



Sanjay Mehrotra, President and Chief Executive Officer

Micron's record first quarter results demonstrate the Company's continued strong execution, a market environment that reflects the strategic importance of memory and flash storage, and healthy supply and demand fundamentals. During the quarter, we continued to enhance our cost competitiveness, achieving yield maturity on both 1X DRAM and 64-layer 3D NAND. We improved our mix of high-value solutions, delivering record SSD revenues and further increasing our SSD share. More recently, we began shipping our first 64-layer NAND consumer SSD. We also introduced the industry's fastest high-density 32GB NVDIMM-N, which combines Micron's DRAM and NAND to deliver a persistent memory solution that addresses intense data analytics workloads. We have garnered solid interest from enterprise and cloud customers, and customer qualifications are underway. And, we strengthened our talent bench with the recent addition of Manish Bhatia, who leads our global operations. Manish brings extensive experience in managing end-to-end operations and is focused on driving manufacturing and supply chain efficiencies to reduce costs and improve our agility. Finally, we improved our financial foundation with the retirement of \$2.4 billion of debt. I'm pleased with our accomplishments and believe our focus on speed and execution better position Micron to deliver value to our customers and capture the increasing number of end-market opportunities.

I will now discuss trends and results in each of our major markets. Cloud and traditional enterprise data center trends are continuing to drive robust demand for memory and flash storage solutions. Our Q1 SSD revenue to cloud and enterprise customers increased 50 percent sequentially. We recovered from the flash component issue discussed in our September earnings call that impacted last quarter's SSD sales.

On the compute side, we had solid sequential DRAM revenue growth into data center markets, driven primarily by enterprise sales. DRAM bit shipments to both cloud and enterprise customers were up by more than 50 percent year-over-year, underscoring the data center's growing need for memory and our strong execution in this market. Our 1X nanometer designs have been well received by cloud customers, with more than a quarter of our cloud revenue in Q1 coming from our 1X technology. Fast qualification and production ramp by our cloud customers of new technology node products is a significant benefit, as it diversifies and accelerates our customer traction and market reach during early stages of production deployment of these advanced nodes.

The need to access, analyze, and store data extends well beyond the cloud. This is perhaps most apparent in the mobile market. Smartphone capabilities have surpassed simple communication and web browsing — they help us navigate, monitor, and interact with the world around us. New cameras capture precious moments with amazing fidelity, and emerging applications like AR have tremendous promise. This increase in functionality is driving the use of higher-capacity memory solutions and increased storage in mobile devices. These trends, along with our solid execution, drove record mobile revenue in FQ1. We are strengthening our offerings and continue to diversify our portfolio of LPDRAM, MCP, and discrete managed



storage solutions to meet the growing needs of our customers. We are accelerating our progress to expand our portfolio of low-power solutions with the release of new products such as our 1X LPDRAM designs. We also shipped initial samples of our 64-layer NAND discrete UFS solution to chipset partners and customers, with very promising results.

Home automation and edge computing devices continue to drive strong revenues in consumer and industrial market segments, which require a wide variety of memory and managed storage products. As more edge devices begin to integrate machine learning and intelligence, we see opportunities to provide higher-performance memory and flash storage solutions in these markets.

We have also seen rapidly growing demand for our graphics products. The graphics market continues to be fueled by the ever-growing popularity of gaming and eSports. Although smaller in size, recent interest in cryptocurrency mining has put further pressure on graphics memory supply. Our close customer relationships and leading product portfolio helped drive record graphics revenue, up more than 75 percent year-over-year. We sampled industry-leading 16Gb-per-second GDDR6 products to key customers and are seeing significant interest in automotive and networking applications that need the high bandwidth this memory provides. We plan to ramp GDDR6 to production in early calendar 2018 for the graphics market, followed by other high-performance applications such as automotive and networking.

The rapid innovation in automotive technology towards autonomous driving continues to create significant demand for higher memory capacities and greater performance. We secured a key design win in an important autonomous driving platform this quarter and are focused on replicating our success to retain our leading share in that market. Automotive customers are moving more rapidly to new memory technologies than they have in the past, and our announcement of the fastest 1X LPDDR4 and GDDR6 products for autonomous driving applications will ensure we continue to support this shift to leading-edge technologies.

We also set record revenues supplying the networking applications that serve data centers and edge devices, as our reputation for consistency and innovation drives strong ties with networking customers.

These diversified growth drivers and structural market trends are generating tremendous opportunity for Micron. We are uniquely positioned in these markets with a broad portfolio of both DRAM and NAND solutions, excellent quality, and comprehensive customer ecosystem engagement. We are focused on developing the right products, deepening our customer relationships, and enriching our revenue mix to capitalize on these opportunities.

Turning to manufacturing and technology, our ability to execute our technology roadmap and drive cost competitiveness are foundational to our ongoing success. In terms of wafer manufacturing plans, we still expect to achieve bit output crossover on 64-layer NAND during the second half of FY2018 and expect to



achieve bit output crossover on 1X DRAM by the end of calendar 2018. We are outfitting our new back-end factory in Taichung, Taiwan, to ramp assembly and test capacity, and expect meaningful output from the facility before the end of the fiscal year. Our capital investments are tracking with our deployment plans, and we are seeing good traction in improving the efficiency and cost effectiveness of our operations through these investments. Both 1Y DRAM and third-generation 3D NAND development are progressing well, and we remain on track for initial output of both in the second half of calendar 2018.

We continued to make good progress with our 3D XPoint™ technology. Historically, Micron's efforts on 3D XPoint have been largely focused on technology development and early manufacturing ramp, but given our increased focus on high-value product solutions, we have recently resourced a product development team to address the opportunity ahead of us. Simultaneously, we are working with various players in the ecosystem to assess market and enablement opportunities, and we will provide further details of our views regarding these opportunities during our upcoming analyst event. We will also continue to have the opportunity to sell our 3D XPoint output to our partner as this market develops.

Switching to our industry outlook, our supply and demand projections remain consistent with what we shared last quarter. DRAM industry supply bit growth is expected to be about 20 percent in calendar 2018, and we expect a healthy market environment, driven by the ongoing enterprise data center, cloud, and mobile strength as we just discussed. We expect the industry bit growth for NAND to approach 50 percent in calendar 2018, as the industry continues to ramp 64-layer designs into volume production. SSD adoption in client computing and data center applications continues to increase and will expand further as more supply becomes available over time. Against that backdrop, projections for our own bit growth remain unchanged — we expect our DRAM bit growth to be slightly below the industry, and we expect our NAND bit growth to be somewhat above the industry for FY2018.

During FY2018, we are focusing on technology transitions for both DRAM and NAND, without any additions to our total wafer capacity, and on improving our mix of high-value solutions to enhance our revenue share. For FY2019 and beyond, we continue to assess scenarios for the fab cleanroom space required to implement technology transitions to future, more advanced DRAM and 3D NAND nodes.

I'll now turn it over to Ernie to provide details on our first quarter results by business unit.

Ernie Maddock, Senior Vice President and Chief Financial Officer

We had a very strong start to our fiscal year, exceeding guidance across all financial metrics, driven by strong execution, a continued robust market environment, and further progress on our technology migrations.



For FQ1, total company revenue was \$6.8 billion, up 11 percent from the prior quarter and up 71 percent on a year-over-year basis. Non-GAAP gross margin expanded to 55 percent, up 4 percentage points from FQ4 and 29 percentage points from the first quarter of FY2017. Non-GAAP operating margin was 46 percent, up from 41 percent in the prior quarter and up 35 percentage points from the year-ago period.

We continue to prudently manage spending with non-GAAP operating expenses totaling \$612 million for the quarter, up 2 percent from FQ4 with both SG&A and R&D remaining relatively flat quarter-on-quarter.

Non-GAAP net income increased to 44 percent of revenue and totaled approximately \$3 billion, or \$2.45 per share. This performance compares with \$2.4 billion or \$2.02 per share in FQ4, and \$335 million or \$0.32 per share from the year-ago period.

Turning to performance by business unit:

The Compute and Networking Business Unit reported FQ1 revenue of \$3.2 billion, up 13 percent sequentially and more than double year-ago levels. Our record performance was driven by increasing server memory content, which drove higher sales to enterprise customers together with strong demand for graphics processing. Operating income was 60 percent, compared to 56 percent in FQ4 and 14 percent in FQ1 2017.

FQ1 Storage Business Unit revenues increased 7 percent sequentially to \$1.4 billion, driven by strong growth in SSD sales. On a year over year basis, revenues were up 61 percent, driven by increasing market share in SSDs. In fact, sales of SSDs reached record levels in the quarter, with double-digit sequential growth across Consumer, Client and Enterprise/Cloud markets. SBU operating margins increased to 29 percent from 19 percent in the prior quarter, and negative 5 percent in FQ1 2017. These results reflect a higher value product mix and continued market acceptance of our TLC 3D NAND based products.

The Mobile Business Unit reported \$1.4 billion in revenue, up 16 percent sequentially and up 32 percent year-over-year. We are seeing strong acceptance of our LPDRAM products and continue to enhance our portfolio of managed NAND offerings. The solid demand environment, combined with the traction we've made with our latest-generation products, led to operating income of 37 percent, up from 31 percent in FQ4 and 9 percent in FQ1 2017.

The Embedded Business Unit reported revenue of \$830 million in FQ1, in line with the prior quarter and up 44 percent year-over-year. Operating margin was 41 percent, essentially flat from the prior quarter and up 10 percentage points year-over-year. As Sanjay noted earlier, we continue to see exciting demand trends across each of the underlying embedded markets with evolving end-market requirements ranging from high-performance memory required for autonomous driving, to ultra-high-density storage solutions for edge devices such as video surveillance cameras. We are focused on building upon our existing leadership position to capture these growth opportunities.

Turning to results by product line:



DRAM represented 67 percent of overall company revenue in FQ1. Demand for client PCs, solid exposure to new flagship smartphones, and ongoing strength from servers, particularly in cloud and hyperscale data centers, drove DRAM revenue higher during the quarter, up 13 percent sequentially and up 88 percent year-over-year. Sequentially, shipment quantities increased in the upper single-digit range, while ASPs increased in the mid-single-digit range. DRAM non-GAAP gross margin was 61.5 percent in FQ1, up 2 percentage points from the prior quarter and up 33 percentage points from the year-ago quarter.

Revenue from trade NAND increased by 2 percent sequentially and represented 27 percent of overall company revenue in FQ1. Trade NAND revenue was up 47 percent year-over-year, driven by our strong growth and market share gains in the SSD market and robust demand from the mobile and embedded markets. On a sequential basis, shipment quantities increased in the mid-single-digit range, while ASPs declined in the low single-digit range. Trade NAND non-GAAP gross margin was 49 percent in FQ1, up 9 percentage points from the prior quarter and up 26 percentage points from the year-ago quarter — reflecting a richer mix of sales into high-value end markets.

As Sanjay noted in his prepared remarks, we are making strong progress on the roll out of our 1X DRAM and 64-layer 3D NAND deployment. The roll-out of these technologies will enable meaningful levels of ongoing cost-per-bit reduction as we make progress throughout FY18. For DRAM, our bit output growth will be more heavily weighted to the first half of the fiscal year, while NAND bit output growth will be relatively greater in the second half of the fiscal year.

The company generated operating cash flow of \$3.6 billion in FQ1, compared to \$1.1 billion in the year-ago period.

During the quarter, we deployed \$1.9 billion for capital expenditures, net of partner contributions. We continue to expect FY18 capex in the range of \$7.5 billion plus or minus 5 percent, fairly balanced between the first and second halves of the fiscal year. Free cash flow for the quarter was \$1.7 billion, compared to negative free cash flow in the year-ago period.

We continue to pursue our plans to strengthen our balance sheet and lower debt. During FQ1, we raised \$1.4 billion from an equity offering and repurchased or converted \$2.4 billion in principal amount of our debt. Total face value of debt was \$9.3 billion as of the end of FQ1, and we currently expect to exit FY18 with approximately \$8 billion in face value debt.

We expect the interest savings from these de-leveraging actions, combined with higher interest income from larger cash balances and the anti-dilutive effects of settling converts for cash, to materially offset the dilutive impacts associated with the equity offering. Exiting FY18, we foresee non-GAAP net interest expense of \$25–30 million per quarter versus \$100 million in FQ4 17.

We ended the first quarter with cash, marketable investments, and restricted cash of approximately \$6.6 billion and continue to see the opportunity to exit FY18 in a positive net cash position.



Moving on to guidance for FQ2 2018. On a non-GAAP basis, we expect the following:

- Revenue in the range of \$6.8 to \$7.2 billion;
- Gross margin in the range of 54 to 58 percent;
- Operating expenses between \$625 and \$675 million;
- Operating income ranging between \$3.25 and \$3.45 billion, and;
- EPS ranging between \$2.51 and \$2.65 per share, based on 1 billion 241 million diluted shares.

Finally, a word about tax reform. As drafted, the legislation would have no significant impact to our FY18 tax rate, which we continue to expect to be in the mid-single-digit range. In FY19 and beyond, we would expect some impact to our non-GAAP tax rate, with an offsetting benefit of more flexibility in deploying our global cash balances. As further clarity around this legislation develops, we will provide appropriate updates.

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As we close out calendar 2017 and look to 2018, we see increasing opportunities for Micron to play a larger role in the technology trends shaping modern life. We will be hosting an analyst conference in May, where we plan to elaborate on our view of these trends and how Micron envisions our technologies shaping the world in the years to come.

We believe that our technologies, capabilities, and team talent place us in a unique position in the market. Memory and flash storage are strategic assets that put Micron at the intersection of the biggest growth trends in technology, and we cannot be more excited about our future. Our customers increasingly view us as an essential partner in early design discussions due to the differentiation our solutions can provide. We are focused on increasing this value, and I look forward to sharing the results of that focus throughout 2018.



This document contains forward-looking statements regarding the company's strategic position and financial results, and future financial performance of the company and the industry. These forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially. Please refer to the documents the company files with the Securities and Exchange Commission, specifically its most recent Form 10-K and Form 10-Q. These documents contain and identify important factors that could cause the company's actual results to differ materially from those contained in its forward-looking statements. These certain factors can be found at <http://www.micron.com/certainfactors>. Although the company believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, levels of activity, performance, or achievements. The company is under no duty to update any of the forward-looking statements after the date of this release to conform these statements to actual results.