# Financial results

FQ4 2023





#### Safe harbor statement

During the course of this meeting, we may make projections or other forward-looking statements regarding market demand and supply, future events or the future financial performance of the Company and the industry. We wish to caution you that such statements are predictions, and that actual events or results may differ materially. We refer you to the documents the Company files from time to time with the Securities and Exchange Commission, including the Company's most recent Form 10-K and Form 10-Q. These documents contain and identify important factors that could cause the actual results for the Company to differ materially from those contained in our projections or forward-looking statements. These certain factors can be found at micron.com/certainfactors. 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.



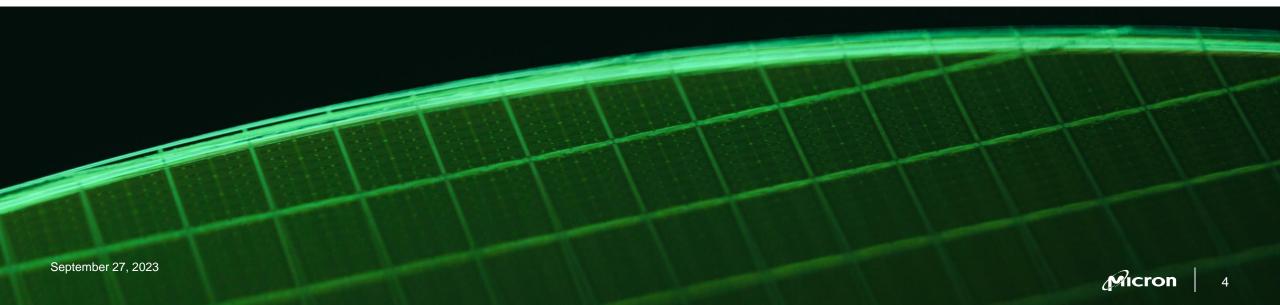
## Sanjay Mehrotra President and CEO



#### **Overview**

- In fiscal Q4, Micron delivered revenue and gross margin above the midpoint of our guidance, with EPS above the high end of the range.
- These results reflect our strong execution, and we are well positioned to drive significant improvements in our financial performance.

- Ongoing demand growth, customer inventory normalization, and industry-wide supply reductions have set the stage for increased revenue, along with improved pricing and profitability throughout fiscal 2024.
- Continue to expect record industry TAM in calendar 2025 with more normalized levels of levels of profitability.



#### Fiscal year 2023 highlights

- Achieved record automotive revenue, record NAND QLC bit shipments for the full fiscal year, and reached record levels in CQ2 for revenue share in data center and client SSDs.
- First in our industry to introduce 1-beta DDR5 and LP5X DRAM products, and the first to ship HBM3E samples with industry-leading performance and power efficiency.
- First to introduce 232-layer NAND SSD products in data center, client and consumer markets.
- These accomplishments were underpinned by our leadership technology and continued strong progress in manufacturing execution.
- Achieved world-class mature yields in record time on our industry-leading
   1-beta DRAM and 232-layer NAND technology.
- In addition, Micron took several prudent and timely actions to reduce our capex and supply in order to address the market imbalances through the course of fiscal 2023.



#### **Technology and production**

- Our industry-leading technology roadmap continues to progress well.
- Vast majority of our bits are on leading edge nodes 1alpha and 1-beta in DRAM and 176-layer and 232layer in NAND.
- Continue to make good progress on 1-gamma DRAM development using EUV, and are on track for production in calendar 2025.
- Development of our next-generation NAND node is also well on track.

#### **End markets overview**

- Customers continued to reduce their excess inventory for memory and storage in fiscal Q4.
- Most customer inventories for memory and storage in the PC and smartphone markets are now at normal levels, consistent with our prior forecasts.
- Inventory levels are normal across most customers in the automotive market as well.
- Data center customer inventory is also improving and will likely normalize in early calendar 2024.

#### **End market highlights**



- Traditional server demand remains lackluster while demand for AI servers has been strong. Total server unit shipments are expected to decline in calendar 2023 — the first year-over-year decline since 2016. We expect total server unit growth will resume in calendar 2024 to help fulfill everincreasing workload demand.
- Compared to traditional servers, AI training servers contain significantly higher DRAM and NAND content with greater technology complexity, robust product value and higher profitability.
- Micron has a strengthening portfolio that includes HBM3E, DDR5, and associated high-capacity modules, LPDRAM, and data center SSDs. This portfolio of industry-leading products positions us well to capture the opportunities presented by data-centric computing architectures and AI.
- HBM: The introduction of our HBM3E product offering has been met with strong customer interest and enthusiasm. We developed this industryleading design using our 1-beta technology, advanced TSV, and other innovations that enable a differentiated packaging solution. We expect to begin the production ramp of HBM3E in early calendar 2024, and to achieve meaningful revenues in fiscal 2024.

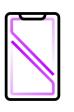
- DDR5: We expect Micron D5 volume to cross over D4 in early calendar 2024, ahead of the industry. We expanded our high-capacity D5 DRAM module portfolio with a monolithic die-based 128GB module and have started shipping samples to customers to help support their AI application needs. We expect revenue from this product in Q2 of calendar 2024.
- CXL: Last month, we announced the introduction of 128GB and 256GB CXL 2.0 memory expansion modules. By leveraging a unique dual-channel memory architecture, we are able to deliver higher module capacity and increased bandwidth. We have shipped samples to several customers and key partners.
- Data center SSDs: Micron's entire portfolio utilizes 176-layer or 232-layer NAND in production, a testament to our product and technology leadership. We saw strong demand for our data center NVMe SSDs across our Alfocused, industry-leading 30TB product, as well as our mainstream products. Micron ended the second calendar quarter with record high revenue share in data center SSDs, based on independent industry assessments. We expect to build on this momentum in fiscal 2024.

#### **End market highlights**



#### PC

- **PC**: Continue to forecast calendar 2023 PC unit volume to decline by a low double-digit percentage year over year and then grow by low to mid single digit percentage in calendar 2024. Al-enabled PCs will drive content growth and an improved refresh cycle over the next two years.
- In FQ4, we saw strong sequential bit shipment growth at PC OEM's driven by demand for LPDRAM in thin client notebooks. We expect to begin revenue shipments of our industry leading 1-beta-based client D5 in FQ1 to PC OEMs.
- Our 232-layer NVMe client SSD is now qualified at large OEMs and shipping in volume production.
- Our SSD QLC bit shipment mix reached a new record for the second consecutive quarter, with growth in both client and consumer markets. We continue to expand our footprint in the high-end consumer SSD space with the launch of three new products that extends our reach into professional content creators and enthusiast PC gamers.



### Mobile and intelligent edge

- Mobile: Expect calendar 2023 smartphone unit volume to be down by a
  mid-single digit percentage year over year and then grow by mid-single digit
  percentage in calendar 2024. Elasticity, along with a mix shift towards
  premium phones with greater capacity is contributing to memory content
  growth. ~1/3 of smartphones sold today have at least 8GB of DRAM and
  256GB of NAND, up more than 7% points versus smartphone units a year
  ago.
- Automotive: Fiscal 2023 marked another record revenue year for our automotive business. Micron continues to lead in automotive market share and quality. Long term, we expect memory and storage content per vehicle to increase in both ADAS and in-cabin applications. In addition, fastgrowing EVs typically contain higher memory and storage content. Our automotive design win trajectory remains strong.
- Industrial: Market showed signs of recovery in fiscal Q4. Inventory levels
  for memory and storage are stabilizing at distribution partners and at the
  majority of our customers. We expect the volume recovery that we
  observed in the second half of fiscal 2023 to continue into 2024. We see
  strong growth prospects in this market over time, as industrial customers
  continue to adopt and implement IoT, AI and machine learning solutions.

#### **CAC** decision

- As previously discussed, the CAC (or Cybersecurity Administration of China) decision earlier this year has impacted our business, particularly in the domestic data center and networking markets in China.
- We remain committed to serving our customers in China for those areas of their business not impacted by the CAC decision.
- While there is near-term impact to our demand due to these challenges in China, we remain focused on maintaining Micron's global market share.
- Our team's grit and Micron's deep relationships with our customers, underpinned by our technology leadership, increasing product momentum, excellent product quality, and extensive manufacturing and supply chain capabilities, position us well toward these goals.



#### **Outlook and Capex Plan**

- Expect CY23 DRAM bit demand to grow in the mid-single digit % range. In NAND, our expectations increased from high-single digits to high teens % demand growth Y/Y. These are below the expected long-term bit demand growth CAGRs of mid-teens in DRAM and low 20s % range in NAND.
- While macroeconomic factors remain a risk, we expect robust Y/Y bit demand growth in CY24 for both DRAM and NAND, driven by improving end market demand, normalized customer inventory levels, content growth across products and ongoing growth in Al. CY24 bit demand growth is expected to exceed the long-term CAGR for DRAM and to be near the long-term CAGR for NAND.
- We see both DRAM and NAND year-over-year supply growth in CY23 to be negative for the industry. We expect Micron's year-on-year bit supply growth to be meaningfully negative for DRAM. We also expect to produce fewer NAND bits in CY23 than in CY22. In CY24, we expect industry DRAM and NAND supply growth to be below industry demand growth, and meaningfully so for DRAM. We believe CY24 is positioned to be a year of recovery in the memory and storage industry.
- We have redeployed a portion of the underutilized equipment to support production ramp
  of leading-edge nodes in both DRAM and NAND. Transitioning this equipment results in a
  significant and structural reduction to our overall wafer capacity in both DRAM and NAND.
  Our DRAM and NAND wafer starts will remain significantly below 2022 levels for the
  foreseeable future. We expect underutilization to continue in our legacy nodes well into
  CY24. We see our demand at leading-edge nodes exceeding our supply in fiscal and
  CY24, particularly in the second half of the year.

#### **Capex Plan:**

- FY24 capex is projected to be slightly above FY23 levels.
- Construction capex will be elevated to support our plans to build leading-edge memory fabs in Idaho and New York, for which we filed CHIPS applications in August.
- Expect WFE to be lower in FY24 than in FY23.
- Assembly and test capex is projected to double year over year in FY24.
- Our planned FY24 capex investments in HBM capacity have substantially increased versus our prior plan.

### **Mark Murphy**

**Chief Financial Officer** 



FQ4-23 revenue

\$4.0B

Revenue up 7% Q/Q and down 40% Y/Y

FY23 revenue

\$15.5B

Revenue down 49% Y/Y

#### Performance by technology

#### **DRAM FQ4-23**

- \$2.8 billion, representing 69% of total revenue in FQ4-23
- Revenue increased 3% Q/Q
- Bit shipments increased in the mid-teens percentage range Q/Q
- ASPs declined in the high-single digit percentage range Q/Q

#### **DRAM FY-23**

- \$11.0 billion, representing 71% of total revenue in FY-23
- Revenue declined 51% Y/Y

#### NAND FQ4-23

- \$1.2 billion, representing 30% of total revenue in FQ4-23
- Revenue increased 19% Q/Q
- Bit shipments increased over 40% Q/Q
- ASPs declined in the mid-teens percentage range Q/Q

#### NAND FY-23

- \$4.2 billion, representing 27% of total revenue in FY-23
- Revenue declined 46% Y/Y

#### Revenue by business unit

Amounts in millions	FQ4-23	FQ3-23	Q/Q % Change	FQ4-22	Y/Y % Change	FY-23	FY-22	Y/Y % Change
Compute and Networking (CNBU)	\$1,200	\$1,389	(14%)	\$2,931	(59%)	\$5,710	\$13,693	(58%)
Mobile (MBU)	\$1,211	\$ 819	48%	\$1,511	(20%)	\$3,630	\$7,260	(50%)
Embedded (EBU)	\$ 860	\$ 912	(6%)	\$1,303	(34%)	\$3,637	\$5,235	(31%)
Storage (SBU)	\$ 739	\$ 627	18%	\$ 891	(17%)	\$2,553	\$4,553	(44%)

#### Non-GAAP operating results

	FQ4-23	FY-23
Revenue	\$4.0B	\$15.5B
Gross margin	(9%)	(8%)
Operating expenses	\$842M	\$3.6B
Operating income (loss)	(\$1.2B)	(\$4.8B)
Net income (loss)	(\$1.2B)	(\$4.9B)
Diluted earnings (loss) per share	(\$1.07)	(\$4.45)
Cash provided by operating activities (GAAP)	\$249M	\$1.6B

#### Cash flow and capital allocation

#### From FY-20 to FY-23:

- \$4.2 billion towards repurchasing 63 million shares
- ~\$300 million toward settling convert premiums which reduced diluted share count by 5 million shares
- \$5.5 billion returned to shareholders from share repurchases, convert premiums, and dividends

Cash flow from operations	FQ4-23: \$249M FY-23: \$1.6B (10% of revenue)
Net CapEx <sup>1</sup>	FY-23: CapEx of \$7B FY-24: CapEx guidance of slightly above \$7B
FCF*	FQ4-23: Negative \$758M FY-23: Negative \$5.5B
Buybacks	FQ4-23: Temporarily suspended FY-23: \$425M (8.6M shares)
Dividends	Dividend payment of \$0.115 per share will be paid October 25 <sup>th</sup>
Liquidity <sup>2</sup>	\$13.0B in liquidity at end of FQ4-23

<sup>\*</sup>Free cash flow is a non-GAAP measure defined as net cash provided by operating activities less investments in capital expenditures net of amounts funded by partners and proceeds from sales of property, plant, and equipment.



<sup>&</sup>lt;sup>1</sup>CapEx net of amounts funded by partners and proceeds from sales of property, plant, and equipment

<sup>&</sup>lt;sup>2</sup>Cash, short-term and long-term marketable investments, restricted cash, and undrawn revolver capacity

#### **FQ1-24 guidance** Non-GAAP

Revenue	\$4.40 billion ± \$200 million
Gross margin	(4.0%) ± 2.0%
Operating expenses	\$900 million ± \$15 million
Diluted earnings (loss) per share*	(\$1.07) ± \$0.07

<sup>\*</sup>Based on ~1.10 billion diluted shares See non-GAAP reconciliations

### Other key data

## **Financial summary**Non-GAAP

Amounts in millions, except per share	FQ4-23	% of Revenue	FQ3-23	% of Revenue	FQ4-22	% of Revenue
Revenue	\$4,010	100%	\$3,752	100%	\$6,643	100%
Gross margin	(366)	(9%)	(603)	(16%)	2,676	40%
Operating income (loss)	(1,208)	(30%)	(1,469)	(39%)	1,662	25%
Income tax (provision) benefit	14		(102)		(74)	
Net income (loss)	(1,177)	(29%)	(1,565)	(42%)	1,621	24%
Diluted earnings (loss) per share	(1.07)		(1.43)		1.45	
Cash provided by operating activities (GAAP)	249		24		3,777	
Cash, marketable investments, and restricted cash (GAAP)	10,517		11,397		11,055	

See non-GAAP reconciliations

## **Financial summary**Non-GAAP

Amounts in millions, except per share	FY-23	% of Revenue	FY-22	% of Revenue
Revenue	\$15,540	100%	\$30,758	100%
Gross margin	(1,196)	(8%)	14,113	46%
Operating income (loss)	(4,819)	(31%)	10,281	33%
Income tax (provision) benefit	(142)		(793)	
Net income (loss)	(4,862)	(31%)	9,475	31%
Diluted earnings (loss) per share	(4.45)		8.35	
Cash provided by operating activities (GAAP)	1,559		15,181	

#### Non-GAAP financial data and guidance

% of Revenue	FQ4-23
DRAM	69%
NAND	30%

% Sales Volume Change	FQ4-23 Q/Q
DRAM	Increased in the mid-teens percentage range
NAND	Increased over 40%

% ASP Change	FQ4-23 Q/Q
DRAM	Declined in the high-single digit percentage range
NAND	Declined in the mid-teens percentage range

	(amo	-23 Non-GAAP unts in millions, ept per share)	FQ1-24 Non-GAAP Guidance
Revenue	\$	4,010	\$4.40 billion ± \$200 million
Gross margin		(9%)	(4.0%) ± 2.0%
Operating expenses	\$	842	\$900 million ± \$15 million
Diluted earnings (loss) per share	\$	(1.07)	(\$1.07) ± \$0.07

	23 Non-GAAP unts in millions)	FQ1-24 Non-GAAP Estimates
Diluted shares	1,095	~1.10 billion
Income tax (provision) benefit	\$ 14	~(\$80) million
Cash from operations (GAAP)	\$ 249	_
Depreciation and amortization	\$ 1,937	_
Investments in capex, net (capital cash flow)	\$ 1,007	FY-24: slightly above \$7 billion

See non-GAAP reconciliations

#### Revenue by technology

Amounts in millions	FQ4-23	% of Revenue	FQ3-23	% of Revenue	FQ4-22	% of Revenue
DRAM	\$ 2,755	69%	\$ 2,672	71%	\$ 4,809	72%
NAND	1,205	30%	1,013	27%	1,688	25%
Other	50	1%	67	2%	146	2%
Total	\$ 4,010	100%	\$ 3,752	100%	\$ 6,643	100%

#### Revenue by technology

Amounts in millions	FY-23	% of Revenue	FY-22	% of Revenue
DRAM	\$ 10,978	71%	\$ 22,386	73%
NAND	4,206	27%	7,811	25%
Other	356	2%	561	2%
Total	\$ 15,540	100%	\$ 30,758	100%

# Non-GAAP reconciliations

Amounts in millions	FQ4-23	FQ3-23	FQ4-22
GAAP gross margin	\$ (435)	\$ (668)	\$ 2,622
Stock-based compensation	64	60	49
Other	5	5	5
Non-GAAP gross margin	\$ (366)	\$ (603)	\$ 2,676
GAAP operating expenses	\$ 1,037	\$ 1,093	\$ 1,101
Stock-based compensation	(87)	(91)	(82)
Restructure and asset impairments	(4)	(68)	(5)
Goodwill impairment	(101)		
Litigation settlement	_	(68)	_
Other	(3)		_
Non-GAAP operating expenses	\$ 842	\$ 866	\$ 1,014
GAAP operating income (loss)	\$ (1,472)	\$ (1,761)	\$ 1,521
Stock-based compensation	151	151	131
Restructure and asset impairments	4	68	5
Goodwill impairment	101	_	_
Litigation settlement	_	68	_
Other	8	5	5
Non-GAAP operating income (loss)	\$ (1,208)	\$ (1,469)	\$ 1,662

Amounts in millions	FQ4-23	FQ3-23	FQ4-22
GAAP cost of goods sold	\$ 4,445	\$ 4,420	\$ 4,021
Stock-based compensation	(64)	(60)	(49)
Other	(5)	(5)	(5)
Non-GAAP cost of goods sold	\$ 4,376	\$ 4,355	\$ 3,967
GAAP research and development	\$ 719	\$ 758	\$ 839
Stock-based compensation	(57)	(57)	(47)
Non-GAAP research and development	\$ 662	\$ 701	\$ 792
GAAP selling, general, and administrative	\$ 219	\$ 219	\$ 280
Stock-based compensation	(30)	(34)	(35)
Non-GAAP selling, general, and administrative	\$ 189	\$ 185	\$ 245

Amounts in millions	FQ4-23	FQ3-23	FQ4-22
GAAP net income (loss)	\$ (1,430)	\$ (1,896)	\$ 1,492
Stock-based compensation	151	151	131
Restructure and asset impairments	4	68	5
Goodwill impairment	101	_	_
Litigation settlement	_	68	_
Other	7	7	11
Estimated tax effects of above and other tax adjustments	(10)	37	(18)
Non-GAAP net income (loss)	\$ (1,177)	\$ (1,565)	\$ 1,621
GAAP income tax (provision) benefit	\$ 24	\$ (139)	\$ (56)
Estimated tax effects of non-GAAP adjustments and other tax adjustments	(10)	37	(18)
Non-GAAP income tax (provision) benefit	\$ 14	\$ (102)	\$ (74)

Amounts in millions, except per share		FQ4-23		FQ3-23		FQ4-22
GAAP shares used in diluted EPS calculations		1,095		1,094		1,106
Adjustment for stock-based compensation		_		_		15
Non-GAAP shares used in diluted EPS calculations		1,095		1,094		1,121
GAAP diluted earnings (loss) per share	\$	(1.31)	\$	(1.73)	\$	1.35
Effects of non-GAAP adjustments	Ť	0.24	<b>Y</b>	0.30	*	0.10
Non-GAAP diluted earnings (loss) per share	\$	(1.07)	\$	(1.43)	\$	1.45
Net cash provided by operating activities	\$	249	\$	24	\$	3,777
Expenditures for property, plant, and equipment		(1,461)		(1,561)		(3,613)
Proceeds from sales of property, plant, and equipment		18		34		30
Payments on equipment purchase contracts		(26)		(36)		(9)
Amounts funded by partners		462		184		11
Investments in capital expenditures, net		(1,007)		(1,379)		(3,581)
Adjusted free cash flow	\$	(758)	\$	(1,355)	\$	196

Amounts in millions	FY-23	FY-22
GAAP gross margin	\$ (1,416)	\$ 13,898
Stock-based compensation	201	193
Other	19	22
Non-GAAP gross margin	\$ (1,196)	\$ 14,113
GAAP operating expenses	\$ 4,329	\$ 4,196
Stock-based compensation	(363)	(308)
Restructure and asset impairments	(171)	(48)
Goodwill impairment	(101)	_
Litigation settlement	(68)	_
Other	(3)	(8)
Non-GAAP operating expenses	\$ 3,623	\$ 3,832
GAAP operating income (loss)	\$ (5,745)	\$ 9,702
Stock-based compensation	564	501
Restructure and asset impairments	171	48
Goodwill impairment	101	_
Litigation settlement	68	_
Other	22	30
Non-GAAP operating income (loss)	\$ (4,819)	\$ 10,281

Amounts in millions	FY-23	FY-22
GAAP cost of goods sold	\$ 16,956	\$ 16,860
Stock-based compensation	(201)	(193)
Other	(19)	(22)
Non-GAAP cost of goods sold	\$ 16,736	\$ 16,645
GAAP research and development	\$ 3,114	\$ 3,116
Stock-based compensation	(226)	(175)
Other	_	(1)
Non-GAAP research and development	\$ 2,888	\$ 2,940
GAAP selling, general, and administrative	\$ 920	\$ 1,066
Stock-based compensation	(137)	(133)
Non-GAAP selling, general, and administrative	\$ 783	\$ 933

Amounts in millions	FY-23	FY-22
GAAP net income (loss)	\$ (5,833)	\$ 8,687
Stock-based compensation	564	501
Restructure and asset impairments	171	48
Goodwill impairment	101	_
Litigation settlement	68	
Loss on debt repurchases and conversions	_	83
Other	32	61
Impact of Idaho income tax reform	_	189
Estimated tax effects of above and other tax adjustments	35	(94)
Non-GAAP net income (loss)	\$ (4,862)	\$ 9,475
GAAP income tax (provision) benefit	\$ (177)	\$ (888)
Estimated tax effects of non-GAAP adjustments and other tax adjustments	35	95
Non-GAAP income tax (provision) benefit	\$ (142)	\$ (793)

Amounts in millions, except per share	FY-23	FY-22
GAAP shares used in diluted EPS calculations	1,093	1,122
Adjustment for stock-based compensation		13
Non-GAAP shares used in diluted EPS calculations	1,093	1,135
GAAP diluted earnings (loss) per share	\$ (5.34)	\$ 7.75
Effects of non-GAAP adjustments	0.89	0.60
Non-GAAP diluted earnings (loss) per share	\$ (4.45)	\$ 8.35
Net cash provided by operating activities	\$ 1,559	\$ 15,181
Expenditures for property, plant, and equipment	(7,676)	(12,067)
Proceeds from sales of property, plant, and equipment	92	117
Payments on equipment purchase contracts	(138)	(141)
Amounts funded by partners	710	115
Investments in capital expenditures, net	(7,012)	(11,976)
Adjusted free cash flow	\$ (5,453)	\$ 3,205

#### FQ1-24 guidance Non-GAAP reconciliations

	GAAP	Adjustments	3	Non-GAAP
Revenue	\$4.40 billion ± \$200 million	_		\$4.40 billion ± \$200 million
Gross margin	(6.0%) ± 2.0%	2.0%	А	(4.0%) ± 2.0%
Operating expenses	\$1.01 billion ± \$15 million	\$113 million	В	\$900 million ± \$15 million
Diluted earnings (loss) per share*	(\$1.24) ± \$0.07	\$0.17	A,B,C	(\$1.07) ± \$0.07

Non-	GAAP Adjustments (amounts in millions)		
А	Stock-based compensation – cost of goods sold	\$ 66	
Α	Other – cost of goods sold	4	
В	Stock-based compensation – research and development	69	
В	Stock-based compensation – selling, general, and administrative	44	
С	Tax effects of the above items and other tax adjustments	 (1)	
		\$ 182	

The above guidance does not incorporate the impact of any potential business combinations, divestitures, additional restructuring activities, balance sheet valuation adjustments, strategic investments, financing transactions, and other significant transactions. The timing and impact of such items are dependent on future events that may be uncertain or outside of our control.



<sup>\*</sup>GAAP and non-GAAP earnings (loss) per share based on approximately 1.10 billion diluted shares.



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