

【Samsung Electronics Q4 Earnings Call】

Welcome everyone. This is Ben Suh from investor relations.

Thank you for joining Samsung Electronics' fourth-quarter 2022 earnings call.

For additional details regarding our quarterly results, please refer to our earnings presentation, which is available on our IR website at www.samsung.com/global/ir.

On today's earning call, I am joined by new representatives from each business unit, excluding Display, due to our re-org at the end of last year. We have:

EVP Jaejune Kim, representing Memory,

VP Hyeokman Kwon for System LSI,

EVP Gibong Jeong for Foundry,

EVP Casey Choi for Samsung Display Corp, which I will refer to as Display during today's call,

VP Daniel Araujo(다니엘 아라우호) for Mobile eXperience, and

VP KL Roh for Visual Display.

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

I will start with the results for the fourth quarter of 2022.

The business environment deteriorated significantly in the fourth quarter, showing weak demand amid an economic slowdown triggered by global macro and geopolitical issues. As a result, our consolidated quarterly revenue declined sequentially by 8.2% to 70.5 trillion won. However, we delivered a second straight record for annual revenue, thanks to our performance in this year's first three quarters.

Although the Memory business revenue declined due to extremely challenging market conditions, Foundry business reported record quarterly revenue.

Gross profit decreased by 6.9 trillion won sequentially to 21.8 trillion won, mainly due to the impacts of a significant price decline and an inventory valuation loss in memory, coupled with weak sales of smartphones.

Gross margin also decreased by 6.4%pts to 31%.

SG&A expenses declined by 0.3 trillion won quarter-on-quarter to 17.5 trillion won, primarily due to reduced advertising & promotional spending. However, as a percentage of sales, they increased by 1.6%pts. R&D expenses reached a record high as we continued to invest in the future.

Operating profit declined 6.5 trillion won sequentially to 4.3 trillion won, as Memory profit dropped significantly due to the aforementioned issues, and as MX profit decreased due to softened new-product effects.

Operating margin also fell 8%pts to 6.1%.

I will now briefly review the results of each business unit. Please note that all results mentioned refer to sequential quarter-to-quarter changes unless otherwise specified.

For the DS Division, in Memory, results were down sharply due to large ASP declines as customers continued to adjust inventory, and there was also a significant inventory valuation loss.

In S.LSI, earnings decreased as sales of key products were weighed on by customers' inventory adjustments. Foundry delivered record-high quarterly revenue thanks to increased sales to its major customers. Profit increased year-on-year based on expanded advanced node capacity as well as a diversification of the customer base and application areas.

For Display, the mobile panel business earnings declined due to reduced smartphone demand. Nonetheless, the business delivered unrivaled results among industry peers through its strategic focus on the high-end segment. The large panel business narrowed its losses as sales of QD-OLED for TV grew amid strong year-end seasonality; and as the business fully depleted its LCD inventory.

For the MX Business, both revenue and profit declined due to the waning launch effects of new products and weak demand in the mid- to low-end segment.

The Network Business recorded revenue growth, led by domestic demand for 5G installations and business expansion overseas, including in North America.

In VD, both revenue and operating profit grew as we actively addressed year-end seasonal demand and increased sales centering on premium products, including Neo QLED and Super Big TVs.

In Digital Appliances, profit decreased as market conditions further deteriorated while materials and shipping costs remained high, and competition intensified.

Harman delivered a record-high quarterly profit for the second consecutive quarter, driven by increased revenue in the automotive business and solid sales of consumer audio products.

Regarding currency effects against the Korean Won in the fourth quarter, the positive impacts of a strong US dollar on our component businesses, had the effect of a company-wide gain of approximately 0.5 trillion won in operating profit when compared to the previous quarter.

Regarding our corporate tax rate, Korea recently reformed several tax measures, including the introduction of dividends received exclusion for dividends from subsidiaries. Under this new exclusion measure, our corporate tax for the fourth quarter decreased, resulting in a net income of 23.8 trillion won for the fourth quarter.

Previously the Company conservatively deferred corporate tax liabilities under the assumption that the entire earnings of our subsidiaries would repatriate in the form of dividends. The recent reform that prevents the double taxation on subsidiaries' dividends eliminated the need for such deferrals.

As a result, the corporate tax expense for the fourth quarter became a negative number under the Korean International Financial Reporting Standards.

Please note this is a one-time consequence of the recent tax law changes. It does not mean the Company received a corporate tax refund, nor is it related to the Company's actual tax payment.

Next, I would like to share an overview of our business outlooks.

In the first quarter, we expect global IT demand and the memory market to remain weak.

DS will minimize adverse impacts by actively addressing the demand for high-end products, such as DDR5, LPDDR5x, and 200-mega pixel sensors. However, concerns over continued customer inventory adjustments do persist.

Display will actively engage to meet the demand for our major customers' new products.

And DX will increase revenue and profits by expanding our leadership in the premium segment via Galaxy S23, for example, and improving operational efficiency.

I will now brief you on the outlooks for businesses that are not covered by separate speeches, as those will follow shortly.

Network will focus on expanding our domestic and overseas businesses, including in North America, and addressing new business opportunities.

Digital Appliances aims to increase sales in the premium segment by launching new models, such as the BESPOKE Infinite Line, despite continued earnings pressure due to the poor economic conditions.

For Harman, we expect earnings to decrease, mainly affected by weak seasonality for consumer audio products.

Now let's move on to our outlook for 2023.

Although macro uncertainties are expected to remain high, we anticipate demand to start to recover in the second half, following continued weakness in the short-term.

DS will continue to further reinforce its market and technology leadership as we optimize our line operations to strengthen future competitiveness, while also expanding the proportion of its advanced nodes and products, such as DDR5, LPDDR5x and GAA.

Display's mobile panel business is expected to deliver solid earnings based on its competitiveness; and the large panel business will focus on growing the QD-OLED business and improving profitability.

DX will enhance its competitiveness by leveraging our technology leadership to strengthen the premium line-ups; and the Division will further expand the SmartThings ecosystem based on differentiated technologies and diverse partnerships that will provide customized, hyper-connected experiences.

As for the businesses not covered later,

Network will sustain revenue growth momentum by actively responding to major opportunities, particularly in our overseas business; and we will

reinforce our technology leadership in 5G core chips and Virtualized Radio Access Networks.

For Digital Appliances, we will continue to lead the market in providing hyper-connected experiences by further enabling our products with SmartThings; and at the same time, we will enhance the competitive edge of our premium products, centered on BESPOKE. Moreover, we will accelerate the growth of high-margin products, such as system air conditioners, and expand B2B and online sales in order to promote revenue growth.

For Harman, both the automotive and consumer audio markets are projected to grow slightly in 2023. The audio business will strive to increase both on-and-offline sales based on the competitiveness of our differentiated products and brands, and the automotive business will push to increase its sales in digital cockpits and car audio products.

Turning to capital expenditures.

Capex in the fourth quarter was 20.2 trillion won, of which 18.8 trillion won was invested in the DS Division and 0.4 trillion won in Display.

Memory capex concentrated on preparations for advanced technologies, which included investing in P3 and P4 infrastructure to provide readiness for mid- to long-term bit supply, and in EUV to further bolster future competitiveness. We also invested in securing infrastructure for future-generation R&D.

Foundry investments focused on expanding the production capacity of advanced nodes at our Pyeongtaek site, as well as on initial capacity for 3-nano and infrastructure for our Taylor site to address future demand.

Display investments covered flexible display production capacity expansion as well as facility improvements and infrastructure.

The annual capex was 53.1 trillion won, with 47.9 trillion won invested in DS and 2.5 trillion won in Display.

Although the capex plan for 2023 has not been finalized, I can share some high level thoughts. In Memory, we will continue to invest for the mid- to long-term to prepare for future demand and further enhance technology leadership. In addition to continuing with our EUV differentiation, our mid-term plan includes investments for the transition to advanced technology nodes to address the markets for high-performance, high-density DDR5/LPDDR5x products, which are expected to be in high demand starting in the second half of 2023. For the longer term, we will also invest in infrastructure for P4 and multiple R&D capabilities, including a new dedicated semiconductor R&D fab as well as in capacity for the development of future-generation processes.

Foundry investments will continue to center on expanding the production capability at our Taylor and Pyeongtaek sites to address the demand for advanced processes, which is in line with our Shell-First strategy that enables us to respond swiftly and flexibly to customer demand.

Next, I would like to address shareholder returns.

Today, the Board of Directors approved a quarterly dividend of 361 won per share for common stock and 362 won per share for preferred stock.

Based on the annual dividend payout under the current dividend policy, the total quarterly payout is 2.45 trillion won, and it will be paid after final approval at the Annual General Meeting of Shareholders.

As we close out the results for 2022, I would also like to share that the annual free cash flow was 9.8 trillion won and the shareholder return pool at 50% of the free cash flow is approximately 4.9 trillion won. Considering the projected annual dividend for 2022 is 9.8 trillion won, there was no additional pool for an earlier return.

In 2023, as we set out to implement large investments for our future growth and differentiation amid a challenging business environment, we will be especially more conscious about continuing to enhance our capital management efficiency.

Next, I would like to share some of our key activities in sustainability management.

First, as we recently showcased at CES 2023, we are committed to enhancing resource circularity throughout our products' lifecycle and improving their energy efficiency, such that using Samsung products contributes to a low-carbon and sustainable future.

As prime examples of Everyday Sustainability, our SmartThings Energy service allows users to effectively manage the energy use of all devices linked through this service. And through collaboration with Patagonia, we have developed and introduced a laundry cycle that can reduce microplastic release by up to 54%, based on results from the European market. Finally, we applied innovative technologies to transform discarded fishing nets into recycled plastic

components for use in our smartphones. Through these recycling efforts, we were honored with the SEAL Sustainable Product Award, an acknowledgement of our commitment to a sustainable future.

Moreover, we are joining forces with like-minded global partners to create ecosystems that enhance sustainability.

For example, we are working together with Carbon Trust and other industry leaders to establish an industry standard to measure and reduce carbon emissions in the use stage of connected devices. Moreover, as part of our advocacy efforts to increase the supply of renewable energy in Asia, we are participating in the Asia Clean Energy Coalition as a member of the Steering Committee. Last but not least, to address the challenges faced by the semiconductor industry, we have joined the Semiconductor Climate Consortium as one of its founding members and have been elected as a member of the Governing Council.

Furthermore, Samsung Global Goals—an application on Galaxy smartphones—raised more than 10 million dollars to contribute to the United Nations Development Programme’s efforts to implement the Sustainable Development Goals (SDGs)

Meanwhile, Samsung ranked fifth for the third consecutive year in Interbrand’s Best Global Brands, achieving the highest growth and ranking among non-US companies.

We will continue our efforts to enhance sustainability in all aspects of our business going forward.

I will now turn the conference call over to the representatives from each business unit to present fourth quarter performances and outlooks for their respective business segments more in detail. We will start with EVP Jaejune Kim of the Memory Business. Thank you.

Good morning, This is Jaejune Kim from the Memory Global Sales & Marketing.

For the Memory market in the fourth quarter, demand weakened as customers continued to adjust inventory under increased uncertainties in the external environment.

Our Bit growth outgrew the market by expanding sales focusing on server applications, aided by the base effect of coming in under market last quarter. However, memory prices fell further as deepening macro issues eroded consumer sentiment. Additionally, with the impact of meaningful loss from valuation of inventory, our result decreased significantly compared to the previous quarter.

In DRAM, for server, as you know, component supply issues gradually eased. However, demand growth was limited because of a decline in Set builds caused by economic uncertainties, and customers' stance to maintain their inventory adjustments.

For Mobile and PC, it seems that demand was muted because of continued inventory adjustments at major customers and a reduction in Set builds, amid shrinking consumer sentiment coming from concerns over an economic slowdown.

While the decline in demand was steepening across the overall industry, we expanded the portion of cutting-edge nodes by optimizing our product portfolio. In addition, we actively responded to demand for high-density

products, focusing on major data centers and server OEM customers, and our quarter-on-quarter Bit growth exceeded market.

Next, I will talk about the NAND market.

For Server SSD, despite continued growth in content-per-box, customers continued to delay purchases because of their inventory adjustments, and demand was somewhat stagnant.

As for Mobile, while consumer sentiment remained weak due to the economic slowdown, demand was sluggish, especially in China because of the Zero-COVID policy until early December and production disruptions at some customers.

Also, for Client SSD, with the reduction of Set build at some customers, the burden of inventory adjustment increased and the demand for memory purchases somewhat slowed.

As demand continued to weaken due to macro issues, we actively addressed demand for high-density product across all applications, and diversified our product and customer portfolios. As a result, QoQ Bit growth exceeded market.

Now, let's move to the outlook for the first quarter.

For DRAM, in server, as economic uncertainties continue, customers have maintained their stance on inventory adjustments so far. Thus, under concerns over weakening momentum for a demand recovery in the short term, we

should monitor if demand will improve in accordance with macro variables such as interest rate policies.

And for Mobile and PC, under the effects of slow seasonality, and weakened consumer sentiment due to concerns over a deepening economic slowdown, there is a possibility that demand will shrink.

However, we need to keep watching for signs of a demand recovery along with developments in China's COVID-19 recovery situation and economic stimulus packages.

As new CPUs launched, we will work to prepare for expected fast-growing DDR5 demand for server and PC. And in mobile application, we will actively address demand for high-density LPDDR5x for high-end products.

For NAND, in Server SSD, there is a possibility that, demand will drop slightly compared to previous quarter as customers continue to adjust their inventory due to Set build constraints under concerns over a deepening economic slowdown. However, considering the hybrid cloud trends of enterprise area can positively influence demand, we need to monitor detailed impacts.

For mobile, although we expect continued high-density trends, based on price elasticity, we expect demand to be weak as consumer sentiment continues to be sluggish because of inflation and interest rate hikes.

Also, for Client SSD, even though demand for high-density products is expected to increase steadily, purchase activities are projected to be delayed as OEM customers deplete their accumulated Set inventories.

Based on our cost competitiveness, we plan to expand the sales portion of high value-added products by addressing demand for high-density server SSDs.

Also, we will actively accommodate the high-density trend of smartphones and PCs to strengthen our market leadership.

Now let's move on to the outlook for 2023.

While the industry's overall inventory level has increased due to the lowest-ever demand bit growth last year, customers are likely to maintain their stance on inventory adjustments in the near term.

We expect customer purchasing sentiment to recover after inventory adjustments are complete, but it is necessary to monitor whether changes in economic conditions and consumer sentiment result in improved demand.

Looking at by each application,

First of all, for server, for the time being, customers are expected to keep adjusting inventories due to economic uncertainties. However, we expect fundamental demand to remain solid given the investments in core infrastructure such as for AI and ML. In particular, demand for DDR5 is projected to increase in earnest in the second half of the year thanks to increasing content-per-box and the launch of new CPUs.

For mobile, consumer sentiment is likely to keep muted due to various macro issues. However, demand may recover relatively in the second half of the year

thanks to the high-density trend and the spread of new form factors in smartphones.

Considering the numerous variables affecting demands, such as inflation and interest rate trends, as well as China's easing COVID-19 policy and economic stimulus packages, we will continue to observe market conditions for various scenarios.

For PC, similar to mobile, the surge in sales induced by COVID-19 is likely to cause the replacement cycle to take some time, and shipments are forecast to weaken for the time being. However, we will continue to watch for factors that positively affect demand, such as the launch of new CPUs and increased adoption of high-density products. While actively addressing to the demand for DDR5 with the rising adoption of new CPUs, we will respond to demand growth in a timely manner, focusing on high-density products for server and mobile by optimizing our product mix.

Moreover, to strengthen future competitiveness, we are going to optimize line operations. In addition, we will increase the portion of essential R&D investments including the expansion of Engineering Run for further process stabilization. And we believe that it will bring us enhanced market and technology leadership. Furthermore, under the market uncertainties, we will carefully keep monitoring the market demand changes from both short and mid-to-long-term perspectives.

Thank you.

Good morning, this is Hyeokman Kwon from the System LSI Business.

In the fourth quarter, S.LSI earnings declined due to sluggish sales caused by inventory adjustments in the industry and a decrease in sales for major components.

However, even under difficult conditions, the mobile SoC business achieved its highest ever full-year revenue, and it has continued to grow market share by expanding sales of volume zone products. Furthermore, the Automotive SoC business has solidified its mid- to long-term growth base by supplying an initial sample on schedule for a European premium OEM and by signing an MOU for product development with an autonomous driving solution company in the US. Additionally, our fingerprint authentication card product won the Best of Innovation award at CES 2023.

In the first quarter, impacts of sluggish demand and inventory adjustments are expected to continue for the time being, and it may be difficult to avoid soft sales of major components, such as SoCs and sensors.

In order to minimize the drop in earnings, we will strive to expand sales of low- to mid-priced volume zone SoCs and 200-mega pixel image sensors. And for automotive SoCs, we will try to sustain growth momentum through additional orders from European premium OEMs and for self-driving products.

For 2023, we expect impacts of the economic downturn to continue for the time being. However, analysis of smartphone purchase patterns suggest that demand will continue to polarize between premium and low-priced phones.

In order to respond to this divided market, for SoCs, we will expand sales in the volume zone while also reinforcing the position of our products for flagship devices. Furthermore, we will ensure our major smartphone OEM customers successfully launch flagship models by smoothly supplying and expanding the line-up of our differentiated 200-Mega pixel sensors.

Thank you.

Hello, this is Gibong Jeong from the Foundry Business.

In the fourth quarter, we once again set a new record for quarterly revenue thanks to increased contributions from advanced nodes for major customers, an increased portion from HPC, and the evolution of mature processes; and our full-year sales also reached an all-time high. However, our utilization rate started to decline due to inventory adjustments at global customers, which negatively impacted profits.

Regarding next-generation GAA processes, the 3-nano 1st generation process is currently being mass-produced with a stable yield, and, based on our 1st-gen mass-production experience, the development of the 3-nano 2nd generation process is progressing rapidly. Thus, customer interest in mobile and HPC applications has increased meaningfully. In addition, for the process for automotive and following the mass production of 5-nano, we started developing 4-nano for our future growth engines in advanced processes.

In the first quarter, we expect our utilization rate to fall and our earnings to decline accordingly due to weak demand stemming from slowing global economic growth and inventory adjustment of major Fabless customers.

In 2023, demand may fall temporarily in the first half of the year due to the economic slowdown and inventory adjustments by customers. However, we expect demand and the market to recover in the 2nd half, centering on HPC, Data center, and Auto. We aim to outperform the market by focusing on investing in advanced processes to address such demand.

Based on the competitiveness of our next-generation GAA processes, we will strive to win new customers for the 3-nano second-generation process, strengthen technological competitiveness by focusing on the development of the first-generation 2-nano process, and continue to develop specialty and matured processes to diversify within applications such as Automotive/IoT to pave the way for future growth.

Finally, given the rising importance of next-generation package technology in the HPC market, we have established an Advanced Package Business Team within the DS Division to expand the high-tech package business and bolster synergies between business units. We will strengthen our operating process in this area from advanced package development to mass production, testing, and shipments; and we will strive to preemptively address future demand and expand our new businesses.

Thank you

Good morning, I'm Kwonyoung Choi from the Corporate Strategy Team at Samsung Display.

I will now summarize our results for the fourth quarter of 2022

For the Mobile display business, Despite peak seasonality, market demand continued to contract due to a number of lingering, unfavorable factors globally. However, we achieved solid results by focusing on high-end smartphone products.

For the Large display business, sales improved thanks to increased sales of TVs during the end-year peak season; and the business narrowed its losses. In addition, we exhausted our LCD inventory, meaning we have completed the switch to a full-fledged QD-centered business.

I believe we can look at 2022 as a year in which we achieved tangible results from preemptively restructuring our business, including the early exit from LCD, strengthening our portfolios focused on high-end smartphones, and converting to large-size QDs, even in the difficult circumstances.

Next, let me share the outlook for the first quarter of 2023.

For the Mobile display business, We expect smartphone demand to contract year-on-year due to the economic slowdown in major regions in addition to the off-season effect . We will continue to maintain our performance superiority by actively responding to launches of flagship products by major customers.

For the large display business, We will secure additional demand and promote an early ramp-up by introducing a new lineup of ultra-large TVs and large-size monitors.

Finally, I will share our outlook for the display market and the Display business's strategies for 2023.

Although we expect the business environment to remain challenging due to unstable market conditions—which include inflation and tight monetary policies—and the entry of competitors in earnest, we plan to strengthen our market dominance by capitalizing on the technological performance gap in the relatively solid high-end smartphone market.

In addition, to maintain our market leadership, we will capitalize on the accelerated transition to OLED by leveraging our cost competitiveness, which is the result of our preemptive investments.

Demand for large-sized panels is likely to soft due to ongoing economic uncertainties, but we will continue to improve profitability by strengthening our sales base in the premium market, backed by stable yields.

Thank you.

Hello everybody, This is Daniel Araujo from the MX Division.

I'd like to share our Q4 results and the outlook for the MX Business.

In Q4, demand for smartphones remained sluggish, with the mass market contracting sharply due to continued inflation and geopolitical instability.

In the MX Business, sales and profit fell sequentially due to fading new-product effects of flagship models, and a drop in smartphone sales on weak demand stemming from the economic slowdown.

In particular, the impact of the decline in sales of mass market smartphones was greater than previously expected, but our flagship sales held up well relative to market projections, despite the difficult macro situation.

Next, let me share the Q1 outlook.

In Q1, we expect demand across all smartphone segments to decrease Q-on-Q due to the continuing economic slowdown and other lingering factors contributing to macroeconomic instability.

For the MX division, we will push to expand flagship sales with the successful launch of the S23, which we've prepared thoroughly and will be unveiled at Samsung Galaxy Unpacked tomorrow.

With smooth supply in place to confidently respond to initial demand,

we'll actively promote our maximized competitiveness in areas like camera and gaming performance; and expand revenue centered on sales of flagship products through a variety of sales programs tailored to regional characteristics.

As for Galaxy ecosystem devices, such as premium tablets and wearables, we will continue marketing activities that are linked to our smartphones in order to expand sales.

In addition, as competition in the market intensifies and the economic downturn persists, our continued efforts in effective resource management will help secure solid profitability.

Now, I'd like to discuss the outlook for 2023.

Amid prolonging geopolitical issues, continued inflation, and a continued global economic slowdown, we expect the smartphone market to contract in 2023, with the mass-market impacted the most.

Although we expect the overall tablet market to stay similar year-on-year, the consumer preference for premium tablets and smartphones should remain solid. As for the wearables market, growth is forecast to decelerate.

To press ahead with the high growth of foldables and revenue expansion of the S series, MX will further enhance the completeness of our flagship experience, based on actual user experiences, by focusing our technology capabilities on strengthening the competitiveness of flagship products.

With these efforts, we will further expand our premium customer base and thereby improve the sales mix and sales growth.

In addition, based on the strength of our collaborations with mobile carriers, we will actively facilitate a variety of sales programs to expand sales of 5G smartphones in the mass-market segment in order to overcome negative market growth.

For Tablets, we will continue to pursue sales growth by strengthening our lineup of premium products in line with the large-screen trend; and by upgrading experiences through features such as the S-Pen. In wearables, we will expand sales by strengthening product competitiveness through an improved multi-device experience.

Through these efforts we will achieve sales growth in 2023, and with continued progress on operational efficiencies in response to the macroeconomic instability, we will secure solid profitability.

Thank you.

Good morning, I'm KL RHO from the Sales and Marketing Team of Visual Display.

First, I would like to review the market conditions and our performance in the 4th quarter of 2022.

TV market demand increased quarter-on-quarter thanks to year-end peak seasonality, but it contracted year-on-year, led mainly by declines in developed markets due to a global economic downturn.

For Samsung, we improved our performance quarter-on-quarter by proactively addressing regional, peak-season demand such as Black Friday; and by expanding sales centering on high-value-added products, including Neo QLED and Lifestyle models. However, our performance declined year-on-year due to a contraction of consumer sentiment caused by high interest rates and inflation; and also impacts from currency movements.

Now, Let us look at the outlook for 1st quarter and 2023.

Market demand in the first quarter is expected to decline both quarter-on-quarter and year-on-year due to seasonality and continued impacts of a global economic downturn. Samsung will capture premium demand, utilizing our 2023 Neo QLED, which provides a richer and more valuable user experience via enhanced device-to-device connectivity on top of its high-definition/high-performance.

To this end, we will strengthen partnerships with major channel partners by region and maximize the performance of various marketing promotions for

each country by utilizing strategic products. At the same time, we plan to focus on securing profitability by continuing to optimize operations and manage costs. Regarding the TV market in 2023, Along with various external uncertainties that are expected to continue in 2023, overall TV demand is likely to remain stagnant, but demand for premium products, including QLED/OLED and Super big TVs, should keep growing.

We will continue to lead the ultra-large-screen market with our 98" Neo QLED, and we plan to release Micro LED models in various sizes so that more consumers can enjoy what we feel is the world's best picture quality and screen experience. For OLED TVs, we will provide consumers with a wider range of options by adding a 77" model to the current 55" and 65" models in our lineup; and we will continue innovations in premium products, including the releases of 57" and 49" OLED gaming monitors.

At the same time, we will continue to strengthen sustainable, eco-friendly management throughout the lifecycle of all our products; and provide new consumer experiences that connect screens and other products, all to further solidify our position as an industry leader.

Thank you

Thank you. That sums up the fourth quarter results presentations. Before we move on to the Q&A session, I would like to share several data points in key business areas. Considering the continuing macro uncertainties, we will not be providing annual guidance at this time. Comparative figures are on a sequential basis for quarterly data and a full-year basis for annual data.

For DRAM, in the fourth quarter, our bit growth increased by a percentage in the high-single-digits; and ASP declined by a percentage in the early 30% range. For the first quarter of 2023, we expect market bit growth to decrease by a low-single-digit percentage and our bit growth should be similar.

For NAND, in the last quarter, our bit growth increased by a percentage just into the double digits, while ASP fell by a percentage in the high 20s. In the current quarter, we expect market bit growth to decrease by a mid-single-digit and our bit growth should slightly outperform the market.

For Display in 4Q, the OLED portion of revenue was a percentage in the mid-90s; and OLED sales volume increased by a high-single-digit percentage.

For mobile in the October quarter, shipments were approximately 58 million units for smartphones and 8 million units for tablets. Smartphone ASP was USD 240. For 1Q23, we expect smartphone shipments and ASP to rise, but shipments of tablets to decline.

For TVs, sales volume of LCD TVs in the fourth quarter increased by a percentage in the high teens. For the current quarter, we expect sales volume to contract by a percentage in the low- to mid-teens

Q&A

<Q – SK Kim >:

My first question is about the memory business.

- There is quite a lot of concern in the market about memory demand. I think, the expectation is that the shipments at the set level will remain weak.

However, I think, one upside that we can look forward to is that perhaps the significant drop in prices that has been continuing since the second half of last year, may continue to drive increase in content-per-box. And so in that context, could you share with us more outlook in content-per-box increased by application?

- Second question is about the digital appliance side. Overall, logistics as well as raw material prices have been coming down and stabilizing. What kind of impact do you think that will have on your digital appliance profitability this year? And in connection with that, what kind of strategy is the company planning to secure better profitability in DA business?

<A>:

- To answer your question about content-per-box by application, it is true that we are also observing a trend of increasing content-per-box mainly driven by price elasticity, especially, around consumer devices that is smartphones and PCs.

Especially in the case of mobile, we expect this increase in content memory content to continue driven by price elasticity. We're actually seeing an increase of competition around memory specifications, especially, around the high-end smartphones. With all of that considered, we are currently expecting that this

year, memory content growth rate would be around 10% year-over-year for DRAM and around high-teen growth for NAND.

On the other for the server side, the upside from price elasticity will be relatively more limited. However, what we can look forward to on the server is, the demand that will happen from the conversion, the switching over to the new platform. The new platform that will be launched this year has more number of cores and therefore, we think that the rate of high density memory adoption will increase by around 20% year-over-year for both DRAM and NAND and also, at the same time, we think that the migration to DDR5 will happen at the same time.

Especially this conversion to DDR5, there seems to keep in mind, for example, because of the chip size penalty, bit productivity decrease is expected. Also because this is an initial new product, market inventory levels are currently low. And so initially, we can expect there to be build demand, and on top of that demand to secure initial inventory, and so, actual purchasing demand may pick up faster than expected.

- To answer your question about the digital appliance and impact of logistics cost and raw material prices. As you mentioned, raw material prices overall has been on a declining trends since second half of last year. But with the increase in raw material demand tied to China's reopening and also expectations of a possible recovery of global economic sentiment, raw material prices recently have been rebounding. And so considering that the amount of decrease, it may not be as large as expected. Ocean freight charge has definitely been decreasing since the second half of last year, but still compared to pre-COVID

levels, it is relatively high. And so while these factors would have a positive impact on profitability this year, overall situation remains fluid. And so it is too early for us to make any definitive calls.

And that is why the focus of our profitability strategy is number one, minimizing the impact of any market volatility and changes by strengthening our production hub competitiveness for better cost savings. And also to leverage the long-term supply contracts that we enter with raw material companies at attractive terms. Also, on the sales side, we're focusing on expanding our premium sales, such as the Bespoke Infinite Line and also expanding our B2B and online channel sales.

<Q - DoYeon Choi>:

I only have one question and that's about your memory supply plan, which I'm sure many people on the call are interested about. Given the fact that market environment is worsening and continuing to stay weak, does the company have any plans of reducing or delaying its equipment investment plans or any plans of reducing its production through line adjustments or adjustment of its utilization rate?

<A>:

- Yes. I'll answer that question about our investment and production plans for this year in connection with this year's market situation.

As you mentioned with recent inflation, higher interest rates, consumer sentiment remain soft. Also due to concerns of a weak economy going forward, even businesses, companies are placing top priority on maintaining their

financial wellness and this has resulted in a prolonged inventory adjustment cycle by customers that's started from second half of last year. Well, this situation is not immediately favorable for our business performance. On the flip side, this is a great opportunity for us to prepare for the future.

And our CapEx approach this year is to continue to make the infrastructure investments that are necessary to respond to mid to long-term demand, and to secure the essential clean rooms that we would need to do that. So, in conclusion, this year's CapEx plan is expected to be similar to previous year.

Now at the same time in order to secure best quality and also line operation optimization, we have strengthened our production line maintenance efforts, and are going through some equipment layout adjustments, which and also we are efficiently pursuing the migration to future cutting-edge nodes. Also, in order to increase our process technology competitiveness and also to stabilize our process technology early on, we have been increasing the share of engineering runs. And as a result of that, within our total memory CapEx, the R&D related portion is expected to increase versus previous years.

And so, in the process of carrying out these initiatives, we think that impact on our bit at a meaningful scale in the near-term would be inevitable. However, if you look at the long-term, these are all essential activities that are necessary to enhance our competitiveness and responsiveness to the market. And that's why, we will be carrying these activities out at a risk pace as part of our preparations for future growth. Lastly, market uncertainty including geopolitical issues is a given, and therefore we will continue to carefully monitor any changes in the mid to short-term or mid to long-term market demand.

<Q – Jeff Kim >:

My one question is about the display side, the smartphone OLED display, with market competition becoming a more intense in that segment, there are concerns in the market that Samsung Display's market share in the mobile OLED segment may decrease. Can you share with us your strategy on how to respond to this intensive market competition?

<A>:

- To answer your question about our smartphone OLED, which does account for a large share of our both revenue and profitability. The company has always already been aware of the possibility of competition becoming more intense in the mobile OLED market. While on one side, the smartphone device demand is weak with economic recession and Chinese market demand remaining sluggish. The competitors in the OLED supply side have been increasing their utilization. However, actually the because the competitors' capacity has surpassed market demand some time ago, the risk of overheated competition in this segment has always existed.

So, despite this very intensive and difficult competitive environment, we have been able to respond very effectively during the recent several years and I think that's explained by several factors. The most important being our development capability, especially, our time-to-market capability, which is critical in the smartphone market, which has a shorter replacement cycle versus other IT or TV devices, for example, we have more than 10 years of mass production experience and leveraging that we have been able to continuously

be the first to market with products that have more superior characteristics. And we think that this edge that we have in competition will remain effective this year.

One thing we are watching carefully is how customers are demanding for differentiating technology. And in order to keep that demand for differentiating technology strong, we are actively preparing new technology, such as UPC, the under-panel camera or extreme-narrow bezels or low -- ultra-low power displays that actually appeal to consumers and we'll continue to very carefully and closely cooperate with our handset OEMs.

<Q –JJ Park>:

- I have a question about the mobile side. If our information is correct, the new flagship that will be launched this year would be using a third-party AP and the Exynos would not be used on the flagship that to be launched this year?

On the other hand, we're also hearing news that an application solution development team has been created under the MX division. And so can you just clarify, what does that imply in terms of where the AP development effort will happen going forward within Samsung Electronics? Would it belong under MX or would the AP solution development belong under system LSI? I think also what we can read from that is that the Exynos then would mainly be used on the volume zone. Would it be possible to share with us what kind of percentage within the volume zone, the Exynos would have as a share?

<A>:

- Sure. So, for each of our products, we select AP chips that with the most appropriate price and performance for that product. And going forward, we will continue to maintain an open stance on procurement, based, of course, on the competitiveness of each AP. We release every product only after undergoing thorough verification and all APs are optimized for each device in order to give customers an exceptional user experience and performance. And in the future, we'll continue to select the best AP for each model after considering factors like market demand, release timing and regional needs. So, the AP is a highly important component that determines product performance as well as the customer experience. So, taking that into account, in December of last year, we set up the AP solution R&D team, who's in charge of AP optimization and next-generation advanced research. This AP solution R&D team will work on developing AP solutions that are more optimized for Galaxy products in collaboration with our chip set partners. And through this, we will continue to strengthen not only our product competitiveness, but also Galaxy's differentiated user experience.

<Q – Chae minsook>:

- My first question is about the memory business, especially, the Xian fab the U.S. government is continuing to heighten its sanctions against China. And in that context, even though, the company received a one-year grace period from the Department of Commerce for the Xian fab. Can you share with us what the company plans to do, in terms of how to operate the Xian fab going forward on a longer term basis? And what kind of impact do you expect?

Looking from outside, you also have, for example, a base in Taylor, even though, that is a foundry. Would the company be considering any plans of establishing memory capacity at sites within the U.S. such as Taylor in response to that.

- Second question is about the foundry business. I think looking at the foundry, two key items going forward for you would be the development of your 3-nano second-generation GAA. And also the new fab in Taylor that's being built. Can you give us updates on both of the second generation 3-nano development status, order win status as well as an update on Taylor?

<A>:

- To answer your question about Xian, as you know, we have put in quite a lot of time, effort, and investments to bring the Xian fab into a level of stable operation. And so in terms of deciding our plans going forward, we need to be carefully considering various factors including mid to long-term market outlook, global customer demand, economics and profitability and our focus is on finding the plan that would enable us to provide optimized customer response.

And you've also asked about whether we're considering memory capacity in places such as Taylor. In the near-term, the plan that we have for Taylor is around foundry capacity. And so, I'm not able to give you a clear answer on that specific question at this point. Now that said, regarding securing any new production basis, whether it is in Korea or overseas, we are planning to take into account various factors with open possibilities and under various conditions.

- To answer your question, first of all, our 3-nano GAA second-generation to give you an update on the development, we're currently on schedule with targeted mass production in 2024.

Also you've asked about the order situation, currently we are in collaboration, we're talking to a large number of mobile as well as HPC customers, they are showing quite a lot of interest. I think best way for me to explain our-second generation GAA 3-nano is to explain the technology the MBCFET technology. The MBCFET technology has various advantages versus FinFET, in terms of performance, power efficiency and also design flexibility.

That is why customers are highly interested in this new technology. And we also have a track record of mass producing this generation -- Gen 1 3-nano with MBCFET technology first in the world.

And our Gen 1 3-nano MBCFET technology is currently in mass production at stable yield.

And so our second generation technology will offer gains in terms of size, performance, power efficiency. And our development is actually making quite good pace based on our mass production experience of Gen 1.

Now, regarding the update on Taylor, we are on schedule for an annual mass production during the second half of 2024 in Taylor.

<Q – Peter Lee >:

- My first question is about memory, actually, the impact to memory demand that we can expect from the increase of various AI technology, especially, ChatGPT recently is attracting a lot of attention. If there's a wider adoption of ChatGPT and other AI-based natural language processing technology in the market, what kind of implications do you think that would have on overall memory demand?

- Second question is about the display side. I think last year during occasions including the earnings conference call, you mentioned that Samsung Display will be strengthening its IP. Can you give us any updates, where there are any visible achievements since then?

<A>:

- To answer your question about impact on memory demand by the AI natural language processing technology, we also agree that the increase of this natural language based conversation style AI services would have a positive impact on future memory demand. I think especially meaningful with the adoption of ChatGPT is that, now these large-scale language models have finally reached a level where it can be now commercially used.

In order for these AI-based models to train and also infer, there needs to be the number one, high performance processors that can actually do large-scale computation. And also combined with its processor, you need high performance, high density memory to support. And therefore, we think that with the wider adoption of large-scale language model AI based services, there will also be an increase in hardware demand.

Most specifically, the area is within the memory that we can expect there to be long-term demand growth would be the high performance HBM and that provides data directly to CPUs and AI accelerators as well as the high-density server DRAM such as the 128 gigabyte and plus that would support the CPUs that process the AI earning data. And that is why, we are planning to actively capture the increase in demand related with AI services by developing high-performance, high-density memory products.

- To answer your question about the efforts to strengthen our IP, intellectual property at Samsung Display level, Samsung Display considers this is a widely practiced patent infringement within the display industry is a serious problem. And since last year through various channels including, for example, IR events, we have mentioned that the company is preparing various response strategies. Within the smartphone ecosystem, it's very important, technology used fairly, and that its value is protected. However, what we are seeing, for example, out in the market is just quite concerning, for example, the Diamond Pixel, which is one of our signature technology patents, we're finding products being sold online that but blatantly infringed upon this technology. When we look into the details, it was even unclear, where this product was being manufactured, and that is why we filed a complaint against a total of 17 U.S. component wholesalers against the U.S. International Trade Commission. This is the start and we will continue to actively fight to protect our intellectual property.

<Q>:

I don't think we will answer questions that were submitted online in advance. We have been accepting questions via our website in advance of an earnings

release as part of our efforts to strengthen communication with individual investors and enhance understanding of the company. And we received a wide variety of questions again this quarter. I believe a majority of the submitted questions were sufficiently answered during the Q&A session. But we will answer one more question on a topic that garnered a high level of interest from our shareholders, but were not addressed during the Q&A session.

The question is as follows. What are the major innovation points of the new S Series product in terms of performance and design? And what are the marketing strategies to boost sale?

This question will be answered by V. P. Daniel Araujo, representing the Mobile Experience division.

<A>:

Sure. So, the S23 series, which will be unveiled at Samsung Galaxy Impact tomorrow or the day after, is the product that combines the best in features and performance. And we believe will establish a new standard for smartphones that consumers can trust and use for a long time. In order to solidify best in the industry positioning, we'll focus on appealing to consumers with the best camera and gaming performance centered on the ultra model, which inherits the user experience of the Galaxy Note. We will also continue to carry out privacy campaigns, make ESG advances like applying more eco-friendly materials to our products and we are also strengthening marketing of the Galaxy's unique experience, especially, via the social channels that are linked to our customers' daily lives.

And considering that many consumers' disposable income is decreasing during this difficult time, we plan to expand programs like, Samsung Trade that reduce the purchase burden of our products. So, with all this thorough preparation

from securing sufficient volume for our product launch, all the way to the go-to-market strategy will strive to expand sales of flagship products.

I would like to thank everybody who share their valuable opinion and we will be sure to refer to them in our decision-making process. That completes our conference call for this quarter. We wish all of you and those close to you stay strong and in good health. Thank you very much.