【Samsung Electronics Q4 Earnings Call】

Good morning, everyone, for those in Asia, and good evening to those in Europe and the Americas. Thank you so much for joining Samsung Electronics' 2023 4th quarter earnings call. I am Daniel Oh, leading the Investor Relations Team at Samsung Electronics.

For today's call, additional information can be found in our earnings presentation at our IR website, www.samsung.com/global/ir.

And joining me today on this call are:

- EVP Jaejune Kim, representing Memory;
- Joining the call for the first time, VP Tommy Kwon for System LSI;
- For Founrdy, EVP Gibong Jeong;
- Also for the first time joining the call, EVP Charles Hur for Samsung Display Corp, which I will refer to as Display during today's call;
- For the Mobile eXperience business, VP Daniel Araujo (다니엘 아라우호), and
- last but not least, for Visual Display, VP KL Roh

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

First, I will start with our 2023 4th quarter consolidated financial performances.

Consolidated revenue came in at 67.8 trillion won, up 0.6% sequentially, thanks to higher memory prices, above-market bit growth, and continued strength in

sales of premium display products, even though smartphone shipments declined due to rising competition during year-end seasonality.

Consolidated gross profit was 21.7 trillion won, up 0.9 trillion won quarter-on-quarter, mainly due to increased sales of high-value-added memory products such as DDR5 and LPDDR5x. The gross margin was 32%, up by 1.1%pts.

SG&A expenses increased 0.5 trillion won quarter on quarter to 18.8 trillion won, as R&D expenses reached a record high under our commitment to future growth. As a percentage of sales, they increased by 0.6%pts to 27.8%.

All-in-all, consolidated operating profit increased 0.4 trillion won sequentially to 2.8 trillion won, as the effects of Memory's significantly improved performance and Display's sustained strength outweighed the negatives from intensifying competition in consumer goods and fading launch effects of flagship smartphones. Operating margin increased by 0.6%pts to 4.2%.

Regarding currency effects, the average exchange rates of the US dollar, the euro, and major emerging currencies were relatively stable and had non-material effects on our consolidated operating profit, compared to the previous quarter.

Now, moving on to capital expenditures.

Capex in the fourth quarter was 16.4 trillion won, of which 14.9 trillion won was invested in the DS Division and 0.8 trillion won in Display. Annual capex stayed steady at 53.1 trillion won, with 48.4 trillion won invested in DS and 2.4 trillion won in Display.

For Memory, we continued to build out infrastructure at Pyeongtaek, preparing clean rooms for mid-to long-term demand; and we increased the R&D portion

of investments as a part of our commitment to extending our technology leadership. In particular, we invested in expanding the production capacity of HBM, DDR5, and other advanced nodes; and, in line with our investment principles, we adjusted investments in wafer fabrication equipment to balance our needs with the recent market conditions.

In Foundry, the annual capex increased due to capacity expansions for advanced EUV nodes of 5nm and below and for infrastructure investments at the Taylor fab to address future demand.

In Display, investments focused on preparing for IT OLED products and advancing technology in flexible displays.

Now, I will share some of our key activities in sustainability management.

Samsung Electronics has ranked fifth in Interbrand's Best Global Brands Top 100 for the last four years and remained the top non-US company on the list. According to Interbrand, several factors influenced the evaluation: consistent company-wide improvements in customer experiences; unparalleled connectivity and enhanced gaming experiences via our wide-ranging portfolio and SmartThings; our leadership in future innovative technologies such as AI, automotive, 6G, AR, and VR; and consistent efforts to strengthen ESG leadership by enhancing sustainability across our products.

Second, we recently joined the Energy Collaborative and Carbon Free Alliance, initiatives aimed at expanding renewable and carbon free energy resources. We believe our work as a part of these initiatives will increase the use of efficient energy resources in the semiconductor ecosystem, and also contribute to laying the foundation for carbon neutrality in the Asia Pacific region.

Finally, we expanded the use of recycled materials in our recently launched Galaxy S24 series: the batteries of the S24 Ultra and S24 Plus contain a minimum of 50% recycled cobalt; and the speakers in all models use 100% recycled rare earth elements and a minimum of 40% recycled steel.

Overall, we remain committed to strengthening sustainability management and expanding ESG initiatives throughout our business.

Now, turning to shareholder returns,

The Board of Directors today approved a quarterly per share dividend of 361 Korean won for common stock and 362 won for preferred stock.
Based on our current policy, the total quarterly payout is 2.45 trillion won, which will be paid after final approval at the Annual General Meeting of Shareholders in March.

This is the final quarterly dividend under the policy covering 2021 to 2023, through which we pledged to return 9.8 trillion won annually in regular dividends as a part of a total return of 50% of free cash flow.

Over the past three years, we generated a free cash flow of 18.8 trillion won, creating a shareholder return pool of approximately 9.4 trillion won based on the policy. Including today's declared dividend, we will have returned capital to our shareholders worth 29.4 trillion won, equivalent to 157% of free cash flow and 313% of the shareholder return pool.

We are pleased that we faithfully executed our shareholder return policy despite the significant pressure on our free cash flow from the memory market’s significant downturn and myriad uncertainties in the global economy.

Regarding our next shareholder return policy,

The Board of Directors and top management comprehensively evaluated the current and projected business environment, our investment strategies and financial structure, ways to enhance shareholder value, and many other variables that could affect our business.
However, the market rapidly changed during this process, causing our earnings to severely weaken and our cash holdings to fall. Moreover, the overall business environment still faces several persistent risks.

After long deliberation, the Board approved to maintain the terms of the previous shareholder return policy: Samsung Electronics will pay an annual regular dividend of 9.8 trillion won as a part of total shareholder returns of 50% of the free cash flow for the period covering 2024 to 2026. At the close of each year, we will consider executing an early return of capital beyond regular dividends if we forecast there is potential for a significant surplus.

We will consider implementing a new policy flexibly before the expiration of the proposed one in consideration of M&A activities and cash positions.

I will now summarize our outlook for the first quarter and 2024. Please note that more details will be included in the speeches from our business units.

In the first quarter, with the IT market environment recovering gradually, we will focus on increasing sales of high-value-added products to improve profitability.
For our component businesses, we will capture the rising demand for advanced products and those aimed at generative AI, even under weak seasonality.
Meanwhile, DX will emphasize strengthening AI functionality in smartphones and other products while increasing strategic product sales.

In 2024, we expect memory market conditions and IT demand to keep recovering even though a number of macroeconomic risks are likely to remain elevated.
Samsung Electronics will fully respond to the demand for AI-use semiconductors while striving to establish early strongholds in markets for AI-enabled consumer products. Also, we will fortify our leadership in premium products and competitiveness in advanced-nodes while we continue to prepare for future technologies.
In the near future, we expect high macroeconomic risks to continue to weigh on the business environment, and thus expect our results to see moderate improvements in the first half and more significant improvements in the second half, with the pace of recovery to differ by business and product.

For additional details on the results and outlooks for our businesses, as mentioned earlier, please refer to the slides from our website and the following presentations.

Now, without any further due, I will turn the conference call over to the representatives from each business unit to present fourth-quarter performances and outlooks for their respective business segments in more detail. We will start with EVP Jaejune Kim of the Memory Business.

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

In the fourth quarter, the memory market showed a recovery trend compared to the previous quarter.

For PC and mobile, content-per-box continued to grow with the normalization of customers' finished-goods inventory and, for mobile, particularly, the demand environment has improved as sell-in competitions in Chinese smartphone market intensified.

For server, as investments in generative AI have expanded across the IT industry, the related demand has remained strong, and, coupled with the nearly normalized inventory level at conventional server customer side, the demand showed signs of recovery.

Moreover, as the perception of price increases spread in the market,
it was observed that demand for inventory-buildups also occurred across all applications in addition to fundamental demand increases.

In this situation, focusing on expanding the high value-added products to improve business performance as early as possible, we significantly increased the sales of cutting-edge products such as HBM, DDR5, LPDDR5x, UFS4.0 and so on.

As a result, our bit growth exceeded the market level and inventory depletion of both DRAM and NAND accelerated due to impacts of production discipline. In particular, our DRAM inventory improved even more significantly, and the DRAM business became profitable thanks to ASP increase.

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

A recovery of PC and mobile demand has already been witnessed last quarter, and it is expected that the demand recovery trend will continue following the previous quarter.

In the case of servers and storage, while the demand that had been relatively sluggish for quite some time, has shown signs of recovery, it seems that maybe we need to wait one or two more quarters to see whether there would be a full recovery in demand or not.

Meanwhile, in terms of industry supply, the bit growth of cutting-edge products is expected to be constrained.
Therefore, the customers' demand for cutting-edge products is likely to stay strong, and we also forecast the demand for inventory-buildups to continue to occur.

In this market environment, while focusing on responding to the demand for cutting-edge products, we plan to focus on improving profitability by actively addressing the demand for HBM and server SSDs related to generative AI.
And accordingly, our memory business is expected to return to profit in the first quarter.

However, as the overall bit growth of memory production is expected to be constrained across the overall industry, we will focus on responding to true demand over demand for inventory-buildups.

Now let's move on to the outlook for 2024.

We expect the memory business to continue to recover despite volatilities lined with various factors such as future interest rate policies, geopolitical risks and so on.

For PC and mobile, due to the impact of the adoption of On-Device AI, content-per-box is expected to grow mainly in commercial PCs and flagship smartphones.
In addition, there would be a positive effect on set shipment trends, coupled with approaching replacement cycles of some products sold during the early stages of the pandemic.

For server, in the trend of continuing solid demand for AI, we expect the demand to gradually recover, as server replacements, which have been postponed under last year's tightened budget, proceed in conjunction with the transition to a new platform.

In this situation, we plan to continue to focus on profitability based on the competitiveness of our cutting-edge nodes.

Despite the worsened business conditions in 2023, we have been striving to maintain CAPEX for long-term competitiveness.
As a result, we expect the supply competitiveness of our advanced nodes to expand further as last year's investments will take effects this year.

Thus, we plan to actively address the demand for premium products based on leading-edge nodes, and pursue profitability for sustainable growth.

For DRAM, we aim to enhance our leadership in the high-density DDR5 market by introducing the industry's highest-capacity 32Gb DDR5 based on 1b nanometer, which was developed for the first time in the industry.

While market needs for advanced HBM performance and capacity are ever growing with the spread of generative AI, leveraging the competitiveness of TSV capacity, we plan to proactively solidify our competitiveness as a leading HBM company, by ramping up mass volume business for next-generation HBM3E in a timely manner and accelerating the transition to 3E 12H in the second half of the year.

Also for NAND, by penetrating into the mobile QLC market for the first time in the industry, we will actively respond to customers' needs for high-density mobile storage, and, we will strengthen market leadership by leading the early market for Gen5 SSDs in the Generative AI era.

Thank you.

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

In Q4, as smartphone makers completed their inventory adjustment, there was an increase in demand for restocking. Our Exynos 2400 was selected for a flagship models of a major customer, contributing to our earnings, while sales of image sensors also increased compared to the previous quarter due to inventory normalization.

As a result, both sales and profits improved compared to the previous quarter. However, the recovery of the semiconductor component industry is likely to be affected by the sales trend of smartphone sets in the future.

In Q1, sales of new SOC and high-pixel image sensors are expected to remain strong. However, as the market enters the off-season, demand for some SOCs that contributed to last quarter's earnings will decline, and earnings are expected to worsen mainly for mDDI after the restocking is complete. So, overall earnings improvement is expected to be somewhat limited.

Until last year, the smartphone market continued to decline annually due to the prolonged replacement cycle of smartphones amid insufficient customer willingness to pay. However, starting this year, On-device AI has been introduced, providing an opportunity to restore customers' desire to replace their smartphones, so we will flexibly respond by taking into account the possibility of changes in demand and inventory from Q1.

In 2024, although the smartphone market is expected to rebound on the back of On-device AI, the normalization of chip prices and higher financial costs are expected to erode set makers' promotional capabilities, limiting demand growth. It is true that there is uncertainty about whether the recent increase in orders for smartphone will lead to overall earnings growth this year.

We will secure future growth engines by leveraging AI momentum and maximizing SOC, sensor and LSI business competitiveness through a transition of the business team system.

The new SOCs are considered superior to competitor's in terms of stability and graphic capabilities such as ray tracing. We plan to continuously strengthen our competitiveness by improving On-device functions such as NPU performance improvement and model weight reduction through quantization.

For image sensors, we will expand sales of high-pixel sensors to continuously expand our business scale and profitability. And for DDIs, we will achieve growth even in uncertain environments as IT devices adopt more OLEDs.

We will also continue our efforts to secure future growth engines by securing additional orders from major automotive customers and winning orders for new products such as UWB.

Thank you.

Good morning and good evening, everyone.
This is Gibong Jeong from the Foundry Business.

In the fourth quarter, market demand declined due to customer inventory adjustments and global economic recovery delays, leading to earnings stagnation.

Despite these challenges, we are actively developing 3-nano and 2-nano GAA technology and planning to expand into newly emerging application segments using advanced process technologies.
This effort has increased product mix and design awards especially in the HPC application sector. In fact, we achieved our highest annual order backlog in 2023 strengthening our growth foundation.

In the first quarter, we expect demand to improve with the launch of new products featuring AI smartphones and AI PCs.
However, our earnings may not significantly recover due to the ongoing trend of customers reducing inventory.

Nevertheless, we're focused on improving yield and optimizing the second-generation 3-nano GAA process.
Additionally, we're getting ready for the future by securing a 2-nano AI accelerator order, including HBM and advanced packaging.

In 2024, as demand for smartphones and PCs gradually recovers, the foundry market is expected to approach 2022 levels, primarily due to advanced processes.
Our focus is on improving our advanced process technology.

We'll continue stable mass production of the 3-nano GAA process, develop the 2-nano process, and increase orders for fast growing applications like AI accelerators.
We also continue to expand our automotive business while improving our cost competitiveness in mature processes.

That concludes my key messages from the Foundry Business.

Thank you.

Good morning,
I'm Charles Hur from the Corporate Strategy Team at Samsung Display.

I will now brief you on our results for the fourth quarter of 2023.

For the mobile display business,
Market demand for smartphones slightly increased year-on-year, aided by a low base. We performed well amid numerous challenges in the quarter and recorded similar results q-q by accommodating launches of major customer's new products via timely supply.

For the large display business,
Even though demand remained weak due to sluggish economic conditions, we posted sales growth and narrowed our losses on the back of year-end seasonal TV demand.

Next, I will share our outlook and strategy for 1Q and 2024.

For the mobile display business in the first quarter,
We expect performance to decline quarter-on-quarter and year-on-year owing to intense competition among panel makers on top of effects of potential weak seasonal demand.

For the large display business,
Despite difficulties stemming from weak demand and off-season effects,
we will continue to narrow losses by launching new QD-OLED monitors and thereby expanding our customer base.

For the mobile display business in 2024,

In regards to market demand for smartphones, we expect to encounter headwinds due to the global economic slowdown and prolonged regional crises.

In the stagnant smartphone market,
We expect competition among panelmakers to be intense.
In particular, the high-end segment is expected to be more competitive.
We will focus on sales growth based on differentiated technology and capacity.
In addtion, we will strive to strengthen future growth engines in the IT and Auto segments in 2024.

Finally, for the large display business.
Despite the continued macro uncertainties, such as the sluggish economy and dampened consumer sentiment caused by inflation, we expect TV demand to rise moderately, with contributions from upcoming sporting events.

We will continue monitoring the market for any changes while working to improve our profitability by maximizing efficiency through enhanced product mix, improved production efficiency, and added capacity without additional investments.

Thank you.

Hi everyone, this is Daniel Araujo from the Mobile eXperience Division.

Today, I'll be sharing our financial results for Q4 and discussing the outlook for the MX Business.

Despite ongoing inflation and global political unrest, the smartphone market experienced modest growth in Q4 of 2023, led by the premium segment.

For the MX business, sales and profit decreased quarter-to-quarter due to a reduction in smartphone sales, which included fading effects of new flagship models launched in Q3. However, tablet shipments saw significant growth led by newly released products, including healthy sales of premium products, and wearable devices maintained their sales momentum during the peak holiday season.

Thanks to our continuing optimization of resource use and hardware design, we managed to maintain solid double-digit profitability.

Moving forward to Q1 of 2024, although we expect a sequential decrease in total smartphone demand due to seasonality trends, the premium segment is expected to grow compared to the same period last year.

To capitalize on this opportunity, we plan to leverage our newly launched Galaxy S24 series to increase sales. By emphasizing the series' cutting-edge AI capabilities and enhanced product competitiveness, alongside our efforts to strengthen our carrier partnerships, we aim to establish Samsung as the leading brand in the AI smartphone market.

Still, we acknowledge the potential risk of rising component costs and will strive to secure a double-digit operating margin by continuing to realize operational efficiencies.

Looking ahead to 2024, while the smartphone market contracted in 2022 and 2023 amid prolonged economic uncertainty, we expect consumer sentiment to stabilize and demand to rebound in anticipation of a soft landing for the global economy, leading to market growth, especially in the premium segment.

Similarly, we expect the tablet market to bounce back after contracting in 2022 and 2023 following a surge in demand related to remote work and education during the pandemic. Both volume and value are projected to rise in 2024 as the replacement cycle approaches.

For wearables, we expect to see a double-digit increase in value for smartwatches, driven by consumers in the mass market looking to upgrade, given increased interest in health-related features since the pandemic. Meanwhile, we project that TWS devices will experience modest growth in value due to increasing volume demand, especially in the mass market.

As for the MX Business, with our innovative Galaxy AI integrated into the S24 series, we intend to lead the AI smartphone market by offering users an unparalleled level of creativity, convenience, and personalization.

For foldable devices, we plan to continually enhance the user experience while maximizing usability with Galaxy AI that is optimized to the form factor.

This strategy aims to boost our annual flagship shipments by over ten percent—outpacing the industry growth rate in terms of value—while also fortifying our leadership in the foldable category.

In tablets, we will continue to focus on sales of premium devices, especially around the Tab S series, by emphasizing their improved user experience and connectivity.

For wearables, we'll strive to elevate the Galaxy Ecosystem experience and increase the smartphone attach rate by integrating AI technologies while enhancing wellness functions in our smartwatches to cater to health-conscious consumers. For TWS, we are building a comprehensive lineup to address all segments.

By executing these strategies in 2024, we aim to achieve revenue growth while continuing to realize resource efficiencies so we can achieve solid profitability amidst volatile market conditions.

Furthermore, we aspire to broaden the Galaxy AI ecosystem in all directions so that it becomes the global standard for mobile AI.

Lastly, we'll strengthen advanced R&D and investment in future growth areas, such as Generative AI, Digital Health, and XR, and work closely with partners to build an ecosystem from the initial stages in order to sustain long-term growth for the MX business.

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 2023.

TV market demand increased quarter-on-quarter, mainly due to year-end seasonality, but decreased year-on-year as consumer sentiment continued to decline, especially in advanced countries.

For Samsung, we improved sales mix and expanded our leadership in the premium market by preparing for regional peak-season promotions, including Black Friday, with a focus on high-value-added products such as Neo QLED/OLED/Big TVs above 75".
Even so, our profitability decreased slightly quarter-on-quarter and year-on-year as TV market demand was stagnant and our costs increased due to intensified competition.

Now, let me move on to the outlook for the 1st quarter and 2024.
In the 1st quarter, we expect overall market demand to continue to decrease as it is a low season; but demand for premium products such as QLED/OLED/Big TVs above 75" should remain solid.
At Samsung, we will amplify the buzz created at First Look and CES around newly launched premium models; take a more proactive approach to promoting our differentiated product and service experiences; and focus on enhancing sales of strategic products and securing profitability.

Regarding the TV market in 2024, the trend of decreasing market demand will ease gradually thanks to replacement demand linked to global sporting events and others.
However, uncertainties related to various macro factors are likely to continue.

We will target various demands by innovating products centering on premium/lifestyle screens and diversifying our lineup.
Also, we will lead the AI-screen era by continuing to bring innovations of hyper-connectivity and customized content & services into our daily lives, based on the next-gen AI processor and Tizen OS.

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 some data points in key business areas.
Comparative figures are on a sequential basis for quarterly data.

For DRAM, in the fourth quarter, Samsung's bit growth was in the mid-30 percent range; and ASP increased by a percentage into the double digits.
For the 1st quarter of the year, we expect market bit growth to decline by a mid-teen percentage, and we should be around market expectation.

For NAND, our bit growth was in the mid-30 percent range, and ASP increased by a high-single-digit percentage. For the first quarter, we expect market bit growth to fall by a low-single-digit percentage, and we should come in slightly below market.

For Display in 4Q, the small-panel portion of revenue was in the high-90 percent range; and small-panel sales volume grew by a percentage in the early 20s.

In MX, approximate sales volumes of smartphones and tablets were 53 million units and 7 million units, respectively, and smartphone ASP was 258 US dollars.
In 1Q, we expect smartphone shipments and ASP to rise, while tablet shipments will probably decrease.

For TVs in 4Q, sales volume increased by a percentage in the early part of the 10% range; and in the current quarter, we expect it to decline by a percentage in the early-to-mid teens.

This completes our prepared remarks.

Please be advised that starting from today, we will provide simultaneous interpretation service for the Q&A session.

We will now open the line for analyst questions.

<Q – Peter Lee>:
I have one question for the semiconductor and the other for MX.

My first question is about your fourth quarter shipments. You mentioned increase for both DRAM and NAND. You came way above what market expected. Can you give us some color to how the shipment increased and where did you see an increase in sales?

My second question is for MX. Recently, the Galaxy S24 was launched and there's a lot of attention about the on-device AI feature of the new flagship. What kind of differentiating features do you offer on on-device AI? And do you think this will be enough to turn around the sluggish smartphone demand overall in the market?

<A>:
- I'll first answer your memory question.
Fourth quarter overall, there was the demand environment improvement and then there was also the base effect against the third quarter where shipment was limited. And so both our DRAM and NAND achieved bit growth of mid-30%.

In particular, in the case of server DRAM, server DRAM recorded above 60% bit growth, Q-o-Q. And also in Q4, our DDR5 migration to 1A nano accelerated and now accounts for over half of our server DRAM, driving overall DRAM bit growth.

NAND environment is also improving, and demand is coming in, particularly around server SSDs for data centers and storage. And server SSD shipment increased by close to 50%, which is a huge jump on a Q-o-Q basis in sales.

This year, we are expecting demand recovery to continue around the cutting edge nodes and products, and we will leverage our competitiveness in advanced nodes that we have acquired through investments to capture the market demand growth.

- I'll take your second question.
So we're focused on developing practical features that consumers can use in their daily lives, not just simply applying AI technology for the sake of it.
With the AI embedded in the S24 series, we're aiming to revolutionize experiences such as translation, text creation and organization, and search.

So let me call out a few ways that we're enhancing communication.
With our on-device AI, real-time phone call translation, as well as interpretation of face-to-face conversations, can be readily used in the call and message apps, without having to install another application.
Our keyboard-ready assistant, Chat Assist, helps users create messages appropriate for different types of situations and counterparts. And Samsung Notes now summarizes and organizes very large amounts of information.
Circled search allows you to immediately search anything you're curious about on your screen.

As for the camera in the S24 series, it has a significantly enhanced zoom with a ProVisual Engine, also based on Galaxy AI, as well as improved performance in lowlight conditions.

Instant slow-mo takes videos not originally shot in slow motion and generates new frames based on Galaxy AI's prediction of the motion between frames in order to allow the videos to be viewed slowly and smoothly.
We also offer a more creative editing experience with Edit Suggestion, where Galaxy AI analyzes a photo and suggests adjustments. And also Generative Edit, which uses generative AI to fill in parts of an image background.

Also the AP performance and heat dissipation system have also been improved, which allows efficient processing of AI workloads, and lets you stably enjoy playing high-end games for extended periods of time, while the ray-tracing graphics engine has been enhanced for high-spec gaming.
And more games with ray-tracing will be released soon in collaboration with major game partners.

So based on all of these elements that comprise our new S24 series experience, we aim to continue growing, compared to the previous model. And as the market is expecting growth for the first time in two years, especially around premium, we'll accordingly make every effort to cement our position within the premium segment.

<Q – Giuni Lee>:
I have one question on memory, the other on display.

My first question is about recent media reports that Samsung may increase utilization rates in Q1. Can you confirm whether you're continuing to reduce your production? When do you think your inventory will reach normal levels?

Second question is about display. Competitors are also making investments for IT OLED to move into the market faster. Now you have had a head start. Can

you give us an update on your customer discussions? And do you think you can have margins similar to smartphone OLED?

<A>:
- I'll take your first question about memory.
Our goal of normalizing inventory and adjusting production volume to achieve this, has not changed. Our inventory has decreased quickly in Q4 with the shipment increase and production reduction.
Especially in the case of DRAM, which is improving faster, there has been inventory reduction significantly.

That said, inventory levels actually differ depending on specific DRAM or NAND products. And so we plan to continue our production adjustments selectively during first half, taking into account future demand and inventory levels.
So for DRAM inventory, we're expecting that to reach normal range as we pass Q1.
And in the case of NAND, we expect that to normalize at least within first half, even accounting for changes in demand and market environment.

Going forward, we'll continue to constantly monitor market demand and inventory levels and flexibly adjust our operational strategy accordingly.

- Here is the answer for your second question.
First of all, we apologize for not being able to provide specific details regarding our customers.
However, following our April announcement about investment on 8th generation class IT OLED, many of our customers have shown considerable interest.
We are engaging closely with multiple customers, and some projects are underway for early technological verification with customers.

We plan to thoroughly prepare so that we can immediately start production as soon as the line is set up.

As for the outlook for the IT OLED business, and similar to the smartphone market in the past, the need for high quality, high performance is strong, especially in premium products.
As a result, we are seeing a sharp increase in OLED penetration in the premium laptop segment.
As we expand the sales growth, we will strive to be earn premium in the market in recognition of our OLED technology.

When the IT OLED business begins full-scale production, it will drive an increase in sales, which have been somewhat stagnant, and help distribute the fixed costs, which is beneficial in terms of profitability. In addition, we will make efforts to continually improve the profitability.

<Q – Dongwon Kim>:
I have one question on semiconductor, the other on display.

Recently, the memory industry is showing signs of recovery. What is your outlook for memory on both the demand and supply side?

Second question is for Samsung Display. Competitors are also moving into the smartphone market, but you are continuing to record very good profitability. Do you think that you'll be able to maintain your current profitability and competitive edge, and what kind of strategy do you have in mind for this year?

<A>:
- I'll take your first question.

While various geopolitical issues and macroeconomic trends need to be watched carefully going forward, I think overall the demand environment is expected to gradually improve, especially generative AI servers are adopting more HBM and DDR5. And in the case of NAND, we are seeing the 8-terabyte plus high-density SSD demand coming in, which are all positive signals for memory demand.
Also at the set level, PC and mobile are using the on-device AI as a new sales point, which may lead to increase in DRAM content as well as set shipments themselves.

If we look at the supply side of memory, this year, industry overall production bit growth is expected to be limited, at least versus demand. And last year, the industry Capex was reduced quite significantly, and this is leading to delays in node migration and new capacity. And the limited bit supply will be more noticeable in the advanced nodes.

This year, Capex is expected to recover overall in the industry somewhat, but most will be focused on HBM, and the non-HBM production bit growth is likely to be even more limited.
Also, HBM has larger chip size versus the existing DDR products, and also needs a buffer chip on the bottom, which are all additional production constraints, further limiting bit growth achievable for a given Capex.

Under such limited production, if the market suddenly sees improvements, it is possible that demand -- that that supply may be below demand around certain advanced node products.

We have maintained Capex last year despite profitability challenges and have increased our supply capabilities across, not only HBM but also other products as well. And it is time for us to now use that supply competitiveness we have preemptively prepared to respond stably to customer demand going forward.

- Here is the answer for your second question.
As you mentioned, competitors are accelerating their entry to the premium smartphone market and the economy continues to stagnant.
So to maintain current competitiveness and our dominant position in the mid/long term, we have been deeply considering the situation and making thorough preparations.

Most of all, our main focus is on technological differentiation and cost competitiveness, and we will strive to maximize these points.
By developing power consumption, brightness and design differentiation technologies, we plan to offer the best technology solutions, exceeding customer expectations. Also by maximizing productivity and improving process efficiency, we will keep enhancing cost competitiveness.

Competition is rising, just as the industry worries, but we believe that our source technology and manufacturing know-hows, IP, a stable SCM competencies increase in value over time. We'll consider to focus on technological differentiation as we have since the early stage of the OLED business.

<Q – Nicolas Gaudois>:
Good morning. Thanks for taking my question, which is regarding memory and DRAM.
You have previously indicated expecting to ship HBM3 to more customers, more meaningfully by the end of 2023, while sampling HBM3E 12Hi to key customers by early 2024. Can you update us on the progresses made there? And can you share some plans for the development of next-generation HBM like HBM4?

<A>:
- I'll answer your question about our HBM business.

Our HBM sales is hitting new records each quarter, and in Q4, it increased by more than 40% Q-o-Q and around 3.5x on a year-on-year basis.
HBM3's mass production started in Q3, and in Q4, we added a major GPU customer to increase sales.

Therefore, share of HBM3 and 3E and other advanced products is increasing, and likely to account for more than half of the sales volume in the first half of this year, and reaching around 90% in the second half of this year.

We're also, of course, pursuing business opportunities for the next generation HBM3E.
Customers are sampling our eight-stack product with maximum 1,280GB/s bandwidth, which will be ready for mass production within first half of this year. Also, using our 12-stack technology, we are planning on offering a 36GB high-density product to respond to needs for even better memory performance and capacity needs, and this will also be available for sampling during Q1.

You've also asked about the next generation HBM, which is HBM4.
This is in development with a 2025 sampling and '26 mass production timeline. Demand for also customized HBM is growing, driven by generative AI. And so we're also developing not only a standard product, but also a customized HBM optimized performance-wise for each customer by adding logic chips.
Detailed specifications are being discussed with key customers.

In the custom HBM space, co-work with system IC companies will be important, and our synergies with the Foundry, LSI, and the Advanced Packaging will be an important edge in this area to give us greater market competitiveness.

<Q – Sungkyu Kim>:

I have a question for VD. In 2024, regarding OLED premium lineup, can you tell us more details on your strategies? And amid intensifying competition, what is your strategy -- for differentiation strategy in the premium market?

<A>:
- Here is the answer for your question.
Beyond the limits of existing smart TVs, we are preparing an AI-screen era that changes our lives, and presents new lifestyles. And with the vision of opening this AI-screen era, we are formulating differentiated business strategies.

First, we will expand the hyper-connectivity experience through SmartThings.
TV will not be a device just for watching, it will monitor and control all house devices and even optimize power usage. We plan to transform TVs into center of AI home devices. Particularly, we will actively appeal Samsung Knox Matrix as a security solution, suitable for the era of ultra-connectivity.

Second, we will enhance customer experiences through our smart service differentiation.
Based on the device scale secured through our hardware leadership, we've been evolving our service platform focusing on gaming, media, advertising.
In 2024, we will develop a customized content and will enhance gaming experiences.
Not only that, through Samsung's own service like TV Plus, which is channel-based free service, we plan to provide differentiated customer experiences that directly relate to sales profit increase and build up this virtuous business structure.

Furthermore, on top of our two-track premium strategy with Neo QLED and micro LED, we strengthened our OLED lineup to expand customer choices. And even for low-definition content, we provided next-generation AI processors for

upscaling, offering the best viewing experiences and also maximizing picture and sound quality.

Last, our unique and differentiated product lineup, our lifestyle screen products will be actively leveraged to keep addressing diversifying customer needs.

<Q – Jayhyun Kwon>:
I have a question on your Foundry business.
There's a lot of talk about on-device AI. What kind of implication do you think that would have on the Foundry's demand side and what kind of opportunities do you expect to see related with on-device AI?

<A>:
- I'll take your question about on-device AI.
2024 will be the year one in the age of on-device AI and customers want faster devices.
With AI performance increasing, the NPU block size needs to get larger and the SRAM capacity will also need to get larger.
So in 2024, we are expecting a high single-digit increase in silicon consumption-based growth.
And in the future, we expect this to even contribute greater for foundry demand.

Finally, we will answer questions that were submitted online in advance.

We received a wide variety of questions for this quarter as well, and I believe the majority of the submitted questions were sufficiently answered during the Q&A session; we will answer one more question on a topic that garnered a high level of interest from our shareholders, but was not addressed during Q&A.

The question is:
“Growth forecast for the smartphone market in 2024 and our goals/strategy, and whether the premium segment will continue to be strong, etc.”
VP Daniel Araujo representing Mobile eXperience will answer this question.

- The smartphone market in 2024 is projected to see mid-single digit growth in terms of value, driven primarily by the premium segment, which is also expected to continue to expand as a portion of the total market.
In particular, it’s anticipated that ultra-premium smartphones (>$1,000) will account for approximately 40% of the total market.

With our S24 series, we aim to deliver a completely novel mobile experience with Galaxy AI, targeting double-digit sales growth in the premium segment. Our goal is for consumers to associate AI Phone with Galaxy, or AI Phone = Galaxy, and for us to seize an early lead in the nascent AI smartphone market.

As for foldable phones, we’ll continue to improve the competitiveness of our products by enhancing the usability and leveraging the unique form factor to achieve substantial growth in both shipments and revenue in 2024, solidifying our leadership in the foldable phone market.

We thank you for all of your opinions and we will refer to them in making our business decisions.
This completes our conference call for this quarter. I hope for everyone’s health and success.

Thank you.