local-friendly promotion programs and expanding affordable premium product sales.

As for the digital appliance market, we will continue to push ahead with the sales growth by reinforcing the promotional activities and increasing shipment of our premium product.

And for the year 2016 outlook, following the trend of year 2015, we expect to see a continued increase in UHD content and customer preference for the larger inch TVs. In addition, due to the impact of sporting events such as the Brazil Olympics and the Euro Cup, we anticipate growth mainly in UHD and the largest screen TV sets. Based on our global brand positioning, we are planning to respond to soars in demand by actively increasing sales proportion of premium product lines, of S-UHD, (inaudible) and the largest size TVs. And in addition, we aim to improve profitability by optimizing line-ups and enhancing efficiency.

For the digital appliance market, demand may slow down as economic recession is expected to continue, excluding the US market. But we will continue to introduce innovative products and reinforce customer-friendly marketing activities and expand (inaudible) businesses in order to secure continuous growth momentum and profitability.

Thanks for the listening.

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**Robert Yi** - Samsung Electronics Co Ltd - Senior VP IR

Thank you. This completes the Company's presentation and we'll turn to questions and answer session. Again, we'll provide a consecutive translation for Q&A session and we'd like to ask for your patience, that it may take a little bit longer than normal, just one-language announcements. Okay. Let's take questions please.

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## QUESTIONS AND ANSWERS

### Operator

(Interpreted). (Operator instructions). Young Park, Hyundai Securities.

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**Young Park** - Hyundai Securities - Analyst

(Interpreted). First of all, thank you very much for announcing a very satisfactory shareholder return initiative. Also, I congratulate you on the very positive performance for the third quarter, despite the industry situation itself not being very favorable.

My first question is about the semiconductor business, specifically about your plans of how to operate and manage your memory capacity. It seems that on the current track, your NAND flash memory capacity will probably be fully utilized by first quarter of 2016, which would mean that you will



probably need new capacity on the NAND side, at least by end of 2016. Do you have any decisions or plans regarding the location of the new capacity that you will probably be needing?

Also, it seems you have some extra space on fab 17, about 30,000 square meters. Do you have any plans, specific plans of how to use that space on fab 17?

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**Unidentified Company Representative**

(Interpreted). Well, it seems you have a lot of information about the capacity, as if you are one of our employees. But I think there are a few pieces of the information that I probably need to correct.

Actually, on the NAND side we are already at full capacity. We are running at full capacity. So actually it won't be correct to say that we have any space. Actually, we do not have any space. But I think even next year, by running at our full capacity, we will be able to meet the bits that would be requiring next year and maybe produce a bit more extra on top of it, if necessary.

And so as of yet in terms of additional capacity building there are no decisions that we have made yet. All options are open. If we do need it, if market calls for it, we could add capacity. Where it would be, it could be either [Chuntek], China, [Kihung] or Hwaseong. That's still open. We will flexibly decide depending on the market situation next year.

Also, about the fab 17 DRAM, it's at full capacity. It's running at 20-nanos. Now specifically how much our full capacity at fab 17 is, I can't give you a quantity of it because there are some decreases or -- due to the migration process onto the 20-nano. But I can say that we are running at full capacity at fab 17, as well. And I think that with our current capacity, we will be able to meet next year's bit requirements, as well, on the DRAM.

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**Young Park - Hyundai Securities - Analyst**

(Interpreted). Well, it seems, hearing your answer, the Company is not planning any aggressive capacity investments on the DRAM side next year, which actually alleviates some of the concerns regarding the DRAM industry outlook for next year and the impact that may have on the Company's performance.

My second question relates with the smartphone side of the business. During the presentation, looking at some of the numbers that were announced, it seems, in the third quarter, the smartphone shipments had what were about 81b units of shipment. And this basically implies that there was a significant increase in the shipment of the mid to low-end smartphones within your product mix, which is quite positive and welcoming. I'm wondering, can you give us some more detail on what initiatives were effective, in terms of enhancing the competitiveness, and also increasing the shipments of your mid to low-end smartphones?

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**Unidentified Company Representative**

(Interpreted). Well, as you know very well, we've already started to streamline our mid to low end smartphone line-up, starting from end of last year, focusing on the Galaxy A and the J series. And we have during this streamlining of the line-up process focused more on the mid to low end models that have more competitiveness.

And this has not only resulted in the increase of shipments, as you have pointed out, but also the profitability of the smartphones themselves has enhanced, especially with the A series. In addition to the existing A series products, we have introduced the A8, which has also had very positive results. The A series, we're seeing is especially effective in terms of increasing in the Chinese, Southeast Asian, and European markets. The J series has also done very well, especially around the emerging market segment.



It seems that in the process of streamlining, adjusting our mid to low end product line-up, we were also able to capture the advantages, such as sharing components, also enhancing the yield and also enhancing the efficiency of the cost of expenses that are spent. And in terms of going forward, we plan to continue to maintain a very optimized product portfolio, and capture the effects of such an efficient portfolio.

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**Operator**

(Interpreted). Nicolas Gaudois, UBS.

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**Nicolas Gaudois - UBS - Analyst**

Yes, good morning and congratulations on announcing at last a comprehensive program for return to shareholders. On the business, first question is for mobile devices. It seems to us that so far the Note 5 and the priced down Galaxy S6 are actually offsetting the Galaxy S6 Edge and the Edge Plus. Does this lead you to reconsider your mix and pricing going forward for next year for forthcoming releases in the high end or should we actually expect that you'll make better use of Edge displays, beyond design for a third generation to come in next year? And I have a follow up for semis. Thank you.

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**Unidentified Company Representative**

(Interpreted). As you have pointed out, the sales of the Edge, especially the S6 Edge, has not met market expectations. One factor was the disruptions that we had in terms of the initial supply of the 6 Edge, especially during the launching of it. That may have had an impact. But in terms of using the Edge as a display, we do believe that it is an opportunity to provide a differentiating user experience to the consumers. And that's why we have -- we will continue to additionally exert efforts to develop a way of using the Edge display to provide such a differentiating user experience.

Specifics regarding next year's flagship strategy, please understand that it is a bit too early for us to give you specific details. But we can say that because we have gone through various flagship model launches this year we will definitely consider the achievements as well as the areas for improvements that we have learned through this year's flagship launches, and reflect it for next year's product planning.

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**Nicolas Gaudois - UBS - Analyst**

Great, so looking forward to it. And on the semi side, you indicated before in LSI that you're likely to ramp up in 2016 integrated application processes and modem as soon as (inaudible). Could you update us on your progresses there and which segments you would address between the high, mid, and potentially low end next year with those (inaudible)? Thank you.

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**Unidentified Company Representative**

(Interpreted). Well, to give you an update on the status first before I give you next year's plan, in terms of the mid-range products actually we started mass production in third quarter. Already our mid-range products are on customer sets and are selling very well. And so we will continue to ship them. We've already started second half of this year and continuing on to the first half of next year.

Regarding the mobile market, our basic plan next year is to introduce and offer competitive products for all segments, and responding to the market trend.

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**Nicolas Gaudois - UBS - Analyst**

Okay. Thank you.

**Unidentified Company Representative**

(Interpreted). Okay. Thank you.

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**Operator**

(Interpreted). Minjoon Yoo, Korea Investment Securities.

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**Minjoon Yoo - Korea Investment & Securities - Analyst**

(Interpreted). I have two questions related with CapEx. First, you've already mentioned the capacity planning and answered the question regarding capacity planning for the semi side of the business. It seems that that would indicate that perhaps the CapEx side for the semiconductor business next year may be decreasing versus the CapEx executed this year. Is it possible for you to give us a direction of the semiconductor CapEx year on year, next year versus this year, including DRAM, NAND and system LSI all together?

Second question regarding the display side. You've mentioned that the increase in OLED sales have also increased the utilization of your OLED capacity in the third quarter. Is there additional ramp-up volume left over and what does this imply in terms of the capacity planning for the future?

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**Unidentified Company Representative**

(Interpreted). Well, regarding the CapEx, even looking at 2015 CapEx, actually the CapEx number that we had thought and mentioned at the start of the year and mid of the year, and now they're all different. And the changing of the CapEx, the actual expectations versus the actual execution, that I think in effect reflects how rapidly the market itself has changed.

And so considering all of that it's difficult for us to give you any CapEx numbers for next year with amount of certainty. Also considering the fact that some of the CapEx that were executed on the semiconductor side this year were actually investments that we had originally planned for next year, but that were brought forward to 2015. Considering that and what you have mentioned, it is difficult to completely rule out the possibility that CapEx next year on the semiconductor side may be less than what it was this year.

But because there are so many variables still left in the market situation next year, as Mr. [Park] had mentioned, it is difficult for us to give you any certainty. But, yes, there is a possibility that it may be less.

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**Unidentified Company Representative**

(Interpreted). And your second question about the OLED business, I guess that could be divided up as two questions. One is how much of sales or shipments are we expecting to increase on the outside sale side? Second is what is the implication on that on increasing capacity for OLEDs next year?

Well, first of all, regarding OLED sales, we have achieved cost competitiveness even versus LCDs while maintaining very strong product performance. And based on this very competitive product performance, our OLED has continuously added on new outside customers. So next year we're thinking about 30% of our OLED sales will be going to outside customers -- or more than, excuse me, 30%-plus, more than 30% will be sold to outside customers.

Regarding capacity increases, as we have already announced, our A3 line has been in operation since last April. Regarding any additional capacity add-ons, that we will flexibly respond depending on the market situation while that we will continue to invest and enhance our existing lines to enhance the productivity as well as the yield, would also help our competitiveness.

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**Operator**

(Interpreted). C.W. Chang, Nomura.

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**C.W. Chang - Nomura - Analyst**

(Interpreted). Well, first of all, thank you very much for responding to the market's request for shareholder return. I hope that this also sets a very good example for other Korean companies to follow. First question regards the shares that you already have, the treasury shares that you already have. There are still concerns in the market that Samsung Electronics is waiting to use that in order to merge with SDS. Could you make any comments regarding this market concern?

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**Unidentified Company Representative**

(Interpreted). First of all, we don't have any specific plans regarding the shares that we already have, the treasury shares that we already have.

Regarding your comment about SDS, merger with SDS, currently Samsung Electronics has no plans of merging with SDS, as we had announced in June. In general, regarding our position about merging with other affiliates or subsidiaries of the Group, if we do think any such merger is necessary with a subsidiary, it will be decided based on a comprehensive consideration of various factors, including potential synergy effects from such mergers as well as the shareholder values of the two companies. But once again, we are not considering any possibility of merging with SDS at this point.

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**C.W. Chang - Nomura - Analyst**

(Interpreted). The second question is about the 3D NAND roadmap. In terms of roadmap, how many layers is it possible to stack? And once we reach a limit of layering, what are your plans or thoughts regarding geometric migration?

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**Unidentified Company Representative**

(Interpreted). Well, that was a very good question. Thank you for a very good question. As you mentioned, 3D NAND, if it just scales in terms of layers, even thinking of it rationally, as the number of layers increases, the level of difficulty of a technology required to implement it would also increase.

And so in addition to the technical implementation, the level of difficulty itself will increase exponentially with each marginal layering. Also the costs and the investment required to implement additional layers itself would increase exponentially with the marginal increase of layers. So there is that factor. In addition to that, the efficiency in terms of production would also become that much more difficult with increase of layers. And on the other hand there has to be in the market demand for a very high-density chip for such layering itself to make any sense.

So even though there are many people who are talking about 36 and 48 layers, we believe, due to the differences in the implementation and the difficulties in the implementation itself, the cost of the same 36- to 48-layer product would have large differences, depending on who the maker is.

And so in addition to the cost there is also the performance because with more layers the technical difficulty itself goes up and the level of technical implementation would also depend on what the target market for that product is. For our case, our 3D NAND from the very start targeted the enterprise SSD market. If other players are targeting the same, they will also need to execute technology with a very high level of completeness.

So to give -- to make the long answer short, even though, yes, the number of layers is a factor, we believe that more important to that is to securing and gaining efficient production capabilities, which would lead to cost competitiveness, as well as guaranteeing the performance and reliability that customers who use the products expect.



**Operator**

(Interpreted). Peter Yu, BNP Paribas.

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**Peter Yu - BNP Paribas - Analyst**

(Interpreted). First I have a question, some follow-up questions regarding the shareholder return program that you've announced. You've mentioned that basically it will be a program to buy back shares and then cancel them. Is it a possibility that the existing treasury shares that you have would also be cancelled? Is it a possibility?

The second is could you give us a rough breakdown of how much of the 30% to 40% of free cash flow that you will be using will be used for dividend payouts versus buyback and cancellations, because you said that both will be pursued even though the dividend would get a larger share?

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**Unidentified Company Representative**

(Interpreted). Well, first of all, when we communicated with the market regarding the best way to provide shareholder return, buyback and cancellation was a very important requirement from the market or the demand from market for various issues, including the fact that the market believes that it is one of the ways of efficiently using the cash that the Company already has, that buying back and cancellation of shares in itself is another form of investing in the future of the Company. And that was separate from the existing shares that we have.

In terms of legal and regulatory settings, it is technically possible for us to cancel the shares that we already have, but currently we do not have plans of doing so.

Regarding the breakdown of the 30% to 50% of the annual free cash flow that we have mentioned today, as you know, as a company and a business that has significant investments each year, it is very difficult for us to give you any guidance regarding how much of -- because it's difficult for us to predict how much cash flow we would have, it's again difficult to give you any guidance on how that will be broken up between dividends and buyback.

But given the fact that we will be executing a very large-scale special buyback that we announced today, going forward free cash flow 30% to 50% will mainly -- will be used for dividends with priority versus share buyback. But given the fact that dividends, once increased, it's difficult to decrease a dividend, basically, the plan is to use the free cash flow mainly to either maintain or slightly increase dividends going forward, and what is left after that will be used for additional buyback.

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**Peter Yu - BNP Paribas - Analyst**

(Interpreted). The second question is about the NAND industry and the market outlook in the mid to long term, the next two or three years. During the past month, as you have noticed, there has been a lot of M&A investment deals that were announced on the data storage side. This has triggered some concern in the market regarding the NAND market demand/supply situation for the next two and three years.

I'm wondering how Samsung interprets and reads these market movements that were announced. Would, for example, Intel's announcement of investing in a new fab, does that read -- is that read as increasing the risk of an oversupply in the NAND market in the future or could this actually be taken in the opposite way of this actually triggering this major transition from a 2D to a 3D NAND, so that there actually may be a shortage in the industry? So I'm wondering what your outlook on the industry demand/supply situation is from next year and for the next two to three years going forward.

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**Unidentified Company Representative**

(Interpreted). It's a very difficult question that you have asked, but I think whether the NAND market in the next two to three years, I don't think it would decrease, but whether it will maintained at the current size or whether it would increase depends on a couple of variables, including how well each player succeeds in overcoming the technical difficulties as well as how much of a cost competitiveness each player successfully gains.

A lot of companies have either recently announced that they will start NAND or have announced M&As related with a NAND business. We cannot comment on what other companies are doing, but in effect the fact that they are investing and entering indicates that they are expecting demand to be there.

Related with SSDs, we're getting a lot of questions with that, but in a sense already 30% of the PCs are loaded with SSDs. So it's no longer a niche market anymore. It is, SSDs are one of the options that are competing with HDDs. And so even though, yes, cost, how much of a cost competitiveness it would have would be a factor, I do believe that there is a high possibility that the market itself would grow in the future.

And so given the fact that we are standing here as the industry itself migrates from the edge of planar on to 3D, our basic plan and response is to not only maintain but even widen our technology leadership. So that would give us the competitiveness which we would use as a very powerful weapon to further expand the market.

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**Operator**

(Interpreted). Sang-eun Lee, Korea Investment & Securities.

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**Sang-eun Lee - Korea Investment & Securities - Analyst**

(Interpreted). I have two simple questions regarding the TV business. First of all, 2015 TV demand seems to have been sluggish than what we had originally expected. Could you give us a brief outlook what you expect to see in terms of TV demand in the next year, 2016, especially given the fact that you would have the advantage of the base effect due to the sluggish 2015 demand as well as the fact that it's an even year and in even years there usually is a strong demand for TVs? Could you give us your TV demand outlook for the next year, especially focusing on the emerging markets?

The second question is about the Chinese TV companies. In addition, even the smaller private brand TV companies have recently been increasing their market share quite aggressively. Xiaomi has introduced a TV at very aggressive prices and they are even moving now into the US market. Given this fact, I'm wondering how Samsung looks upon and understands the situation caused by the Chinese TV companies. And what is your strategy to differentiate yourself versus the Chinese makers?

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**Unidentified Company Representative**

(Interpreted). Regarding the demand outlook for 2016 for TVs, both our position and also the third-party market research firms are saying that, given the fact that especially the TV demand has been stagnant or has been decreasing during the past two to three years, that in 2016 TV demand would slightly increase versus 2015 demand.

There are various factors that explain this outlook, including the fact that there will be more UHD content and that there will be more larger, demand for larger models, especially, as you mentioned, next year there will be major sports events, including the Olympics and the Euro Cup that will also drive up TV demand. And so we believe that there will be an increase in demand slightly, especially focused on the UHD as well as large-size TVs would be the focus of most of the demand.

Regarding by region, 2015 Europe TV demand actually decreased year on year, but we think that there will be a slight increase in these developed markets in 2016. On the emerging side, due to economic situations and exchange rates, even next year the Latin American as well as the Eastern



European markets, it will be difficult to expect much recovery of demand in 2016 from that part of the emerging market. And so most of the increase in demand for emerging markets for TVs will mainly be pulled by Asia, where there will be a slight increase in demand.

Regarding our response plan towards the Chinese companies that are coming on very aggressively, Samsung still has a very strong position in the major markets based on its leadership in customer preference, customer awareness and market share. And so even if the Chinese companies are entering these markets, we are not planning on responding with them by taking on a direct price competition, because we have a very strong product line-up. We have our brand competitiveness, brand awareness as well as very strong technology leadership, and that is the way that we will be maintaining our position.

I should mention in the North American markets these Chinese companies have come up to have increased their market share slightly, but that's mainly in the very low end of the market. Most of the market share that you've mentioned that increased by the Chinese companies are mainly in China, in the local market of China or maybe in some other countries in Asia.

So our basic plan regarding the response to the Chinese companies is to leverage the distribution coverage that we have as well as the strong partnership that we have with the major distributors in each local market as well as our very cost-effective and efficient supply-chain management system, and to continue to leverage our technology advantage as well as brand awareness to maintain our position.

Even though we refrain from mentioning specific companies, Xiaomi, the one that you've mentioned, their basic sales is to get a TV manufactured from a Chinese OEM and to sell that directly through the Xiaomi webpage instead of going through distribution, which would give them a cost advantage. But that basically would be a model that would mainly be intended to focus on the Chinese internal domestic market.

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#### **Operator**

(Interpreted). Mark Newman, Bernstein.

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#### **Mark Newman - Sanford Bernstein - Analyst**

Hi. Thanks. Just reiterating, thanks a lot, a lot of appreciation from everybody on the recent announcement on shareholder returns.

My first question is on the DRAM capacity. I know there was question about this before. I'm not quite clear on the answer, so if I could just re-clarify, perhaps ask in a different way. You've obviously added a fair bit of DRAM capacity this year, about 40K in line 17. And I think partly because of that and partly because of demand weakness this year pricing is very, very weak. And so we're now seeing pricing has been quite -- very, very weak this year and I think Samsung's also suffering a little bit from that, not as much as the others, but starting to suffer a little bit from that in terms of weak pricing.

And I'm just wondering if you could specify what the bit growth plan or what the capacity and bit growth plan for DRAM will be going forward. Because we are going to see a lot more bit growth from some of your competitors, especially Micron now is back into shrinking their 20 nanometers as we speak, and so I'm just wondering if you could give a little bit more details on the strategy around DRAM capacity. And I have one follow-up on smartphones. Thanks.

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#### **Unidentified Company Representative**

(Interpreted). Well, first of all, once again, I'm not in the position to comment on the bit growth expectations of other companies.

In terms of capacity and bit growth, specific bit growth from the capacity that we have that would be determined by how we operate the entire capacity, and that will depend on the environment as well as specific line circumstances as well as the product mix that we decide to run. And that will be decided by trying to find the mix that would maximize the efficiency of the capacity that we have. So it's very difficult to give you a bit



growth or how we will be utilizing our capacity in terms of how many pieces that will come out. But I can say that we are sufficiently utilizing the capacity that we have.

Now the bit growth even this year shifted from mid-20% to now we are down at low-20% bit growth. And that's because of specific yield situations in the 20-nano X, Y and Z lines. What we mentioned, when I say 20-nano for next year, I'm referring to what could be described as truly 20-nano. Because even though companies, different companies have different definitions of what 20-nano is, I'm saying, by truly 20-nano I'm referring to the 20-nano scaling of the process as well as chip size as well as the number of net dies that are produced.

And so in terms of yield, I believe that each company will have -- it won't be easy for them or companies to reach the amount of yield or productivity that is required to meet that.

And so in terms of bit growth production, supply production for next year, it's also product mix is also a factor in how much will be supplied because, as you know, in the overall product market PC now accounts for less than 20%. And so the makers or the companies are also shifting their capacity from PC over to servers and mobile product.

So, for example, the server and mobile products that have DDR4 or LPDDR4 interfaces, by increasing the share of those products in the product mix, because of the chip size that's required to implement them as well as the fact that they take on longer production lead times itself would naturally bring on a bit growth decrease effect, if companies increase the server or mobile products in their product mix.

And so next year overall I believe that the demand trend and the supply trend will be similar to this year, but there will be two variables that would have to be considered. One is how smoothly or how well companies are able to either ramp up or increase the productivity of their 20-nano processes. The second would be the product mix of what comes out of it. But my personal view is that even at maximum next year, bit growth mid-20% would probably be the maximum, but that's a personal view.

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**Mark Newman** - *Sanford Bernstein - Analyst*

Okay. Thank you very much. One quick question on smartphones. The market growth is obviously slowing down. Looks like Samsung's having a little bit success now in the mid- and low-end. I've asked a similar question before because I think this is very important. The strategy of Samsung, are you going to be more focused on maintaining your market share? Do you think that maintaining market share and growing units is reasonable and do you think in that case that margins will come down further?

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**Unidentified Company Representative**

(Interpreted). Well, for us market share and profitability, as you've heard several times, are both important and so we will be focusing on both of them. We will be enhancing our profitability by expanding the sales of our high-end flagship models, but also maintain scale and market share by expanding the share sales of mid- to low-end products.

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**Robert Yi** - *Samsung Electronics Co Ltd - Senior VP IR*

(Interpreted). Even though the conference call has been going on for some time, there are still many people waiting in the question queue. And so I would like to propose that we take about three or four more questions and end the call at about 11:30 local time.

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**Operator**

(Interpreted). Peter Lee, NH Investment & Securities.

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**Peter Lee** - *NH Investment & Securities - Analyst*

(Interpreted). First I have a question regarding the SSD and V-NAND business. There were similar questions and answers related with this topic, but it seems recently the CPU companies and hard disk drive companies have started to make investments or acquisitions related with the NAND business. This actually could be interpreted in two ways. In one fact, that means new competition would come into the V-NAND space. But on the other hand, as you mentioned, this could imply that the SSD market (technical difficulty).

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**Operator**

(Interpreted). We are disconnected with the host so please wait a minute please. Again, we are disconnected with the host so I would like to ask for your understanding. So please wait a minute.

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**Unidentified Company Representative**

(Interpreted). The new investments that were announced, they are not planar NANDs. These are 3D NANDS. However, the specifics of what that investment would do, for example, of what kind of product will be produced using what types of processes and technologies and when those products will be coming to market has not been announced. So that is still (technical difficulty).

On the other hand, as we have already disclosed, we started mass production of our 48 layer, what we refer to as [V3] V-NAND, from the third quarter of this year and we're expecting that this will probably be our main product for 2016. And even though we will on the one hand continue to increase layers and follow the roadmap, next year another important focus for us would be to continue to enhance the process of this [V3] 48 layer, so that we are able to deliver on not only the performance as well as the reliability of the product, but also continue to increase our price competitiveness and cost competitiveness.

One thing that I can offer as a fact is that among the VNAND companies we are the only VNAND supplier currently in the market that has successfully qualified our products and has started mass production and have already acquired one or two years of track record already. That is a fact. And regarding other new companies I believe that time will tell and we will need to watch.

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**Peter Lee** - *NH Investment & Securities - Analyst*

(Interpreted). The second question regards the display on the LCD side. Once again, the Chinese companies, including BOE, have been either investing or have been increasing their production. What is Samsung's strategy in terms of the display to respond to these new Chinese players?

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**Unidentified Company Representative**

(Interpreted). Since you've asked about the basic direction that we have regarding the next generation line and investments for a next generation line, as we have mentioned during the past quarter, the next 10G line requires a massive amount of investment, which justifies us to go through that much more of a prudent decision-making process before we decide. And so we are considering various factors, including market demand, our customers' situations as well as other companies' situations, but it will be decided through a very prudent consideration.

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**Operator**

(Interpreted). [Xu-Liang Sun], HSBC.

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**Xu-Liang Sun** - HSBC - Analyst

(Interpreted). My question regards the Samsung Pay service. In Korea I've read through the media some data points that were released regarding the usage of Samsung Pay, for example the number of users, the number of VP users as well as the amounts that are being used per transaction. Samsung Pay has been launched in the US for about a month. Is it possible to give some data points in terms of US Samsung Pay adoption? For example, how many users do you have? What is that repeat usage rate? And how much is the amount per transaction that you're seeing in the US? And could you give us some initial feedback from the users in the US market?

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**Unidentified Company Representative**

(Interpreted). We actually, as you mentioned, yes, we launched the Samsung Pay service in the US market, starting from late September. The initial market response has been very favorable. The usage rates also are far exceeding our original expectations in the US market. The US media has also given very positive feedback, especially focusing on the fact that it could be used in many more merchants and also the fact that it is very easy to use. Those were the two focuses of the positive media feedback.

Also we have completed our talks with Verizon as of last week, October 21. So now we will be opening our Samsung Pay service through all of the four major operators in the US market. And considering all of this, the positive initial response and the addition of Verizon, we're expecting the adoption and the usage of Samsung Pay to increase at a faster pace in the future.

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**Xu-Liang Sun** - HSBC - Analyst

(Interpreted). My second question relates with the System LSI business. First of all, it seems the 14-nano foundry will be the mainstream of the focus for the System LSI business in 2016. Can you give us some more details or current situation of your plans of diversifying your 14-nano foundry business customer base? Do you have any strategies on how to obtain additional customers for the 14-nano foundry business?

Also regarding the migration to a 10-nano mass production, if it goes mass production, would that initially be for internal use or would it be for the foundry business? Do you have -- is there a time difference and if so, which one would be used for the 14-nano mass production first? And when do you think that will be, mass production of 10-nano next year, mass production, would it be closer to the first half or the second half of next year?

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**Unidentified Company Representative**

(Interpreted). Regarding our 14-nano foundry business, we do have the industry's top process in the 14-nano business. And that is the major strength that gives us access to customers and will be the source of demand, strong demand for next year we're expecting.

Regarding the current situation of our plans of diversifying our foundry customer base, even though I'm not privileged to give you specific names, I can say that we are in the process of talking to many customers in various applications, applications being not only mobile, but other areas as well. We are in the process of talking and adding on these new customers for the foundry business.

If there is a strategy for us to obtain customers and diversify our customer base, that would be, first of all, the fact that we were the first of commercialize the 14-nano process this year. And we, going forward, are planning to make this into different version, maybe, for example, a high-performance version versus a low-cost version, which will give us that much more leverage in diversifying our foundry business customer base.

You've also asked about our 10-nano and if I may comment, once again, our 10-nano developments are all on track as planned and as we have mentioned before, we're thinking of starting mass production on a small scale from closer to end of next year. Regarding -- but that would also depend, when that would be would depend on the market situation as well as the customers' demand, when they need it. Regarding of whether

it will be used for internal use or for foundry business firms, that also would depend on the customers' schedules, but from our end, we are prepared to respond to any sort of situation.

We will take one last question before we end.

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**Operator**

(Interpreted). S.C. Bae, Barclays.

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**S.C. Bae - Barclays - Analyst**

(Interpreted). Well, first thank you very much for giving us a very clear shareholder return policy. I have a couple of clarifying questions though. Is it correct to understand that the KRW11.3 trillion of the special buyback and cancellation program that you announced is separate from the three-year free cash flow dedication that you have mentioned?

And also, if so, from the KRW11.3 trillion you've announced today specifically that KRW4 trillion will be used in the next three months. That would leave a balance of KRW7 trillion. Can you give us an idea what the timeframe would be in terms of executing these remaining KRW7 trillion of the special buyback program?

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**Unidentified Company Representative**

(Interpreted). To answer your first question, yes, it is correct that the KRW11.3 trillion of the special buyback and cancellation program is completely separate from the three-year program that we announced of dedicating 30% to 50% of our annual free cash flow for shareholder return. That will be run over 2015, 2016 and 2017. And the two programs are completely separate.

Regarding the timeframe for the KRW11.3 trillion of buyback that we announced, as I mentioned during the presentation, due to regulatory requirements specific to Korea as well as the amount of shares available in the market for us to buy back, we will not be able to execute the KRW11.3 trillion of buyback in one round. We're thinking that it will probably be executed over three or four rounds. The specific number of rounds will depend on various factors, including the amount of increase in our share prices in the future. But currently, we do not expect to have to go beyond three to four rounds of buyback to execute the complete KRW11.3 trillion.

And to add, as we mentioned, under Korean regulation one round of buyback resolution needs to run for three months. And so three to four rounds of such buybacks in terms of calendar months would be similar to nine to 12 months.

And that completes the conference call. Thank you very much.

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**Editor**

Portions of this transcript that are marked (interpreted) were spoken by an interpreter present on the live call. The interpreter was provided by the Company sponsoring this Event.

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**S-2**

# < '16.1Q Earnings Conference Call Transcript >

Samsung Electronics  
IR Group

## **Robert M. Yi**

Good morning. This is Robert Yi from Investor Relations. Thank you for joining our first quarter 2016 earnings call. With me, from the business units, are Mr. Chun Sewon is the Senior VP of Memory Marketing; Mr. Huh Guk is the VP of System LSI; Mr. Lee ChangHoon is the VP of Samsung Display; Lee KyeongTae is the VP of IT and Mobile Businesses; Mr. Lee Yoon is the Senior VP of Visual Display; and Mr. Kim SangHyo is the VP of IR Group.

I would like to remind you that some of the statements we'll be making today are forward-looking based on the environment, as we currently see it. And all such statements are subject to certain risks and uncertainties that could cause our actual results to be materially different from those expressed in today's discussion.

Before getting into business results, I would like to update you on the share buybacks.

Of the KRW 11.3 trillion buyback program that we announced last October, we completed the first two phases this month. We invested approximately KRW 7.4 trillion during these two phases and we were able to repurchase and cancel 4.33 million common shares and 1.77 million preferred shares.

In both phases, we were able to reduce the total amount spent in the buyback by increasing the proportion of preferred shares relative to the outstanding share ratio. Today, the Board of Directors approved the third phase of the buyback program. The total amount is approximately KRW 2 trillion, with 1.3 million in common shares and 320,000 preferred shares to be repurchased.

It will take about three months to complete starting tomorrow. At this pace, we'll be able to complete the total 11.3 trillion buybacks in early fourth quarter.

Now, I will go over our first quarter results. In the first quarter, the overall revenue was KRW 49.8 trillion, increased by 5.7% year-on-year. The increase was mainly driven by the early launch and successful sales of Galaxy S7, expanded 14-nano supply of system LSI products and increased sales of OLED panels.

The gross profit increased by KRW 1.2 trillion year-on-year. Most of the improvements came from the set business as high-end product mix of smartphones and TV improved. As for SG&A expenditures, the percent of revenue decreased slightly year-on-year despite the increase of marketing and promotional expenses associated with the earlier launch of Galaxy S7.

The company's continue efforts to bring more efficiencies in managing expenses including streamlining mid-to-low end smartphone lineups have contributed to this result. The operating profit increased by KRW 0.7 trillion year-on-year to KRW 6.7 trillion and the percent of revenue increased by 0.7 percentage point.

We estimate that weak Korean Won against major currencies such as U.S. dollar and Euro in the first quarter positively impacted the operating profit by approximately KWR400 billion, mostly for the component business. Other non-operating profit of KRW360 billion mostly came from the gain on sale of investment in Samsung card.

I'd like to make few comments on our operating profit by major businesses. For the semiconductor business, despite weak memory demand due to seasonality and supply demand imbalance, the memory business achieved solid earnings by expanding sales of high value-added products while continuously reducing cost with technology migrations for both DRAM and Vertical NAND.

For the System LSI business while Q-on-Q earnings decreased slightly due to the impact of component inventory adjustment by customers, year-on-year earnings increased led by increase of 14 nano products.

For the display panel business although OLED earnings improved mainly driven by Galaxy S7 over earnings of the display panel business decreased due to a sharp decline in LCD earnings.

LCD business experienced temporary yield issues while adopting new process technology as well as TV panel price decline in the first quarter. The IM business achieved a substantial earnings improvement both year-on-year and Q-on-Q. Improvement was mainly driven by all the launch of Galaxy S7 and its strong sales. As well as improved cost efficiency through the streaming lining of mid to low end smartphone lineups. In the Q1, we had one time expense reduction from a royalty settlement but the impact on operating profit was less than 1% of IM revenue.

Now I would like to turn to the outlook. In the second quarter, we expect our solid performance to continue. As a result, we are cautiously optimistic that operating profits to increase quarter-on-quarter led by earnings improvements of display panel and consumer electronic business and continued solid earnings in mobile and semiconductor business.

For the set business, mobile business will focus on securing solid earnings in the second quarter by expanding sales of Galaxy S7 and continue to secure strong profitability of mid to low end products. Consumer electronic business is expected to improve earnings led by strong seasonal demand of air conditioner and release of new TV models, including upgraded SUHD TV.

For the component business semiconductor will strive to maintain solid earning by improving high value added memory product mix such as vertical NAND SSD sales for the server market, and also by expanding supply of System LSI components for premium smartphones.

In the display panel business, we expect the earnings to improve sizably compared to the previous quarter. LCD profitability is expected to improve with a stabilized yield of TV panels as well as improved supply/demand conditions.

OLED business will maintain solid earnings driven by increased shipments for Galaxy S7 and expanded external customer base. In 2016, we expect the set business to continue to generate higher earnings than that of the previous year, while focused on stabilizing component business earnings in the second half.

For semiconductor business, we'll continue to manage DRAM business with a focus on sustaining solid profitability while enhancing technology competitiveness. The V-NAND, for V-NAND we believe we have a



very strong technology leadership coupled with a solid opportunity to expand V-NAND based SSD into server market.

System LSI business will also strive to improve profitability year on year by enhancing overall fab utilization and expanding mid to low-end SoC lineups by applying 14-nano process.

For display panel business, we expect OLED earnings to increase driven by increase of flexible and high resolution panels, and we expect LCD profitability to improve in the second half, mainly driven by improved product mix amid better supply/demand conditions.

For the IM business we expect the sales of flagship products to increase year-on-year, especially with a strong Galaxy S7 demand and new model launches in the second half. Also we will continue to manage cost efficiencies through the streamlining of smartphone lineups.

For consumer electronic business we plan to focus on profitability by increasing premium products, utilizing SUHD and Curved lineups. With the Olympics and other major sporting events driving global demands for the large sized TVs, we expect strong improvements in operating results year-on-year.

Digital Appliances Business will strive to improve earnings by expanding sales of premium products, including smart appliances, as well as enhancing B2B business.

Now I would like to comment on our capital expenditure plan. During the first quarter we executed KRW 4.6 trillion in capital expenditure including 2.1 trillion for semiconductor and KRW1.8 trillion for display. We have not finalized the annual plan for 2016, but we may see the expenditure to increase slightly compared to last year's with various business opportunities we have.

Based on our current view, CapEx for the display panel business may increase as we see strong market demands for OLED panels. For DRAM capital expenditure, our strategy is to be flexible based on supply and demand conditions. And at this point, it is likely to decrease year-on-year.

Before the presentation of each business unit, I would like to share several Data Points for key business areas for your convenience. For DRAM business in Q1 this year, our bit growth was negative low single digit with low teens of ASP decline. For the second quarter, we expect the market DRAM bit growth to be low-teens and we expect our bit growth to be in line with that of the market growth. And for the year, we expect the DRAM bit growth to be in somewhere around near mid-20% and again, we will grow in line with the market.

For NAND flash, in Q1, our bit growth was high-single digit and we saw mid-single digit ASP decline. And for the second quarter, we expect NAND market bit growth to be high single digit and we will grow with the market. For the year, we expect the NAND bit growth for the market to be around 40% and we will outgrow that of the market growth.

For the mobile business, our total handset shipments in Q1 was 92 million units, and we had 6 million tablet shipments. The total blended ASP of these units were slightly above \$210, and the mix of the smartphone within the total handset was about mid-80%.

In Q2, we expect the total handset shipment to be slightly lower than that of the Q1 as well as the tablet shipment. We do expect the improvement in blended ASP, and the mix of the smartphone within total handset

would reach high-80%.

For TV set business, we shipped in Q1 roughly 10 million units of LCD TV. And in Q2, we expect to see mid-single-digit increase, and we see mid-to-low single-digit increase on TV sales for 2016.

And, now, I'll turn the call over to the gentlemen from the business units, starting with the semiconductor.

## **Sewon Chun**

Good morning. This is Sewon Chun from the Memory Marketing team. I am going to present our business result for the first quarter and the market outlook for the next quarter. For NAND, although overall, set demand was low due to weak seasonality, SSD demand continue to grow, driven by increased adoption of high-density product. Mobile demand remained solid due to contents growth as Chinese smartphone brands led adoption of high-density products over 32 gigabyte.

We improved product competitiveness and profitability by expanding the mass production of a third-generation V-NAND and process migration of a 10-nanometer class planar. Especially, we strengthened our SSD product competitiveness by expanding sales of client SSD over 256 gigabyte and high-density enterprise SSD.

For DRAM, even the overall demand was weak, affected by the slow PC market, smartphones density continue to grow and server DRAM demand remained solid driven by high-density demand from data center.

We strengthened cost competitiveness by expanding our 20-nanometer product portfolio and focused on maximizing profitability through profit-focused product mix and supply management according to the market situation of each product.

Next, I will comment on the memory market outlook and our strategy for the second quarter. For NAND, we expect a strong growth trend for high-density SSD due to the expansion of cloud services. Service diversification by mobile and internet companies and accelerate transition of HDD to SSD by enterprise companies.

For mobile, we expected adoption of high-density products over 64 gigabyte to expand led by growing trend of high resolution and specification smartphones. Supply and demand for each application can vary depending on each suppliers' strategy for increasing demand for solution products.

We will continue to lead the demand growth of high density and value added solution products by actively responding to high reliability enterprise SSD and also by increasing supply of differentiated mobile storage products based on V-NAND product competitiveness.

Also, we will make our best effort to improve earnings and our NAND business through the process migration of third generation V-NAND and planar. For DRAM, PC demand is expected to improve and high density server demand is expected to be solid driven by expansion of a new server platforms.

We also expect the mobile demand to improve driven by new smartphone launches and continuous content growth mainly in China. We will focus on strengthening market leadership and securing profitability by increasing sales of competitive 20-nanometer high density and value added products such as 8Gb DDR4 and LPDDR4 and by actively responding to mobile, server and graphics demand.

Although there are uncertainties in macroeconomic conditions and the IT industry in 2016, we expect the server and mobile to drive overall demand with the trend of Cloud service expansion and mobile contents growth. Supply and demand will depend on 20-nanometer ramp up and V-NAND mass production status in the industry.

For NAND, we will strengthen product competitiveness by expanding 3rd generation V-NAND mass production. Also we will reinforce our market leadership and lead high value-added storage market growth by expanding sales of high density and value-added enterprise and PC SSD as well as mobile storage such as UFS and eMCP.

For DRAM, we will continue profit-focused product mix and flexible supply management according to supply and demand conditions in the market. Also we will concentrate on reinforcing stable mid to long term profit base by proceeding with 10-nanometer class migration.

Now moving on to the System LSI business. In the first quarter, while earnings decrease Q-on-Q due to customer's inventory adjustment, we could achieve solid the year-over-year growth led by increased demand for 14-nanometer process. In the second quarter, we expect earnings to improve driven by new premium smartphone launches and inventory restructuring of the customers.

In 2016, despite the expected challenges from the muted premium mobile market demand growth, we will strive to improve our profitability through diversifying 14-nanometer foundry customer base and by enhancing product lineup of mobile SoC.

We will continue to focus on strengthening foundation for long term growth through starting 10-nanometer production by the end of year 2016, and diversifying application base into wearable, VR, IoT and networks. Thank you.

## **ChangHoon Lee**

Good morning. This is ChangHoon Lee from the planning department of Samsung Display. In the first quarter, although we brought solid results from OLED panels, our total earnings declined from the previous quarter, mainly due to the decreased shipments of LCD panels.

For LCD panel, in the first quarter, our earnings sharply declined Q-o-Q due to the decrease in demand and the weak seasonality and continued ASP decline as well as production of the new technologies.

We have applied new technologies in order to strengthen the competitiveness of our LCD panels, but experienced a production delay in the process of migration. However, most of the issues have been cleared and we expect production yield to be stabilized during the second quarter.

In the second quarter, we expect TV demand to be fueled by sport event, Chinese Labor Day and display trends moving towards larger size. In response to this market conditions in the second quarter we will reinforce product stability by stabilizing yield of the new TV production, increasing shipment of the strategic products and enhancing P mix with cost reduction.

For OLED panel, in the first quarter, our results reflect enhanced QoQ due to increased demand from mid-to-low-end smartphones and launches of new high-end smartphone panels. In the second quarter we will make the

best effort to improve our earnings by actively responding to the demand for new products as well as enhancing utilization led by expanded external customer base.

Now I would like to present the display market forecast and our cost strategies in 2016. While the display industry expects some encouraging signs such as continuous UHD TV market growth and size migration to larger size, there will also be continued challenges by the industry capacity expansion. We will appropriately respond to these market conditions in 2016 by focusing on cost reduction, inventory management and expanding the portion of high valued products, while continuously monitoring the market conditions.

For the OLED industry we expect the global smartphone market to slow down and the growth mainly coming from the low end products but the demand for OLED panels is expected to increase continuously. Under these circumstances, we will address the new product to major customers and expand customer base. We will also secure capacity according to the market demand and reinforce the competitive edge and we will reinforce our market leadership by continuously developing new applications.

Thank you for listening.

## **Kyeong Tae Lee**

Good morning, everyone. I'm Kyeong Tae Lee from the Mobile Communications business. I would like to present our 2016 first quarter business result, and the future outlook for the IT & Mobile Communications business. During the first quarter, market demand for both smartphone and tablet decreased from the previous quarter due to weak seasonality. As for our mobile communication business, smartphone shipment slightly dropped Q-on-Q as a result of the market seasonality and reduced sales of our longstanding mid to low-end model.

However, our profit increased compared to the last quarter thanks to the strong sales of Galaxy S7 and S7 Edge released in the first quarter, which improved product mix in addition to enhanced profitability of mid to low end smartphone.

Also our earnings improved from the previous year.

We launched our latest of flagship models, the Galaxy S7 and S7 Edge, on March 11th, a month earlier than their predecessor. For the Galaxy S7 and S7 Edge, we enriched design attractiveness of the product, while enhancing features such as high resolution of camera, memory slot, water and dust resistance, bigger battery capacity and advanced Edge to provide our customers with value and meaningful experience in everyday life.

In addition, we addressed the needs of our customers in diverse lenses of 4Ps in marketing include product and reflected those in our newest of flagship models. With these efforts, the Galaxy S7 and S7 Edge are receiving much interest and affection from our customers. And recently the U.S. Consumer Reporters and the European Consumer Association of the U.K., France, Spain, Belgium and the Netherlands appraised the newest flagship models as the best smartphone in the market.

Currently, our flagship models are showing robust sales performance in all regions, including North America and Europe. Also, the Galaxy S7 and S7 Edge are outselling their predecessors in terms of sell out, and accordingly, inventory level is very healthy.

Now, looking at our tablet business, our shipment declined in the first quarter as a result of a market slowdown and a typical effect of seasonality. As for the network business, our earnings decreased from the previous quarter, mainly because of reduced LTE network investment by some partners.

Next I would like to talk about outlook for the second quarter. Market demand for smartphone and tablet is expected to remain at a similar level for the first quarter. For our Mobile Communication business, we will maintain our current positive sales momentum through full-fledged global sales of the Galaxy S7 and S7 Edge. We expect Galaxy S7, S7 Edge to show clear distinction in sales compared to its predecessor based on continued current sales trend and its differentiated product capability.

As for the Galaxy A and J Series, we will increase our shipment volume, mainly with the newly released products in 2016. While maintaining the profitability of mid to low end models to continue our strong profit in the second quarter as we did in the first quarter.

For the network business, we expect further growth leveraging the LTE expansion of our main overseas partner.

Lastly let me address the outlook of the year 2016. Market growth for smartphone is expected to slow down Y-on-Y, while the tablet market demand may decline from the previous year. We will improve our profitability to increase our earnings Y-on-Y by expanding smartphone sales and maintain optimized product portfolio of strategy. Especially in the premium market, premium segment we will strengthen our leadership with the Galaxy S7 and S7 edge and our new flagship model introducing in the second half of 2016.

Also in the mid-to-low end market we will increase our shipment volume mainly driven by the Galaxy A and J Series and continue to aim for improving profitability. Moreover, we will constantly drive the global expansion of Samsung Pay and seek out for new business opportunities such as VR and wearables.

For our network business we will strengthen the foundation for further growth utilizing our LTE business experience and technological excellence while entering new LTE markets including Southeast Asia.

Thank you for listening.

## **Yoon Lee**

Good morning. I am Yoon Lee, Senior Vice President of Visual Display Sales and Marketing Team. I would like to present the market conditions and our results for the first quarter.

TV market demand under the typical weak seasonality declined both year-on-year and quarter-on-quarter which was impacted by slow economy recovery in the EURO zone and continued weakness of emerging market currencies. Despite such market conditions, our earnings improved compared to the same period last year by expanding sales of premium products such as SUHD and curved TV. In the Digital Appliance business in the first quarter, while the North American market continued its growth momentum, emerging market demand decreased year-on-year due to slower market growth in China and the impact from unstable currencies from emerging market. Under these circumstances we expanded the sales of innovative products such as Chef Collection Refrigerator and ACTIV Wash washing machine and increased revenue in the North American market. Accordingly our earnings improved from the same period of previous year.

Next let me briefly share with you the market outlook. As for the second quarter, TV market due to the impact of sporting events such as The EURO Cup and Brazil Olympics we anticipate a slight increase in TV demand year-on-year. In response, with the focus on our 2016 as SUHD TV we will strengthen premium lineups such as UHD and curved TV in order to further improve profitability as well as earnings. This year based on the world's only echo-friendly Quantum dot display technology 2016 SUHD TV features the most true to life picture quality and innovative design.

Furthermore we will put more focus on positioning 2016 SUHD as the representative next generation premium TV. Also, by addressing consumer pain points, we made significant improvements in Smart TV experience.

Our new Smart TV automatically recognizes the exact devices you have connected. And it allows consumers to control various TV connected devices with one remote. Also, consumers can access the content from multiple sources quickly and easily through one screen.

2016, while we continue to introduce innovative products which reflect consumers' lifestyle and needs, we will solidify our leadership in premium market based on our strong brand status in order to outperform the market and improve earnings.

As for the digital appliance business, in the second quarter while global market uncertainties persist, as the possibility of increased global currency risk exists, we expect the U.S. digital appliance market continue to grow.

Under these circumstances we will continuously improve our business performance by strategically targeting premium digital appliance market through our newly launched products such as Family Hub Refrigerator.

This year we will make continued efforts to lead the premium home appliance market by continuously launching innovative products. And at the same time we will diversify our revenue sources by enhancing B2B business including system air conditioner, in order to improve earnings continuously.

Thank you.

## **Robert M. Yi**

Okay. This concludes the presentations by the management. So let's turn to Q&A please.

## **Q&A**

### **Operator**

Now, Q&A session will begin. The first question will be presented by Ricky Seo from HSBC. Please go ahead, sir.

**<Q - Ricky Seo>**: I have several questions related with the 3D NAND, first it seems main source of the demand for 3D NAND is the enterprise storage as well as servers. It seems that the fab in Xian is now ramped up to full capacity as of the start of the 2016, but in anticipation of greater demand in the second half, do you have any plans of further expanding the capacity and if so, how will you go about and do that.

The other part of that question is, with the migration to the 48 layer 3D NAND help increase output and with so, what was the share of your 48 layer 3D NAND be as of the end of this year?

<A>: As you mentioned, the major source of the V-NAND is coming from enterprise applications, especially with the expansion of the cloud services. V-NAND and SSD adoption is the – it seems to be the preferred choice by customers because of the high reliability and endurance.

As well as in terms of TCO, it is the high reliability as well as high density. V-NAND SSDs are being adopted more. And this is the major source that's driving up demand for our V-NAND. So it's the data centers as well as servers and enterprise applications. And we believe that we are differentiating V-NAND products that offer high density as well as high endurance and low power. We are very well set to meet this demand.

It's difficult for me to go through the details of our capacity increase plans or plans to increase our production, but we are expanding our mass production of the third-generation V-NAND. And at the same time, the customer demand is also increasing on this side, and we will be continuing to meet and further increase our positioning in the market.

<A - Robert Yi>: Next question, please.

## Operator

The following question will be given by JJ Park from JPMorgan. Please go ahead, sir.

<Q - JJ Park>:

I have two questions. The first question is related with the mobile side. In addition to the strong demand for the new flagship Galaxy S7, it seems also the S -- the J series has been contributor to the good performance. Even though the mid to low end is a very competitive segment, is there a reason why particularly the J series has been able to be more profitable? And do you think this profitability of the J series will be able to continue in the future?

<A>:

As you know since late 2014, we have revised our mid to low end product line-up with a focus on the more competitive Galaxy A and J Series and with the new models introduced for 2016 first quarter, the sales of Galaxy A is increasing especially around Europe and China and the sales of Galaxy J Series is increasing especially with a focus in the emerging market side. Also the cost structure of the mid to low end line up has been improved. Thanks to optimized line up but also the increase use of common components and better yield of internally produced components. Also our marketing spend related with the mid-to-low end line up has been more efficient.

And we think that with continued innovation of the business fundamentals as well as continued improvement in the cost structure this profitability of our mid-to-low end models we expect will be maintained in the future.

<Q - JJ Park>:

My second question is related with display side. Could you give us your investment plans related with OLED

for this year as well as next year and also could you give us an idea of the capacity of the A3 line which produces the flexible OLED also this year and next year?

<A>: We do expect OLED demand from the smartphone market to continue to increase in the future. And therefore we are planning to make investments for expansion is necessary at the optimal time to meet this increasing OLED demand. Even though it's difficult for me to give you the details of the size or in terms of the capacity of our facility investments, our basic approach is that we will maintain our competitive edge and in order to maintain that competitive edge we will continue to meet the market demand and customer needs through appropriate investment.

## Operator

The following question will be presented by Nicolas Gaudois from UBS. Please go ahead sir.

<Q - Nicolas Gaudois>: Good morning. I have two questions, first one, is actually a follow-up on display. Could you maybe give us an idea of how much would external customers represent of your mobile OLED revenues in 2017 and 2018 bearing in mind you already gave us guidance for this year which will be around 30% of revenues? And I have a follow-up question. Thank you.

<A>: The plans regarding our OLED business, especially serving the external customers that we mentioned during the last quarter's conference call, is being carried out smoothly according to schedule. We are not only maintaining the advantages of OLED which is the high picture quality and performance, but also have gained a cost competitiveness, enough to compete with LCD solutions.

We are continuously focusing on increasing adoption by external customers and we have also been building up our collaboration system so that we will be able to serve our external customers better and more external customers.

At this point of time it's difficult for us to go into details of 2017 and 2018 plan, but we do expect and we do plan to focus on continuously increasing our business towards external customers.

<Q - Nicolas Gaudois>: Okay. And on the NAND side, if we look at your profitability for semiconductors, it's very clear that margins improved by NAND flash in Q1. Is that an indication that 3D NAND flash costs are now mature and optimized and therefore you are realizing with 48 layers in particular some of the cost benefits you would expect to see versus 2016 and even maybe 14-nanometer planar as well. Thank you.

<A>: Actually we believe that the main contributing factor to our earnings in the first quarter is the fact that we were able to capture the demand from the SSDs for the high density enterprise servers and we were able to, therefore, capture the more profitable opportunities in the market. Regarding the cost of the 3G V-NAND that we are producing, it has already met in terms of cost competitiveness level similar to 10-nano class planar and as we further expand the mass production of our 3G V-NAND profitability is expected to further increase.

<Q - Nicolas Gaudois>: Thank you very much.

## Operator



The following question will be provided by Seung-Hyuk Lee from Korea Investment & Securities. Please go ahead, sir.

**<Q - Seung-Hyuk Lee>**: I have two questions related with the TV business. So the first is related with the profitability. Even though first quarter seasonality is weak and also despite the seasonality, global TV demand was weaker than expected. It seems your TV business profitability has been quite strong and sound. Of course, one reason would be the decrease in the panel prices. But were there other reasons other than the decrease in panel prices that explain the relatively strong profitability of the TV set business?

This ties in with the second part of the question, which is the fact that in the second quarter the panel prices have already started to stabilize. Would this indicate that the TV set business profitability would start to decline in the second quarter or are there other reasons other than lower panel prices that would explain your profitability and, therefore, actually indicate that the margins of the TV set business will continue to be maintained despite the stable panel prices?

Second question relates with the quantum dot TV, which since last year has been showing good sales. And especially with the LED technology, the light source technology getting better, the color reproduction of quantum dot TV technology seems to have been improved as well. Do you think that in terms of picture quality quantum dot is a competitive solution even to OLED?

**<A>**: To answer your first question regarding our earnings in the first quarter and also outlook to the second quarter, yes, panel prices were lower in the first quarter, but that's a factor that was enjoyed not only by us, but other competitors in the market. We contribute our first quarter results more to the fact that we were able to analyze the market correctly and focus more on the sales of the premium segment such as SUHD and Curved TVs, especially in the developed market. And by doing that we were able to enhance our profitability.

In the second quarter, actually, we have more factors to look forward to such as the launch of a model. Also there will be the Euro Cup and the Brazil Olympics coming in August, which will also demand – which would also drive demand for TV and so our plan is to response to this by having stronger line up on the high premium segments such as SUHD TVs, curved and large screen TVs and with this we believe that we will be able to minimize whatever increase in panel prices that we may experience and continue to grow and maintain our profitability.

And to answer your second question regarding quantum dot TV and in comparison with OLED solutions. As you know our SUHD TV is the world's only such solution that uses Quantum dot TV which is the eco-friendly solution. It is based on our proprietary technology and is an innovative product in terms of color as well as brightness.

And also recently the Hollywood content producers have defined the HDR specification as 1000 nit and our Quantum dot TV solution or UHD TV is capable technically the ones that were launched this year to actually reproduce the 1000 nit or to express 1000 nit pictures. And so it is the solution and the product that enables viewers to enjoy the content as intended by the original producers of the content.

You have mentioned OLED but on my OLED organic solutions that would lose color as well as brightness overtime. Our Quantum dot TV technology is a non-organic solution that can maintain the high quality of color as well as brightness over a long period of time of usage. And was designed to do this and will be able to satisfy

the customer needs in that aspect.

## Operator

The following question will be presented by Min-Seong Hwang from Samsung Securities. Please go ahead, sir.

<Q - Min-Seong Hwang>:

<Q>: I have two questions related with the semiconductor side. Could you give us your change in DRAM and NAND inventory on a quarter on quarter basis, and I would appreciate if you could just detail that into work-in-process versus finished product inventory for DRAM and NAND Q-on-Q?

And given the fact that DRAM prices have continued to decline, if DRAM prices even in the future continue to decline, does the company have any plans or thoughts of trying to defend the prices by either converting DRAM to NAND, or by increasing its DRAM inventory?

<A>: Please understand that it's difficult for us to give you the details in terms of the work-in-process as well as finished inventory for DRAM and NAND. But as we mentioned in the fourth quarter conference call, our basic position is that, our production is flexibly operated depending on the demand and supply situation for each specific market, as well as the profitability of each specific product segment.

Currently as you mentioned the NAND market outlook is very strong. Actually our outlook towards the DRAM market is not that bad either. And our production plan going forward as well as our inventory will be managed flexibly depending on our market outlook and our current inventory as well as work-in-process is at stable levels.

<Q>: My second semiconductor question regards the AP side. It seems when we look at the handset OEMs there is an increasing trend of handset OEMs using their own AP. This ties in with your comments during the presentation of the system LSI planning to expand its SOC lineup. So given all of that, how much do you think the ratio of Samsung's own AP or how much of the ratio of your own AP -- and how much of that -- or how far can that increase to, is the first question.

And my second question regards with lagging edge, what are your plans in terms of hunting or further expanding the profitability of lagging edge?

<A>: To answer your question about the ratio of our own APs that will be used in Samsung handsets, there is no such ratio because our basic policy in terms of component sourcing is that we will adopt what is most competitive that is available out in the market and that policy will be maintained in the future.

<A>: To answer that question from the system LSI side, the ratio of own or in-house or captive AP that's used by the mobile business is a decision are the results of our customers so that something that the system LSI would not be able to comment on. Regarding the lagging edge, our basic policy towards our process is that at the front end side, we will provide to our customers the best performance and the most value. And then the cost savings at the following sites -- of the following processes will also be approached as a way of providing the most affordable as well as profitable solution.

## Operator

The following question will be provided by Marcus Shin from Goldman Sachs. Please go ahead, sir.

**<Q - Marcus Shin>**: Yes. I have one question regarding the mobile side. You've mentioned that the S7 since launch has been showing very strong sales. Could you give us a better picture of the current sellout of S7 and S7 Edge? Would it be possible to compare that to the previous S6?

**<A>**: Well, as mentioned during the speech, our Galaxy S7 and S7 Edge are both showing very stronger sellout compared to the previous flagship model. Especially the market response to the Galaxy S7 Edge has been stronger than expected and we're seeing very fast turnover speed for the Galaxy S7 Edge in major area such as North America, China, and Middle East. They are almost being sold immediately upon being supplied. And inventory levels are therefore at very healthy levels.

With current trends expected to be maintained, I think even at a full year basis, the S7 and S7 Edge is expected to show clearly distinct -- to show a clear distinction in sales compared to its predecessors.

## **Operator**

The following question will be presented by Peter Seicheol Lee from NH Investment & Securities. Please go ahead sir.

**<Q - Peter Seicheol Lee>**:

I have questions -- two questions related with the semiconductor side. It seems you have been continuously reducing your investments on the DRAM side. Could you provide your company's outlook on the DRAM growth for this year? And what is the company strategy regarding the DRAM business this year?

Also could you once again clarify the data point for the Q2 DRAM that you gave during the presentation?

**<A>**: To answer your second question first about the bit growth for DRAM and NAND, we saw in the first quarter was that DRAM bit growth, DRAM shipment decreased by low single-digits and NAND shipment increased high-single digit.

For second quarter what we're expecting is for DRAM bit growth in market to grow in the low teens and the company bit growth in DRAM to be within line of market growth. For NAND in the second quarter we're expecting a high single-digit growth in market growth and we will be in line with that.

**<A>**: Regarding the first question, we're seeing the main drivers for DRAM demand growth being the server and mobile applications. And even though the industry is expected to further its migration towards 20-nano technology the fact that it's dealing with more difficult technology and the fact that it takes some time for customers to evaluate an exact new supplies. We don't expect there to be major increases in supply of DRAM in the near future. And actually we're thinking about the demand supply situation for DRAM actually improve as we approach to the second half of this year.

Given that market outlook we will continue to manage our product mix flexibly and with possibility in mind to better fits the demand in the market. And we will in terms of full year 2016 DRAM shipment we expect to be in line with the market growth.

**<Q - Peter Seicheol Lee>**: My second question regarding semiconductor is on the new application side and

your outlook on new application side was, as well as your strategy in meeting these new application demand or VR as well as ourselves driving cars, gaining a lot of attention as new possible applications, what is your outlook and what is your strategy?

<A>: Regarding VR with more and more high resolution content being used on a wide basis we think that there will be more demand for high-density and high bandwidth memory, not only in PCs but also peripherals.

Regarding automotive applications, even though currently, the main source of automotive demand for memory is related with infotainment, we think that with more autos tech features being adopted there will be more demand from the auto side for memory to process the information that comes in from the sensors.

So in anticipation of such additional demand from consumer as well as automotive applications, our plan or our strategy is to allocate a specific supply capacity or a line to meet these segment or these application demand so that the customers from these segments and application will be able to enjoy stable and sufficient supply.

## Operator

The following question will be presented by Claire Kim from Daishin Securities. Please go ahead, ma'am.

<Q - Claire Kim>: [Foreign Language] My question regards the System LSI business which has been changing its business or operating strategy from year-to-year, even though I guess the main tone of expanding the captive customer will be maintained especially given the recent earthquake in Asia do you see any possibilities of the customer share changing?

And also it seems you would also need to have some new strategies to meet the backend related -- backend process related demands of your customers, especially related to PoP. So do you have -- what are the details of your strategies regarding the backend side of your processes?

<A>: Yes, the recent earthquake was quite a tragic event and we would like to take this opportunity to express our condolences to everyone who has suffered and also hope that the damage would be repaired and recovered as soon as possible. Regarding the earthquake, we have not sensed any short-term demand changes due to it. Also you've asked about the backend processes of System LSI, we have not changed our approach or policies regarding the backend processes compared to the start of this year. Our basic approach has always been to continue our R&D efforts so that we are able to provide whatever high-tech and high performance packaging needs that are necessary and demanded by our customers.

## Operator

The following question will be presented by Simon Woo from Bank of America-Merrill Lynch. Please go ahead, sir.

<Q - Simon Woo>: I have two questions. I will give you the first question and then ask you my second question after your response. It seems actually the first quarter's earnings has produced some very good numbers. You've also mentioned that the share buyback and cancellation program is moving ahead as scheduled.

I would like to hear your plans regarding your shareholder return plans or policies within the free cash flow that

will be generated this year. Do you have any plans quarterly or full year that you could share with us at this point? Assuming that your good strong performance that we saw in the first quarter will continue in the second quarter and thereafter, what kind of shareholder return policies could we look forward to?

<A>: Regarding our shareholder return policy, the policy that we announced at the end of last year has not changed. We're maintaining that policy. As we mentioned during the presentation, this year we're expecting investments or CapEx to -- there's a possibility that it may increase slightly. But it's too early in the year to talk about operating profit or net profits on a full year basis.

Also it may be worth considering that there's still part of the 30% of free cash flow that we announced as part of last year's shareholder return that has not yet been used. And so even if there is some fluctuation in the free cash flow expectations for this year, I think what we have left would be able to cover it and us not change our shareholder return policies. So our free cash flow 30% to 50% of it being used for shareholder return that policy is not changed and it's being maintained.

You've mentioned about quarterly dividend, I think the fact that we have not announced a dividend at this point indicates that this year we would not be adopting quarterly dividend policy.

We have been paying out a mid-year dividend which usually is announced after the BOD meeting resulted at the end of July.

<Q - Simon Woo>:

My second question regards the System LSI business, recently some Taiwanese companies have started wafer level packaging. There's also integration SiP on a single chip basis. You have mentioned your plans starting mass production of 10 nano at the end of this year but that is traditional track of following Moore's Law. Aside from that I am thinking looking at how the industry is moving there will be a greater need towards new backend solutions that not only based on PoP but that finds new ways for example integrating chip to chip. And could you tell us the company's spans and strategies regarding that aspect?

<A>: Regarding the 10-nano production plan the plan is moving ahead smoothly with the target of year-end. Regarding the packaging in addition to the existing packaging technologies we are continuously developing internally new packaging solutions that best fit the front end. And in line with the new development at the silicon level we will continue our R&D to develop high performance as well as high value back end solutions.

## Operator

The following question will be presented by Mehdi Hosseini from SIG. Please go ahead, sir.

<Q - Mehdi Hosseini>: Yes, thank you. I actually have a follow-up question to the 10-nanometer capacity. When you're ready for mass production why should we think about additional capacity or should we think about that you would convert existing capacity to 10-nanometer? So the first question has to do with how to secure 10nm capacity?

<A>: To answer your question, the current 10-nano capacity has been converted from existing lines.

<Q - Mehdi Hosseini>: And how do you plan on adding additional capacity? Do you need to wait to later this

year to better forecast demand or do you plan on converting additional capacity?

<A>: Regarding our investment plans for 10-nano, we are looking at market demand currently and if necessary and if justified by market outlook we will be making investments, for example, procuring the equipment if additional capacity is necessary to be -- considering the lead-time of the equipment procurement, so that we will be in time with the demand that we expect on the long-term.

<Q - Mehdi Hosseini>: Sure. And one follow-up question on DRAM. How should we think about cost and benefits of 10-nanometer class DRAM versus 20-nanometer?

<A>: In terms of gross die size or area, the 10-nano class DRAM would increase by about 30% and also our plan for the 1X nano mass production is being carried out according to schedule.

## Operator

[Foreign Language] The following question will be presented by Mark Newman from Bernstein, Hong Kong. Please go ahead, sir.

<Q - Mark Newman>: Hi. Thanks for taking my question. I've got a question on the handset side and then if I may follow-up on the semis. On the handsets side, so obviously very, very strong profitability -- I think that's good to see that. I'm interested to see what's going on, what you predict on the volumes and market share side, because although the profitability has improved a lot, the volumes don't seem to be particularly strong and considering that you are now reasonably profitable on the A line and J line that your low-end mid-end phones. And considering also that some of the merging players, some of the local Chinese players, Huawei etcetera are making or have made huge share gains and are getting increasingly stronger, why -- I am just curious, why Samsung has not been more aggressive to protect share given that you have already lost a fair bit of share especially in China and other markets.

It seems to me that there is an opportunity to gain some of that share back, is that not the strategy, I am just kind of curious how you think about the share questions versus profitability.

<A>: In terms of full year volume outlook, even though there is some decreased effect to the fact that many of the mid to low end models, the long-running ones will no longer be sold, we think that both in terms of revenue as well as volume shipments, we will be able to grow on a year-on-year basis.

Regarding whether this is an opportunity to go and get back our market share, we don't necessarily think that we need to sacrifice our margins for the sake of market share. Both are important and we believe that by operating an optimal portfolio that meets each specific market segment and offering competitive offerings for each region, we're actually being able to increase our market share and also maintain profitability.

For example, while we leverage our brand power and our flagship models in the premium segment, we will continue to increase our sales in the mid to low segment and by doing that we actually aim to gain on both market share and profitability.

<Q - Mark Newman>: Thank you. That's extremely helpful. On the semiconductor sides, my question is on NAND flash, it seems to me that with 3D NAND you have a very, very clear leadership in technology, other

seem to be struggling somewhat. And I'm just wondering does that mean Samsung could be incrementally more aggressive going forwards similar to what Samsung did in 20-nanometer for DRAM. So, when you have a technology leadership, kind of extending that leadership and taking advantage given the competitor struggling. So, my question is could you be more aggressive on capacity and bring in more capacity for 3D NAND this year?

<A>: I think our leadership in the 3D NAND space is market proven the fact that our 3D NAND solutions are high density low power consuming as well as highly reliable and are the best solution for data center as well as enterprise over already been proven and based on this leadership we have actually continued to increase our production on V-NAND and V-NAND will be a major focus this year as a way of leveraging our market leadership.

## **Operator**

The last question will be presented by Jong-woo Yoo from Korea Investment & Securities. Please go ahead, Sir.

<Q>: I have two questions related with the semiconductor business, it seems this year semiconductor CapEx may slightly decrease also for DRAM I guess that implies that rather than investing at wafer level it would be more of process migration. In that context when do you expect to go into mass production of 1X and what will be the share of 1X at the end of this year?

Second question is, your third generation 3D NAND seems to be going very smoothly, could you give us a bit more details about what you expect or when you expect the fourth generation to start?

<A>: Regarding our 1X DRAM, its currently in sampling. The specific time of mass production of 1X will be determined based on market situation, customer needs as well as the longevity of our existing products.

Our plans and development for the fourth generation V-NAND is moving ahead smoothly but in terms of our business our current focus is more on ramping up the mass production of our third-generation products. But our investment as well as research will continue in order to maintain our technology leadership in this space.

## **Robert M. Yi**

Thank you very much. That ends the conference call for this quarter and we look ahead to meet you again next quarter.

**S-3**



# < '16.2Q Earnings Conference Call Transcript >

Samsung Electronics  
IR Group

## ( MANAGEMENT DISCUSSION SECTION )

### Operator

Good morning and good evening. First of all, thank you all for joining this conference call. And now we will begin the conference of the Fiscal Year 2016 Second Quarter Earnings Results by Samsung Electronics. This conference will start with a presentation followed by the regional Q&A session. [Operator Instructions]

Now, we shall commence the presentation on the fiscal year 2016 second quarter earnings results by Samsung Electronics.

### Robert M. Yi

Good morning. This is Robert Yi from Investor Relations. Thank you for joining our second quarter 2016 earnings call. With me, representing the business units are Chun Sewon, Senior VP of Memory Marketing Team, Mr. Huh Gook, Vice President of System LSI Marketing Team, Lee ChangHoon, VP of Samsung Display, Lee KyeongTae, VP of IT and Mobile Business, and Lee Yoon, Senior VP of Visual Display Business, and we also have Mr. YiTae Kim and SangHyo Kim, both are from the IR group.

I would like to remind you that some of the statements we will be making today are forward-looking based on the environment as we currently see it, and all such statements are subject to certain risks and uncertainties that could cause our actual results to be materially different from those expressed in today's discussion.

Firstly, I will take you through our second quarter results.

In the second quarter, the total revenue was 50.9 trillion won - a 4.9% YoY increase. This increase was mainly driven by strong sales of OLED panels for mobile applications and premium products in our set business. The gross profit was 21.3 trillion won - a 1.7 trillion won YoY increase and the gross profit margin improved by 1.6%p.

Our set business saw a strong recovery as the earnings improved significantly YoY. The improvement came from increased sales of Galaxy S7 and efficient mid to low-end line-ups in the IM business, as well as the strong sales of premium products such as SUHD TVs, refrigerators and air conditioners in our CE business.

Although the earnings of the component business decreased YoY due to an overall decline in ASP, the decline in DRAM ASP slowed down compared to the last quarter and the profitability of NAND improved. Also, our display business recorded improved QoQ earnings, led by increased OLED earnings due to higher utilization rate and a stabilizing yield of LCD panel production.

Our SG&A expenditures increased by 0.5 trillion won YoY, due to the top line growth. However, the expenditure to revenue ratio decreased slightly as we managed our expenses efficiently including the advertising and promotion expenses.

The operating profit increased by 1.2 trillion won YoY to 8.1 trillion won and the operating profit margin increased by 1.8%p.

In the second quarter, the strengthening of the Korean won against major currencies such as the US dollar and the Euro had a negative impact on the operating profit QoQ, by approximately 300 billion won, mostly for the component business.

Now, I would like to address the business outlook.

We expect our strong performance to continue in the 2nd half. Earnings in our component business is expected to increase compared to the 1st half, led by sales growth of high value-added products under improved supply-demand dynamics. In the set business, earnings in the IM business is expected to slow down compared to the 1st half, but expected to generate continuous earnings growth YoY.

In the 3rd quarter, for the set business, CE is entering into traditionally low-season while the advertising and promotion expenses are expected to increase for the IM division due to the new model launch and intensifying competition within the industry. However, we expect to maintain relatively stable earnings as we expect improved supply/demand conditions for memory and LCD panels and stable earnings for OLED.

I would like to comment on our Capital Expenditure plan.

During the 2nd quarter, we invested 4.2 trillion won in Capex, including 2.0 trillion won for the semiconductor division and 1.6 trillion won for the display division. The total capital expenditure for the 1st half was 8.8 trillion won.

We have not yet finalized the annual plan for 2016, but we anticipate the annual expenditure to increase slightly compared to last year. This year's capex will be concentrated in OLED and V-NAND capacity as the demand for the mobile application of OLED and V-NAND based SSD are expected to increase significantly in 2017.

Now, I would like to update you on the share buyback program. The share buyback program we announced last October is progressing as planned.

First, we completed the third phase this month. We invested approximately 9.5 trillion won during these three phases, and we were able to repurchase and cancel 5.63 million common shares and 2.09 million preferred shares.

Today, the board of directors approved the 4th and final phase of the buyback program. The total amount is approximately 1.8 trillion with 990 thousand common shares and 230 thousand preferred shares.

Starting tomorrow, it will take roughly three months to complete the final phase of the special buyback program.

As mentioned earlier this year, we will update you on how we plan to utilize the remaining allocated capital from 2015 FCF at the 3rd quarter earnings release.

Samsung Electronics has been focusing on staying on the top of technological and product competitiveness to respond to rapid changes in the IT industry, in order to lead the development of new technologies and establish a foundation for stable growth in the future.

2016 is a very meaningful year for the company, as we are seeing these efforts come into fruition.

Firstly, with regards to our memory business, we have widened the quality and performance gap against our competitors with the industry's first and only mass production of the V-NAND and the expanding 20nm process migration. As a result, we established a solid profit platform to maximize our profitability.

As we progress, we will solidify even further our technological leadership by focusing on the development of next generations high-value added and differentiated products. To this end, we will push forward the mass-production of the 10nm-class DRAM and develop the next generation of V-NAND technologies while further strengthening the high valued/differentiated products such as high-density SSD solutions.

Concerning OLED, we have cultivated the market with our strong R&D and early capex commitments. We also

expanded the market to the next level of technological competitiveness through the mass production of flexible panels.

As we expect the demand for mid to small sized OLED panels to increase significantly, we will focus on expanding sales from external customers through actively securing capacity and strengthening our competitive advantage. At the same time, with clear technological leadership, we will also develop innovative, next-generation products in order to meet ever more sophisticated customer demands.

For the IM business, despite the stagnant growth of the smartphone market, we achieved solid earnings, due to our constant efforts to differentiate our products and bringing efficiency to our product line-up strategy since 2015.

We will strive to deliver growth of stable earnings by continuously strengthening our product leadership and enhancing solution capability, including KNOX, Samsung Pay and Cloud System.

Regarding TV, in spite of the saturated demand in global market, we continue to reinforce our competitiveness and maintain solid earnings. Quantum Dot technology was applied to the SUHD TV and this has been well received by the market.

We will continue to strengthen our leadership in the premium market by focusing on the differentiation of resolution, based on eco-friendly cadmium-free Quantum Dot technology and by promoting innovative designs such as Serif TV.

Before the presentations of each business unit, I would like to share with you several data points of the key business areas.

For the second quarter this year, the DRAM, our bit growth came in at high-teens and we saw high-single digit ASP decline. For the third quarter, we expect the DRAM market bit growth to be mid-teens and we will grow along with the market. And at this point, we expect 2016 DRAM market bit growth to be mid-20%, and we will grow in line with the market.

NAND flash, in second quarter, our bit growth was mid-teens increase and we saw mid-single digit ASP decline. And for the third quarter, we expect the market NAND bit growth to be low-teens and we will outgrow the market. And at this point, we expect the NAND 2016 annual market growth to be roughly 40% and we will outgrow that of the market growth.

For mobile business, our total handset shipments in the second quarter was roughly 90 million units and tablet sales came in at around 6 million. Our blended ASP was about \$210 range and the mix of smartphone within our total handset was about mid-80%.

For the third quarter, we expect our total shipment of the handset to be similar to that of the second quarter and small increase is expected for the tablet. We do expect to see our blended ASP to improve quarter-on-quarter into third quarter and the mix of the smartphone within total handset to increase to high-80%.

For TV, our LCD TV sales in the second quarter were roughly 10 million units and we expect to see about 10% increase into the quarter.

With that, I'll turn the conference call over to gentlemen from our business units to give their views.

## Sewon Chun

Good morning. This is Sewon Chun from the Memory Marketing Team.

In the second quarter, with overall demand growth, especially in mobile and SSD, the memory division achieved solid earnings following the previous quarter, driven by cost reduction through continuous process migration.

For NAND, SSD demand remained strong driven by transition of 10 and 15K RPM HDD to SSD in the enterprise market thanks to increasing awareness of the TCO reduction effect. Also, demand for mobile storage such as eMCP/eMMC increased due to expanded adoption of high-density products over 32GB, mainly from Chinese smartphone makers.

We improved earnings by actively responding to demand for enterprise SSD over 4TB and high-density mobile products over 64GB, and by continuously expanding 48 layer V-NAND supply. For DRAM, overall demand increased compared to the previous quarter, as Chinese smartphone brands rapidly increased the adoption of high-density mobile DRAM over 4GB, and as high-density server demand increased driven by the launch of the Broadwell platform.

Meanwhile, due to concerns on decreasing supply of PC DRAM led by mobile supply increase in the second half, the channel market price increased, while overall supply and demand conditions as well as price started to stabilize.

Market demand for 20nm high-density, value-added mobile and server products was concentrated on Samsung due to the supply imbalance of some applications, and we achieved solid earnings by focusing on the areas with increased demand.

Next, I will comment on the memory market outlook and our strategy for the 3rd quarter.

In the second half, market conditions are expected to stabilize further, with increasing adoption of high density products in every application, under strong seasonality.

For NAND, as high-density, value added SSDs continue to grow, and transition of enterprise HDD to SSD accelerates with increasing perception of the TCO reduction effect, enterprise SSD is expected to take more than half of total server SSD shipments in the second half.

We expect strong demand for PC SSD, as attach rate increases and demand for high-density PC SSD over 56GB grows, with the expansion of high value-added NVMe products.

We also expect strong mobile demand with new smartphone launches, and demand will increasingly shift to high density products: Flagship to over 64/128GB, and mid-range/low-end to 16/32GB.

Although overall demand is expected to increase thanks to increased demand for high-density solution products in major SSD and mobile applications, supply and demand is expected to become tighter in the second half due to supply restrictions caused by 3D NAND ramp-up delay in the market.

We will focus on expanding supply of enterprise SAS SSD over 4TB and client NVMe SSD based on Samsung-only 48 layer V-NAND, renowned for excellent product competitiveness, profitability, and high reliability. We will continue to improve earnings by strengthening product competitiveness of high density premium products such as through supplying V-NAND based high-density mobile storage.

For DRAM, mobile DRAM is expected to lead demand growth with launches of flagship smartphones and increasing adoption of 6GB products in H/E smartphones.

For server, demand for high density products such as 32/64GB is expected to be strong, led by transition to Broadwell, mainly from data centers. PC demand is expected to grow compared to the previous quarter, due to strong seasonality and increasing portion of H/E products such as gaming PC. Demand for graphics DRAM is

also expected to be solid due to demand increase for console and H/E graphics card DRAM.

We will focus on improving earnings and maintain profit-focused product mix by expanding sales of our differentiated high density, value-added products such as mobile DRAM over 4GB, 64GB server DRAM, and high speed graphics DRAM based on the competitiveness of our matured 20nm process.

We are developing 4th generation V-NAND and mass-producing 18nm DRAM as planned, and we will lead supply of high value-added solution products and focus on strengthening the foundation for long-term stable growth, based on the leading-edge process leadership.

Meanwhile, we are managing capex focusing on V-NAND to respond to strong demand for high density and value-added solution products. We will continue to focus on profit maximization through capacity and capex management taking into account profitability as well as supply and demand for each product.

Now moving on to the System LSI Business.

2nd quarter earnings improved quarter on quarter (QoQ) due to stronger 14nm foundry demand and increased sales of high megapixel or 13Mp and above CMOS image sensors in China.

In the 2nd half, even though the foundry demand is expected to decrease due to the life cycle of premium smartphones, we will maintain a stable revenue stream through increasing sales of mid-to-low end mobile AP and LSI products.

In the 3rd quarter, we expect the demand for mid to low-end 14nm mobile AP to take off and the sales of CMOS image sensor in China market to stay solid. However, earnings are expected to decrease slightly QoQ due to an increased portion of mid to low-end products in mobile AP.

We are seeing good/positive results from our strategic decision, which we have been pursuing for a while, to diversify foundry customers and strengthen our mobile AP line-up. The 10nm development is also on track to achieve our target of mass production by the year-end.

We will continuously strive for long term growth by maintaining our leadership in cutting-edge process technology under 14nm, and diversifying customers and application bases. We will also strengthen our business development capabilities through supplying specialty technology or product and exploring new frontiers, for continuous growth in revenue as well as in profit.

Thank you!

## **ChangHoon Lee**

Good morning. This is Changhoon Lee from the planning department of Samsung Display.

During the 2nd Quarter our total earnings improved from the previous quarter driven by increased shipments of OLED panels and enhanced yield of new LCD TV panel production technology.

For the OLED business, 2nd Quarter earnings improved QoQ due to healthy flagship sales and increased demand for flexible panels as well as high fab utilization rates with the help of an expanded mid to low-end product portfolio.

For the LCD business, our 2nd Quarter earnings show resumed QoQ growth under the gradual recovery in supply-demand. We have improved yield of the new TV panel production technology, as well as expanded TV sales especially from large-sized UHD.

In the 2nd half of this year, the smartphone market will continue to slow down and the polarization between H/E and L/E products will be intensified.

However, we expect OLED demand to rise constantly, as Set makers recognize the need of differentiation to stay competitive in the market.

Under these circumstances, we will actively address customers' demands in 2H and reinforce profitability through expanding the portion of value-added products such as Flexible and High resolution displays.

Also, we will make sure to secure capacity according to the market demand, while strengthening competitive advantage through expanded customer base and new applications.

In the 2nd half, the LCD industry expects some encouraging signs such as continuous UHD TV market growth and size migration towards larger screens.

We expect earnings to increase with an improved balance of supply and demand as well as price stability.

In response to such market conditions, we will make the best effort to improve sales and profits by reducing manufacturing costs and expanding our product portfolio to value-added products such as Ultra-large size/High Resolution/Curved panels.

In the 3rd Quarter, for OLED business, we will achieve solid results through maximizing supply capacity according to the market demand as well as expanding the portion of value-added products.

For LCD industry, we expect supply and demand to improve thanks to increased demand under the strong seasonality, as well as continuous UHD TV market growth and size migration towards larger screens.

Under these circumstances, we will make the best effort to strengthen profitability by improving cost competitiveness as well as expanding our portfolio to value-added products focusing on TV and maximizing the supply capacity.

Thank you for listening

## **KyeongTae Lee**

Good morning and good evening, everyone. I am Kyeongtae Lee from the IT & Mobile Communications Business.

In the 2nd quarter, our Mobile Communications Business achieved robust business performance compared to the previous quarter, mainly driven by strong sales of the Galaxy S7 and S7 Edge.

Especially, with sales proportion of the S7 Edge exceeding 50%, the product mix was improved and profitability of our mid-to-low-end models such as the Galaxy A and J series remained solid since the 1st quarter as a result of streamlined product portfolio. These factors positively contributed to our 2nd quarter business earnings.

In the 2nd half of 2016, market demand for both smartphone and tablet is forecasted to increase compared to the 1st half, but at the same time, market competition will also intensify with newly launching smartphone models from competitors. In response, we will maintain our strong sales trend of high-end smartphones and continue optimizing our product portfolio to sustain enhanced business earnings compared to the previous year.

Next, let's turn to the outlook for the 3rd quarter. In the 3rd quarter, demand for smartphone and tablet is expected to increase QoQ under strong seasonality.

As for the Mobile Communications Business, we will maintain our positive sales momentum of premium smartphones by releasing a new large-screen flagship smartphone and sustaining the current sales trend of the Galaxy S7 and S7 Edge.

Considering that the Galaxy S7 's positive response from the market was due to the result of reflecting the

voice of customers in our products. We predict that our new large-screen flagship smartphone will meet our customers' expectation.

In addition, we will expand the sales volume of the Galaxy A and J series mainly with the 2016 Editions and introduce localized version smartphones for China, the Galaxy C series, to increase smartphone shipments from the previous quarter.

However, our profit in the 3rd quarter will be somewhat impacted by intensified competition in the market and seasonal increase in marketing expenses.

Despite the earlier concerns in the market, our mobile communications business has shown YoY earnings improvement for two consecutive quarters. Our continuous efforts to enhance our product competitiveness and streamline product portfolio since 2015 have turned into tangible results from the beginning of this year.

With reinforced business capability, we will strive to maintain the current solid earnings in the future.

As for the Networks Business, the business results were improved in the 2nd quarter, and has contributed to the increased profit of IM Division.

In the 3rd quarter, we will focus on revenue growth, by leveraging the LTE expansion of our major partners and expanding supply of products for new frequency bands.

Thank you for listening.

## **Yoon Lee**

Good morning. I am Yoon Lee, Senior Vice President of Visual Display Sales and Marketing Team.

For the TV Business in the second quarter 2016, in spite of demand growth in developed markets such as North America and Europe, global TV demand stayed flat compared to the same period last year due to economic downturn in major emerging markets including South America.

In the midst of stagnant market condition, we managed to achieve solid earnings Year on Year by successfully launching new products including SUHD TV and increasing premium products sales through the global sports event, such as Euro Cup.

For the Digital Appliance business, although North American market continued its growth momentum, global demand of digital appliance declined year on year due to slower market growth in China and the impact from economic slowdown from emerging markets, following declining prices of raw materials.

Despite these circumstances, our earnings largely improved from the same period of the previous year, led by increasing sales of premium products such as Chef Collection refrigerator, Add-Wash and Active-Wash washing machine.

While, the North America, Korea and European market led our sales growth, strong sales of innovative products like Breeze Free Air Conditioner also contributed to improving our earnings during the peak season.

In digital appliance business, we continue to drive growth in earnings by continuously introducing innovative products which reflect various consumer needs, and carrying out effective marketing activities at the point of sales.

For the market outlook of the second half, TV demand is expected to decrease from the same period of the previous year, due to weakening consumer confidence in the Europe and prolonged economic slowdown in emerging markets.

In response to these market conditions, as competition in the second half is expected to be intense under strong seasonality, we will focus on increasing sales and improving profitability by collaborating with major on-and-offline channel partners in each region and by introducing local friendly promotion programs based on our global number 1 brand status and distribution coverage.

In order to solidify our leadership in the premium TV market, we will continuously expand global marketing campaign in the second half with a focus on our premium line-up SUHD TV.

Notably, Quantum Dot used in SUHD TV is a principal material for next generation TV technology which reproduces highly accurate and vivid color than any other existing display materials.

As an inorganic compound, Quantum Dot is durable and kept stable over years of time and ensures the high picture quality of SUHD TV after years of use.

We will make diverse marketing efforts to enhance consumer understanding of Quantum Dot and position it as the representative next generation premium TV technology.

As for the Digital Appliance Business, we forecast Digital Appliance market growth to be limited due to risk factors coming from Europe and economic downturn from emerging markets.

In response to this market circumstances, we will actively seek opportunities to turn around the dynamics of market by launching innovative products to offer superior consumer experience.

.Along with these, we will enhance competency of B2B business including built-in kitchen and system air conditioner to achieve further growth.

Thank you

## **Robert M. Yi**

Thank you. This concludes the management part of the presentation and we'll turn to questions-and-answers. Again, to ensure clear communication, we'll conduct Q&A with consecutive interpretation. In order to ensure the efficient use of time and also ensure that we have more participants within the Q&A, we'll only be taking one question per person and would be grateful if you can make them as concise as possible.

And we will also like to ask you refrain from asking questions on ones involving data points or other subjects which were already provided during the conference call. Let's see if we can finish the Q&A session in one hour. Let's take the first question, please.

## **( Q&A )**

### **Operator**

The first question will be provided by Peter Seicheol from NH Investment & Securities. Please go ahead, sir.

**<Q - Peter Seicheol Lee>**: Yes, my question regards the main reasons why you are able to outperform the guidance in terms of bit growth in both DRAM and NAND in the second quarter.

**<A>**: To answer your question to give you the overall business perspective in terms of bit growth, first of all, because we were the leader in terms of the high-density, high-value products, especially the 20-nano DRAM as well as the third-generation V-NAND products, which leverage the cutting-edge process technology, we were able to deliver especially the strong mobile as well as server demand. And during the second quarter, we saw



market demand being concentrated to our business.

The increase in high-density storage, for example 64-gig and plus for mobile side, as well as the 4-gig plus DRAM on the mobile side was another reason why we saw strong demand for our products. And especially – and the same happened on the server side as well. Especially, we're noticing that for the enterprise servers, there is a greater awareness of the TCO benefit of SSDs and, therefore, there has been an acceleration in the conversion of HDDs to SSD solutions and that has also driven up the demand for our high-density solutions.

In response to such demand in the market, we were able to effectively manage our semiconductor capacity overall to maximize our productivity to meet the demand and that's why we were able to outperform the expectations that we had in terms of bit growth for Q2. And as of end of Q2, our inventory is rather on a tight situation. Our plans for the second half, given that second half is the high season and we also think that demand will remain strong, we will respond effectively in terms of our product mix.

## Operator

The following question will be presented by Yoo Jong-Woo from Korea Investment & Securities. Please go ahead, sir.

**<Q - Jong-Woo Yoo>**: I have a question regarding NAND. You've just, through the previous answer, gave us some details about the background of the strong demand for V-NAND as well as your expectations for supply and demand situation in the second half of this year. Given such strong demand for V-NAND, Korean competitors have also announced plans of 3D V-NAND mass production plans, some are saying that they will go mass production next year, and this has caused some concern in the market of a possible oversupply of NAND next year.

So, in that context, could you give us your overall capacity operation plan for second half as well as next year, which I assume will include also your plans for 4G V-NAND mass production plan? And overall, what is your view about NAND supply and demand situation going forward?

**<A>**: As we have mentioned on the demand side, there is, first of all, increase in the attach ratio of SSDs on PCs, also, there is a very rapid conversion towards SSD on enterprise server side related with 15K RPM and 10K RPM. Also, we're seeing a very rapid increase in SSD usage in overall server platforms.

And this especially has created concentration of much of this demand to be based on our product – our V-NAND product. In response to such increased demand, we are using our available capacity. We're also using part of Line 17 to meet this demand. And in the future, depending on how demand plays out, we will be effectively using our capacity to respond.

Regarding our 4G V-NAND plans, our current plans are moving smoothly as we have expected and our goal is to mass produce SSDs that use our 4G V-NAND within the year. Overall, our direction is to continue to maintain our product competitiveness, so that we will be leading the market and demand changes.

Regarding 2017 outlook on demand and supply, it is a bit early to give you a very detailed outlook. But, at least on the supply side, we think that there is still uncertainties remaining regarding increase of 3D NAND or ramp-up speed of alternative 3D NAND supplies given the technology difficulty and also the initial investments that are required to actually supply 3D NAND and, therefore, we don't think it will be easy to see any dramatic increase in 3D NAND next year in terms of the supply side.

Also, on the demand side, however, there is increase in the content on all mobile platforms. Also, there is a rapid increase for SSD demand on several platforms, including the rapid adoption of SSDs, especially on the enterprise server side due to the TCO benefit.

Also, overall, given this outlook, we think that even if there is some increase in 3D NAND supply in the market

next year given the very strong demand side, the demand and supply situation overall will remain stable next year and especially we will be – most of the demand for the high-value solutions such as the SAS and NVMe will be concentrated towards us.

## Operator

The following question with the presented by Marcus Shin from Goldman Sachs. Please go ahead, sir.

<Q - **Marcus Shin**>: There was a press report about acquisition by the IM Division of a cloud company and I'm wondering could you explain to us what are the technologies or the competitive advantage that Joyent, the company has? And if possible, could you also elaborate a bit more about the expected synergy effects from this acquisition? And what will be the overall strategical direction led with cloud services for Samsung?

<A>: Yes, the IM Division last month acquired Joyent, which is a company that has know-how in operating cloud server systems and storage. It has also technologies in efficiently operating cloud servers and storage. And by integrating their know-how and technology, we believe that we will be able to strengthen our cloud service capabilities, especially by leveraging their technology with our wide range of devices as well as our cloud platform. We will be able to provide consistent user experience throughout this cloud platform.

Also, we will be able to use this to develop Samsung Pay or Samsung Health or Knox and other services into a more cloud-based service offering, and we also expect that through this acquisition, we will be able to use this to increase our competitiveness in terms of future content service and software.

## Operator

The following question will be presented by Mark Newman from Bernstein. Please go ahead, sir.

<Q - **Mark C. Newman**>: Hi. Thanks for taking my question. I wanted to ask a little bit more about the 3D NAND or V-NAND roadmap. So, Toshiba has announced a 64-layer just a day or so ago and Micron is planning to ramp 64 layers next year. And wonder if you could update us on the exact schedule for 64 layers. Is that what you are referring to as fourth-generation V-NAND perhaps?

What is the schedule for ramping that, again, minus any of your now mass production 48-layer, when are your 64 layers shipping in mass production? And then what is beyond 64 layers? Anything you can explain about how many layers you will stack in the future versus potentially a geometry shrink at some point in the future? Any kind of clarity on the future roadmap would be appreciated. Thanks very much.

<A>: To answer your question, yes, our 4G V-NAND is the 64-layer and, as we have mentioned, it is – the development is progressing as planned. And our plan is to mass produce SSDs using our 4G V-NAND within the year. In terms of layering, I think it's a bit too early for us to talk of limits of how many layers can be made. We are currently planning out our mid-to-long term generations and, at the same time, considering other new memory technologies.

## Operator

The following question will be presented by Seung-hyuk Lee from Korea Investment & Securities. Please go ahead, sir.

<Q – **Seung-hyuk Lee**>: Yes, my question regards what you see in terms of TV demand globally. In July, there was the Euro Cup and in August there is the Olympic Games coming up. Do you continue to see any positive effects on demand from these sports events? And in terms of region, do you see demand in Europe sagging since the announcement of Brexit? And also do you see signs of demand turning around in Latin America, which has

seen a weak demand recently?

<A>: As we mentioned previously, in the second quarter, the TV market, despite sports event such as the Euro Cup, did remain similar to the previous year mainly because of the economic recession, especially, in the emerging markets the economic recession has had an impact on TV demand, especially Latin America, which has been going through economic recession, has a large impact on overall TV demand globally. We were able to preempt the sports event such as the Euro Cup with promotions and were able to occupy the demand earlier on and that is why despite overall market remaining similar to previous year's level, we were able to improve our profitability in Q2.

Regarding Latin America TV demand, we think that it's difficult to expect Latin America TV markets to turnaround within this year. However, aside from the market situation, in terms of our company, last year we had difficulties especially related with exchange rate and that was an opportunity for us to increase the efficiency of our operation and also to create a collaborative system with the channels in Latin America.

And that is why despite the overall market situation, if you look at Q2, in our overall emerging market TV business, Latin America actually recorded the highest growth rate in Q2 for us and we expect this improvement to continue in the second half.

Regarding the impact Brexit, yes, we have also been talking to our channels and other sources to get a feel of impact that would have. But in the short-term, we don't think Brexit would have a negative impact or at least any impact on TV demand will be minimal. However, we have already prepared our strategy in terms of, for example, exchange rate fluctuations against the pound as well as the euro. And we will be effectively responding to any impact there may be from Brexit.

## Operator

The following question will be presented by Ricky Seo from HSBC. Please go ahead sir.

<Q - Ricky Seo>: I have questions regarding with your foundry road map. First of all, even though your timing in terms of the 10-nano class processors are similar to those of your competitors, when we look at your roadmap for 7-nano it is a bit behind the timing of your competitors. Is there a special reason why? And would that pose any risk especially, for example, in terms of signing up customers for the 7-nano technology. Also, could you give us the timing as to when you plan to adopt EUV?

<A>: Well, regarding the migration towards 10-nano class and below processes, I think we have a different approach or philosophy versus the competitors. We believe considering various factors, including the importance of developing 10-nano on time and also whether the customers will be willing to accept the design difficulty as well as the cost and also the specifications that will come with feature premium mobile products. For the time being, 10-nano is the most effective and most optimally commerciable solution at this point, and that is why we are focusing on 10-nano class.

In terms of 7-nano sampling, we are able to sample at any time, but we think that when it comes to commercialization, 7-nano commercialization will happen when that becomes the most cost optimal solution and choice, and that is our approach. In terms of when we will be adopting EUV, that will be in line or synced with when we start 7-nano.

## Operator

The following question will be presented by Claire Kyung Min Kim from Daishin Securities. Please go ahead, ma'am.

<Q - Claire Kyung Min Kim>: My question regards to display side and the capacity plans. It seems that you're

going through one of the major changes in terms of the display capacity in recent years given how you have been turning off some of the mid, small, for example, 8G lines on the – but also been increasing the OLED mid-to-small size panel lines. And given this, could you give us the future direction in terms of how you will build or add on new OLED or LCD capacity? And what is your outlook in terms of the large-size 8G panel capacities?

<A>: First, I'd like to answer your question about the mid-to-small size displays and then address the eight generation or the larger size panels. First, when we look at the mid-to-small size, main demand being smartphones, at the handset level, there is very fierce competition among handset companies. They need to find a way of differentiating their products and that is driving demand for our OLED panels, which provides not only excellent product characteristics, but also differentiating form factors for handset makers.

Of course, this demand for our OLED panels is explained by the fact that we have been able to gain technology leadership as well as business competitiveness through continued R&D as well as active investments as a market leader. There are areas where demand may out – demand is surpassing our capacity in certain areas, but we think that, overall, our capacity is at healthy levels compared to the demand and, in the future, we will be expanding our capacity at the right time to meet the demand.

Regarding the large size TV panels, our basic direction is to continue to maintain our leadership in terms of the business capabilities, also to maintain our dominance over the market and also to increase and improve our customer responsiveness. We will continue to develop the LCD technology to further increase our competitiveness in terms of the technology side and to differentiate our LCD offerings and also to increase the competitive edge we have also in terms of performance and price.

## Operator

The following question will be presented by Nicolas Gaudois from UBS. Please go ahead, sir.

<Q - Nicolas J. Gaudois>: Yes. Good morning. Thanks for taking my questions. So far, it does not seem as if you have lowered channel pricing for the Galaxy S7 and Galaxy S7 edge. Would that still be the case when you launch the Note 7 next month? And if that is so, what does this imply for total smartphone average selling prices in the third quarter? Thank you.

<A>: First of all, to answer your question about our plans for the S7, S7 edge prices in the third quarter and future, in the second half, we plan to maintain the S7, S7 edge prices continuously. We think that by maintaining a consistent price policy, we are able to better maintain the trust of the channel and the overall market.

On the other hand, we will also be implementing very active marketing activities in the second half to drive up actual purchases, and by this, we plan to continue to maintain the overall sales trend of our premium handset.

In terms of third quarter ASPs, given the fact that we are planning to launch the new large-screen flagship and given the plan to maintain our prices for the S7, we expect the ASP in the third quarter to improve due to the improved product mix.

## Operator

The following question will be provided by JJ Park from JPMorgan. Please go ahead, sir.

<Q - Jung-Joon Park>: I have another question related with V-NAND in terms of productivity comparison versus a planar NAND. For example, your third generation, the 48-layer V-NAND, given the same wafer capacity, how much of a productivity increase do you see versus, for example, a 14-nano planar NAND. I am assuming that V-NAND versus a 2D NAND would have some sacrifices in terms of yield or processing time will take longer; considering all of these factors, how much of a productivity gain do you experience?

<A>: It's difficult to compare the productivity apples-to-apples between V-NAND and planar NAND because of various factors. But if we just look at the output based productivity, there is an advantage and we think that this advantage versus planar NAND would actually widen as we migrate from generation to generation on V-NAND. Also when it comes to V-NAND, in addition to productivity, we believe that other values such as performance, density as well as reliability is very important for the customers.

## Operator

The following question will be presented by Peter Yu from BNP Paribas. Please go ahead sir.

<Q - Peter Yu>: Could you give us some more color and direction towards your QLED progress. There has been press reports that Samsung has decided to skip WOLED and go direct to QLED. And so in that sense, what is your current situation in terms of technology? Also, how well is the ecosystem, for example, the equipment vendors formed. I think the major concern in the market is if you are not able to commercialize QLED within, for example, three year to five year timeframe, much of the high-end display market will be taken up by WOLED. Given that risk, could you give us a bit more detail about when you plan to, for example, commercialize QLED and what is your current technology situation?

<A>: Well, to answer your question, we are already adopting Quantum Dot technology on our SUHD TVs, QLED or Quantum Dot is currently the key of next-generation TV display technology given the brightness as well as the correct color generation and the durability and the fact that it is an inorganic material.

So it is a key material for future TVs. We are already using – referring to this QLED technology as our SUHD Quantum Dot technology. The technology continues to evolve. According to some market survey agencies, they expect Quantum Dot TV to be three times OLED TV size by year 2020. And so we believe that Quantum Dot will continue to play a major role in the premium TV segment.

## Operator

The following question will be provided by Mehdi Hosseini from SIG. Please go ahead, sir.

<Q - Mehdi Hosseini>: Thanks for taking my question. I have a follow-up on System LSI, specifically on foundry. How should we think about the mix of customers or the diversity of customer as you transition from 14-nanometer to 10-nanometer and eventually to 7-nanometer?

<A>: Even though it's difficult for us to go into detail customers, our overall customer diversification strategy at System LSI is to diversify from currently more concentrated mobile applications to other application areas such as computing, network and automotive. So we will first use the most stable technology that we have, the 14-nano process, to diversify our customers/applications into computing, network and automotive. And when we start commercializing 10-nano end of this year or next year, we will be using the 10-nano technology to further diversify our customer base.

So our basic overall direction is to diversify the customer base as well as the application from the current mobile-centric to other areas.

## Operator

The following question will be presented by Hwang Min-Seong from Samsung Securities. Please go ahead.

<Q - Min-Seong Hwang>: I have some questions regarding the IM business. First of all, was there any one-off factors in the second quarter performance of the IM Division? And if so, how much were these one-off factors?

Second question is, can you compare the first half Galaxy S7 sellout and sell through rate?

The third question is a technology question. In the past investor forum you mentioned the Fan-Out PLP, also today I've noticed that there were emphasis on high density DRAM. Given that technology strategy, what will be the impact in terms of Samsung's mobile software? What kind of software changes do you anticipate? And in that context why have not dual cameras been adopted in your products?

<A>: To answer your first question about any one-offs in the second quarter, there were, but, they were all very minimal in Q2.

<A>: Regarding your second question about our sell out of the flagship model in Q2, because we were able to deliver a product that meets the market as well as the customer needs and also supported by effective sales and marketing activities, the sell out of our current flagship has been higher than its previous model, or previous product – previous flagship model, especially in areas such as North America, Europe, Latin America and Southeast Asia.

Given the very strong performance of the Galaxy S7 in the first half, we plan to continue this trend supported by effective sales and marketing in the second half and overall we believe that versus the S6, the S7 will considerably be higher in terms of shipments and play an important role as the engine of our overall performance.

<Q - Min-Seong Hwang>: To elaborate on my second question, what I was trying to ask is that, given the improvements that you would have in terms of your hardware capacity, for example, with Fan-Out PLP, I'm assuming the I/O would get wider which will improve the graphic environment on the handset, and also with high density DRAMs being used on the handset, this would all provide much better capacity – capabilities on the handset level. So my question was, how does Samsung plan to leverage this in terms of software directions.

<A>: Of course, as you mentioned with – for example, high density DRAMs being used on handsets, this give us more opportunity to offer a wider variety of services and sell-through, and this again drives more demand for high density DRAM on handsets.

Regarding dual camera, even though it's difficult for us to mention exactly when we will be adopting a certain new component, this would be in line with our overall policy of continuously studying and considering various opportunities to provide better customer satisfaction and to differentiate our products from those of competitors.

## Operator

The last question will be presented by Hyun-Woo Doh from Mirae Asset Daewoo Securities. Please go ahead.

<Q – Hyun-Woo Doh>: My question is once again about the DRAM market. There is a rapid change especially on the server architecture side, looking at the new CPU that was announced that actually has embedded 16 gig of DRAM in the CPU, and there is also new memory approaches, for example, cross point that's been announced. Given all of this change on the technology side, what is Samsung's strategy for its DRAM business? Also in terms of investments, do you expect to have increase in DRAM-related CapEx investments next year?

<A>: Well, overall – we do notice that there is a greater DRAM capacity demand on the server side. This mainly being driven by the fact that data traffic is also increasing and therefore the servers are also demanding higher capacity, higher density DRAM. And that is why we are mainly planning to respond with 64-gig or even up to 128-gig product. That is our basic direction, that we will continue to focus on the higher density, higher end server market.

Given that, in terms of the longer term direction, we think that there will be a lot of new demand being generated directly and indirectly because of new applications for DRAM and NAND, for example, mobile as well as this conversion towards SSDs will also drive up demand.

In terms of applications, we think that VR as well as automotive will be some of the major new applications that drive up demand. So we, in the long term, see not only increases of demand for DRAM but also related with the NAND market as well.

Regarding the 3D cross point technology that you mentioned, I think that was mainly catching interest from the demand intensive, the higher end platforms, and it is being proposed as an alternative solution to lower DRAM cost, but we don't think that this will take up significant share of the overall market. We also think that there will be some time required until it becomes a market. And also I think that there is a restriction in this asset, 3D cross point is not a standard technology. So our basic response to this technology is to maintain our focus on DRAM and NAND, and also, at the same time, as we mentioned, we are looking into new memory technology as well.

Your last question was about our DRAM investment plans. As we do, our investments are flexibly adjusted depending on market situation for both DRAM and NAND.

## **Robert M. Yi**

Thank you very much. We will end the conference call here and we will look forward to meeting you again next quarter.

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## 【Samsung Electronics 3Q Earnings Call】

Good morning.

This is Robert Yi from Investor Relations.

Thank you for joining our third quarter 2016 earnings call.

With me,

representing each of the business units are

Mr. Chun Sewon, Senior Vice President of the Memory Marketing Team,

Mr. Hur Guk, Vice President of the S.LSI Marketing Team,

Mr. Lee ChangHoon, Vice President of Samsung Display

Mr. Lee KyeongTae, Vice President of the IT and Mobile Business,

Mr. Lee Yoon, Senior Vice President of the Visual Display Business,

and Mr. Kim YiTae, Vice Presidents of the IR Group.

I would like to remind you that some of the statements we will be making today are forward-looking, based on the environment as we currently see it, and all such statements are subject to certain risks and uncertainties that could cause our actual results to be materially different from those expressed in today's discussion.

Now, I will take you through our third quarter results.

In the third quarter, the total revenue was 47.8 trillion won - a 7.5% YoY decrease. This decrease was mainly due to the Note 7 issue despite the increase of sales in the memory and OLED businesses.

The gross profit was 18.4 trillion won - a 1.7 trillion won YoY decrease but the gross profit margin held steady due to higher gross profits from the sales expansion of premium products in the OLED and CE businesses.

Our SG&A expenditures increased YoY mainly due to the recall costs related to Note 7.

The operating profit decreased by 2.2 trillion won YoY to 5.2 trillion won and the operating profit margin decreased by 3.4%p. to 10.9%.

The earnings of the component business decreased marginally YoY due to price correction of DRAM during the first half of 2016. However its operating profit increased QoQ due to the sales expansion of high-end products such as SSD/Flexible OLED under stabilized ASPs.

In the set business, earnings declined in the IM division, due to the loss resulting from the Note 7 issue, but the CE business continued to grow YoY, driven by the sales growth of the SUHD TVs and premium home appliances products.

In the third quarter, strengthening of the Korean won against major currencies such as the US dollar(3.5%) and the Euro(4.7%) had a negative impact on the

operating profit QoQ, by approximately 700 billion won, mostly on the component business.

Other non-operating profit was 540 billion won, mainly from sales of various investments, including ASML.

Now, I would like to address the business outlook.

In the 4<sup>th</sup> quarter, we expect the overall earnings to improve YoY. The mobile business is expected to recover its earnings to the similar level as 4Q last year through solid S7 sales, while earning in the component business is projected to improve YoY.

For the semiconductor business, we expect the earnings to improve YoY due to the sales expansion of the V-NAND based SSD.

For the display business, we expect the earnings to improve from LCD business recovery YoY. However its QoQ earnings will decline due to the reduction of flexible OLED panel shipments from discontinuation of the Note 7.

In 2017, we will focus on solid earnings growth through normalization of the mobile business while improving earnings from the component businesses with expansion of OLED panels and V-NANDs.

Regarding our memory business, we expect the earnings in NAND business will increase significantly, led by the supply expansion of the highly profitable V-NAND. We will strengthen our technological leadership by expanding 64 layer

V-NAND as well as the 1Xnm DRAM. Also, in the System LSI business, we will enhance profitability by maintaining a high utilization rate for 14nm and above capacities while expanding the leadership position in the 10nm process technology.

For the OLED business, we expect to achieve significant earnings improvement YoY. We plan to expand the supply of high-end flexible OLED panels to external customers based on unrivalled technological leadership and capacity.

With regards to the IM business, our top priority will be regaining consumers' confidence and expanding sales of the new flagship products with differentiated design and innovative features. Also, we will further strengthen our competitiveness through continuously enhancing solution capabilities such as KNOX, Samsung Pay, Cloud System, and AI.

For the TV business, we will continue to solidify our leadership in the premium market based on Quantum Dot technology. Regarding the Home Appliance business, we will focus on improving earnings by expanding sales of premium products and strengthening the B2B business.

Now, I would like to comment on our Capital Expenditure plan.

We expect the total capital expenditure for this year to be at a record high of over 27 trillion won. In particular, we are focusing on investments in OLED business with significant demand increase in 2017 and a strong demand for V-NANDs.

Capex for the semiconductor business will reach 13.2 trillion won with 8 to 2 split between memory and System LSI. For the display business, the expenditure is expected to reach 10.9 trillion won which is more than double that of last year.

During the third quarter, we invested 6.0 trillion won in Capex, including 3.0 trillion won for the semiconductor division and 2.5 trillion won for the display division. The cumulative capital expenditure at the end of the third quarter was 14.7 trillion won.

We completed the US\$10 billion special buyback and cancellation program last month as planned. We invested 11.4 trillion won during the four phases and were able to repurchase and cancel 6.6 million common shares and 2.3 million preferred shares.

Currently, we are reviewing the overall shareholder return policy including how we will utilize the remaining allocated capital from 2015's FCF. At this point, we are leaning toward using the remaining amount for share buyback and cancellation. We will update you on the details of the overall shareholder return policy by the end of November.

Before the presentations of each business unit, I would like to share with you several data points of the key business areas.

In the Semiconductor, DRAM, for the third quarter, our bit growth came in around mid-20% growth, while we saw ASP decline of mid single-digit. For the fourth quarter, we expect the market DRAM bit growth to be low single-digit,

and we expect our bit growth to be flat, Q-on-Q. This will bring 2016 annual market bit growth at high-20%, and our bit growth should be in mid-30%. With NAND flash in the third quarter, our bit growth came in at low-20%, and we saw ASP decline of low single-digit. In Q4, we expect the market NAND bit growth to be about 10%, and our bit growth would be mid teens in Q4. This brings the total year-on-year bit growth of NAND flash about mid-40%.

For handset business, total sales of handset in the third quarter was about 89 million units, and we also had 6.5 million tablet sales. Blended ASP in the third quarter came in high at \$180, with mix of smartphone within the total handset shipment at about mid-80%. Q4, we expect our shipment of handsets to be similar to that of the third quarter, and we expect to see an increase of tablet sales in Q4. Blended ASP for our handsets in Q4, we expect it to decline slightly. The mix of the smartphone within handset will remain at about mid-80%. For TV business, sales of our LCD TV in Q3 was roughly 11 million units, and we expect to see about 50% increase in Q4.

Now, I will turn the conference call over to the gentlemen from the respective business units, to present their respective third quarter performances and outlooks. Thank you.

Good morning.

This is Sewon Chun from the Memory Marketing Team.

In the third quarter, The demand for memory increased remarkably, due to seasonality and new smartphone launches. The memory division achieved outstanding earnings growth by actively responding to increased demand for high density mobile/server products including V-NAND.

For NAND, the supply shortage has intensified due to continued strong demand for mobile storage and SSD. Demand for mobile storage such as eMCP/eMMC surged due to expanded adoption of high-density products over 64GB through solid demand from Chinese smartphone makers.

For server SSD, where demand is concentrated on Samsung products, demand for high density over 8TB increased due to the expanding transition of 10 and 15K RPM HDD to enterprise SSD.

We focused on addressing the demand for mobile storage over 64GB and high density enterprise SSD, such as 8 and 16 TB, as well as on expanding supply of PC NVMe over 256GB. We achieved outstanding improvement in profit by continuing migration to 3rd generation V-NAND, which is continuously securing profitability.

For DRAM, mobile demand remained strong driven by expanded adoption of high density mobile DRAM due to smartphones with higher specifications. High-density server demand for datacenter also increased, led by increased adoption of the Broadwell platform.

For PC, following the previous quarter, price continued to increase under strong seasonal demand. Demand for 20nm products increased due to the supply and demand imbalance for some applications. We focused on responding to this increased demand, by improving process efficiencies and utilizing available sources. By doing so, we achieved outstanding improvement in earnings compared to the previous quarter, with bit shipment exceeding our initial forecast.

Next, I will comment on the memory market outlook and our strategy for the fourth quarter.

For NAND, demand will continue to remain strong, driven by increasing mobile content and server SSD adoption. Supply and demand conditions will be tight as strong demand will continue for SSD in all segments, driven by the launch of All Flash Array Systems equipped with products over 8TB. Also, increasing demand for high density products over 256GB will contribute to this result, led by accelerated increase of PC SSD attach ratio and expansion of high density NVMe adoption.

For DRAM, although there will be some impact from low year-end seasonal demand, the overall market situation is expected to be favorable. This is because of demand for mobile remaining solid thanks to new smartphone launches, continued strength in 32GB/64GB server DRAM demand led by expanded transition to Broadwell platform, and increased 8GB attach ratio for PCs.

We will focus on improving earnings by focusing on a profit-focused product



mix based on our unrivalled competitiveness of V-NAND and 20nm DRAM.

Next, I will comment on our strategy for 2017.

For NAND, overall demand will increase due to content growth in all applications. Especially, adoption of high density mobile storage over 64GB is expected to increase, due to higher specifications of smartphones such as dual camera.

Demand for server SSD will remain strong due to an increasing portion of high density datacenter products and expanding adoption of All Flash Array in Enterprise. Also, as SSD adoption in PC continues to increase, with attach ratio for N/B is expected to exceed 50%.

Although demand is expected to remain solid in 2017, the industry's 3D NAND ramp-up status will be a key variable for supply and demand.

We are focusing on investing in V-NAND in order to actively respond to the growing demand for high density storage which has growth potential, and we will concentrate on premium markets such as high performance server SSD.

Also, in addition to highly profitable 48 layer V-NAND, we will strengthen technology leadership and secure differentiated profitability by focusing on 64 layer process migration.

For DRAM, supply and demand is expected to be balanced led by solid growth of demand. We project increasing adoption of mobile DRAM over 6GB

and strong demand for high density server DRAM due to new server platform launches and expansion of cloud services.

Meanwhile, In terms of supply and demand, we expect some uncertainties will remain in the first half, such as industry supply expansion due to process migration. We will focus on maximizing profit through maintaining the basis of investment and supply management, taking into account the market situation. Also, we will strengthen our product and market leadership by supplying high performance / low power / high density products and by continuing cost reduction through 1xnm ramp-up.

Now moving on to the S.LSI business, in the third quarter, we've achieved solid earnings, due to strong 14nm foundry demand, expanded shipments of mid- to low-range SOCs, and consistently increasing sales of image sensors in China.

In the fourth quarter, we expect the demand to remain solid, mainly for LSI products, despite the seasonal component inventory adjustment in the market. Also, we have started the industry's first mass production of 10nm logic process, and will commence shipment within the year. We will work tirelessly to maintain our leadership in the cutting-edge process technology.

In 2017, We will begin the mass production of 10nm products in full-scale, diversify 14nm products' customers and applications, and further differentiate the key-technologies for LSI products such as image sensors and OLED DDIs. By doing so, we will strive to ensure our continuous growth.

Thank you.

Good Morning.

This is Changhoon Lee from the planning department of Samsung Display.

During the 3rd Quarter, total earnings for the Display business improved significantly QoQ; this was driven by increased earnings from OLED panels as well as increased shipments in large-sized LCD TVs.

For the OLED business, 3rd Quarter earnings improved sharply QoQ, with increased shipments of H/E products such as flexible displays based on the strong demand for flagship smartphone.

For the LCD business, our 3rd Quarter earnings turned a profit under stabilized ASPs led by a favorable supply-demand situation. Also, we have strengthened profitability with improved yield and continued cost reduction as well as expanded value-added products especially from large-sized UHDs.

In the 4th Quarter, under strong seasonality of the smartphone market, we expect OLED demand to rise constantly as major Set makers pursue product differentiation in the form of hardware specification.

Under these circumstances, we expect to produce solid results through actively addressing demands of flagship products as well as enhancing Product Mix.

In the 4th Quarter, UHD TV market growth and size migration towards larger screens are expected to continue under stable panel pricing.

In preparation for these market conditions, we will make the best efforts to improve sales and profits by focusing on cost reduction and yield improvement as well as sales expansion of value-added products such as Ultra-large size, High Resolution and Curved panels.

Now I would like to present the outlook for the display market and our core strategies for 2017.

For the OLED business, we will strive to achieve a significant earnings improvement YoY through expanding supply of the flexible display to address major smartphone customer demands.

Although we expect competition to intensify in the LCD industry, under the capacity expansion, we also expect that the market for Premium TV panels such as UHDs and Ultra-large sized TV panels will continue to grow.

Under these circumstances, we will make every effort to strengthen the profitability by improving competitiveness of value-added products focusing on UHDs and large-sized TVs as well as expanding a portion of differentiated products such as Frameless and Curved TVs.

Thank you for listening

Good morning everyone.

I am Kyeongtae Lee from the IT & Mobile Communications Business.

I would like to present our 3rd quarter business results and the future outlook for the IM Business.

Our earnings for the Mobile Communications Business plunged in the 3rd quarter due to the Galaxy Note 7 issue.

However, with the strong sales of our existing smartphones including the Galaxy S7 and S7 Edge, our smartphone shipments have only slightly decreased QoQ.

For the Networks Business, our operating profit improved QoQ, mainly because of supply expansion of products for new frequency bands to our major partners.

Next, let me move onto the outlook of the 4th quarter. Market demand for both smartphones and tablets is expected to increase QoQ as we enter the year-end peak season.

As for the Mobile Communications Business, we will push forward to achieve the business earnings at a similar level to the previous year with the efforts to put more focus on the sales of the Galaxy S7 and S7 Edge, which have shown continuous demand and stable profitability.

Moreover, we will aim to increase our smartphone shipment QoQ, with newly

introduced models in the mid-to-low-end segment.

As for the Networks Business, we will focus on improving our business performance by leveraging the LTE expansion in emerging markets and expanding supply of products for new frequency bands.

Lastly, I would like to address the outlook for the year 2017.

We are expecting some difficulties until the 1st quarter of 2017, but we will achieve a business turn-around with the release of our new flagship smartphone.

We will continue our differentiation in hardware including design and camera to improve usability. In terms of software and services, we will expand the service coverage and available models for the Samsung Pay and Cloud, while introducing Artificial Intelligence related service to provide new values to our customers.

With these efforts, we will do our best to regain trust from our dear customers and get our business back on track as soon as possible.

Thank you for listening.

Good morning,

I am Yoon Lee, Senior Vice President of Visual Display Sales and Marketing Team.

For the TV business in the third quarter, global TV demand decreased compared to the same period last year due to economic slowdown in major emerging markets including Latin America.

Under such market conditions, our performance improved year-on-year, by enhancing promotional activities in various local markets preparing for the upcoming peak season and by expanding sales of premium products such as SUHD and Curved TV.

In particular, significant sales increase in North America and positive outcome from Latin America also contributed to such improvement in the third quarter.

Our efforts in Latin America started to show tangible results as we have increased operational efficiency and strengthened proactive cooperation with our channel partners since last year.

For the Digital Appliance business in the third quarter, although demand in North American market continued growth momentum, global market demand declined year-on-year due to the slower market growth in China and the impact from continued economic downturn from emerging markets.

Despite these circumstances, earnings improved compared to the previous year, led by increasing sales of premium innovative products such as Breeze Free air

conditioner and Chef Collection kitchen appliances.

Especially, strong sales in Korea and Southwest Asia market greatly contributed to the earning growth.

For the TV market in the fourth quarter, as year-end peak season is around the corner, we expect to see an increase in demand quarter on quarter.

However, due to the continued economic recession in Latin America, we forecast a decrease in global TV demand year-on-year.

In response, we will maintain solid performance and set a new record for the eleventh consecutive year global number one position by expanding the sales of strategic products based on accumulated expertise in seasonal promotion operations.

As for the Digital Appliance Business in order to prepare for the upcoming end-year peak season, we will strengthen our existing partnership to maximize opportunities and increase sales for our premium products, largely in the North American markets.

At the same time, we will expand investment in B2B businesses, and reinforce our online marketing to actively create new market opportunities and increase sales.

For the TV business in 2017 we will set up a foundation for sustainable growth and pursue a strategy that encompasses existing sales demand and new



demand by launching innovative products based on Quantum dots, the core material for the next generation of TV display, and by expanding premium line-ups in UHD & large inch.

Furthermore, in order to ensure continued growth and improve profitability in 2017, we will diversify our sales structure to focus on high value-added B2B products such as Gaming Monitor, LED Signage, Outdoor Signage, and expand sales through online channel which is currently showing growth.

As for the Digital Appliance Business in 2017, we will continue to produce innovative premium products as well as products that uniquely reflect different lifestyles of local consumers in order to improve our performance and capitalize on new demands in the market.

Thank you.

## Q&A

Operator

The first question will be provided by Ms. Claire Kyung Min Kim, from Daishin Securities. Please go ahead ma'am.

<Q - Claire Kyung Min Kim>: My first question is about the CapEx plans for next year. This year you focused your CapEx plans especially around the 3D NAND capacity in Hwaseong. Looking towards next year, what would be the size and timing of the CapEx investments for Pyeongtaek? Also, what are your plans next year for operation of the Hwaseong capacity? And what are your plans about CapEx investments with DRAM next year? Next year DRAM bit growth is expected to be in the 20% range. And so within that context, what will be your investments in DRAM capacity?

<A>: First, to answer the question regarding CapEx for V-NAND, we are expecting that next year the demand concentration will continue upon us in terms of the high density, high performance SSD, as well as high capacity mobile storage. And so we will continue to actively pursue investments, expansion of capacity in V-NAND. Also regarding our Pyeongtaek campus, I think this is the first time we're officially mentioning of our plans there, but our schedule at Pyeongtaek is to start mass production at Pyeongtaek of V-NAND from mid-2017. And so according to that schedule, our plan is to complete the fab construction before the end of this year. Regarding Line 17, our schedule there is to start mass production within the first half of next year, and we are currently in the process of bringing in the equipment to hit that schedule.

Of course the actual production and supply will be flexibly managed, depending on how the market situation, as well as customer demand folds out next year. And that would also have impact on the bit growth of our supply or our shipments next year. Regarding the DRAM, it's difficult for us to talk about the exact DRAM bit growth that we're expecting from our sites next year, but given the fact that we haven't done much investments in DRAM this year, we are expecting our growth rates to come down, and be in line with market bit growth in DRAM next year. Once again, as we have always mentioned, regarding DRAM, our focus is not to increase our market share but to maximize our profits. And so our investments as well as production will also be flexibly managed according to how the market unfolds.

Operator

The next question will be presented by Mr. Peter Seicheol Lee from NH Investment and Securities. Please go ahead, sir.

<Q - Peter Seicheol Lee>: I have a follow-up question to the previous question, which is about semiconductor memory market outlook for next year. You did mention about the demand and supply outlook for next year during the speech. I'm particularly noticing that you mentioned uncertainties in demand and supply situation possibly in the first half. Can you give us some details of why you're expecting uncertainty?

<A>: To give you some details of why we expect possible uncertainties in the first half of next year is that, overall as we mentioned during the speech, overall demand next year in 2017, we're expecting that to remain very strong. But given the fact that this year specific applications have increased their

adoption more than what we had expected relative to this year, next year the increased rates may be relatively slower. And so that is why it's particularly related with smartphone or server adoption, we think that that is a potential risk versus the high adoption in growth rates this year. So overall, looking upon next year, we do expect that the market will have a balanced supply and demand situation, and will continue to record sound growth. But we also think that there are uncertainties possible in demand and supply situations. And so in response to that, we have prepared scenarios depending on different demand-supply situations, and we will implement the right scenarios depending on the market situation. We will focus on leveraging our competitive products, and also focus and manage our product mix based on product profitability.

Operator

The next questions will be presented by Mr. Do-Hoon Lee from CIMB. Please go ahead, sir.

<Q - Do-Hoon Lee>: I have two questions related with the IM division. First of all, recently through press releases, the company had stated that the opportunity loss due to the discontinuation of Note7 would be around the range of mid KRW 2 trillion in the fourth quarter, and an additional mid KRW 1 trillion next first quarter. Could you explain what were the outlook as well as assumptions that were behind such projections? And also can you divide that into direct impact on the IM division versus the impact on other business divisions that you have? Second is, there were recently reports by the media saying that a large part of the Note7 replacement demand or Note7s are being

replaced by S7 or S7 edges. Do you think that this would possibly reduce the opportunity loss that you have projected previously?

<A - Robert M. Yi>: Before we answer Note7 related questions, I would like to inform you that Mr. Shin Jong-Kyun, is President of IM division, is going to make a special report during the Extraordinary Shareholders Meeting. He wants to share the steps that we're taking to investigate the cause of the Note7 issue. He will also conduct Q&A sessions within that EGM to address shareholders' concerns. Because of this, we will not cover any Note7 issues, except the financial aspects, which is the question that was just raised. The content of Mr. Shin's report will be shared with everyone as soon as he becomes available, which I assume to be within next couple of hours. I appreciate your understanding and cooperation. And to give further answer to your question, within the mid – around mid KRW 2 trillion range of opportunity loss that we announced to the market that we expect in the fourth quarter, most of it is IM directly related, perhaps around close to KRW 500 billion is related with the component business. I've also been looking at the analysis that's been produced by the market, and I don't see many of them presuming an opportunity loss around the KRW 2 trillion ranges. I think perhaps this is because a different definition of earnings are being used by the market than what we are using. We believe that even if the revenue is not incurred because we still need to pay considerable amount of fixed costs, that the standard to be used here is the contribution margin.

<A - KyeongTae Lee>: Well, to answer the second part of your question, I'm KyeongTae Lee of the IM division. Regarding your second part question of many of the Note7s being replaced with S7s, in the third quarter, yes, actually, we've

seen our S7 sales to maintain a strong sales, and we think that the S7 will be able to greatly surpass the previous Galaxy S series in terms of full year sales. Actually in all of our Galaxy S series, the S7 probably will be recording the highest sales in the launch year. Also in the mid to low range are Galaxy A and J series. Sales have actually increased quarter-on-quarter, and we are seeing these other substitute models taking on into the Note7 space.

Operator

The next questions will be presented by Mr. Chung Chang-Won from Nomura Securities. Please go ahead, sir.

<Q - Chang-Won Chung>: I have a question about last month Elliott made several proposals as a shareholder, including special dividends and changing of the company's governance structure. Does the company have any responses to offer on that? And also during the speech you mentioned that the shareholder return plan will be announced around mid-November. Is there any possibility that we'll see different elements than what we saw last year?

<A>: Regarding the proposal, the BoD, the board meeting, as well as the management team is very carefully considering and reviewing the proposals, not only about the shareholder return but also all aspects of the proposal that was made. We believe that shareholder return is not a one-time event, that we need to continuously improve our shareholder return. And therefore from that context we are considering the proposal. As we mentioned, we will be finalizing the plan regarding not only shareholder return, but the overall aspects of the proposal, and plan to communicate the plan within November with the market. To correct the translation, what we will be communicating will be the direction

of our not only shareholder return but the overall proposal, and therefore what we will be communicating within November would not be the finalized plan.

Operator

The next questions will be presented by Mr. Simon Wu from Bank of America Merrill Lynch. Please go ahead, sir.

<Q - Simon Wu>: My question is related with the LSI non-memory division. You've recently announced the mass production of 10-nanometer. And I also welcome how we're hearing more about areas such as AI or IoT as a part of the business plan, which is related with the non-memory side of the business. However, also looking at the overall trend, I do notice that actually the products that would need the relatively expensive technology, such as 7-nanometer or 10-nanometer is decreasing overall in the overall tech trend. And so my question against that backdrop is what are the specific applications that would need such high-performance 10-nanometer or 7-nanometer technology? And when do you think the 10-nanometer or 7-nanometer technology will per chip become cost competitive versus the 14-nanometer?

<A>: In the case of cutting-edge process technology for the System LSI, the cutting-edge technology, as you mentioned, is a relatively high cost process. And so what usually happens is that the first productions are used for the premium applications where we can still guarantee sufficient ROI. So, for example, the high-value SOCs are where the first cutting-edge process technology are used. And then, as the yield ramps up, and the fab is able to produce more cost efficiently, then the supply migrates to other mass applications.

An example would be our 14-nanometer process, which we started mass production last year, so we're in year two, next year, we'll be year three. Initially the 14-nanometer was used for the premium products, and started to go for the more mass applications from mid last year. And this year, we're seeing an increase of more mass applications taking on our 14-nanometer products. And we think that the same migration process will happen to our 10-nanometer technology. Also regarding 7-nanometer, which you mentioned, as we have always mentioned previously, we are ready to go 7-nanometer. The decision is the economics, the ROI and also whether the products or what products would be taking on 7-nanometer. And once those business decisions are made, we are technically ready.

Operator

The next questions will be presented by Mr. Nicolas Gaudois from UBS. Please go ahead, sir.

<Q - Nicolas J. Gaudois>: Yes. Hi. Good morning. Thanks for taking my question. The first one relates to DRAM. So you just indicated you intend to grow next year, more or less in line with the market. At the same time, considering that supply is still tight, are there any parameters that you would consider to potentially add any wafer capacity in DRAM next year? And if so, when could you actually do that within either the Pyeongtaek site or Line 17? Thank you.

<A>: Regarding the DRAM, once again, our bit growth will be focused more on process migration. And so as we have mentioned, we will be focusing on quickly and flexibly responding to the market environment as it unfolds.



Operator

The next questions will be presented by Mr. Marcus Shin from Goldman Sachs. Please go ahead, sir.

<Q - Marcus Shin>: I have two questions related with the IM. One is that, what are you noticing in terms of sales trends for the S7 and the S7 edge since the discontinuation of Note7? And also, some are talking about a possible early launch of the S8. What are your plans regarding that?

<A>: Regarding the Note7, we don't see any impact of the Note7 discontinuation on our other product demand. As I previously mentioned, the S7 sales trends remain as strong in the third quarter. And on a full year basis, it will greatly surpass the sales of its previous model. Also, the sales on our mid-to low-end models are also strong. The second question about the release – early release possibly that's been talked about of the next flagship model, the S8, it's difficult for us to talk about a model that we have not yet launched, but our basic approach is that we will launch it after thorough verification and once safety is guaranteed.

Operator

The next questions will be presented by Mr. JJ Park from JPMorgan. Please go ahead, sir.

<Q - Jung-Joon Park>: Software business, first of all, the technologies, the new technologies for DRAM there will be 1X-nanometer, for NAND there will be 64-layers. These new technologies, how much in terms of cost as well as productivity improvements do you expect, versus existing technology, and can

you quantify that change or difference? The second question regarding the System LSI side is currently how much of a yield are you seeing on your 10-nanometer production? And during the previous last quarter's conference call, you mentioned that you're planning to use EUV technology for the 7-nanometer, but I guess since then the industry trend is to not use EUV for 7-nanometer, and I'm wondering if you've changed your strategy as well.

<A>: It's difficult for us to talk about specific cost or productivity on products that are not yet even in mass production. But for DRAM the 1X-nanometer went into mass production into third quarter, and we're in the process of ramping that up. For the NAND, the 64-layer, the target is to start mass production during the fourth quarter, and to start, to ramp that up during the first half of next year. Regarding the System LSI, we cannot give you the exact internal yield that we're seeing on the 10-nanometer, but I can say that the yield is according to our plan, what we had expected and planned for. And the current plan is to have that commercially adopted on the flagship model next year. The 7-nanometer, we still plan to use EUV, and we're going to maximize the advantage of the EUV technology so that we have improvements in terms of performance, power as well as scalability, which are the key features of semiconductors.

Operator

The next questions will be presented by Mr. Yoo Jong-Woo from Korea Investment and Securities. Please go ahead, sir.

<Q - Jong-Woo Yoo>: I have a question related with OLED-related investments. As you mentioned, the demand, especially for the mid and small size OLED

panels are increasing quite significantly, especially driven by the smartphone makers. In that context, I'm expecting that you'll probably need additional investments in OLED capacity, in addition to what you're currently investing in. And so can you give us your plans of additional OLED investments, as well as in terms of your space plans, because I see that you may have not enough space for the additional expansions necessary?

<A>: Our outlook in terms of market demand is that, market demand for OLED panels will continue to increase, especially around flexible panels. And our approach to investment is to make timely and preemptive investments so that we are able to maintain our competitive advantage. And we plan to strategically utilize the resources that we currently have, that we have, to respond effectively to market and customer needs.

Operator

The next question will be presented by Mr. Doh Hyun-Woo from Mirae Asset Securities. Please go ahead, sir.

<Q - Hyun-Woo Doh>: I have a question related with the CE business. Recently the CE business' earnings has, I think, moved up to the next level. I think, a main factor behind that is the strong sales of high value-add products, especially the Quantum Dot TV. In that context, my first question is, what are the recent sales trends you're seeing of the Quantum Dot TV? And what are your sales targets, for example, next year? Second is, do you think that this enhancement of earnings for the CE division is temporary, or do you think this is more of a structural nature?

<A>: Regarding the sales trends of the Quantum Dot TV, the SUHD TV that's based on the Quantum Dot technology, is having the top tier lineup. And third quarter sales of the SUHD TVs increased 60% year-on-year. And we think that there will be additional growth in the fourth quarter, which is a peak season. And so on a full year basis, we're expecting the sales to double versus the sales last year. As you know, the Quantum Dot chip technology is considered the next generation display technology that overcomes many of the limitations of the existing TV technology, in terms of brightness, color, reproduction and durability. We are still in the process of working out our business plans for next year. So it's difficult for us to share our sales targets for next year now. But our basic approach is that we will continue to innovate our product based on the Quantum Dot technology, and maintain our market leadership in the premium segment.

Your second part of the question was whether the earnings improvement enhancements are sustainable. We have analyzed that there are three major factors that explains why we have been surpassing market expectations in terms of our earnings performance; one is the premium product line up, the improvement of our product mix, represented by the Quantum Dot TV. Second is that in many key regions we have strengthened our relationship with major key distributors in the region and that has also helped. The third is that we've actually been able to preemptively manage many of the external risks including foreign exchange volatility this year. And this has all helped improve our earnings. We are looking towards the fourth quarter. There are some risks, for example, the overall market is contracting or decreasing in terms of sales size in all regions, and also the panel prices are tending to go up. But despite that backdrop, we will continue to provide a differentiating user experience through our premium products, and continue this trend of good performance next year.

Operator

The next questions will be presented by Mr. Han Seung-Hoon from Deutsche Securities. Please go ahead sir.

<Q - Seung-Hoon Han>: I have a question about the service side. This year Samsung acquired a cloud company, and mentioned that that company's capabilities would be leveraged in order to further develop future software as well as content. And so could you give us an update on how that preparation is coming along? And can we expect to see some new and differentiating features on the next year's new smartphones?

<A>: Yes. We acquired Joyent during the first half of this year, and we are currently in the process of building out our own cloud infrastructure globally. We believe that this will be able to provide a more efficient cloud service in the future, where we will also expand the connectivity between our multiple devices, so not only the handset, but tablets and wearables, and also use, leverage the content to provide a seamless experience to the users across different devices. This will also in the future be expanded to connect with IoT, as well as further connectivity between devices, and we plan to leverage this to provide a differentiating service experience.

Operator

The next questions will be presented by Mr. Peter Yu from BNP Paribas. Please go ahead, sir.

<Q - Peter Yu>: I have an additional question related with the solutions for the mobile business. During the speech you mentioned plans of adopting AI-based

services for the mobile side in 2017. Can we expect this to be a differentiating, a major differentiating point for the handsets that you'll be launching next year? I'm assuming that also the capabilities that you've acquired through the acquisition of Viv will be used to do this. And this AI platform, are you planning to run this, operate this, as a complete open-platform that is open also to non-Samsung devices, or would it be limited to Samsung products? And if it's the second, that is if it's limited to Samsung products, what are your plans in terms of attracting third-party vendors to join the platform, or creating an ecosystem?

<A>: Regarding the AI service, if I can share some of the directions that we're preparing that for, we have noticed that in the mobile space there is a very rapid shift of the services from app-based to more voice recognition-based big data analysis, AI supporting services. And the Viv Labs, the company that we acquired, has a platform that is natural language based AI. And it also is a platform where external third-party service providers can easily connect their services onto that platform. And so we believe that this will help us create an open ecosystem for our intelligence-based services in the future. And through the acquisition of Viv, we have been able to secure a key capability in creating a very vibrant, open AI ecosystem. We will be connecting not only our smartphones and tablets, but also TVs and other home appliances, and to create an AI conversational interface to provide various services to the devices, and this will be a differentiating point, and we will leverage this as a differentiating point for our Samsung devices.

Operator

The next questions will be presented by Mr. Mehdi Hosseini from Susquehanna International Group. Please go ahead, sir.

<Q - Mehdi Hosseini>: Yes. Thanks for taking my question. I actually have two clarifications. Earlier you said, there is some uncertainty regarding the DRAM environment looking into the first half of 2017. Can you please elaborate on it? There is a cautious migration to 20-nanometer, and Samsung is migrating to 1X-nanometer, and I'm not sure if anybody is adding wafer capacity. So what exactly did you mean by uncertain environment as it relates to DRAM? And my follow-up question has to do with display. You mentioned flexible OLED, but I think you're referencing curved edges. And in that context, when should we expect Samsung to finally introduce a true flexible display? Thank you.

<A>: Regarding the uncertainty that we have mentioned before, the uncertainty or the risk that we potentially see next year in terms of the demand side is first of all that, as you know, the gigabyte per system this year for smartphones and servers have both grown very strong, higher than what we had expected. And so the risk on the demand side is the potential of the demand growth not sustaining what we saw this year. If, for example, the demand growth levels off next year versus this year, that could potentially make the demand softer next year. So that is the risk that we're seeing on the demand side.

On the supply side, as you mentioned, most of the bit growth is being driven by process migration, migrating to the cutting-edge processes. And so on that end, on the supply side, the risk would be perhaps the ramp-up plans not going as scheduled, having a negative impact on supply, or the reverse, whether the ramp-up goes better than expected, the cutting-edge process migration goes better than expected, and that would have an upside on supply. But then any demand-supply outlook has pertains risks and uncertainties, and despite these risks and uncertainties that we potentially see next year, we will focus on

leveraging our differentiated products, leveraging our competitiveness versus the competitors, to focus on operating a product mix that is profitability-oriented. The second question about the flexible display, in addition to the curved flexible, curved edge, we are also preparing various applications, including the true flexible to meet the customer demand. Also, in terms of timing, we are continuously working to raise the level of perfection to meet market as well as consumer demands, and we will continue to do that.

Operator

The next questions will be presented by Mr. Song Myoung-Sub from Hi Investment Securities. Please go ahead, sir.

<Q - Myoung-Sub Song>: My question is related to the previous question about the DRAM demand-supply outlook next year. While mentioning the potential uncertainties next year, you mentioned also first half of next year. In that context, I think what the market is concerned about in terms of demand next year is the fact that recently Intel made comments about its PC inventory, that there's a talk that Lenovo also has a huge amount of inventory. Also on the smartphone side, the Chinese smartphone makers have been competing to increase their production against each other.

And also, with the absence of the Note7, we're hearing that Apple or other Chinese makers are also planning to increase their high-end handset production. And this may all end up being an overproduction now, which will end up having eventually leading to perhaps an inventory adjustment next first quarter. I think that is the concern that the market has in terms of potential demand risk. What is your views about this?



<A>: I think once again we have to repeat what we had said before that in terms of the demand and supply outlook next year, the main risks that we are looking on the demand side is the possibility that the huge growth in gigabyte per system that we saw this year may perhaps not be sustained next year. And that is the risk that we're seeing on the demand side. On the supply side, as I previously mentioned, the demand-supply balance will be affected depending on how the cutting-edge process migration or ramp-up takes place. We are very carefully watching the demand and supply side. And we are in the process of establishing scenario-based strategies to respond to whatever situation unfolds. But given the fact that we have many products that are differentiated by themselves, we will be able to maintain a very profit-oriented product mix next year to respond to whatever is demand and supply situation.

<Q - Myoung-Sub Song>: Would it be correct for me to understand that you don't see an oversupply on the application side production?

<A>: So to the question of whether we think that there are overproduction on the set side, smartphones or PCs, we don't think there is an overproduction. And once again, in terms of our DRAM business, our basic approach that we will be more profitability-oriented than market share-oriented and we plan to next year, at this point, expect to grow at market level.

Operator

The next questions will be presented by Mr. Ike Cho from Sanford C. Bernstein. Please go ahead, sir.

<Q - Mark C. Newman>: Hi. This is actually Mark Newman from Bernstein. Thanks for taking my question. I wanted to clarify a little bit on some of the capacity ramping comments you made. So, first of all, on DRAM, Samsung is going to have about mid-30% bit growth this year, which is quite a lot higher than what was previously guided. So first question is perhaps could you clarify exactly how the capacity or how the bit growth was significantly higher than the low-20% that was previously guided for this year? And then moving forward to 2017 for DRAM, there was a comment earlier about Line 17 ramping. I just want to clarify if that was the additional space of Line 17 ramping for DRAM, or was that a NAND-specific comment? And then final question related to that is, any specific capacity numbers you could give us? I know you had mentioned, it's very much depending on demand, but perhaps you could put some ranges around the potential capacity additions that we should expect in NAND flash next year, and also for DRAM, if any. Thanks very much.

<A>: Regarding the DRAM bit growth, one factor was that there was a seasonality, it was a peak season, so that's one effect on the demand side. Also there was a high concentration of demand for high density DRAMs that came to us. So that was another reason behind our DRAM bit growth. There was a demand-supply imbalance in specific applications, and a lot of that demand came towards the 20-nanometer DRAM, our 20-nanometer DRAM, and that helped us achieve the higher bit growth. And so in response to such concentrated demand, we improved the efficiency of our production, and also managed our inventory quite effectively, and that is how we were able to achieve higher bit growth than previously guided. But once again, regarding the capacity plans, it's difficult for us to talk about the ranges that you've asked for.

And our position is that we will be managing the capacity depending on the demand and supply situation unfolding.

Operator

The last question will be provided by Mr. Kim Sun-Woo from Meritz Securities.

Please go ahead, sir.

<Q - Sun-Woo Kim>: The question that I have is a follow up to the bendable display question. I think in the answer to the previous question you left the issue of timing opened. And given the fact that even the curved edge display, which only provides mainly aesthetic value, is being in huge demand by the Chinese makers and other leading makers. I would expect that if you are able to supply a bendable, a true flexible display, that would bring about very exclusive, significant expectations or responses from the market. So in that context, where are you in terms of technology at this point? Is it correct for me to assume that you are technically capable of producing something on a pilot basis, but you're waiting for other elements to come into play so that you would be able to provide a differentiated consumer experience on the end device level, which will drive up, for example, ASPs as well as demand? I do understand that, especially, given the recent Note7 experience the company may focus more on quality or yield, rather than trying to show off its technology prowess. But given all of that, could we expect something of a bendable or truly flexible display-based product next year, or we have to wait after, or will we have to wait more?

<A>: If I take that from the IM business side, regarding bendable or foldable displays, it is a new form factor, and we are focused on finding the optimized user experience for this form factor. And so the timing of commercialization will depend mainly on whether we have the optimized user experience, where the consumers can actually feel a differentiated value through this new form factor. Also in terms of hardware, for a smartphone, not only the display has to be bendable and foldable, but other parts of the device, such as battery or cases and other material also have to be compliant. And so that is also a factor in determining the commercialization time point. So in terms of the form factor, we are focused on optimizing the usability, and also whether we are able to provide a differentiated new user experience that the customers will find satisfactory. And given all of that, more time is necessary before we launch the product.

**Robert M. Yi**

Thank you very much. This ends the conference call.

**S-5**

# 【Samsung Electronics 1Q Earnings Call】

**Robert M. Yi**

Good morning.

This is Robert Yi. Thank you for joining our first quarter 2017 earnings call.

With me representing each business units are

Mr. Chun Sewon, Senior Vice President of the Memory Marketing Team,

Mr. Hur Guk, Vice President of the S.LSI Marketing Team,

Mr. Lee Chang Hoon, Vice President of Samsung Display,

Mr. Lee Kyeong Tae, Vice President of the IT and Mobile Business,

and Mr. Lee Yoon, Senior Vice President of Visual Display

as well as Mr. Kim Sang Hyo, Vice President of IR Group.

I would like to remind you that some of the statements we'll be making today are forward-looking based on the environment as we currently see. And all such statements are subject to certain risks and uncertainties that could cause our actual results to be materially different from those expressed in today's discussion.

I would like to take you through our first quarter results. The first quarter, the total revenue was KRW 50.5 trillion.

Revenues from the Memory and Display businesses increased, driven by strong ASPs and increased sales of premium products. However, the company's overall revenue only increased slightly year over year, as revenues from IM business decreased due to delayed launch of Galaxy S8.

The gross profit was KRW 22.4 trillion, KRW 3 trillion year over year increase. And the gross profit margin improved by 5.3 percentage point. SG&A expenses decreased year on year on both absolute terms and as a percent of revenue, mainly from the IM business. The operating profit was KRW 9.9 trillion, an increase of KRW 3.2 trillion year on year, driven by improved profitability of the component business. The operating profit margin also increased by 6.2 percentage point to 19.6%.

In the first quarter, the impact of exchange rate movements on the operating profit was minimum. The Korean won strengthened against both the U.S. dollar and the euro compared to the last quarter, but weakened against other emerging market currencies, such as the Brazilian real and Russian ruble.

The company's first quarter ROE improved significantly year on year from 11.8% to 16.1%, which we attributed to the improved earnings and effects of continuation of share buyback and cancellation programs.

We completed the acquisition of Harman in March, and consolidated its results into our financials as of March 31.

However, the impact on the income statement was minimal, as only transactions after March 11 were reflected. We will provide Harman's revenue and operating profit as a separate line items starting from the second quarter.

Few comments on the second quarter business outlook.

For the component business, we expect semiconductor earnings to continue to grow driven by solid high-density DRAM/SSD demand in the server market, increased 10-nano application processor shipments and a continuation of strong CMOS image sensor and driver IC demand. The OLED business will focus on fulfilling strong demands for flexible panels from our major customers and look to maintain profitability in the LCD business by reducing the cost.

For the set business, we expect ASP and operating profit to improve in our Mobile business, following the global launch of the Galaxy S8. We also expect earnings to improve in the Consumer Electronics business, thanks to the launch of QLED TVs and strong seasonal demand for air-conditioners.

In 2017, we expect overall earnings to grow year over year, mainly from the component businesses, driven by favorable supply-demand balances for the Memory business and increasing the supply of OLED panels. The set business will focus on maintaining profitability by strengthening product leadership through expanding sales of flagship products.

However, during the second half of this year, we need to monitor the possibility of 3D NAND supply growth within the memory industry and intensified competition in smartphone market on launch of new smartphone products.



Looking to the mid-term to long-term, demand is expected to rise for high-performance, low-power consumption chipsets, such as memory, SoCs and sensors, as well as for flexible OLED products driven by form factor innovations, amid rapid changes in IT industry with the emergence of IoT, artificial intelligence and automotive business.

Regarding the set business, we expect to see new solution-based business opportunities with the developments in utilizing device softwares and a connectivity to address emerging areas such as cloud services, artificial intelligence and smart homes.

In response to these paradigm shifts in the IT industry, we need to strengthen our capabilities via strategic investments and M&As to secure cutting-edge technologies and new growth drivers. However, the lingering uncertainties in political and business environments both at home and abroad may bring any challenges.

I would like to comment on our capital expenditure plan. During the first quarter, we invested KRW 9.8 trillion in capital expenditure, which included KRW 5 trillion for the Semiconductor and KRW 4.2 trillion for Display division. The capital expenditure plan for 2017 has not yet been finalized, but we expect annual capital expenditure to increase significantly year on year, as we look to focus on Vertical NAND, System LSI and OLED capacity expansions.

Before the presentation of each business unit, I would like to share with you several data points from our key business areas. For DRAM in Q1, our bit growth declined low-teens, while ASP increased low-20%. For second quarter,

we expect DRAM market bit growth to be mid-single digit increase and we expect our DRAM bit growth in second quarter to be high-single digit. And for the year, we expect DRAM market bit growth to be high-teens and we expect to grow in line with the market.

For NAND, Q1, our bit growth was low-teens of decline, while ASP increased low-teens. In second quarter, we expect market bit growth for NAND Flash to be mid-single digit and we will grow in line with the market. And for 2017, we expect NAND market bit growth to be about 30% and we expect our bit growth to be low-30% range.

For Display Panel business, the mix of OLED in terms of the revenue was low-60% of total DP revenue. For Mobile business, our Q1 sales of total handsets was 93 million units and tablet sales was 6 million units. Our blended ASP for our mobile products was about mid-\$170 and the mix of smartphone within our handset sales was about mid-80%.

In Q2, we expect both handset sales as well as the tablet to be similar to Q1, and we expect our blended ASP to increase in Q2, and the mix of smartphone within the handset sales in Q2 will be high-80%.

The sales of our LCD TV in Q1 was roughly 10 million units. In Q2, we expect to see a small decline. For the year, we expect our TV shipment to be increasing by about low-single digit.

Now, I'll turn the conference call over to gentlemen from the business units.

Good morning.

This is Sewon Chun from the Memory Marketing team.

In the first quarter, although overall demand has slowdown compared to the previous quarter due to weak seasonality, supply and demand continue to be solid and price rose strongly due to restrictions of industry supply.

We improved earnings through our product mix, focused on high profitability and differentiated products.

For NAND, even though there was partial inventory readjustment by some set companies, demand for high value-added PC and server SSD and high-density mobile products continued to be solid.

And supply remained insufficient due to delayed transition from planar to 3D NAND. We continue to drive a solid earnings by actively responding to demand for high-density server SSD over 4-terabyte and mobile products over 64-gigabyte and by expanding 48-layer V-NAND supply.

For DRAM, although there was a set and component inventory adjustment by some mobile companies along with weak seasonality, overall supply and demand continue to be solid and prices remained strong, due to solid demand for server DRAM for data center and customers buy ahead due to supply uncertainty in the second half.

We achieved outstanding earnings growth following the last quarter.

We expanded the supply of differentiated high-density and high-speed products by expanding LPDDR4 and LPDDR4X for flagship smartphones and high-density server products for data center. Also, we concentrated on improving profitability by continuously securing cost competitiveness through 1X-nanometer process expansion.

Next, I will comment on the memory market outlook and our strategy for the second quarter and year 2017 overall. In the second quarter, for NAND, demand for high-density server SSD is expected to increase, driven by solid demand for high value-added solution products such as high-density data center storage and by expansion of high-density enterprise SSD, as well as replacement of 15K RPM HDD.

Also, overall demand is expected to be solid, driven by completion of inventory adjustment by some mobile companies along with new product launches and content growth. However, supply is expected to remain tight due to continuous constraints on industry 3D NAND supply. We will continue to improve profitability by superior product competitiveness, by focusing on expanding the server SSD-centric, high-density and value-added solution market; and by expanding supply of 48-layer V-NAND, as well as mass producing 64-layer V-NAND.

For DRAM, demand for high-density server DRAM over 64-gigabyte is expected to increase with the expansion of new server platforms and demand of PC is expected to be solid, as Roger Williams prepare for second half sellout.

Also, mobile demand is expected to remain solid, thanks to new product launches and continuous content's growth.

We will maintain a solid base by expanding supply of differentiated and high value-added products, such as high-density server products and LPDDR4X, and by meeting customers' increasing demand as much as possible through flexible product mix between applications.

In the second half, the memory market is expected to have favorable market conditions due to peak seasonality, as well as new mobile product launches.

But tighter supply and demand conditions may become alleviated due to possible expansion of the industry 3D NAND and sub-20-nanometer, DRAM product supply.

For NAND, overall supply and demand is expected to be solid, smartphone trend toward the high-density are expected to continue, led by expansion of high-density content services and by increasing adoption of higher specifications.

Demand for high-density server SSD is expected to be strong, driven by increasing adoption of high-density products and All-Flash Arrays due to the expansion of cloud services.

However, supply and demand may vary according to each application, depending on the industry's 3D NAND ramp-up and capacity status. We will continue to seek a high profitability by actively responding to demand for high

value-added solution products and by focusing on V-NAND transition, while closely monitoring the industry supply status.

For DRAM, stable supply and demand conditions are expected to continue, while demand for all applications continues to be solid due to increased set demand on the peak seasonality, as well as increased DRAM content in each application.

We will maintain strong technology leadership and a partly focused product mix by strengthening cost of competitiveness through expansion of 1X-nanometer process migration and increasing sales of high-density, low-power products.

In order to respond to continuous strong demand for high-density storage products, we are concentrating on V-NAND investment mainly at the Pyeongtaek campus. For DRAM, while taking market conditions into account for investment and capacity management, we were continuously focusing on improving profitability.

We will concentrate on securing stable profitability, while leading the high-density and value-added memory market with a basis of scaling down our process along with providing differentiated solution, such as high-density HBM2 over 64-gigabyte registered DIMM and over 8-terabyte to SAS SSD.

Now, moving on to the System LSI business.

In the first quarter, we have achieved a favorable result, due to an increased sales of APs, DDIs, image sensors for flagship smartphone and steady sales of the 14-nanometer mobile APs for mid and low tier. Similar to that of 14-nanometer process, we have continued to maintain our technology leadership based on mass production of industry first 10-nanometer process.

In the second quarter, we will continue to improve the earnings by addressing the increasing demand for 10-nanometer mobile APs and expanding the sales of highly profitable LSI products, including image sensors and DDIs.

In 2017, we will strive to ensure continuous growth through sustainable supply of 10-nanometer-based products and securing stable demand from diversified customers. In addition, to strengthen the base for mid-term to long-term growth, we will diversify 14-nanometer-based product lineup to automotive, wearable, and IoT, and deliver differentiated LSI products, such as image sensors and OLED DDIs with innovative technologies.

Thank you.

Good morning.

This is Chang Hoon Lee from the Planning Department of Samsung Display.

During the first quarter, we achieved solid earnings, as we did last quarter. This was driven by a rise in sales of OLED panels, as well as an increased portion of value-added LCD products. For the OLED business, our first quarter earnings improved QoQ through increased shipments of flexible displays, led by rise in sales of new products, as well as a strong demand for rigid OLED panels.

For the LCD business, in the first quarter, although our capacity decreased due to strategic decisions to close on LCD production line, we still managed to bring solid earnings under stabilized ASPs, led by favorable supply-demand conditions. Also, we have strengthened profitability with an expanded portion of value-added products, especially from large-size UHDs.

Looking ahead to the second quarter, we expect demand for OLED from major set makers to rise continuously from last year. Under these circumstances, we plan to focus on producing solid earnings through actively addressing customers' demand for flexible displays, as well as by increasing demand from external customers.

In the second quarter, although we expect a capacity expansion of LCD industry, market demand for UHD TVs and size migration towards larger screen is expected to continue, with favorable supply-demand conditions.



In preparation for these market conditions, we will make every effort to secure profits by focusing on cost reduction and yield improvement, as well as the expansion of value-added products such as ultra-large size, high resolution, and curved panels.

Now, I'd like to present the outlook for the display market and our core strategies for this year overall. For the OLED business, while we expect our sales improved Y-o-Y, through increased supply of flexible displays, intensified competitiveness for LTPS LCD panels in the mid to low-end market will present continuous challenges.

Although we expect competition to intensify in the LCD industry under capacity expansion, we also expect that the market for premium TV panels, such as UHD and the ultra-large size TV panels, will continue to grow.

Under these circumstances, we will make every effort to strengthen profitability by improving competitiveness of value-added products, focusing on UHDs and large-size TVs, as well as expanding the portion of differentiated products, such as Frameless and Curved TVs.

Thanks for listening.

Good morning, everyone.

I am Kyeong Tae Lee from the Mobile Communication business.

I would like to present the first quarter business result and our future outlook for IM division.

For the first quarter of the Mobile Communication business, market demand for smartphone and tablet decreased Q-on-Q as a result of weak seasonality.

Our smartphone shipment slightly increased Q-on-Q, thanks to the newly-released Galaxy A 2017 series and solid sales of mass smartphones in emerging markets. However, our revenue and profit decreased Q-on-Q due to price adjustment of Galaxy S7 edge and S7.

The network business maintained its solid revenue and profit, led by LTE extension of our major overseas partners and supply of equipment for newly-added frequency bands in the domestic market.

Next, let me move on to the outlook for the second quarter of 2017.

In the second quarter, market demand for smartphone and tablet is forecasted to remain at a similar level as the first quarter. Our revenue and profit yield increased Q-on-Q, following the global release of the Galaxy S8 and Galaxy S8 Plus.

However, our smartphone shipment is expected to remain at a similar level Q-on-Q, due to decreased sales of mass smartphones including, Galaxy A and Galaxy J series.

We recently launched our flagship smartphones, the Galaxy S8 and Galaxy S8 Plus, on April 21. The Galaxy S8 and Galaxy S8 Plus will redefine smartphones, going beyond the current boundaries of mobile devices. With the immersive screen of our Infinity Display and cover the glass in both front and back, we redesigned the smartphones from inside-out.

The new release of flagship will provide an entirely new experience to our customers, including specialized services such as Bixby, Samsung DeX, and Samsung Connect.

Ever since we opened the Galaxy S8 and S8 Plus to the public, they are well and enthusiastically received in the market and highly praised for their superiority. They are also showing robust initial sales. Accordingly, we will give our full effort for the new flagship sales record set by Galaxy S8 and S8 Plus.

Now, let me address the outlook for 2017. In 2017, market demand for smartphones is expected to slightly increase Y-on-Y, with solid growth from mid to high-end smartphones replacement demand.

However, competition within the market will also intensify, with newly-launched smartphones in the market at the second half of 2017.

In this plans, we aim to increase our shipment and revenue Y-on-Y and improve our profit Y-on-Y by maximizing sales of the Galaxy S8 and S8 Plus, by successfully launching our new flagship smartphone in the second half of 2017, and by maintaining the profitability of our mass smartphone.

Added to the network business, we will increase our revenue Y-on-Y, with a new business opportunity in growing LTE markets with a full-scale next-generation network business, including IoT and LTE-A Pro, and with the preparation for the 5G-based wireless broadband services.

Thank you.

Good morning.

I'm Yoon Lee from Visual Display Sales and Marketing team.

I would like to present the market conditions and our results for the first quarter 2017.

As for the TV market in Q1 this year, as we entered into slow season, market demand decreased quarter on quarter.

And due to decreased demand in European and Latin American markets, the TV market is projected to have weakened compared to the same period of last year. Under these market circumstances, we have achieved sales growth and maintained our leading position in the premium market by improving our product mix with expanded premium product lineups, including Quantum Dot TV and Curved TV.

However, affected by increased panel prices and currency fluctuations, our performance was weaker compared to the same period of last year.

As for the digital appliances, with continued growth in North American market and economic recovery of emerging countries such as Southwest Asia and CIS, its market demand slightly increased. By boosting sales of innovative premium products, including Chef Collection Refrigerator, kitchen appliances, AddWash Washing Machine and strengthening promotions for each local market, we have achieved sales growth higher than the same period of last year. Despite such outcomes, however, with additional expenditure on continued investment

in North American B2B market, since the last quarter, our overall earnings remained flat year on year.

Next, let me brief the market prospects for Q2 2017. The TV market in Q2 is projected to show a modest growth from the previous quarter, driven by a full-fledged release of new products in TV industry. But the market is expected to show a slight decrease, when compared to the same period of last year, due to sluggish demand, mostly facing Europe.

Under these prospects, we will focus on securing our profitability and achieving growth by expanding high-value product lineups, including UHD Curved TVs and ultra-large inch TVs, as well as starting to sell new models led by QLED TV.

As a new category of TVs, QLED TV is the only TV in the market that can reproduce 100% color volume, render HDL, 1,500 to 2,000-nits of brightness almost matching natural light, deeper blacks and an ultimate level of contrast ratio. And with these features, QLED TV put an end to aged long controversy over better picture quality. Not only that, QLED TV also features no-gap wall-mount and Invisible Connection for better space, utilization and harmony with the home décor, as well as One Remote that addressed pain points felt by consumers. All these features upgrade the value of QLED TV and its superiority is gaining recognition from numerous media in the market.

Besides QLED TV, we also have a premium UHD TV with more enhanced color reproduction than the traditional UHD TV and innovative products.

The Frame is one of the innovative products that consider consumers' lifestyle and the winner of the Best Innovation Award at the 2017 Consumer Electronics Show in January. By promoting these products, we will strengthen our leadership in the premium market.

As for the digital appliance business, we will strengthen our cooperation with retailers and expand sales of peak seasonal products, including air-conditioner, as well as focus on improving our performance with successful launch of new products, such Family Hub 2.0 and FlexWash.

To share our market prospects for 2017, as a recovery of demand in the emerging markets, especially in Asia, Latin America, Middle East and the fast shift to UHD TV, will drive up demand, the global TV market will be back on a slight growth track. However, there are slowdown risks included in weak currency in major markets.

In order to overcome these potential risks, we will continue to expand the sales of premium product lineups such as QLED TV and ultra-large inch TVs, thereby solidifying our leadership in the premium market and ensuring constant growth and profitability.

In the meantime, as for the digital appliance business, we will strengthen our B2B business by making full-scale advancement into builders market in North America, boost online sales through distribution channels and expand sales of innovative premium products so as to achieve stronger performance.

Thank you.

## **Robert M. Yi**

Thank you, gentlemen.

Before beginning the Q&A session, I would like to update you on the progress of the shareholder value enhancement program announced last November.

As we announced in our 2016 fourth quarter earnings call in January, we are in the midst of carrying out a KRW 9.3 trillion share repurchase program.

The first phase was completed on April 12. We invested approximately KRW 2.45 trillion to repurchase and then cancel little more than 1 million common shares and 255,000 preferred shares.

Today, the board of directors approved the second phase of the program that calls for the repurchase of 900,000 common shares and 225,000 preferred shares. It will start on April 28 and take approximately three months to complete.

The board of directors also approved a first quarter dividend of KRW 7,000 per share for both common and preferred shares. Quarterly dividends will enable us to provide more evenly-distributed dividends to our shareholders throughout the year.

The board established a new Governance Committee in order to improve corporate governance further. The new Committee will consist of all five



independent directors. In addition to merging the current CSR Committee, the Governance Committee will review basic directions of the company's shareholder return policy and address all issues relating to enhancing shareholder value and interests.

Now, I'd like to update you on the results of the review on conversion to a holding company structure. Samsung Electronics has established well-balanced business structure between its component business with the semiconductors and displays, and its set businesses mainly consisting of TVs and smartphones.

Based on this structure, we have been able to minimize earnings volatility during economic downturns and maintain stable growth through decisive and strategic investments in new technologies and the related capacity required to dominate. In addition, our structure allowed us to invest in new growth engines with the earnings generated from highly profitable businesses.

This model serves as a platform for sustainable growth and gives us a unique edge among global IT companies.

As a part of efforts to enhance shareholder value, we have been reviewing various business structures that could strengthen our competitive edge, including a holding company structure.

However, as we have been unable to find any significant benefits from changing our corporate structure, including adopting a HoldCo-OpCo format, we have held negative views on the shift to a holding company.

Under these circumstances and as requested by investors, the company has reviewed the conversion to a holding company structure with the assistance of independent experts for an unbiased perspective in areas such as operations, finance, legal, taxation, and accounting.

After completing the review, we have concluded that it would not strengthen our business competitiveness. On the contrary, it may in fact burden our operations as we disperse management and financial assets into two entities.

In addition, we came across number of issues during the review. In order to comply with the holding company regulations in Korea, it would be necessary for Samsung Electronics and its affiliates to divest shares of affiliates, which may increase volatility of affected shares, and create uncertainties as implementation may require separate approvals from the board and the shareholders of those entities.

In addition, according to the separation of Banking and Commerce Act and the Insurance Business Act, our financial affiliates may need to liquidate either their portion or entire stake in the newly-created holding company, which may cause volatility in the holding company valuation. We also face growing legal uncertainties as several amendments of laws and regulations which may have negative impacts on the establishment of a holding company structure are being pushed forward simultaneously.

As such, the management has decided not to convert to a holding company structure as such change would not only fail to improve our current corporate structure, but also create risk that would not be beneficial to either shareholder value or company's growth.

Finally, I would like to comment on company's treasury stocks. We previously held treasury shares to utilize them for M&As or securing talented professionals from overseas. However, as the financial structure has stabilized over past few years through earnings growth, the need to hold treasury shares has gradually decreased. Accordingly, the board of directors decided to cancel treasury shares as way of enhancing shareholder value.

Considering the market value of the treasury shares which exceeds KRW 40 trillion as of today, we plan to carry out the cancellation over two phases in order to minimize the impact. Today, the board of directors has resolved to cancel 50% of common and preferred shares held in treasury and the remaining shares to be cancelled by resolution of the board of directors in 2018.

This completes the management's presentation. And we will now turn to Q&A. Just want to remind you that we would be conducting Q&A in consecutive interpretation for clarification and to make sure that all Q&As are communicated properly.

I know it's going to take a little bit of time, but we ask for your patience.

Thank you.

## Q&A

Operator

Now Q&A session will begin. The first questions will be presented by Mr. JJ Park from JP Morgan. Please go ahead, sir.

<Q - Jung-Joon Park>: My first question is regarding the talk of the red tint of the S8 that we're hearing in the market. How many cases have been reported to the company? And are all of these cases that you've heard was mainly a setting issue as you've been explaining? Or have you also seen any cases that are more technical – for example, having issues in the OLED quality or in the assembly process?

<A>: The red tint or the reddish that's been reported in the media is not a product defect, and therefore we don't have data officially, because we are not treating this as a product defect. Or as you know, all of our Galaxy S8 as well as S8 Plus-es undergo very thorough inspection to guarantee the highest level of quality.

The S8 and S8 Plus uses the Super AMOLED, which actually has a natural variance in color expression. Consumers have wanted to adjust the color expression to meet their personal preferences and we have been supporting this in the form of a software update, which also was provided as a part of the Galaxy S8 and S8 Plus.

But it seems that, since the launch of the S8 and the S8 Plus, there were some consumers who felt that the optimizing or personal adjustments were inconvenient and so we're planning to have an additional feature added, so

that there is more detail adjustment of color is possible with the upcoming software update.

And we will continue to exert our best to provide the best customer satisfaction as well as customer convenience.

<Q - Jung-Joon Park>: The second question is related with your decision today to not convert to a holding company structure. I am wondering whether this is a tentative decision not to go, or it means that the company may come back to revisit this if there are any changes in the related regulations, or is this a final conclusive decision not to convert to a holding company structure? And if it's the second, if the company is not deciding to go, then how are you going to address other related issues – for example, of this circular shareholding between the related companies?

<A>: I think what I can say today is that Samsung Electronics has no plans of converting to a holding company structure in the future. Regarding the circular shareholder issue, that is something that has to be resolved together, not only by Samsung Electronics but with other Samsung-affiliated companies. It may take some time, but we will find the way and the timing to undo that. That would have minimum impact on the market.

Operator

The next questions will be presented by Mr. Peter Lee from NH Investment & Securities. Please go ahead, sir.

<Q - Peter Lee>: My question is about your investment plans for the DRAM business and your future capacity operation plans for DRAM. As you know,

recently the DRAM industry has been seeing a very tight supply and demand situation and not only Samsung Electronics, but overall the DRAM industry is seeing any uplift in its performance?

Many people looking into the market are very interested in Samsung Electronics DRAM investment plans, because it has a large impact on forecasting the industry outlook for the second half of this year, as well as first half of next year.

There is also talk of Samsung Electronics, for example, shifting its Line 11 to another product. So in that context, can you give us a bit more detail of how you plan to operate your DRAM capacity?

<A>: As you know, we as a company try to manage our capacity at an optimal level for the entire semiconductor business, so that we are able to flexibly respond to different applications. As you mentioned, we are planning to convert Line 11 to CIS, given the fact of strong image sensor demand. In the DRAM, we will continue to invest supplementary and also investing capacity to make up for the loss that happens as we migrate to the 1X. But other than this, we have no plans of additional capacity.

As a semiconductor company in order to leverage this as much as possible, we've always had a very flexible capacity operation that optimizes the capacity for each product depending on the market situation that unfolds. That is why we optimize our equipment allocation or line allocation and also remove bottlenecks as we adjust the capacity. We have worked out various ways of optimizing our line, and also we'll be investing flexibly to maximize the efficiency of overall portfolio.

Well, and you will get more little detail about the CMOS image sensor, the CIS that will be using part of Line 11 to produce. As you know, with the increased

adoption of a dual camera, the application has itself been growing. And also, in addition to these mobile cameras, we're also trying to expand the applications to VR, automotive, as well as 360-degree cameras. So to respond to market demand, as well as customer requests, we will be converting part of Line 11 for our CIS production. Our target is to start mass production first half of 2018, but that is subject to market demand as well as customer request.

Operator

The next questions will be represented by Mr. SK Kim from Daiwa Capital Markets. Please go ahead, sir.

<Q - SK Kim>: First, I have a question about the NAND capacity plans. In Pyeongtaek, my understanding is that you're preparing Pyeongtaek with a target of starting operation mid this year. Are there any changes to this plan? Or have you changed, for example, your ramp-up schedule? Also, regarding Hwaseong, there is still quite a lot of planar capacity left in Hwaseong. Do you have any plans of converting any of that to V-NAND? And in terms of V-NAND, do you have plans of adding additional lines in Xi'an?

<A>: Regarding Pyeongtaek, it's difficult to give you the details, but we are on schedule, we're planning to start operation mid this year, and to gradually scale that up as we approach the end of this year. Regarding our planar capacity, we are planning to gradually convert that to V-NAND as there is more demand, for example, on the high-density SSD for servers. Regarding Xi'an, we do – we are planning to add, but we have not decided the details yet.

<Q - SK Kim>: My second question is regarding the decision to not go to a holding company. As you mentioned, there are currently laws, or amendments to laws, that are being pursued that would make it difficult for a holding company to be established. Is it now possible to consider converting to a holding company before these amendments are passed?

<A>: As you know, converting to a holding company is not done in a short period of time, even if the BOD does resolve on it. It would usually take five months to up to a year for the actual conversion to happen while, as an amendment, a legal amendment, can be passed any time. Especially, there is also the possibility that if Samsung decides to convert to a holding company, these amendments could be passed faster, so that we would be subjected to these legal amendments anyway.

Operator

The next questions will be presented by Ms. Claire Kyung Min Kim from Daishin Securities. Please go ahead, ma'am.

<Q - Claire Kyung Min Kim>: I have a question for the System LSI. You have completed the second generation 10-nano, do you have plans of adding capacity there? And also, can you give us details of how you plan to manage your 14-nano processors in terms of capacity?

<A>: Regarding the second generation 10-nano process that we've completed, yes we are expecting there to be more demand, especially from customers that need these leading-edge processors. And that's why we are planning to add a



10-nano equipment additionally in S3 of Hwaseong fourth quarter of 2017, so that we have a more stable mass production base for our cutting-edge processors.

Regarding 14-nano, we also expect there to be still very strong demand for 14-nano, especially from the mid to low-priced APs, as well as other logic devices. And so, without additional expansions, we will use the capacity in S1 and S2 flexibly between 10-nano and 14-nano.

<Q - Claire Kyung Min Kim>: My second question is regarding your decision not to go to a holding company structure. Was the detention of Vice Chairman Lee a part of this decision? Was that a factor in deciding not to convert to a holding company? And was he personally involved in this decision?

<A>: Regarding the holding company structure, and this whole study on whether we should go to a holding company or not, you will recall that this study started from the request of the investor that was made last year, which is not the usual case. Also, unlike the usual case, we actually executed quite an in-depth study as to not only the pros and cons of this structure, but also what would happen when we actually do go to a holding company in terms of operation, finance, legal, and tax issues. So this is a decision that was reached after quite an in-depth study that also involves outside experts, who also participated to provide their insight.

As you know, Vice Chairman Lee is a member of our registered director and as a member of the board, he was informed. However, my information is that he did not have a particular opinion regarding this.

Operator

The next questions will be presented by Mr. Nicolas Gaudois from UBS. Please go ahead, sir.

<Q - Nicolas J. Gaudois>: Yes. Good morning. Thanks for taking my question.

The first one is on NAND Flash.

Could you update us on how your 96-layers sector redevelopment is progressing? And could you confirm within that whether you're using a full 96-layer continuous stack each have a dual structure? And more importantly, when do we expect to see a mass production there? And I have a follow up after this. Thank you.

<A>: You're asking about our fifth generation V-NAND product, which is currently under development. And because it's still underdevelopment, we cannot give you the details of it. But our approach is that, as we have always done, the fifth generation V-NAND, we will also develop as schedule without disruptions, so that we can maintain our technology leadership.

<Q - Nicolas J. Gaudois>: Okay. Thanks. And another roadmap question, if I may, for LSI. I think there was an announcement recently, that you may have an 8-nanometer technology node after the 10-nanometer-plus you'll do next year, so effectively in 2019. What does this imply? If you see the case for the 7-nanometer rollout timeline, which I think you mentioned, you're expecting to be 2019 as well, before and as within that the use of UV lithography in mass production for the 7-nanometer node, I'm assuming that 8-nanometer may not use UV. Thank you.

<A>: As you know, as we migrate from 14-nano, 10-nano, to 7-nano the amount of development difficulty, as well as the amount of investments that are necessary each step increases quite significantly and that is why except for the very large customers, most customers feel difficulties in terms of taking on that additional investment and development difficulty. We've taken the approach. First of all, developing the leading processors ahead of time, and then supplying and following that up a year later with derivative processors, so that customers can take advantage of the capacity investments twice. And we will continue to do that so that we are able to first do the leading investments and then a follow-up with derivative processors, so customers can take advantage of these derivatives nodes as well.

Regarding 7-nano, in the last conference call, we mentioned that we will start the risk production of 7-nano in 2018 and mass production in 2019, which of course, is always subject to changes due to customer demand or market situation.

And 7-nano will be maximizing the advantages of UV, so that the processors have the best benefit.

Operator

The next questions will be presented by Mr. Simon Wu from Bank of America Merrill Lynch. Please go ahead, sir.

<Q>: My question is about the OLED panels. You've been making large investments in OLED last year as well as this year. And it seems that your A3 fab is probably all full, the clean room seems to be all used, also there are talks of changing the seven-generation fab part of that for OLED. So in that context, given the huge amount of investments and the importance of the OLED

business, can you give us a bit more detail of the current status of your capacity operation?

And also looking forward, current investments that are going in are more six-generation, but even the LCD sides have already moved over to the 10G glasses, so in terms of long-term investments, what are your plans in terms of moving over to the later generation glass sizes such as 7, 8, or 10?

<A>: Regarding the LCD 7-1, we've already closed that down and it's currently being refitted to OLED capacity. The A3 that is being carried out according to plan so that is on schedule. And regarding our basic approach to OLED investments, we will continue to make timely investments depending on the market and customer needs, so that we continue to maintain market competitiveness.

<Q>: Second question is about the QLED TV business and how you plan to respond to competition that we're seeing in the market. We're hearing of a crystal OLED and some of the Japanese makers are introducing OLEDs that includes sound. So compared to these OLED TVs, how do you differentiate and respond with your QLED TVs?

<A>: Well, the QLED TV is next-generation display solution or TV solution that overcomes the shortcomings, the weaknesses of the existing LED as well as OLED TVs. It not only provides the best picture quality, but also in terms of design and usability, is a totally new dimension from the users.

Well, as you know, in terms of picture quality, the metal base or quantum products material has various advantages.

For example, it has a 100% color creation so that the color actually does not change depending on the brightness, also in terms of picture brightness, as well as visible angle, it has advantages over other displays. Also, it provides a very high, yet consistent viewing experience regardless of content or the viewing environment to the users. Also because it's based on an inorganic material, it does not have, for example, burning that would occur in other display technologies and therefore, has a longer user life and a stronger durability.

We've backed such strong picture quality with unique design feature such as the Invisible Connection, the no-gap wall-mount and the One Remote, which provides a very exceptional user experience to our consumers. Even though it's still initial in its introduction, we've received very strong reviews from global and European industry media. We've received the highest point ever from major European media in the industry and have received very strong reviews that we have – we have been receiving very strong reviews from overall media.

Operator

The next questions will be presented by Mr. Sun-Woo Kim from Meritz Securities. Please go ahead, sir.

<Q - Sun-Woo Kim>: I have a question regarding the Memory business as well as the company strategy responding to this big picture where we see a lot of demand being driven up for the data center servers, that's what you mentioned from the semiconductor side. But if you look at this from a bigger picture perspective, the reason why there will be more demand from data center servers is probably because there will be a lot of devices out there, whether it's AI, AR, VR, or even self-driving vehicles that would all have to be

connected as a back-end through these servers that are in the data center. And many people are expecting a lot of value to be created as this big picture unfolds. In that context, what is the relevance of the Memory business to this new frontier?

And then second, from the company's perspective, how is it planning to strategically respond to this new change?

<A>: As you mentioned, in addition to the mid-term to long-term growth in servers, mobile devices and SSDs, we are also seeing that AI or automotive, AR and VR, these trends would have direct and indirect impact on our Memory business in the mid-term to long-term, especially because they will be driving up the server demand, more devices will be connected to the server, these devices will be continuously generating and using data, which will again need more servers to back them up. And so we are thinking that with this, the overall IT industry and the server demand will continue to increase.

I think these new applications will also start to grow more vigorously as ecosystem start to form around them. And yes, as a response, we are preparing with a greater focus on the high-density, high-performance, low-power memories. Also, we are seeing a rise in HPC, with the increase of deep learning or AI applications. And actually, you will remember that we launched our high-density HBM2 in 2016, and last year, we actually saw a greater – of quite a significant growth of sales versus the year before. And we are expecting this to happen. We're expecting this to continue in the Memory business.

Operator

The next questions will be presented by Mr. Ricky Seo from HSBC. Please go ahead, sir.

<Q - Ricky Seo>: My question is for the Memory business, which is entering peak season. And so as we enter the peak season, it's difficult to expect the strong prices to weaken. But if prices remain strong, that would increase the cost burden of the set makers, which will level off the growth in content, which may in the end result in a decrease or a contraction of demand. Do you think that such a scenario may play out? How do you think it's a possibility that this scenario may play out? And the second question, do you see any supply side risk that we need to watch out for?

<A>: Given the fact that smartphones have become very high-spec and also the expansion of data centers, as well as the increase of memory content in all of the applications, I think the possibility of rapid slowdown in demand, this is relatively low. Also, as we move on to the second half of this year, the supply-demand situation may ease in some components and that may alleviate them of their BOM burden of the customers. But we think that as there will be differences of the supply and demand situation depending on whether you're on the leading end of the process or not, as well as depending on which applications they are. And so from our perspective, we will continue to very closely watch the demand and supply situation for each application and flexibly respond.

Operator

The next questions will be presented by Mr. Mark Newman from Bernstein.

Please go ahead, sir.

<Q - Mark C. Newman>: Yeah. Hi. Thanks for taking my question. I wanted to ask about the shareholder returns policy you have, in light of the announcement that Samsung was not going to go ahead with the restructuring proposal?

And considering the cash balance, I recall in the statement you had made that Samsung will try to maintain a net cash balance of KRW 65 trillion to KRW 70 trillion going forward. And considering even with the Harman acquisition, I believe you are going to get outside that range by the end of this year. And so does that mean, and especially in light of the no restructuring, can we be talking about expecting further additional shareholder returns at some point in the future?

<A>: Regarding the first – well, I will answer that in two points. First of all, if we, at the end of this year, have a net cash that goes beyond the level that you've mentioned, yes we will then use that additional cash for shareholder return, as we had promised previously. We have announced the shareholder return policy to cover until end of this year.

Currently, we're in the process of studying the shareholder return policy to over 2018 to 2020, which we plan to communicate to shareholders and the market before the end of this year.

<Q - Mark C. Newman>: Great. That's good. Great news. I have one quick follow-up or a further question; it's about China memory. So, lots of bold



ambitions from the Chinese players, could we get some comments from the Memory division on how you're thinking about the threat from China in the memory industry, with all these huge capacity plans that they're talking about? And plus, related to that, we're also hearing that they are poaching a lot of employees, not just from Micron and competitors, but also from Samsung as well. How is Samsung going to prevent that type of situation?

<A>: It is true that the Chinese companies recently have been trying to break into the memory market. But the memory market itself has evolved during the past, and is now a very – it's now protected by quite a high entry barrier, because memory business today requires not only the very cutting-edge processors migrated, but also needs to have various high value-add solutions to go with the products. And so, not only the DRAM or the NAND place pieces, but also controllers and other solutions have to be offered to the customer as a multiple high-quality solution, which is the approach that we have been taking. Regarding the second part of questions, it's difficult to give you details, but we can say that we are doing our best to prevent and to keep our talent internally. We will take two more questions before ending, or questions from two more people before ending the conference call.

Operator

The next questions will be presented by Mr. Yoo Jong-Woo from Korea Investment and Securities. Please go ahead, sir.

<Q - Jong-Woo Yoo>: I have two questions about the S8. You said that the initial response is quite good. Can you give us, for example, some guidance, so that we have a better sense of how good the initial response is? Also, there are talk

that, especially for the S8 Plus, there is a bit of delay in supply, maybe because of a very strong demand. But can you tell us a bit more detail, for example, whether there are any supply bottlenecks regarding the S8 and S8 Plus?

My second part of the question is, how you plan to maintain profitability in the new flagship, given increase in the material cost, memory prices have gone up, panel prices have been going up too, and we're expecting you to spend a bit more marketing on the S8. So regarding the higher cost base, how are you planning to maintain the profitability?

<A>: The S8 and S8 Plus has received very strong responses from carriers, as well as our partners, even before it was launched. And has been – showing very strong pre-orders as well as initial sales. Even though it's difficult for us to give you, for example, a total sales target, we will be exerting our best effort to record the best sales, because we have a product that has differentiated design as well as stronger performance.

You may – seem to have hinted on any supply – part supply disruptions with the S8 or the S8 Plus, which is not the case. Especially some are concerned that, because of the edge display is being used on both the S8 and the S8 Plus, that this may have some additional burden on getting the supply, but actually we have been talking with the supplier, so that we are able to have a supply stably for the full-year volume. So there we have not seen any disruption in terms of the display supply. Other components also, as well we have prepared very well. And also, we have prepared dual forces to eliminate any further risk.

Regarding the profitability of S8 and S8 Plus, because both S8 and S8 Plus have these large edge screens or have iris recognition and have very high-spec components, all of that has ended up in providing a product that is very competitive, which we'll use to drive up the sales and also internally optimize

the way we use our resources to support that sales. And by doing this we are thinking that we will be able to defend the profitability that we had in our previous models.

Operator

The last question will be presented by Mr. Nam Hyun Kim from Arete Research. Please go ahead, sir.

<Q>: My question goes to the DP business, about the plans that you have or results that you have of the OLED panels for TV, even though I understand that currently you're focused in terms of resources and investments will be on the mobile side. Have you given up, for example, the TV applications because of the technical difficulties? Or do you have plans of eventually moving on to OLED panels for TV?

<A>: In the OLED space, we have been the market leader and we will continue to maintain our position as the market leader, also in terms of technology. In the TV area, we're actually in the process of developing various technologies including Quantum Dot. And for the TV, in addition to OLED, we believe that we need to develop various new technologies to support, for example, the ultra-large size and high value-add solutions. And with these TV technology supported, we will maintain our leadership in not only profitability, but also in terms of technology positioning.

Robert M. Yi

Thank you very much. This completes our conference call.

## Angers, Nathalie

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**Pièces jointes:** Application By Defendants Samsung to Adduce Evidence.PDF

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### NOTIFICATION BY ELECTRONIC COURIER TRANSMISSION SLIP (ARTICLE 134 C.P.C.)

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#### DATE:

Montréal, October 26 2020

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## COURT FILE NUMBER AND NATURE OF THE NOTIFIED DOCUMENT:

**File number:** 500-06-000923-181  
**Parties:** Gay Hazan vs. Micron Technology inc. et al.  
**Nature:** APPLICATION BY THE DEFENDANTS SAMSUNG ELECTRONICS CO., LTD., SAMSUNG SEMICONDUCTOR INC., AND SAMSUNG ELECTRONICS CANADA INC. FOR LEAVE TO ADDUCE EVIDENCE and EXHIBITS S-1 TO S-5

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**Number of pages:** -140-  
(attachments only)



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**SUPERIOR COURT**

Class action  
District of Montréal  
File No.: 500-06-000923-181

**GAY HAZAN,**

Petitioner

vs.

**MICRON TECHNOLOGY INC.,**

-and-  
**MICRON SEMICONDUCTOR PRODUCT INC.,**

-and-  
**SAMSUNG ELECTRONICS CO. LTD.,**

-and-  
**SAMSUNG SEMICONDUCTOR INC.,**

-and-  
**SAMSUNG ELECTRONICS CANADA INC.,**

-and-  
**SK HYNIX INC. (formerly known as HYNIX**

**SEMICONDUCTOR INC.),**

-and-  
**SK HYNIX AMERICA, INC. (formerly known as HYNIX**

**SEMICONDUCTOR INC.)**

Respondents

**APPLICATION BY THE DEFENDANTS  
SAMSUNG ELECTRONICS CO., LTD.,  
SAMSUNG SEMICONDUCTOR INC., AND  
SAMSUNG ELECTRONICS CANADA INC. FOR  
LEAVE TO ADDUCE EVIDENCE  
(Art. 574 and 575 CCP)**

ORIGINAL

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