

EXHIBIT 3

28-Mar-2023

Micron Technology, Inc. (MU)

Q2 2023 Earnings Call

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MANAGEMENT DISCUSSION SECTION

Operator: Thank you for standing by and welcome to Micron's Second Quarter 2023 Financial Call. At this time, all participants are in a listen-only mode. After the speakers' presentation, there will be a question-and-answer session. [Operator Instructions] As a reminder, today's program is being recorded.

I would now like to introduce your host for today's program, Farhan Ahmad, Vice President, Investor Relations. Please go ahead, sir.

Farhan Ahmad

Vice President & Head-Investor Relations and Strategic Finance, Micron Technology, Inc.

Thank you, and welcome to Micron Technology's fiscal second quarter 2023 financial conference call. On the call with me today are Sanjay Mehrotra, our President and CEO, and Mark Murphy, our CFO. Today's call is being webcast from our Investor Relations site at investors.micron.com, including audio and slides. In addition, the press release detailing our quarterly results has been posted on the website, along with the prepared remarks for this call.

Today's discussion of financial results is presented on a non-GAAP financial basis, unless otherwise specified. A reconciliation of GAAP to non-GAAP financial measures may be found on our website. We encourage you to visit our website at micron.com throughout the quarter for the most current information on the company, including information on financial conferences that we may be attending. You can also follow us on Twitter at MicronTech.

As a reminder, the matters we are discussing today include forward-looking statements regarding market demand and supply, our expected results, and other matters. These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from the statements made today. We refer you to the documents we file with the SEC, including our most recent Form 10-K and 10-Q, for a discussion of risks that may affect our future results. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. We are under no duty to update any of the forward-looking statements to conform these statements to actual results.

I'll now turn the call over to Sanjay.

Sanjay Mehrotra

President, Chief Executive Officer & Director, Micron Technology, Inc.

Thank you, Farhan. Good afternoon, everyone. Micron delivered fiscal second quarter revenue within our guidance range, and excluding the impact of inventory write-downs, margins and EPS were also within the guidance range. The semiconductor memory and storage industry is facing its worst downturn in the last 13 years, with an exceptionally weak pricing environment that is significantly impacting our financial performance. We have taken substantial supply reduction and austerity measures, including executing a companywide reduction in force.

We now believe that customer inventories have reduced in several end markets, and we see gradually improving supply/demand balance in the months ahead. Excluding the impact of inventory write-downs, we believe our balance sheet DIO has peaked in fiscal Q2, and we are close to a transition to sequential revenue growth in our quarterly results.

We are navigating the near-term difficult environment with our strong technology position, deep manufacturing expertise, strengthening product portfolio, solid balance sheet and incredibly talented team. Beyond this downturn, we anticipate a return to normalized growth and profitability in line with our long-term financial model.

Micron continues to lead the industry in both DRAM and NAND technology. We are investing prudently to maintain our technology competitiveness, while managing node ramps to reduce our bit supply and align it with demand. In DRAM, 1-alpha represents most of our DRAM bit production, and we continue to make great progress in initiating our transition to 1-beta. In NAND, 176-layer and 232-layer now represent more than 90% of NAND bit production.

We also continue to lead the industry in QLC. QLC accounted for over 20% of our NAND bit production and shipments in fiscal Q2. The Micron team's solid execution and implementation of smart manufacturing has driven superb yield enhancement across our leading-edge nodes. Yields on 1-alpha DRAM and 176-layer NAND have reached levels that are now higher than any node in our history.

In addition, both our 1-beta DRAM and 232-layer NAND have reached targeted yields ahead of schedule and faster than any of our prior nodes. We are well positioned to qualify these leading-edge nodes across our product portfolio and will ramp them based on customer demand. We are also making good progress towards the introduction of our EUV-based 1-gamma node in 2025. Similar to our 1-alpha and 1-beta nodes, we expect this node to provide us with competitive performance, power, cost and density improvements.

Now turning to our end markets, as a result of inventory adjustments across our end markets, slowing demand growth and an extremely challenging pricing environment, revenue was down year-over-year in all end markets.

While our industry faces significant near-term challenges, we believe that the memory and storage TAM will grow to a new record in calendar 2025 and will continue to outpace the growth of the semiconductor industry thereafter.

Recent developments in AI provide an exciting prelude to the transformational capabilities of large language models, or LLMs, such as ChatGPT, which require significant amounts of memory and storage to operate. We are only in the very early stages of the widespread deployment of these AI technologies and potential exponential growth in their commercial use cases. As more applications of this technology proliferate, we will see training workloads in the data center supplemented with widespread inference capabilities in the data center as well as in end user devices, all of which will drive significant growth in memory and storage consumption.

In data center, we believe that our revenue bottomed in fiscal Q2, and we expect to see revenue growth in fiscal Q3. Data center customer inventories should reach relatively healthy levels by the end of calendar 2023.

We continue to see AI as a secular driver of demand growth in the data center. An AI server today can have as much as eight times the DRAM content of a regular server and up to three times the NAND content. We are well-positioned to capture the memory and storage opportunities that AI and data-centric computing architectures will provide. Our product roadmap includes exciting HBM3 and CXL innovations, and I look forward to sharing more details about these solutions in the future. In fiscal Q2, we expanded shipments of CXL DRAM samples to OEM customers that service enterprise, cloud, and HPC workloads.

Micron is leading the industry with world-class DDR5, or D5 technology. We are shipping D5 in high volume to data center customers and achieved our first customer qualification for our 1-alpha 24-gigabit D5 product. The latest generation of server processors, AMD's Genoa and Intel's Sapphire Rapids, require D5 DRAM. Servers using these new processors will drive higher D5 industry bit demand in second half of calendar 2023, towards mix crossover with D4 in mid-calendar 2024.

In fiscal Q2, we also began volume production and shipments of the fastest PCIe Gen 4x4 NVMe SSD in the market: our 9400 176-layer performance NVMe data center SSD, which excels in AI and high-performance computing workloads.

In PCs, we now forecast calendar 2023 PC unit volume to decline by mid-single-digit percentage, returning PC unit volume to pre-COVID levels last seen in 2019. Although still elevated, client customer inventories have improved meaningfully, and we expect increased bit demand in the second half of the fiscal year. With our strong product lineup, we are well-positioned for the ongoing industry transition to D5. Client D5 adoption is expected to gradually increase through calendar 2023, with D4 to D5 mix crossover in early to mid-calendar 2024.

In fiscal Q2, our NAND QLC bit shipment mix reached a new record for the second consecutive quarter, driven by growth in both client and consumer SSDs. We qualified our Micron 2400 SSD, the world's only 176-layer QLC SSD qualified at OEMs, across the client customer base.

In graphics, industry analysts continue to expect graphics TAM growth CAGR to outpace the broader market, supported by applications across client and data center. Customers' inventory adjustments are progressing well, and we expect demand in the calendar second half of 2023 to be stronger than the first half. As the performance leader in graphics, we are excited to see our proprietary 16-gigabit G6X featured in the recently launched NVIDIA RTX 4070 Ti.

In mobile, we now expect calendar 2023 smartphone unit volume to be down slightly year-over-year. While some customer inventories are back to normal levels, other OEMs' inventories remain elevated. In aggregate, we

expect mobile customer inventory to improve through the remainder of calendar 2023, and we expect growth in mobile DRAM and NAND bit shipments in the second half of our fiscal year versus the first half.

In fiscal Q2, we continued sampling and qualifying our industry-leading 1-beta 16-gigabit LP5X, receiving very positive feedback on its power, performance, and quality from customers. We expect to generate revenue on this 1-beta product later this fiscal year. We showcased our leading products earlier this month at Mobile World Congress, where we displayed eight flagship mobile customer design wins.

Last, I'll cover the auto and industrial end markets, which now represent over 20% of our revenue and contribute more stable revenue and profitability. Micron is the market share leader in these important and fast-growing markets. In fiscal Q2, auto revenue grew approximately 5% year-over-year. Our leadership in automotive was evidenced by several milestones in Q2.

We reached a new record customer quality score, qualified the industry's first 176-layer e.MMC 5.1 automotive product, and began shipping the industry's first 176-layer UFS 3.1 automotive solution. We expect continued growth in auto memory demand for the second half of calendar 2023, driven by gradually easing non-memory supply constraints and increasing memory content per vehicle.

The industrial market continued to soften in Q2, as our distribution channel partners reduced their inventory levels and end demand weakened for some customers. Inventories are starting to stabilize at the majority of our customers, and we expect demand to improve in the second half of our fiscal year. In our fiscal second quarter, Micron achieved advanced product sampling and design-in across automation OEMs, ODMs and integrators with our latest generation of products.

Now, turning to our market outlook, our expectations for calendar 2023 industry bit demand growth have moderated to approximately 5% in DRAM and low-teens percentage range in NAND, which are well below the expected long-term CAGR of mid-teens percentage range in DRAM and low-20s percentage range in NAND. The reduction in calendar 2023 demand from our prior forecast is driven by an assessment of customer inventories as well as some degradation in end market demand. We expect that improving customer inventories will support sequential bit demand growth for DRAM and NAND through the calendar year. China's reopening is also a positive factor for calendar 2023 bit demand.

Public reports indicate that there have been significant CapEx cuts throughout the industry, and utilization rates have declined at all DRAM and NAND suppliers. We now expect that the industry bit supply growth for DRAM and NAND in calendar 2023 will be below demand growth, which will help improve supplier inventories. While the supply/demand balance is expected to gradually improve, due to the high levels of inventories, industry profitability and free cash flow are likely to remain extremely challenged in the near term.

Market recovery can accelerate if there is a year-to-year reduction in production or, in other words, negative DRAM and NAND industry bit supply growth in 2023. In response to the industry environment, Micron has taken a number of decisive actions in fiscal 2023.

First, we are further reducing our supply. We have made additional reductions to our fiscal 2023 CapEx plan and now expect to invest approximately \$7 billion, down more than 40% from last year, with WFE down more than 50%. In fiscal 2024, we expect WFE to fall further, as we ramp 1-beta and 232-layer nodes in a capital efficient manner.

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We have further reduced DRAM and NAND wafer starts, which are now down by approximately 25%. As a result, for calendar 2023, we now expect Micron's year-on-year bit supply growth to be meaningfully negative for DRAM. We also expect to produce fewer NAND bits in calendar 2023 than in calendar 2022. Excluding the impact of inventory write-downs, we expect Micron's DIO to decline sequentially going forward from its peak in the second quarter.

Second, we have made further reductions to our operating expenses beyond the executive salary cuts and suspension of Micron's fiscal 2023 bonuses companywide. We now expect our overall head count reduction to approach 15%. This will occur through a combination of workforce reductions, which are now largely complete, as well as anticipated attrition through the remainder of the year.

Third, Micron continues to execute to a strategy of maintaining flat annual bit share in both DRAM and NAND. While we have had to reduce price to remain competitive in the market, we have not done so in an attempt to gain share, as such share changes at customers are generally transitory.

Lastly, we have taken additional steps to ensure ample liquidity. Mark will go into further detail. Micron continues to have the strongest balance sheet among the pure-play memory and storage companies, and our strong liquidity will enable us to weather this downturn, while ensuring our product and technology competitiveness.

I will now turn it over to Mark.

Mark Joseph Murphy*Chief Financial Officer & Executive Vice President, Micron Technology, Inc.*

Thanks, Sanjay. Fiscal Q2 results reflected challenging market conditions, with continued deterioration in pricing and profitability. Total fiscal Q2 revenue was approximately \$3.7 billion, down 10% sequentially and 53% year-over-year. Fiscal Q2 revenue included \$114 million from an insurance settlement disclosed at the time we provided guidance.

Fiscal Q2 DRAM revenue was \$2.7 billion, representing 74% of total revenue. DRAM revenue declined 4% sequentially, with bit shipments increasing in the mid-teens percentage range and prices declining by approximately 20%. Fiscal Q2 DRAM bit shipments benefited from the timing of shipments between fiscal Q1 and fiscal Q2.

Fiscal Q2 NAND revenue was \$885 million, representing 24% of Micron's total revenue. NAND revenue declined 20% sequentially with bit shipments increasing in the mid-to-high single-digit percentage range and prices declining in the mid-20s percentage range.

Now turning to revenue by business unit, compute and networking business unit revenue was \$1.4 billion, down 21% sequentially. On a sequential basis, cloud revenue was down, while client revenue was stable. Revenue for the mobile business unit was \$945 million, up 44% sequentially. Mobile revenue benefited from the timing of some shipments between fiscal Q1 and fiscal Q2.

Embedded business unit revenue was \$865 million, down 14% sequentially. On a sequential basis, automotive markets were relatively stable, while industrial and consumer end markets experienced weakness. Revenue for the storage business unit was \$507 million, down 25% sequentially, impacted by challenging conditions in the NAND market.

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Consolidated gross margin for fiscal Q2 was negative 31.4%. This result was negatively impacted by approximately \$1.4 billion or 38.7 percentage points of inventory write-down recorded in the quarter. These non-cash write-downs, which lower the cost basis of inventory, result from projected selling prices falling below the cost of inventory and are not a result of obsolescence.

Operating expenses in fiscal Q2 were \$916 million, down roughly \$80 million sequentially. We continue to aggressively manage our operating expenses and expect them to decline sequentially in both fiscal Q3 and fiscal Q4. We had an operating loss of roughly \$2.1 billion in fiscal Q2, resulting in an operating margin of negative 56%, down from negative 2% in the prior quarter and positive 35% in the prior year. The operating loss included the \$1.4 billion inventory write-down recorded in the quarter for a 39 percentage point impact to operating margin.

Fiscal Q2 taxes were \$53 million. As mentioned in previous quarters, despite a consolidated loss on a worldwide basis, we still have taxes payable in certain geographies due to taxable income levels reported in those geographies.

Non-GAAP loss per share in fiscal Q2 was \$1.91, down from a loss per share of \$0.04 in the prior quarter and earnings per share of \$2.14 in the prior year. Fiscal Q2 EPS included approximately \$1.34 of losses from the impact of the inventory write-down.

Turning to cash flows and capital spending, we generated \$343 million in cash from operations in fiscal Q2, representing approximately 9% of revenue. Capital expenditures were \$2.2 billion during the quarter. We expect fiscal 2023 CapEx to be two-thirds front-half weighted, with a higher mix of construction spend in the second half. Free cash flow was negative \$1.8 billion in the quarter.

Our ending fiscal Q2 inventory was \$8.1 billion and reflects the impact of the \$1.4 billion write-down. Average days of inventory for the quarter was 153 days and excluding write-downs, 235 days. Inventory levels in days are higher in NAND than DRAM. Our actions on supply reflect our intent to work down days of inventories from these levels.

At quarter end, we held cash and investments of \$12.1 billion and had total liquidity of \$14.6 billion when considering our untapped credit facility. Given macroeconomic uncertainty and the market environment, during the quarter, we bolstered our liquidity further through the addition of \$1.9 billion of long-term debt. Our fiscal Q2 ending debt was \$12.3 billion. Under a net debt position, our net interest income moves to net interest expense in Q3. Micron's balance sheet is solid with ample liquidity, low net debt and a weighted average maturity on debt of December 2029.

Now, turning to our outlook for the fiscal third quarter, market conditions remain extremely challenging. However, we expect that for the rest of this calendar year, DRAM and NAND bit shipments will continue to increase, and supply/demand balance will gradually improve. Included in the fiscal third quarter guide is an insurance recovery, separate and unrelated to that recognized in fiscal Q2, of approximately \$110 million, \$70 million of which we expect to recognize as revenue.

In fiscal Q3, we expect gross margins to be negatively impacted by pricing, write-down of inventory, costs of underutilization, and a higher mix of NAND. On write-down of inventory, our guidance assumes a write-down of approximately \$500 million associated with inventory produced during fiscal Q3. Small changes to price expectations beyond fiscal Q3 could have a substantial positive or negative impact to the inventory write-down amount in fiscal Q3. Potential variances of inventory write-downs are not factored into the guidance ranges for gross margin and EPS.

As market conditions remain weak, we will continue to aggressively manage our expense profile. As Sanjay mentioned, we increased our head count reduction target to approach 15% from our previous target of approximately 10%. We now expect OpEx to fall below \$850 million in the fiscal fourth quarter of 2023. For non-operating items, we expect net interest expense of approximately \$5 million in fiscal Q3.

We now project fiscal 2023 taxes to be less than \$140 million. We expect profitability to remain extremely challenged in the near term. We do project profitability to improve sequentially due to lower inventory write-downs and free cash flow to improve slightly driven by reduced capital spend, but we forecast operating margin and free cash flow to remain significantly negative through the fiscal year.

With all these factors in mind, our non-GAAP guidance for the fiscal Q3 is as follows: we expect revenue to be \$3.7 billion, plus or minus \$200 million; gross margin to be in the range of negative 21%, plus or minus 250 basis points; and operating expenses to be approximately \$900 million, plus or minus \$15 million. We expect tax expense of approximately \$50 million. Based on a share count of approximately 1.09 billion shares, we expect EPS to be a loss of \$1.58, plus or minus \$0.07.

In closing, we continue to aggressively manage through this period of challenging market conditions, preserving our competitive technology and product positions, strong operational capability, and solid balance sheet. Following this downturn, we expect to capitalize on the secular demand trends and growth in memory and storage.

We believe we are close to a transition to sequential revenue growth in our quarterly results. We are focused on significantly improving profitability and returning to positive quarterly free cash flow within fiscal 2024. We remain confident in our financial model, and we'll continue to operate the business in a disciplined manner to generate long-term profitability, cash flow, and shareholder returns.

Sanjay Mehrotra

President, Chief Executive Officer & Director, Micron Technology, Inc.

Thank you, Mark. We are carefully managing our business to weather this industry downturn, preserving our technology and product portfolio competitiveness, and manufacturing capabilities. Micron is the leader in DRAM and NAND process technology and one of only a handful of leading-edge semiconductor manufacturers in the world. Our team continues to drive new breakthroughs for our customers.

Memory and storage are at the heart of systems and solutions that fuel the global economic engine, drive new efficiencies, create higher productivity, and spur advances that make life better for people around the world. We look forward to a normalization of market conditions, and we remain confident in the long-term demand for our solutions based on the value they create across multiple end markets.

Thank you for joining us today. We will now open for questions.

QUESTION AND ANSWER SECTION

Operator: Certainly. [Operator Instructions] And our first question comes from the line of C.J. Muse from Evercore ISI. Your question, please.

C.J. Muse

Analyst, Evercore ISI

Q

Good afternoon. Thank you for taking the question. I guess, I was hoping to get your sense of how you're thinking about the shape of the recovery. Obviously, things don't look great today, but you've been through this before and will get through it. And so would love to hear your thoughts around how you think we'll come out of this. And given the CapEx cuts we've seen across the industry, it certainly looks like we're going to be in undersupply situation, at least for DRAM in calendar 2024. And curious what some of your largest customers are saying today, particularly on the data center as they start to consider this likelihood. Thanks so much.

Sanjay Mehrotra

President, Chief Executive Officer & Director, Micron Technology, Inc.

A

Thanks, C.J., for the question. I think we can look at the question from the demand and the supply point of view. And from the demand side, as we have indicated, that we are seeing that the customer inventories are improving while still elevated. But in aggregate, customer inventories are improving. And we do expect that the volume of shipments, both for DRAM and NAND, will continue to increase on a sequential basis from here on.

And of course, on the supply side, you have heard actions from industry players and through various reports, you have seen that the CapEx reductions are being made, as well as underutilization is being made in the industry, and that is going to be taking out a chunk of – will take a bite at the supply in the industry. Basically, the supply trend will also begin to improve.

The demand and supply balance will gradually improve through the course of the year. We have said that inventory, we believe also days of inventory, will continue to improve as well. For us, days of inventory peaked in FQ2. And exclusive of inventory adjustments, we would expect days of inventory to continue to improve from here on. We have talked about for our business that we see being close to transition to sequential growth in revenue going forward.

Overall, the industry environment, with the demand and supply gradually improving, we expect the trajectory of pricing also to be improving. This then ultimately means that while the profitability remains challenged, and yes, free cash flow remains challenged, but the fundamentals of the industry are beginning to improve.

And certainly, with the actions that have been taken, it could be that in 2024 timeframe, that there could be shortages in the industry. But overall, Micron, is taking decisive actions as we have discussed with respect to managing our CapEx, managing underutilization in the fab, managing OpEx, and really focusing on supply growth as well.

And in terms of some of the market trends and the customer trends that you've talked about, basically we have shared that PC inventories are meaningfully better and will continue to improve over next couple of quarters. Smartphones, some customers may have high inventory versus other customers. But inventories continue to improve in the smartphone market over couple of quarters as well.

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Cloud revenue for us, we think, has bottomed in FQ2 timeframe. While inventories in cloud remain at elevated levels, inventories in data center remain at elevated levels, we do expect them to improve through the course of the year and get to normalized levels by the end of the year as well. And in cloud, the new CPUs do drive new D5 deployment and Micron is well positioned with DDR5 with our strong position with the product. We think that DDR5 is also a tailwind for the cloud demand with increased memory per server content that it will be driving as well.

These are all positive trends. And while we are navigating the business through an extremely challenging environment, I hope you see that Micron is responsibly managing its supply and continuing to focus on improving the demand/supply environment for us. Of course, as we have said, the recovery in the industry could be accelerated if the supply for DRAM and NAND in terms of year-over-year growth was negative. We, of course, have taken our actions to bring our DRAM and our NAND supply growth for the year to be negative.

Operator: Thank you. One moment for our next question. And our next question comes from the line of Timothy Arcuri from UBS. Your question, please.

Timothy Arcuri*Analyst, UBS Securities LLC*

Q

Hi. Thanks. I had a two-part question. First, Sanjay, I was curious, just following on the last question, what are the lasting changes that you think that the industry's going to implement coming out of this cycle? It's been so much worse than I think any of us thought it would be. Do you think that the industry and you, certainly you, it sounds like, but do you think the industry is going to be more draconian about adding bit supply? Do you think you can engage customers in more LTAs, given that the writing clearly is on the wall about where pricing is going to go after all this.

And then I guess also then for Mark, a question on the write-down for May, why keep on producing if you're going to immediately write-down \$500 million worth of inventory? Is it that you've hit some sort of floor in terms of utilization where you can't go below that? I'm just curious why you'd produce and you'd immediately write that down. Thanks.

Sanjay Mehrotra*President, Chief Executive Officer & Director, Micron Technology, Inc.*

A

I think with respect to the industry environment, you have to look at, that over the course of last three years, the world faced once-in-a-hundred-year kind of pandemic, once-in-multiple-decades kind of Russia-Ukraine war and its impact on the economy, 40-year high inflation and its impact on the macro, and all of these really resulted in an environment that created a material dislocation in terms of the demand, the surge in demand, and then inventory adjustments that took place, and resulted in a material dislocation in the customer behavior as well.

And now, you are seeing the process of recovery that is starting, the process of recovery with respect to the supply growth reductions actions that are being implemented. We talked about ours today. This will ultimately lead to the industry to recover to healthier levels.

The profitability levels in the industry today are simply not sustainable. The demand and supply environment has to improve in the industry. And keep in mind that before this period of last two to three years, with all these events that I just mentioned, the industry for 10 years-plus had been disciplined particularly in DRAM. I do believe that the investments in the future that require healthy levels of profitability and, of course, supply discipline will be back and the industry will grow, and particularly keeping in mind the strong demand trends.

I talked about 2025 – we think will be a record revenue year for the industry, because last two years have been slow demand growth in terms of shipments. We think 2024 and 2025 will be strong years that will drive strong growth. You're seeing actions on the supply side. The health of the industry will be restored in the future quarters.

And no doubt that AI – and we talked about generative AI, this is very, very early stages of generative AI, and these are the trends that ultimately really drive greater demand for a long time to come for memory and storage. When you look at really the future, it equals AI and AI equals memory, and Micron is well positioned with our technology and product roadmaps to address the growing opportunities there.

Mark Joseph Murphy

Chief Financial Officer & Executive Vice President, Micron Technology, Inc.

A

Tim, on your second question, we have been actively taking supply out of the market. We took utilization levels down late summer, we increased that more in the fall. And as you heard on the call today, we've taken utilization down even further. And it's – we're at levels now that none of us have seen before on underutilization at Micron and maybe in the company's history. It's a significant reduction.

I'll add that we do, as you know, build principally to WIP, so we're able to then finish those products later and minimize the amount of build. We've also very thoughtfully, when we've reduced utilization, done it in a way that we can maximize the cash benefits reductions that we get when we reduce.

And then it's important to note that in the time horizon that we're looking at, we are seeing bit volumes increase sequentially from here on out. Now, in the third quarter, I will note just some housekeeping that DRAM volumes are up modestly in the third quarter and NAND is up sharply, strongly I should say. And while both are price-challenged, NAND is more challenged. But, again, we are seeing growth in bits and we expect that to – is the beginning of supply/demand getting into better balance.

Operator: Thank you. Our next question comes from the line of Chris Danely from Citi. Your question, please.

Christopher Brett Danely

Analyst, Citigroup Global Markets, Inc.

Q

Hey. Thanks, guys. Just a couple of specific questions on the expected recovery. Is your base case – I guess in terms of PC and cellphone demand for the second half of this year, is your base case expecting those end markets to get back to normal seasonality? And how should we expect utilization rates to trend as you continue to increase DRAM and NAND? Should we expect to get back to full utilization rates in a couple of quarters or is there some sort of revenue or bit level that you could give us that would indicate that you're back to full utilization? Thanks.

Sanjay Mehrotra

President, Chief Executive Officer & Director, Micron Technology, Inc.

A

With respect to the utilization rates, of course, we will continue to monitor the industry demand. And it's important for us to continue to work on bringing our days of inventory down. And utilization could continue into fiscal year 2024 as well. We'll need decisions regarding utilization as a function of, again, our latest status in the future around our inventory position and assessment of demand.

Regarding your question on the smartphone market, as we have said, that in calendar year 2024, we expect that smartphone unit volume will decline on a year-over-year basis. And Q2 growth for us was above seasonal. And

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as customers' inventory levels normalize over the course of the year, then normal demand trends will also be restored in the smartphone market.

And regarding the smartphone market, even though the unit volume may be down on a year-over-year basis, important thing is that the smartphone market is shifting its mix more towards flagship phones. And flagship phones require more memory as well. These are some of the trends that will play out as that demand grows over the course of the year for – in the smartphone market.

Christopher Brett Danely*Analyst, Citigroup Global Markets, Inc.*

Q

Okay. Thanks.

Operator: Thank you. One moment for our next question. And our next question comes from the line of Harlan Sur from JPMorgan. Your question, please.

Harlan Sur*Analyst, JPMorgan Securities LLC*

Q

Hi. Good afternoon. Thanks for taking my question. On the underutilization charges, I know last call, the team had articulated roughly \$460 million of charges recognized primarily in fiscal Q3 and Q4. How much of this is embedded in your Q3 numbers and Q3 guidance? And given the lower utilizations to get down to 25% or cut it by 25%, if you continue to drive lower utilizations through the second half of this calendar year, like, how do we think about underutilization charges in fiscal Q4 and second half of this calendar year?

Mark Joseph Murphy*Chief Financial Officer & Executive Vice President, Micron Technology, Inc.*

A

Harlan, I'll answer it briefly here at the beginning and then maybe take the opportunity to just talk through gross margins and effect of utilization on gross margin. Based on what we told you last quarter, and I went into some length last quarter about the charges and periodic costs and so forth, but last quarter, we thought we'd have around \$900 million in fiscal 2023. And about \$460 million would hit FY 2023 COGS.

With the underutilization that we've stepped up here, we see now about \$1.1 billion in 2023 and this is a combination of costs in inventory and period costs, and we actually see about \$900 million of that flowing into FY 2023. And that's driven by not only the increase in underutilization costs, it's driven by the effects of the write-down in the accounting – or inventory write-downs and the pull forward of costs. If we step back and we look at our reported gross margin and our outlook, they're a function of many factors, including pricing, inventory write-downs, which incorporate our forward view of pricing, the effects of utilization, volumes and the associated leverage on period costs as we discussed last quarter, and, of course, mix.

These factors are continuously changing due to the market environment and our actions. And then further, I'll add that at these lower levels of profitability, the margin forecasts and the results are more sensitive to slight changes in assumptions, importantly such as price. On price, given the recent price trends that we've seen and our current view on pricing, as we reported in Q2, we took a material write-down of inventories of \$1.4 billion. And then the Q3 guide contemplates a write-down of \$500 million on this additional inventories produced.

With these write-downs, we pulled forward inventory costs. And thus we've lowered the carrying value of on-hand inventories. And as this lower cost inventory clears in future quarters, we'll realize more income in those quarters

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than we would have without the charge. As an example, we expect around a \$300 million benefit in Q3 from the Q2 charge as a portion of these lower cost inventories sell-through.

As per your question, we also now have the underutilization effects creating higher-cost inventories and then adding additional period costs. And as mentioned, we see about \$1.1 billion of underutilization impact FY 2023, and most of that, as I mentioned, we expect to hit the P&L this year. And some of it will carry over to next year. Now because of the effect of write-down accounting, less of it will carry over to next year than would have otherwise.

Now, considering all this, we expect our reported second quarter gross margin to be the trough, so that 31.4%, and that, again, is driven in large part by the \$1.4 billion write-down. With a much lower inventory charge forecasted in the third quarter, you see that we guided about 10 points better relative to Q2.

Now again, these estimates are very sensitive to pricing changes, but in our current view, Q4 would be better than Q3 in the sense of a lower charge, if any. And then over time, as bit volumes grow, as I talked about in the last call and we talked about today, we get leverage on our period costs and utilization improves, first, it will improve in the back end, then we'll have better utilization on the front end.

And most importantly, as customer inventories continue to improve, inventories come down and supply/demand balances better, we would expect reported margins to improve through FY 2024. But again, a lot of factors at work here. If you were to just strip out the impairment charges or the write-downs in second and third quarters, Q2 would be a 7.3% gross margin, 3Q would be a negative 7.5% margin, so down considerably. And again, this is a function of the pricing environment and costs of underutilization, including period costs, which again I discussed last quarter.

Under this view, we would trough in the second half on gross margin, then would improve off these low levels through FY 2024. In the end, the profile of the outlook is similar to what we discussed last quarter, though, of course, levels are lower with the pricing environment we've seen, and the recovery is a bit delayed because of a bit lower volumes. But again, trough in the second half and some improvement expected through FY 2024.

.....
Operator: Thank you. Our next question comes from the line of Toshiya Hari from Goldman Sachs. Your question, please.

Toshiya Hari*Analyst, Goldman Sachs & Co. LLC*

Q

Hi. Thank you for taking the question. One question on the NAND business and end market. You talked about your bit production being down year-over-year in calendar 2023, which I believe is a little bit more draconian than most of your competition. Just curious how you're thinking about the strategy in NAND. Could this cause permanent damage to your relative competitiveness?

And kind of related to that, one of your competitors has significant capacity in China. Wondering if you had customers come to you and express concerns around that, and if that could be a potential relative positive for you over the medium to long term. Thank you.

Sanjay Mehrotra*President, Chief Executive Officer & Director, Micron Technology, Inc.*

A

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With respect to NAND, we are well-positioned with our technology and product roadmap. We shared the view today that 176-layer NAND yields are doing exceptionally well. 232-layer NAND, we have begun shipping in the market already. And with 176-layer as well as 232-layer, we have been well ahead of any competitor in the industry. 90%-plus of our supply today in NAND that we are shipping is 176- plus 232-layers.

Overall, we are well-positioned with our technology. Our underutilization actions, we really believe, is what is needed to bring supply in line with demand. And we think these are the actions that are needed to restore the health of the business. And we have said in our prepared remarks that the industry recovery could be accelerated, if NAND and DRAM supply growth, production growth, is negative on a year-over-year basis, and we certainly are taking our actions accordingly.

And regarding China, I can't really comment on part of other customers. But what I can tell you is that our customers really do see a strong technology execution, a strong product execution from Micron. And with our product portfolio, we have done well with leveraging our NAND and DRAM in mobile markets with multi-chip packages.

In automotive, I talked about some of the NAND product portfolio expanding and creating opportunities to strengthen our leadership position in automotive markets. And certainly in the data center market, SSDs is also an opportunity, and our Gen4 NVMe SSDs have been continuing to do well in the client market as well.

Our customers see our execution and innovation capabilities in technology and in products, and that's what is bringing us stronger relationships with our customers for the NAND business. And of course, in terms of market opportunities, those continue to be healthy in terms of NAND displacing HDDs in the data centers and Micron having the right products to grow those opportunities in the future. With NVMe SSDs in data center, we have been absent in the past, and now we have a healthy product portfolio. And we look forward to growing our opportunities in that space in the future.

NAND, overall, in combination with DRAM, enables us to have a strong differentiated value for our customers and Micron is well positioned with our technology and product roadmap, and certainly, we believe that our supply actions here are prudent.

Operator: Thank you. One moment for our next question. And our next question comes from the line of Aaron Rakers from Wells Fargo. Your question, please.

Aaron Rakers*Analyst, Wells Fargo Securities LLC*

Q

Thanks for letting me ask a question. Mark, I apologize. I just want to go back to the inventory discussion a little bit. Is there any way to bridge the prior comment of the \$460 million, again, that Harlan had brought up relative to that? Sounds like \$900 million for fiscal 2023. I'm curious on what's embedded in the gross margin for underutilization this quarter. And I guess on inventories, is there any risk of obsolescence of inventory or is the inventory good, it just gets sold through at a lower cost of goods at this point?

Mark Joseph Murphy*Chief Financial Officer & Executive Vice President, Micron Technology, Inc.*

A

The inventory is still good. The cost basis is lower on the inventories. And then as far as your question on underutilization charges, just bridging it from what we said last time, last time we had total underutilization charges of about \$900 million that were incurred in FY 2023, of which we believe that \$460 million would pass

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through to the P&L in FY 2023 and that \$460 million was a combination of costs and inventories that clear and then also period costs.

Now, with the increased underutilization, our view is \$1.1 billion of costs in FY 2023. And the amount that we believe will pass through in the second half here is \$900 million. Again, that is a combination of costs that are in inventory and period costs. Now, the reason it's a higher percent of the total FY 2023 costs that we saw is because of this write-down accounting, where – those inventory charges are pulled forward. I hope that clears up the question.

Operator: Thank you. One moment for our next question. And our next question comes from the line of Joseph Moore from Morgan Stanley. Your question, please.

Joseph Moore*Analyst, Morgan Stanley & Co. LLC*

Q

Great. Thank you. Sorry if I missed this and I appreciate the detailed puts and takes on gross margin. With regards to the lower cost to market adjustment, can you walk through the mechanics of how you got to this number for the February quarter? I guess a little over \$1.4 billion. Is that – I know you pool the inventory and then you compare that to the market price. How far out in time does that market price assessment take you? And I guess to the extent there's more than one quarter of sell through that's being adjusted, how are you making a determination of what the price will be there?

Mark Joseph Murphy*Chief Financial Officer & Executive Vice President, Micron Technology, Inc.*

A

That's right, Joe. You did a decent job of sort of answering the question. But if you – I would refer you to our public filings, but as a reminder, we evaluate the recoverability of inventory as a single pool. This method we've applied consistently and as disclosed. We analyze the recoverability of our inventory based on quantities and values on hand at the end of each quarter. We project the period over which that inventory will be sold based on our most recent forecast and consider the expected selling prices during that forecast horizon.

Since the pre-write-down inventory, days of inventory were about 235 days. That projection covers nearly three-quarters. The amount by which our inventory carrying costs exceeds expected sales values, adjusted for selling expenses determines the charge. And in this case, that yielded a \$1.4 billion write-down in the second quarter and we expect that same process to result in a \$500 million charge in the third quarter.

Operator: Thank you. One moment for our final question for today. Our next question and final question for this session comes from the line of Krish Sankar from Cowen. Your question, please.

Eddy Orabi*Analyst, TD Cowen*

Q

Hey, guys. Good afternoon. This is Eddy for Krish from TD Cowen. It seems you adjusted the language regarding your DDR4 and DDR5 crossover date from mid-2024 to mid- to early 2024. Slightly better than prior outlook. It's a bit surprising given that datacenter inventory for DDR4 is pretty high. Is that improved outlook driven by better-than-expected demand for new CPUs from Intel and AMD or is it a function of you seeing higher share than expected in DDR5 or is it more of datacenter customers buying ahead and taking advantage of low-price environments? Any color regarding the improved outlook would be helpful. And thank you.

Sanjay Mehrotra*President, Chief Executive Officer & Director, Micron Technology, Inc.*

A

Regarding the mix of D4 to D5 transition, the comments that I made were for the industry trends and those have not really changed versus our prior expectations. Of course, they're a function of deployment of the new CPUs such as AMD Genoa and Intel Sapphire Rapids into the servers, into the datacenter infrastructure. And you are seeing that those CPUs are now starting to get broadly deployed and will continue to increase through the course of 2023 and 2024. Our expectations in terms of transition timing for D4 to D5 for the industry have not changed. And, yes, we remain well positioned with our D5 product in the market.

Operator: Thank you. This does conclude the question-and-answer session as well as today's program. Thank you, ladies and gentlemen, for your participation. You may now disconnect. Good day.

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