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## Annual Report

To our stockholders, customers, partners, and employees:

## Advancing Our Vision and Strategy

Intel stands at a pivotal juncture in a world where insatiable demand for processing power is being driven by Al and the convergence of ubiquitous compute, connectivity, infrastructure, and sensing. We see a profound opportunity to push the boundaries of what is possible, to create solutions for the world's most significant challenges, and to improve the lives of everyone on the planet.

Intel's mission to create a globally-diversified, resilient, and sustainable supply chain for semiconductors - the most critical and strategic resource of the 21st century - is central to our ambitions. Access to exceptionally engineered and relentlessly innovative chips will be the determining factor in the next phase of innovation for virtually every industry.

To usher in this new era and enable our customers to harness this opportunity, Intel is investing in technology and manufacturing leadership as we open our manufacturing network to the world, bring "AI Everywhere," and relentlessly pursue Moore's Law. This is part of our effort to build a stronger Intel and includes the February launch of Intel Foundry, a first-of-its-kind systems foundry for the AI era that comprises our Technology Development, Global Manufacturing and Supply Chain, and foundry customer service and ecosystem operations. Moreover, the establishment of a foundry-like relationship between Intel Foundry and Intel Products, our product business units, will drive greater transparency, accountability, and cost optimization.

## Making Significant Progress on Our Transformation

2023 marked a year of across-the-board progress on our IDM 2.0 strategy and transformation priorities. We executed on our plan to re-establish process leadership, expanded our capacity and foundry plans, enhanced product execution, and began to realize our vision to bring AI Everywhere. Despite entering the year navigating significant macroeconomic and industry headwinds, the focus on our strategy and on operational and financial discipline enabled us to deliver on our goals. We know there is more work to do, but I'm proud of the team for delivering on what we said we would in 2023, which will enable us to take advantage of the opportunities ahead.

## Re-establishing Process and Product Leadership

We remain on track to re-establish Intel's process technology leadership by delivering on our goal of five nodes in four years ( 5 N 4 Y ), which will be completed by the end of 2024. Intel 3 and Intel 4 are manufacturing-ready and ramping. We are excited to break into the Angstrom era with Intel 20A, set to launch this year, and Intel 18A, on track for manufacturing readiness in the second half of


Pat Gelsinger, Chief Executive Officer, Director, and Principal Executive Officer

2024, marking the completion of 5N4Y and returning Intel to process leadership. In February, we unveiled our roadmap beyond 5N4Y with the addition of Intel 14A to Intel's leading-edge node plan, in addition to several specialized node evolutions.

Our product roadmap also continues to advance. In the datacenter, we launched Xeon Gen 5 ahead of schedule. Sierra Forest is poised for launch in the first half of 2024, followed shortly by Granite Rapids, which will position Intel to regain share in the data center. Additionally, Clearwater Forest, our first Intel 18A part for servers, is already in the fab.

Our Meteor Lake product on Intel 4 is ramping rapidly with 40 million units expected in 2024 and Arrow Lake, our lead Intel 20A vehicle, is slated for launch this year. Our first Intel 18A client platform, Panther Lake, is now in fab as well. Together, we expect to ship well over 100 million AI PCs in 2024 and 2025.

## Building the First Systems Foundry for the AI Era

We are advancing our goal of becoming the world's secondlargest foundry by 2030 as part of our broader mission to create a resilient and sustainable global supply chain for semiconductors. At our inaugural Intel Foundry Direct Connect event, in February, we unveiled the new brand and market positioning of Intel Foundry, the world's first systems foundry for the Al era.

While still early in our foundry journey, we are seeing significant traction. We began 2023 with a commitment from one Intel 18A foundry customer and ended the year with four. We also achieved five advanced packaging wins, a testament to the advantages of Intel Foundry.


To support the growing demand for our foundry offering, we continued to expand our manufacturing capacity and capabilities. Our foundry collaborations have been bolstered by new strategic agreements with UMC to deliver a joint 12 nanometer process platform and with Tower Semiconductor to expand its wafer capacity corridor. Particularly noteworthy from Direct Connect was the deep support from ecosystem partners - including Synopsys, Cadence, Siemens and Ansys - that are ready to accelerate Intel Foundry customers' chip designs with tools, design flows and intellectual property portfolios validated for Intel's advanced packaging and Intel 18A process technologies.

## Accelerating Efforts to Bring AI Everywhere

Intel is uniquely positioned across its product and foundry businesses to participate in 100\% of the massive market for AI silicon, which is a key driver of the $\$ 1$ trillion semiconductor opportunity expected by the end of this decade. Our efforts are to bring AI where data is generated and used and to extend across cloud, data centers, PCs, networks, and the edge. In 2023 we ushered in the age of the AI PC with Intel ${ }^{( }$Core ${ }^{\mathrm{TM}}$ Ultra, the most significant transformation of the PC experience since the introduction of the wireless Intel Centrino platform more than 20 years earlier.

We launched 4th Gen Intel® Xeon® processors with industry-leading AI inference performance, shipping 2.5 million units during the year, and 5th Gen Intel ${ }^{\circledR}$ Xeon® processors, which radically improved inference further. Our Intel ${ }^{R}$ Gaudi®2 accelerators are exhibiting robust performance compared with peers, and Intel $®$ Gaudi®3 is in the lab and powered on.

2023 was the year of AI training, but 2024 is poised to be the year of Al inferencing - where Intel is positioned to win.

## Demonstrating Strong Financial Improvement and Unlocking Shareholder Value

Intel displayed strong financial discipline and improvement in 2023, consistently exceeding expectations on the top and bottom line for each of the four quarters. Through rigorous expense discipline, we achieved $\$ 3$ billion in cost savings during the year. Additionally, at the beginning of 2024, we successfully transitioned to our internal foundry model. This model gives Intel Foundry its own profit-and-loss statement for the first time and establishes a foundry-like relationship between Intel Foundry and Intel Products.

In 2023, we also unlocked significant value through strategic portfolio actions, including the stake sale of IMS. Along with the exit of 10 businesses since the second quarter of 2021, this culminated in approximately $\$ 1.8$ billion in annual savings.

Smart Capital remains a key component to our strategy as we prioritize critical investments to advance IDM 2.0. Intel also played a leading role in championing the passage of the U.S. CHIPS and Science Act to set the U.S. along the path to re-establishing global leadership in technology manufacturing.

## Looking Ahead to 2024

2023 was a year of consistent execution, where we achieved what we set out to do - and more. Thanks to the hard work of our talented and dedicated team, we have established a strong foundation for continued progress on our IDM 2.0 journey.

In 2024, we aim to build on this progress and continue raising the bar with our ambitions. We remain relentlessly focused on our mission and committed to driving long-term value for our shareholders. We firmly believe Intel's brightest days lie ahead.


Pat Gelsinger, CEO
Intel Corporation


# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 <br> FORM 10-K 

(Mark One)<br>( ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934<br>For the fiscal year ended December 30, 2023.<br>or<br>$\square$ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934<br>For the transition period from<br>$\qquad$ to<br>$\qquad$ _.<br>Commission File Number: 000-06217<br>intel.<br>INTEL CORPORATION<br>(Exact name of registrant as specified in its charter)<br>Delaware<br>(State or other jurisdiction of incorporation or organization)<br>$\mathbf{2 2 0 0}$ Mission College Boulevard, Santa Clara, California<br>(Address of principal executive offices)<br>Registrant's telephone number, including area code: (408) 765-8080<br>Securities registered pursuant to Section 12(b) of the Act:

| Title of each class$\quad$ Trading symbol | Name of each exchange on which registered |  |
| :---: | :---: | :---: |
| Common stock, $\$ 0.001$ par value | INTC | Nasdaq Global Select Market |

Securities registered pursuant to Section $12(\mathrm{~g})$ of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes $\square$ No $\square$
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes $\square$ No $\square$
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes $\square$ No $\square$
Indicate by check mark whether the registrant has submitted electronically every interactive data file required to be submitted pursuant to Rule 405 of Regulation S-T ( $\$ 232.405$ of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes $\square$ No $\square$
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company", and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer Accelerated Filer Non-Accelerated Filer Smaller Reporting Company Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.
Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. $\square$
If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.
Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).
Indicate by check mark whether the registrant is a shell company (as defined in Rule $12 \mathrm{~b}-2$ of the Exchange Act). Yes $\square$ No $\square$
The aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2023, based upon the closing price of the common stock as reported by the Nasdaq Global Select Market on such date, was $\$ 140.0$ billion. 4,228 million shares of common stock were outstanding as of January 19, 2024.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement related to its 2024 Annual Stockholders' Meeting to be filed subsequently are incorporated by reference into Part III of this Form 10-K. Except as expressly incorporated by reference, the registrant's proxy statement shall not be deemed to be part of this report.


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## Organization of Our Form 10-K

The order and presentation of content in our Form 10-K differs from the traditional SEC Form 10-K format. Our format is designed to improve readability and better present how we organize and manage our business. See "Form 10-K Cross-Reference Index" within the Financial Statements and Supplemental Details for a cross-reference index to the traditional SEC Form 10-K format.

We have defined certain terms and abbreviations used throughout our Form 10-K in "Key Terms" within the Financial Statements and Supplemental Details.

The preparation of our Consolidated Financial Statements is in conformity with US GAAP. Our Form 10-K includes key metrics that we use to measure our business, some of which are non-GAAP measures. See "Non-GAAP Financial Measures" within MD\&A for an explanation of these measures and why management uses them and believes they provide investors with useful supplemental information.

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## Forward-Looking Statements

This Form 10-K contains forward-looking statements that involve a number of risks and uncertainties. Words such as "accelerate", "achieve", "aim", "ambitions", "anticipate", "believe", "committed", "continue", "could", "designed", "estimate", "expect", "forecast", "future", "goals", "grow", "guidance", "intend", "likely", "may", "might", "milestones", "next generation", "objective", "on track", "opportunity", "outlook", "pending", "plan", "position", "possible", "potential", "predict", "progress", "ramp", "roadmap", "seek", "should", "strive", "targets", "to be", "upcoming", "will", "would", and variations of such words and similar expressions are intended to identify such forward-looking statements, which may include statements regarding:

- our business plans and strategy and anticipated benefits therefrom, including with respect to our IDM 2.0 strategy, our Smart Capital strategy, our partnership with Brookfield, the transition to an internal foundry model, updates to our reporting structure, and our Al strategy;
- projections of our future financial performance, including future revenue, gross margins, capital expenditures, and cash flows;
- projected costs and yield trends;
- future cash requirements, the availability, uses, sufficiency, and cost of capital resources, and sources of funding, including for future capital and R\&D investments and for returns to stockholders, such as stock repurchases and dividends, and credit ratings expectations;
- future products, services, and technologies, and the expected goals, timeline, ramps, progress, availability, production, regulation, and benefits of such products, services, and technologies, including future process nodes and packaging technology, product roadmaps, schedules, future product architectures, expectations regarding process performance, per-watt parity, and metrics, and expectations regarding product and process leadership;
- investment plans and impacts of investment plans, including in the US and abroad;
- internal and external manufacturing plans, including future internal manufacturing volumes, manufacturing expansion plans and the financing therefor, and external foundry usage;
- future production capacity and product supply;
- supply expectations, including regarding constraints, limitations, pricing, and industry shortages;
- plans and goals related to Intel's foundry business, including with respect to anticipated customers, future manufacturing capacity and service, technology, and IP offerings;
- expected timing and impact of acquisitions, divestitures, and other significant transactions, including the sale of our NAND memory business;
- expected completion and impacts of restructuring activities and cost-saving or efficiency initiatives
- future social and environmental performance goals, measures, strategies, and results;
- our anticipated growth, future market share, and trends in our businesses and operations;
- projected growth and trends in markets relevant to our businesses;
- anticipated trends and impacts related to industry component, substrate, and foundry capacity utilization, shortages, and constraints;
- expectations regarding government incentives;
- future technology trends and developments, such as Al ;
- future macro environmental and economic conditions;
- geopolitical tensions and conflicts and their potential impact on our business;
- tax- and accounting-related expectations;
- expectations regarding our relationships with certain sanctioned parties; and
- other characterizations of future events or circumstances.

Such statements involve many risks and uncertainties that could cause our actual results to differ materially from those expressed or implied, including those associated with:

- the high level of competition and rapid technological change in our industry;
- the significant long-term and inherently risky investments we are making in R\&D and manufacturing facilities that may not realize a favorable return;
- the complexities and uncertainties in developing and implementing new semiconductor products and manufacturing process technologies;
- our ability to time and scale our capital investments appropriately and successfully secure favorable alternative financing arrangements and government grants;
- implementing new business strategies and investing in new businesses and technologies;
- changes in demand for our products;
- macroeconomic conditions and geopolitical tensions and conflicts, including geopolitical and trade tensions between the US and China, the impacts of Russia's war on Ukraine, tensions and conflict affecting Israel, and rising tensions between the US and Taiwan;
- the evolving market for products with AI capabilities;

- our complex global supply chain, including from disruptions, delays, trade tensions and conflicts, or shortages;
- product defects, errata and other product issues, particularly as we develop next-generation products and implement next-generation manufacturing process technologies;
- potential security vulnerabilities in our products;
- increasing and evolving cybersecurity threats and privacy risks;
- IP risks including related litigation and regulatory proceedings;
- the need to attract, retain, and motivate key talent;
- strategic transactions and investments;
- sales-related risks, including customer concentration and the use of distributors and other third parties;
- our significantly reduced return of capital in recent years;
- our debt obligations and our ability to access sources of capital;
- complex and evolving laws and regulations across many jurisdictions;
- fluctuations in currency exchange rates;
- changes in our effective tax rate;
- catastrophic events;
- environmental, health, safety, and product regulations;
- our initiatives and new legal requirements with respect to corporate responsibility matters; and
- other risks and uncertainties described in this report and our other filings with the SEC.

Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. Readers are urged to carefully review and consider the various disclosures made in this Form $10-\mathrm{K}$ and in other documents we file from time to time with the SEC that disclose risks and uncertainties that may affect our business.
Unless specifically indicated otherwise, the forward-looking statements in this Form 10-K do not reflect the potential impact of any divestitures, mergers, acquisitions, or other business combinations that have not been completed as of the date of this filing. In addition, the forward-looking statements in this Form 10-K are based on management's expectations as of the date of this filing, unless an earlier date is specified, including expectations based on third-party information and projections that management believes to be reputable. We do not undertake, and expressly disclaim any duty, to update such statements, whether as a result of new information, new developments, or otherwise, except to the extent that disclosure may be required by law.

## Note Regarding Third-Party Information

This Form 10-K includes market data and certain other statistical information and estimates that are based on reports and other publications from industry analysts, market research firms, and other independent sources, as well as management's own good faith estimates and analyses. Intel believes these third-party reports to be reputable, but has not independently verified the underlying data sources, methodologies, or assumptions. The reports and other publications referenced are generally available to the public and were not commissioned by Intel. Information that is based on estimates, forecasts, projections, market research, or similar methodologies is inherently subject to uncertainties, and actual events or circumstances may differ materially from events and circumstances reflected in this information.

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The Bluetooth ${ }^{\oplus}$ word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Intel Corporation is under license.

* Other names and brands may be claimed as the property of others.


## Availability of Company Information

We use our Investor Relations website, www.intc.com, as a routine channel for distribution of important, and often material, information about us, including our quarterly and annual earnings results and presentations, press releases, announcements, information about upcoming webcasts, analyst presentations, and investor days, archives of these events, financial information, corporate governance practices, and corporate responsibility information. We also post our filings on this website the same day they are electronically filed with, or furnished to, the SEC, including our annual and quarterly reports on Forms $10-\mathrm{K}$ and $10-\mathrm{Q}$ and current reports on Form 8-K, our proxy statements, and any amendments to those reports. All such information is available free of charge. Our Investor Relations website allows interested persons to sign up to automatically receive e-mail alerts when we post financial information and issue press releases, and to receive information about upcoming events. We encourage interested persons to follow our Investor Relations website in addition to our filings with the SEC to timely receive information about the company.


## intel.

# We are an industry leader 

 and a catalyst for technology innovation and products that revolutionize the way we live. We are committed to harnessing the breadth and scale of our reach to have a positive effect on business, society, and the planet.Our purpose is to create world-changing technology that improves the life of every person on the planet.



## Introduction to Our Business

We are committed to creating world-changing technology that improves the life of every person on the planet-we are the technology the world builds on. We have the opportunity to push the boundaries of what's possible and to create solutions to the world's biggest challenges. As technology permeates every aspect of our lives, we see an insatiable demand for processing power.

That is why we are opening our manufacturing network to the world and creating the resilient supply chain industries need. It's why we are bringing the full breadth of our silicon and software to bear by bringing Al everywhere-from the client to the data center to the edge. It's why we continue our relentless pursuit of Moore's Law to unlock innovation and spark new ecosystems.

Much as oil has defined geopolitics for the past five decades, technology supply chains and where semiconductors are built will define the next five decades. With one of the most geographically balanced supply chains across North America, Europe and Asia, we lead the way in creating open, end-to-end value chains that the US and Europe
seek for resiliency and security-and that, for the first time, gives the ecosystem a true alternative to other foundries.

We are at a pivotal moment in Al technology. AI is an incredibly powerful technology with untold potential, but it's still relatively immature. We must ensure AI technology advances responsibly.

Intel defines the spirit of Moore's Law as relentless innovation and pursuit of exponential leaps in computing power-all in close collaboration with our customers. But we're not finished yet. Continuous innovation is the cornerstone of Moore's Law.

We do this because we are committed to being an excellent partner for the next era of compute: creating trusted environments, collaboratively innovating and delivering exceptional engineering, from silicon to services.

## The possibilities are limitless. It starts with Intel.


"Semiconductors are essential to maintaining and enabling modern society and there are infinite possibilities as we enter the age of AI. Our strategy for reclaiming process and product leadership, bringing Al everywhere and driving a resilient, diverse and balanced supply chain, puts Intel in the position to help define the future of technology."

- Pat Gelsinger, Intel CEO



## A Year in Review

2023 revenue was $\$ 54.2$ billion, down $\$ 8.8$ billion, or $14 \%$, from 2022. CCG revenue decreased $8 \%$ due to lower notebook and desktop volume from lower demand across market segments, partially offset by increased volume in the second half of the year as customer inventory levels normalized compared to higher levels in the first half. Notebook ASPs decreased due to a higher mix of small core products combined with a higher mix of older generation products. This was partially offset by higher desktop ASPs due to an increased mix of product sales to the commercial and gaming market segments. DCAI revenue decreased 20\% due to lower server volume resulting from a softening CPU data center market, partially offset by higher ASPs from a lower mix of hyperscale customer-related revenue and a higher mix of high core count products. NEX revenue decreased $31 \%$ as customers tempered purchases to reduce inventories and adjust to a lower demand environment across product lines. We invested $\$ 16.0$ billion in R\&D, made capital investments of $\$ 25.8$ billion, and had $\$ 11.5$ billion in cash from operations and $\$(11.9)$ billion of adjusted free cash flow.

| Revenue | Gross Margin | Diluted EPS Attributable to Intel | Cash Flows |
| :---: | :---: | :---: | :---: |
| - GAAP \$B | - GAAP $\quad$ Non-GAAP | - GAAP - Non-GAAP | - Operating Cash Flow \$B <br> - Adjusted Free Cash Flow ${ }^{1}$ \$B |




Revenue down 14\% from 2022 revenue

Lower GAAP gross margin from lower revenue, higher unit cost, and higher excess capacity charges, partially offset by the sell-through of previously reserved inventory, lower inventory reserves taken in 2023, lower product ramp costs, and the absence of one-time charges recognized in 2022.



2022

| $\$ 0.40$ | $\$ 1.05$ $\text { non-GAAP }{ }^{1}$ |
| :---: | :---: |
| Diluted EPS <br> down \$1.54 or <br> $79 \%$ from $2022$ | Diluted EPS <br> down $\$ 0.62$ or <br> 37\% from <br> 2022 |

Lower GAAP EPS from lower gross margin and absence of one-time gains recognized in 2022, partially offset by lower R\&D and MG\&A spending, and a higher tax benefit.

Lower revenue in CCG, DCAI, and NEX.

\section*{| $\$ 11.5 B$ | $\$(11.9) \mathrm{B}$ |
| :--- | :--- |
| $\begin{array}{l}\text { GAAP }\end{array}$ | $\begin{array}{l}\$\left(\text { non-GAAP }^{1}\right.\end{array}$ |
| $\begin{array}{l}\text { Operating } \\ \text { cash flow } \\ \text { down } \$ 4.0 \mathrm{~B}\end{array}$ | $\begin{array}{l}\text { Adjusted free } \\ \text { cosh flow down } \\ \text { or } 26 \% \text { from } \\ 2022\end{array}$ | \(\begin{aligned} \& \$ 7.8 \mathrm{~B} or 191 \% <br>

\& from 2022\end{aligned}\)}

Lower operating cash flow primarily driven by lower net income, partially offset by favorable changes in working capital and other adjustments.

## Managing to our long-term financial model

Our 2023 results reflect the continued advancement of our transformational journey. We continued to prioritize investments critical to our IDM 2.0 transformation, achieved operational milestones, and executed disciplined expense management. To achieve our long-term financial model, we believe it is imperative that we drive to world-class product cost and operational efficiency. A key component of our overall strategy is our internal foundry model. Under this model, we intend to reshape our operational dynamics and establish transparency and accountability through standalone profit and loss reporting for our manufacturing group in 2024. We expect this model to enable increased efficiencies across a number of aspects of our organization that we believe are integral to achieving our financial and operational goals. At the same time, we continue to prioritize capital investments critical to our efforts to regain process leadership and establish a leading-edge, at-scale foundry business.

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## Delivering leadership products

We seek to develop and offer leading products that will help enable a future in which every human can have more computing power and quicker access to data. We remain committed to our goal of delivering five technology nodes in four years to regain transistor performance and power performance leadership by 2025. This year, we achieved several key milestones on our product roadmap, including:

* We launched the Intel ${ }^{\otimes}$ Core ${ }^{\text {TM }}$ Ultra processors, featuring our first integrated neural processing unit, for power-efficient Al acceleration and local inference on the PC.
- We introduced the 13 th Gen Intel ${ }^{\oplus}$ Core ${ }^{T M}$ mobile processor family, led by the launch of the first 24-core processor for laptops, and introduced the new Intel vPro ${ }^{\circledR}$ Platform powered by the full lineup of 13 th Gen Intel Core processors.
* We introduced the 14th Gen Intel ${ }^{(1)}$ Core ${ }^{T M}$ desktop processor family, delivering fast desktop frequencies and enhanced desktop experience for enthusiasts.
- We launched the 4th Gen Intel ${ }^{\oplus}$ Xeon ${ }^{\oplus}$ Scalable processors, a critical part of our heterogeneous hardware and software portfolio to accelerate real-world data center, cloud and edge workloads, including AI, and also launched the 4th Gen Intel Xeon Scalable processors with Intel ${ }^{\oplus}$ VRAN Boost, a new general-purpose chip that fully integrates Layer 1 acceleration into the Xeon SoC and is designed to eliminate the need for external accelerator cards.
- We launched the 5 th Gen Intel ${ }^{\oplus}$ Xeon ${ }^{\otimes}$ Scalable processors for data center, cloud, and edge, with embedded capabilities for powering AI workloads.
* We introduced two new Intel ${ }^{\oplus}$ Arc ${ }^{\text {TM }}$ Pro Graphics Processing Units, Intel Arc Pro A60 and Intel Pro A60M, and shipped Intel Arc Pro A40-based systems.


## Investing in leading-edge, at-scale manufacturing

We are committed to strengthening the resilience of the global semiconductor supply chain for leading-edge semiconductor products by investing in geographically balanced manufacturing capacity. In the US, we are expanding our existing operations in Arizona, New Mexico, and Oregon, and investing in two new leading-edge chip factories in Ohio. We have submitted all four of our major project proposals in Arizona, New Mexico, Ohio, and Oregon, estimated to represent over $\$ 100$ billion of US manufacturing and research investments over the next five years, to the US Department of Commerce's CHIPS Program Office.

In the European Union and Israel, we have announced a series of investments, spanning our existing operations in Ireland and Israel, as well as our planned investment of more than $\$ 33$ billion in Germany to build a leading-edge wafer fabrication mega-site, and our plans to invest up to $\$ 4.6$ billion in an assembly and test facility in Poland. We also announced the start of high-volume manufacturing using Intel 4 technology and EUV technology in Ireland.

## Unlocking value

We continue to look for innovative ways to unlock value for our stakeholders. We sold a $32.4 \%$ minority stake in our IMS Nanofabrication business, including investments from Bain Capital and Taiwan Semiconductor Manufacturing Company (TSMC). Net proceeds resulting from the IMS minority stake sales totaled $\$ 1.4$ billion. We also executed a secondary offering of Mobileye stock that generated net proceeds of $\$ 1.6$ billion. Further, we communicated our intent to operate our Programmable Solutions Group (PSG) as a standalone business, with standalone financial reporting beginning January 1, 2024. This is expected to enable potential private and public equity investments. These transactions provide an additional source of capital to support the critical investments needed to advance our strategy.


## Our Strategy

Technology permeates every aspect of our lives and is increasingly central to every aspect of human existence. As we look ahead to the next decade, we expect to see continued demand for processing power. Semiconductors are the underlying technology powering this digital expansion, and we are strategically positioning ourselves to create a resilient global semiconductor supply chain by investing in geographically balanced manufacturing capacity. The demand for compute is being accelerated by five superpowers: ubiquitous compute, pervasive connectivity, cloud-to-edge infrastructure, AI, and sensing. Together these superpowers combine to amplify and reinforce each other, and will exponentially increase the world's need for computing by packing even more processing capability onto ever-smaller microchips. We intend to lead the industry by harnessing these superpowers for our customers' growth and our own.

We are uniquely positioned with the depth and breadth of our silicon, platforms, and software, and packaging and process technology with at-scale manufacturing. With these strengths and the tailwinds of the superpowers driving digital disruption, our strategy to win is focused on four key themes: product leadership, open platforms, manufacturing at scale, and our people.

## Our Priorities

## Superpowers fuel strategic pillars and guide execution



## Product Leadership

Lead and democratize compute with Intel x86 and xPU. Our product offerings provide end-to-end solutions, scaling from data center to network, PCs, edge computing, and the emerging fields of Al and autonomous driving, to serve an increasingly smart and connected world.

At our core is the x86 computing ecosystem, which supports an extensive and deep universe of software applications, with billions of lines of code written and optimized for x86 CPUs. We continue to advance this ecosystem with x86 microarchitectures focused on performance, which push the limits of low latency and single-threaded application performance, and microarchitectures focused on efficiency, which are designed for computing throughput efficiency to enable scalable multithreaded performance.

Beyond the CPU, we are delivering a growing family of xPU products, which encompass client and data center GPUs, IPUs, FPGAs, and other accelerators. The xPU approach recognizes that different workloads benefit from different computing architectures, and our broad portfolio helps meet our customers' increasingly diverse computing needs. As part of our strategy, we seek to develop and offer leading products across each of these architectural categories.

We also seek to address every phase of the AI continuum, including the largest, most challenging GenAl and large language models. We believe AI represents a generational shift in computing by expanding human abilities and solving the most challenging problems. We are in the early stages of realizing Al's full potential and GenAl is just the beginning. Our strategy is to bring Al to where the data is being generated and used and we believe we have a full spectrum of hardware and software platforms, offering open and modular solutions, for competitive total cost of ownership and time to value that customers need to win in this era of exponential growth and Al everywhere. We are infusing AI into Intel technologies, supporting today's GenAI workloads, fueling emerging usages like AI PC and AI at the edge, and pioneering innovations that we believe advance the future of AI in the next decade. We believe our leadership in IP, process, packaging, security, software, services, manufacturing, and foundry services positions us to realize Al's full potential to transform industries and solve the world's biggest challenges.


We aim to deliver open software and hardware platforms with industry-defining standards. Around the globe, companies are building their networks, systems, and solutions on open standards-based platforms. Intel has helped set the stage for this movement, with our historic contributions in developing standards such as CXL, Thunderbolt ${ }^{\mathrm{TM}}$, and PCI Express*. We also contributed to the design, build, and validation of open-source products in the industry such as Linux*, Android*, and others. The world's developers constantly innovate and expand the capabilities of these open platforms while increasing their stability, reliability, and security. In addition, microservices have enabled the development of flexible, loosely coupled services that are connected via application programming interfaces to create end-toend processes. We use industry collaboration, co-engineering, and open-source contributions to accelerate software innovation. Through our oneAPI initiative, developers use a unified language across CPUs, GPUs, and FPGAs that is designed to reduce development time and to enhance productivity. We also deliver a steady stream of open-source code and optimizations that are designed for projects across virtually every platform and usage model. We are committed to co-engineering and jointly designing, building, and validating new products with software industry leaders to accelerate mutual technology advancements and help new software and hardware work better together. Our commitment extends to developers through our developer-first approach based on openness, choice, and trust.

Ultimately, we believe our pivot to a software-defined, silicon-enhanced strategy will enable us to realize value at all layers of the compute stack. This should allow us to continue to monetize foundational and ecosystem-enabling software through hardware sales, limited licensing, and customer-enabling service offerings. Additionally, we are expanding our software portfolio by developing and monetizing software solutions, services, and platforms with SaaS, software subscriptions, and other business models. We are prioritizing three portfolios of offerings for our SaaS and subscription-based software: AI, trust and security, and performance optimization. We are also scaling the availability of Intel ${ }^{\text {® }}$ Developer Cloud, which is designed to enable developers to learn, prototype, test, and run their own AI workloads across multiple Intel hardware architectures to experience the competitive performance of Intel platforms and develop their AI software from today's hardware portfolio to next-generation architectures.

An open approach and deep engagement with the developer ecosystem are essential to lowering barriers to entry and unlocking AI innovations for developers and customers. We are expediting an open AI software ecosystem that we believe is needed to break down proprietary walls. We offer customers, partners, and developers early access and a rapid path to scale their Al solutions with the Intel Developer Cloud and integrated and scalable hardware and software systems and solutions.

We believe AI will only be truly accessible to all when its use is ethical and responsible. Partnering with industry leaders, we are working to deliver innovative ecosystem tools and solutions intended to make AI safer and more secure, and help address privacy concerns as AI scales exponentially. We are building platforms and technologies for the convergence of AI and security to help customers confidently secure diverse AI workloads across the data center, cloud, PC, and edge.

## Manufacturing at Scale

IDM 2.0, the next evolution and expansion of our IDM model, is a differentiated strategy that combines three capabilities:
Internal factory network. Our global, internal factory network has been foundational to our success, enabling product optimization, improved economics, and supply resilience. We intend to remain a leading developer of process technology and a major manufacturer of semiconductors and will continue to build the majority of our products in our factories.

Strategic use of foundry capacity. We expect to expand our use of third-party foundry manufacturing capacity, which will provide us with increased flexibility and scale to optimize our product roadmaps for cost, performance, schedule, and supply. Our use of foundry capacity will include manufacturing for a range of modular tiles on advanced process technologies.

Open System Foundry. We are building a world-class foundry business to meet the growing long-term global demand for semiconductors. We plan to differentiate our foundry offerings from those of others through a combination of leading-edge packaging and process technology, committed capacity in the US and Europe available for customers globally, and a world-class IP portfolio that will include x86 cores, as well as other ecosystem IP. The current foundry model enabled explosion of ecosystem innovation at the wafer level. We believe this established model has historically served the industry well, but a new mindset is needed in our new era of chipmaking. As innovation evolves, we see the rack has collapsed into a system and the system has collapsed into an advanced package. We are building out an Open System Foundry that has four components: wafer fabrication, packaging, chiplet standard, and software.

The Open System Foundry involves engaging with customers at multiple levels, from basic wafer manufacturing to helping define and implement their desired system architectures. We intend to build our customers' silicon designs and deliver full end-to-end customizable products built with our advanced packaging technology.

We believe our IDM 2.0 strategy enables us to deliver leading process technology and products to meet growing long-term demand using internal and external capacity, while leveraging our core strengths to provide foundry services to others and providing superior capacity, supply resilience, and an advantageous cost structure.

In the upcoming year, we plan to implement an internal foundry model, where our business units engage with our manufacturing group in an arm's-length fashion, similar to how fabless semiconductor companies engage with external foundries. The model is integral to our IDM 2.0 operational and financial strategies and aims to fully leverage our invested capital while serving a wide variety of chip customers worldwide.


Recent events, including the pandemic-related global chip shortage, made clear how supply chain disruptions can severely impact everyday life. The steady rise of chipmaking capacity in Asia has made the world vulnerable to continued and increasingly extreme shortages. We believe a secure, balanced, and resilient supply of semiconductors is essential to the interests of the entire global economy. With one of the most geographically balanced supply chains across North America, Europe and Asia, we plan to partner with the public sector to strengthen the resilience of the global semiconductor supply chain by investing in a more geographically balanced capacity. We believe our investments will help develop a more resilient supply chain for generations to come and hedge against geopolitical instability.

## Our People

Our world-class talent is at the heart of everything we do. Together we strive to have a positive effect on business, society, and the planet. Delivering on our strategy and growth ambitions requires attracting, developing, and retaining top talent from across the world. Our people build our technology, unlock new business opportunities, and work with our partners and customers to create global impact.

Fostering a culture of empowerment, inclusion, and accountability is also core to our strategy. We are committed to creating an inclusive workplace where the world's best engineers and technologists can fulfill their dreams and create technology that improves the life of every person on the planet.

## Growth Imperative

We are investing to position the company for accelerated long-term growth, focusing on both our core businesses and our growth businesses. In our client and server businesses, our strategy is to invest to strengthen the competitiveness of our product roadmap and to explore new opportunities. We believe we have significant opportunities to grow and gain share in graphics; mobility, including autonomous driving; networking and edge; Al; software; and foundry services.

## Focus on Innovation and Execution

We are focused on executing our product and process roadmap and accelerating our cadence of innovation. We have set a detailed process and packaging technology roadmap and announced key architectural innovations to further our goal of delivering leadership products in every area in which we compete. We are returning our culture to its roots in innovation and execution, drawing on principles established by our former CEO Andy Grove that emphasize discipline and accountability. This includes using OKRs throughout the organization to drive a common purpose.

To help us execute toward our IDM 2.0 strategy, we are leveraging our Smart Capital approach. This approach is designed to enable us to adjust quickly to opportunities in the market, while managing our margin structure and capital spending. The key elements of Smart Capital include:

* Smart capacity investments. We are aggressively building out manufacturing shell space, which gives us flexibility in how and when we bring additional capacity online based on milestone triggers such as product readiness, market conditions, and customer commitments.
- Government incentives. We are continuing to work with governments in the US and Europe to advance and benefit from incentives for domestic manufacturing capacity for leading-edge semiconductors.
- SCIP. We are accessing strategically aligned capital to increase our flexibility and help efficiently accelerate and scale manufacturing build-outs. This type of co-investment also demonstrates how private capital is unlocked and becomes a force multiplier for government incentives for semiconductor manufacturing expansion.
- Customer commitments. IFS is working closely with potential customers to make advance payments to secure capacity. This provides us with the advantage of committed volume, de-risking investments while providing capacity corridors for our foundry customers.
* External foundries. We intend to continue our use of external foundries where their unique capabilities support our leadership products.



## Our Capital

We deploy various forms of capital to execute our strategy in a way that seeks to reflect our corporate values, help our customers succeed, and create value for our stakeholders.

| Capital | Strategy | Value |
| :--- | :--- | :--- |
| Financial | Leverage financial capital to invest in ourselves and exit <br> businesses to optimize our portfolio, both to drive our <br> strategy and long-term value creation. | We strategically invest financial capital to continue to build <br> our business, create long-term value and provide returns to <br> our stockholders. |
| Intellectual | Invest significantly in R\&D and IP to enable us to deliver <br> on our accelerated process technology roadmap, introduce <br> leading x86 and xPU products, and develop new <br> businesses and capabilities. | We develop IP to enable next-generation products, create <br> synergies across our businesses, expand into new <br> markets, and establish and support our brands. |
| Manufacturing | Build manufacturing capacity efficiently to <br> meet the growing long-term global demand for <br> semiconductors, aligned with our IDM 2.0 strategy. | Our geographically balanced manufacturing scope and <br> scale enable us to provide our customers with a broad <br> range of leading-edge products and foundry capabilities. |

Human


Build a diverse, inclusive, and safe work environment to attract, develop, and retain top talent needed to build transformative products.

Our talented employees enable the development of solutions and enhance the intellectual and manufacturing capital critical to helping our customers win the technology inflections of the future.

Build trusted relationships for both Intel and our stakeholders, including employees, suppliers, customers, local communities, and governments.

We collaborate with stakeholders on programs to empower underserved communities through education and technology, and on initiatives to advance accountability and capabilities across our global supply chain, including accountability for the respect of human rights.

Natural


Strive to reduce our environmental footprint through efficient and responsible use of natural resources and materials used to create our products.

With our proactive efforts, we seek to mitigate climate and water impacts, achieve efficiencies, lower costs, and position ourselves to respond to the expectations of our stakeholders.

## Comprehensive ESG and Corporate Responsibility Strategy: RISE

Our commitment to corporate responsibility and sustainability leadership is deeply integrated throughout our business. We strive to create an inclusive and positive work environment where every employee has a voice and a sense of belonging, and we are proactive in our efforts to reduce our environmental footprint through efficient and responsible use of natural resources and materials.

We continue to raise the bar for ourselves and leverage our leadership position in the global technology ecosystem to make greater strides in corporate responsibility and apply technology to address social and environmental challenges. Through our RISE strategy, we aim to create a more responsible, inclusive, and sustainable world, enabled by our technology and the expertise and passion of our employees. Our corporate responsibility strategy is designed to increase the scale of our work through collaboration with our stakeholders and other organizations; we know that we cannot achieve the broad social impact to which we aspire by acting alone. More information about our RISE goals, including progress we have made toward achieving them, is included in our Corporate Responsibility Report ${ }^{1}$.

[^1]

## Financial Capital

We take a disciplined approach to our financial capital allocation strategy, which continues to focus on building stakeholder value and is driven by our priority to invest in the business and capacity and our capital needs. We also seek to pay competitive dividends, optimize our portfolio, look for innovative ways to unlock value across our assets, and, from time-to-time, engage in mergers and acquisitions. As we invest in our IDM 2.0 strategy and implement our next phase of capacity expansions and the acceleration of our process technology roadmap, our allocation priorities have shifted more heavily toward investing in the business and away from stock repurchases. In the long term, we will continue to look for opportunities to further our strategy through acquisitions while remaining disciplined on capital allocation.

Cash from Operating Activities \$B


## Our Financial Capital Allocation Strategy

## Invest in the Business

Our first allocation priority is to invest in R\&D and capital spending to capitalize on the opportunity presented by the world's demand for semiconductors. In 2023, we continued our focus on capital investment and the deployment of our Smart Capital strategy.

## Return Excess Cash to Stockholders

Our capital allocation strategy includes returning excess cash to stockholders. We achieve this through our dividend policy and, when permissible, stock repurchases. In 2023, we declared a reduced quarterly dividend on our common stock. This dividend reduction reflects our deliberate approach to capital allocation, is expected to support the critical investments needed to execute our business strategy, and is designed to position us to create long-term value. We expect future stock repurchases to continue to be curtailed during this time of meaningful investment in capital.

## R\&D and Capital Investments \$B

Cash to Stockholders \$B



## Optimize our Portfolio and Unlock Value

Our capital allocation strategy also includes opportunistic investment in and acquisition of companies that complement our strategic objectives. We look for acquisitions that supplement and strengthen our capital and R\&D investments.
We also seek to drive value creation through transactions such as the 2022 Mobileye IPO, the 2023 minority stake sales in IMS, and the 2023 announcement of our intent to operate PSG as a standalone business which we expect to enable potential private and public equity investments. Together, these transactions provide an additional source of capital to support the critical investments needed to advance our business strategy.

Lastly, we take action when investments do not strategically align to our key priorities. In the last three years, we exited numerous businesses, including the NAND memory business and Intel ${ }^{(1)}$ Optane ${ }^{T M}$ memory business.
'See "Non-GAAP Financial Measures" within MD\&A.
${ }^{2}$ 2021-2023 capital investments in Memory are not presented due to the divestiture of the NAND memory business announced in October 2020.2019 and 2020 capital investments presented include Memory.


## Intellectual Capital

## Research and Development

R\&D investment is critical to enable us to deliver on our accelerated technology roadmap, introduce leading products, and develop new businesses and capabilities in the future. We seek to protect our R\&D efforts through our IP rights and may augment R\&D initiatives by acquiring or investing in companies, entering into R\&D agreements, and directly purchasing or licensing technology.

## Areas Key to Product Leadership

We have intensified our focus on areas key to product leadership. Our objective with each new generation of products is to improve user experiences and value through advances in performance, power, cost, connectivity, security, form factor, and other features. We also focus on reducing our design complexity, re-using IP, and increasing ecosystem collaboration to improve our efficiency.

Process and packaging. Our leading-edge process and packaging technology and world-class IP portfolio are key to the success of our strategy. We are committed to achieving process technology leadership in 2025 by planning to deliver five technology nodes in four years. In addition, we have solidified our process and packaging offerings to external customers through IFS.

- Intel 7 process node is in production for our 13th Gen Intel Core processors and represents the continuous improvement of transistor and interconnect performance.
* Intel 4, our first EUV node, delivers significant density scaling and approximately $20 \%$ performance-per-watt improvement over Intel 7. The Intel Core Ultra processor is our first high-volume client product on Intel 4 and began shipping to customers in Q3 2023.
* Intel 3 is expected to deliver further logic scaling and up to $18 \%$ performance-per-watt improvement over Intel 4 . Intel 3 is our first advanced node offered to IFS customers and is optimized for the needs of data center products.
- Intel 20A will follow Intel 3 and will introduce two breakthrough technologies that we expect to deliver up to a $15 \%$ performance-per-watt improvement over Intel 3: RibbonFET and PowerVia. RibbonFET, our implementation of a gate-all-around transistor, is designed to deliver faster transistor switching speeds while achieving the same drive current as multiple fins, but in a smaller footprint. PowerVia is our unique industry-first implementation of backside power delivery that is designed to optimize signal transmission by eliminating the need for power routing on the front side of the wafer.
- Intel 18A, our second IFS advanced node offering, will improve on Intel 20A by delivering ribbon innovation for design optimization and line width reduction. Intel 18A is expected to deliver an additional $10 \%$ improvement in performance per watt over Intel 20A.
- Beyond Intel 18A, we have initiated definition and development of our next two process nodes and continue to define, build, and develop the next-generation High Numerical Aperture EUV lithography into our process technology roadmap. To continue our modernization and infrastructure expansions, we have begun the installation of the world's first High-NA EUV tool for commercial use at our Gordon Moore Park in Oregon.
* Our family of 3D advanced packaging technology will usher in the next generation of Foveros technology, enabling us to mix multiple top die tiles with multiple base tiles across mixed fab nodes, providing greater flexibility for disaggregated chip designs. Our future Foveros Direct technology should scale interconnect pitch below $10 \mu \mathrm{~m}$, enable direct copper-to-copper bonding for low-resistance interconnects, and blur the boundary between wafer and package. Longer term, we expect to deliver complete glass substrate solutions as the next generation of advanced packaging designed to enable continued scaling of transistors in a package.
xPU architecture. We believe the future is a diverse mix of scalar, vector, matrix, and spatial architectures deployed in CPU, GPU, IPU, accelerator, and FPGA sockets, enabled by a scalable software stack and integrated into systems by advanced packaging technology. We are building processors that span several major computing architectures, moving toward an era of heterogeneous computing:
* CPU. We started shipping our 5th Gen Intel Xeon Scalable processors based on Intel 7 with built-in AI acceleration, cryptographic acceleration, and advanced security capabilities. We also launched our 14th Gen Intel Core processors, which are designed to scale from thin and light laptops to enthusiast desktop and notebook platforms. These are based on a hybrid architecture utilizing our most advanced performance cores and power-efficient cores.
* GPU and HPC. The Intel Arc graphics family offers modern GPU features to power today's demanding games, applications, and Al workloads. In 2023, the Intel Arc portfolio expanded while offering a substantial performance uplift through continual driver updates, offering consumer and professional solutions that target a significant part of the market. Intel Arc discrete GPUs currently ship in three performance tiers, with Intel Arc 7, 5, and 3 series for consumers, and Intel Arc Pro A60, A50, and A40 for workstations. In the mobile segment, Intel Arc A-series GPUs can be found powering a range of consumer and workstation designs. In Q1 2023, we launched the Intel ${ }^{\top}$ Xeon ${ }^{\oplus}$ CPU Max Series and Intel ${ }^{(3)}$ Data Center GPU Max Series. Designed for the future compute demands of HPC and AI workloads, the Intel Max Series product family power the Aurora supercomputer at Argonne National Laboratory.

- Infrastructure Acceleration. Our first ASIC IPU has been deployed widely across Google Cloud. Our second generation IPU, is also co-developed with Google and is expected to tape in the first half of 2024. It is expected to double the throughput and compute capabilities. The IPU becomes the center of the CSP compute platform, with the bulk of CSP infrastructure cycles spent running on the IPU and not the host processor. This frees up processing cores for business-value applications and infrastructure as a service rental.
* Ethernet. Our 200G foundational network interface card targeting cloud, enterprise, and edge, is expected to go into production in 2 H 2024 and extend our 100G market. Additionally, we plan to productize our $10 \mathrm{G} / 2.5 \mathrm{G} / 1 \mathrm{G}$ offering, a refresh of our highvolume 10G and 1G portfolio with modernized software, management, and manufacturing technologies.
- Matrix Accelerator. We are showing strong customer and performance momentum for our Intel ${ }^{\oplus}$ Gaudi ${ }^{\oplus} \mathrm{Al}$ accelerators. In Q3 2023, we announced that a large AI supercomputer would be built entirely on Intel Xeon processors and 4,000 Intel Gaudi 2 AI hardware accelerators, with Stability AI as the anchor customer.

Software. Software unleashes the potential of our hardware platforms across all workloads, domains, and architectures.

- oneAPI adoption continues to expand across the industry. oneAPI is designed to enable developers to build cross-architecture applications using a single code base across CPUs, GPUs, and FPGAs to reduce development time and enhance productivity. Our oneAPI-based tools take advantage of unique hardware features and lower software development and maintenance costs. Developers can choose the best architecture for the problem at hand without rewriting their entire code base, accelerating their time to value.
* We seek to accelerate adoption of oneAPI and Intel software developer tools through diverse ecosystem activities, including developer training, summits, centers of excellence, access to Intel hardware and software through Intel Developer Cloud and industry collaboration through the Linux Foundation's Unified Acceleration (UXL) Foundation project. Our Intel Developer Cloud offering is designed to host global users spanning AI, data science, high-performance computing, media and graphics, and other accelerated computing workloads using oneAPI and the latest Intel hardware.
- We believe AI will be ubiquitous, and with our tools and the broad open software ecosystem, we are well-positioned to scale AI. We optimize and contribute software to popular frameworks, such as PyTorch and TensorFlow, to achieve the best performance for Intel platforms and to deliver productivity and programmability for AI developers. We are accelerating the disruption of the proprietary ecosystems through Intel contributions to new software AI languages such as Triton, Mojo, and JAX. This higher level of open, vendor-independent programmability, combined with Intel's commitment to open spec governance, implementations, licensing models, and segment-optimized solutions, such as OpenVINO ${ }^{\text {TM }}$ powered by oneAPI, offers customers a choice of hardware and software stack tailored to diverse workload needs.
- We seek to continually improve our system and foundational-level software in support of our client, data center, networking, and graphics products, delivering AI-optimized software across the stack, including BIOS, firmware, simulation, operating systems, and virtualization.


## IP Rights

We own and develop significant IP and related IP rights around the world that support our products, services, R\&D, and other activities and assets. Our IP portfolio includes patents, copyrights, trade secrets, trademarks, mask works, and other rights. We actively seek to protect our global IP rights and deter unauthorized use of our IP and other assets.

We have obtained patents in the US and other countries. Because of the fast pace of innovation and product development, our products are often obsolete before the patents related to them expire, and in some cases our products may be obsolete before the patents are granted. As we expand our product offerings, particularly around our foundry business, we also seek to extend our patent development efforts. In addition to developing patents based on our own R\&D efforts, we may purchase or license patents from third parties.

The software that we distribute, including software embedded in our products, is entitled to copyright and other IP protection. To distinguish our products from our competitors' products, we have obtained trademarks and trade names for our products, and we maintain cooperative advertising programs with customers to promote our brands and to identify products containing genuine Intel components. We also protect details about our processes, products, and strategies as trade secrets, keeping confidential the information that we believe provides us with a competitive advantage.

Efforts to protect our IP can be difficult, particularly in countries that provide less protection to IP rights and in the absence of harmonized international IP standards. Competitors and others may already have IP rights covering similar products. There is no assurance that we will be able to obtain IP rights covering our own products or that we will be able to obtain IP licenses from other companies on favorable terms or at all. For a discussion of IP-related risks, see "Risk Factors" within Risk Factors and Other Key Information. While our IP rights are important to our success, our business as a whole is not significantly dependent on any single patent, copyright, or other IP right.


## Manufacturing Capital

As the guardians of Moore's Law, we continue to innovate to advance the design and manufacturing of semiconductors to help address our customers' greatest challenges. This makes possible new leadership products with higher performance while balancing power efficiency, cost, and size.

Our IDM 2.0 strategy allows us to deliver leadership products using internal and external capacity while leveraging our core strengths to provide foundry services to others. IDM 2.0 combines three capabilities. First, we will continue to build most of our products in our fabs. Second, we expect to expand our use of third-party foundry capacity to manufacture a range of modular tiles on advanced process technologies. Third, we are building a world-class foundry business with IFS, which we expect will combine leading-edge packaging and process technology, committed capacity in the US and Europe, and a world-class IP portfolio that will include $\times 86$ cores, as well as other ecosystem IP.

## Network and Supply Chain

In 2023, our factories delivered continuous support to our customers as we ramped new process technologies and equipment for our products and expanded Open System Foundry offerings. We continue to work across our supply chain to minimize disruptions, improve productivity, and increase overall capacity and output to meet customer expectations.

Our global supply chain supports internal partners across architecture, product design, technology development, manufacturing and operations, sales and marketing, and business units, and our supply ecosystem comprises thousands of suppliers globally. Our mission is to enable product and process leadership, industry-leading total cost of ownership, and on-time and uninterrupted supply for our customers, delivered in a responsible and sustainable manner.

As of the end of 2023, we had nine geographically dispersed manufacturing sites in production. The following map shows the locations of these factory sites. Our manufacturing facilities are primarily used for silicon wafer manufacturing, assembling, testing, and advanced packaging. We operate in a network of manufacturing facilities integrated as though they were one factory to provide the most flexible supply capacity, allowing us to better analyze our production costs and adapt to changes in capacity needs. Our new process technologies, when ready for high volume manufacturing, are transferred from a central development fab to one or more of our manufacturing facilities. The network of factories and the development fab collaborate to continue driving operational improvements. This enables fast ramp of the operation, quick learning, and quality control.

We are expanding manufacturing capacity across multiple sites and geographies. These include silicon wafer manufacturing in Arizona, Germany, Ireland, Israel, Ohio, and Oregon and advanced packaging manufacturing in Malaysia and New Mexico. This year, we added Poland to our assembly and test expansion roadmap. These investments further our IDM 2.0 strategy and are expected to support a resilient semiconductor supply chain and to create the foundation for a next-generation chip ecosystem.

## Intel's Global Footprint




## 8 Human Capital

Our human capital strategy is grounded in our belief that our people are fundamental to our success. Delivering on our strategy and growth ambitions requires attracting, developing, and retaining top talent across the world. We are committed to creating an inclusive workplace where the world's best engineers and technologists can fulfill their dreams and create technology that improves the life of every person on the planet. We invest in our highly skilled workforce of 124,800 people (as of December 30,2023 ) by creating practices, programs, and benefits that support the evolving world of work and our employees' needs.

Our human capital philosophy includes three pillars we believe are needed to position our talent strategy as a competitive advantage:

- Hire and retain the best talent: We have embraced the future of work with a flexible, hybrid-first approach that differentiates Intel from competitors.
* Develop our talent to full potential: We have updated role descriptions and career pathways to better enable movement and help top talent work on the highest priorities.
- Create a winning culture: We have reignited Intel's results-driven, performance culture.

Fostering a culture of empowerment, inclusion, and accountability is also core to our strategy. We believe that an inclusive culture is important for attracting, developing, and retaining top talent, and we strive to provide a work environment where all employees from all backgrounds are valued, challenged, and rewarded. We are focused on reinvigorating our culture to strengthen our execution and accelerate our cadence of innovation. Our values-customer first, fearless innovation, results driven, one Intel, inclusion, quality, and integrity-inspire us and are key to delivering on our purpose. All employees are responsible for upholding these values, the Intel Code of Conduct, and Intel's Global Human Rights Principles, which form the foundation of our policies and practices and ethical business culture.

## Talent Management

We continue to see significant competition for talent throughout the semiconductor industry. Our hiring was limited in 2023, in line with macroeconomic forecasts, financial performance, and cost-cutting measures, and we took actions to rebalance our workforce. However, the investments we are making to accelerate our process technology require continued and focused efforts to attract and retain talentespecially technical talent. Our undesired turnover rate ${ }^{1}$ was $5.6 \%$ in both 2023 and 2022.

We invest significant resources to develop the talent needed to remain at the forefront of innovation and make Intel an employer of choice. We offer extensive training programs and provide rotational assignment opportunities and have updated our job architecture to help employees create custom learning curricula for building skills and owning their careers. To further support the growth and development of our people, we continue to increase mentoring in our technical community, drive engagement through employee resource groups, and promote health and wellness resources to all our people. Through our annual employee experience survey, employee inclusion survey, and manager development feedback survey, employees can voice their perceptions of the company, their managers, their work experiences, and their learning and development opportunities. Our employees' voices are important to enable our culture of continuous improvement, and as a result, we link a portion of our executive and employee performance bonus to year-over-year improvements of our employee experience survey results. Our performance management system is designed to support our cultural evolution and to increase our focus on disciplined OKRs.

[^2]

## Inclusion

Diversity and inclusion are core elements of Intel's values and instrumental to driving innovation and positioning us for growth. Over the past decade, we have taken actions to integrate diversity and inclusion expectations into our culture, performance and management systems, leadership expectations, and annual bonus metrics. Through our annual employee inclusion survey, employees can voice their experiences at Intel and provide feedback on how we can continue to improve. We are proud of what we have accomplished to advance diversity and inclusion, but we believe we can achieve more, including beyond the walls of Intel. Our RISE strategy and 2030 goals set our global ambitions for the rest of the decade, including, in part, ambitious goals to achieve $25 \%$ representation of women in senior leadership; achieve $12 \%$ representation of underrepresented minorities in US senior leadership; achieve $10 \%$ representation of employees with a disability in our global workforce; and exceed $40 \%$ representation of women in technical roles, including engineering positions and other roles with technical job requirements. Our ambitious goals were established, in part, based on modeling of where market availability is expected to be in 2030. Market availability analysis will be re-conducted over the time period to assess ongoing alignment and expectations. To drive accountability, we continue to link a portion of our executive and employee compensation to diversity and inclusion metrics.
We have committed our scale, expertise, and reach through our comprehensive RISE strategy to work with customers and other stakeholders to accelerate the adoption of inclusive business practices across industries. As part of the Alliance for Global Inclusion, we worked with a coalition of technology companies to create a global inclusion index survey, which serves as a benchmark for companies to track diversity and inclusion improvements, provide information on current best practices, and highlight opportunities to improve outcomes across industries. The results of the third global inclusion index survey were published in 2023 and shared with business leaders across industries. For the first time, based on the maturity of the respondents' best practices, the survey results transitioned to an index, in which organizations that received an overall score of $50 \%$ or higher across all regions in which they participated were recognized for their diversity and inclusion efforts. There were 27 respondents and, of those, 18 earned spots on the index, including Intel. This collective effort allows the industry to more clearly identify actions needed to advance progress on closing persistent gaps and advancing more inclusive practices in workplaces, industry, and society. The survey shows increased commitment to diversity and inclusion around key areas of workforce inclusivity, recruitment, advancement opportunities, and accountability. We will also continue to collaborate on initiatives that expand the diverse pipeline of talent for our industry, advance social equity, make technology fully inclusive, and expand digital readiness for millions of people around the world.
${ }^{2}$ Senior leadership refers to salary grades $10+$ and equivalent grades. While we present male and female, we acknowledge this is not fully encompassing
of all gender identities.
${ }^{3}$ The term underrepresented minority (URM) is used to describe diverse populations, including Black/African American, Hispanic, and Native American employees in the US.

## Compensation and Benefits

We structure pay, benefits, and services to meet the varying needs of our employees, helping support employee financial well-being with competitive compensation, investment opportunities, and financial resources. Our total rewards package includes market-competitive pay, broad-based stock grants and bonuses, an employee stock purchase plan, healthcare and retirement benefits, paid time off and family leave, parent reintegration, fertility assistance, flexible work schedules, sabbaticals, and on-site services. Since 2019, we have achieved gender pay equity globally and we continue to maintain race/ethnicity pay equity in the US. We achieve pay equity by closing the gap in average pay between employees of different genders or race/ethnicity in the same or similar roles after accounting for legitimate business factors that can explain differences, such as location, time at grade level, and tenure. We have also advanced transparency in our pay and representation data by publicly releasing our EEO-1 survey pay data since 2019. We believe that our holistic approach toward pay equity, representation, and creating an inclusive culture enables us to cultivate a workplace that helps employees develop and progress in their careers at all levels. Our "hybrid-first" approach to working was informed by employees surveyed around the globe and involves the majority of our employees splitting their time between working remotely and in the office. Hybrid-first and remote work options cast a wider recruitment net and support our ambition to hire the best global talent. Currently, there is no company-wide mandate on the number of days per week employees should be on site or how they should collaborate. Our goal is to enable remote and on-site work where it drives the best output, while providing our employees with equitable access to systems, resources, and opportunities that allow them to succeed.

## Health, Safety, and Wellness

We are committed to providing a safe and injury-free workplace. We regularly invest in programs designed to improve physical, mental, and social well-being. We provide access to a variety of innovative, flexible, and convenient health and wellness programs, including onsite health centers, and we aim to increase awareness of and support for mental and behavioral health. In support of our RISE goals, we intend to continue our efforts to build our strong safety culture and drive the global expansion of our corporate wellness program through employee education and engagement activities.


## 늑 Social and Relationship Capital

We are committed to engaging in initiatives that support our communities and help us develop trusted relationships with our stakeholders. Proactive engagement with our stakeholders and investments in social impact initiatives, including those aligned with the United Nations Sustainable Development Goals, advance our position as a leading corporate citizen and create shared value for Intel, our global supply chain, and our communities.

Economic and social. The health of our business and local economies depends in part on continued investments in innovation. We provide high-skill, high-paying jobs around the world, many of which are manufacturing and R\&D jobs located in our factories. As we expand operations in both existing and new locations around the world, we are building a pipeline of qualified workers through our talent strategy and the many investments we are making in education. We also benefit economies through our R\&D ecosystem spending, sourcing activities, employee spending, and tax payments. We make sizable capital investments and provide leadership in public-private partnerships to spur economic growth and innovation.

We stand at the forefront of new technologies that are increasingly being used to empower individuals, companies, and governments around the world to solve global challenges. We aim to empower people through education and advance social initiatives to create career pathways into the technology industry. This includes our global Intel Digital Readiness Programs, such as AI for Youth and AI for Workforce, scaled in partnership with governments and institutions to empower individuals with digital readiness and AI skills. Additionally, we invest in multi-year partnerships with historically Black colleges and universities in the US to increase the number of Black/African Americans who pursue electrical engineering, computer engineering, and computer science fields. Our employees and retirees share their expertise through volunteer initiatives in the communities where we operate, volunteering 3.8 million ${ }^{1}$ hours over the past four years. These efforts contribute to our RISE goal to volunteer 10 million hours over a decade. Since 2020, we announced and further expanded upon the Intel RISE Technology Initiative, which provides an expanded channel to build deeper relationships with our customers and partners aligned with our corporate purpose and work to create shared value through our RISE strategy. Specifically, we are funding projects in areas such as using technology to improve health and safety, making technology more inclusive while expanding digital readiness, and carbon-neutral computing to help address climate change.

Human rights commitment. We are committed to maintaining and improving systems and processes to avoid causing or contributing to adverse impacts on human rights in our own operations, products, and supply chain. We have established an integrated approach to managing human rights across our business, including senior-level management involvement and board-level oversight. We also meet throughout the year with external stakeholders and experts on human rights to continue to inform and evolve our human rights policies and oversight processes. While we do not always know nor can we control what products our customers create or the applications end users may develop, we do not support or tolerate our products being used to adversely impact human rights. Where we become aware of a concern that Intel products are being used by a business partner in connection with abuses of human rights, we intend to evaluate and restrict or cease business with the third party unless and until we have a high confidence that Intel's products are not being used to adversely impact human rights.

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## Supply Chain Responsibility

We actively manage our supply chain to help reduce risk, improve product quality, achieve environmental and social goals, and improve overall performance and value creation for Intel, our customers, and our suppliers. To drive responsible and sustainable practices throughout our supply chain, we have robust programs to educate and engage suppliers that support our global manufacturing operations. We actively collaborate with other companies and lead industry initiatives on key issues such as improving transparency around climate and water impacts in the global electronics supply chain and, as part of our RISE strategy, we are advancing collaboration across our industry on responsible minerals sourcing. Through these efforts we help set electronics industry-wide standards, develop audit processes, and conduct training.

Over the past decade, we have directly engaged with suppliers to verify compliance and build capacity to address risks of forced and bonded labor and other human rights issues. We perform periodic audits, and identify critical direct suppliers to engage through capabilitybuilding programs, which help suppliers build sustainability acumen and verify compliance with the Responsible Business Alliance and the Intel Code of Conduct. We also engage with indirect suppliers through our programs on forced and bonded labor, responsible minerals, and supplier diversity. To achieve our RISE goals, we are significantly expanding the number of suppliers covered by our engagement activities. The supply chain environmental team is also actively engaging suppliers to measure and reduce their greenhouse gas emissions footprints and the resulting impact on our footprint. These activities are intended to help us meet our long-term emissions reductions goals, including our goal to achieve net-zero upstream Scope 3 greenhouse gas emissions by 2050, which we announced in 2023.

Our commitment to diversity and inclusion also extends to our suppliers. We believe a diverse supply chain supports greater innovation and value for our business. We have set additional spending targets with women-owned suppliers outside the US and with minorityowned suppliers globally to accelerate progress toward our goal to increase global annual spending with diverse suppliers to reach $\$ 2.0$ billion in annual spending by 2030 .

## (7) Natural Capital

Driving to the lowest possible environmental footprint as we grow helps us create efficiencies, support our communities, and respond to the needs of our stakeholders. We invest in environmental projects and set company-wide environmental targets to drive reductions in greenhouse gas emissions, energy and water use, and waste generation. We build energy efficiency into our products to help our customers lower their own emissions, energy usage, and costs, and we collaborate with policymakers and other stakeholders to use technology to address environmental challenges.

In April 2022, we announced our new goal to reach net-zero greenhouse gas emissions in our operations by 2040, creating an important target to strengthen our commitment to sustainable business practices. We furthered our commitment in 2023 by announcing our goal to reach net-zero upstream Scope 3 greenhouse gas emissions by 2050. Our 2030 RISE goals continue to be important milestones to drive to higher levels of operational efficiency, including a goal of a $10 \%$ reduction in our greenhouse gas emissions on an absolute basis from a 2019 baseline by 2030. We continue to take action on emissions reduction strategies focused on emissions abatement, and to make additional investments in renewable electricity, process and equipment optimization, and energy conservation. In 2023, we linked a portion of the executive and employee performance bonus to our goal to reduce our 2023 Scope 1 and 2 greenhouse gas emissions by 130,000 metric tons carbon dioxide equivalent, compared to 2022. Our RISE strategy also focuses on addressing climate change impacts upstream and downstream in the value chain. This includes improving product energy efficiency and increasing our "handprint"-the ways in which Intel technologies can help others reduce their footprints, including Internet of Things solutions that enable intelligence in machines, buildings, supply chains, and factories, and make electrical grids smarter, safer, and more efficient.

In August 2023, we published our inaugural green bond report, which provides an update on the allocation of the net proceeds of the $\$ 1.3$ billion principal amount of senior notes issued in 2022. We are using the proceeds from the green bond offering to fund projects that support our investments in sustainable operations, which can include items such as green buildings, energy efficiency, circular economy and waste management, greenhouse gas emissions reductions, water stewardship, and renewable energy.

## Energy

We focus on reducing our own climate change impact, and over the past two decades have reduced our direct and indirect greenhouse gas emissions associated with energy consumption. Through our RISE goals, we have committed to a goal of conserving 4 billion kWh of energy this decade. We have conserved 1.6 billion $\mathrm{kWh}^{1}$ of energy cumulatively since 2020 . We also invest in renewable electricity and on-site alternative energy projects in support of our 2030 goal to achieve $100 \%$ renewable electricity use across our global operations. In 2023, continuing our practice of linking a portion of our executive and employee performance bonus to our corporate sustainability metrics, we linked a portion of the performance bonus to our 2023 target to reach $95 \%$ renewable electricity use globally. We reached our target and achieved $99 \%^{1}$ renewable electricity usage globally in 2023.

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## Water Stewardship

Water is essential to the semiconductor manufacturing process. We use ultrapure water to remove impurities from our silicon wafers, and we use fresh and reclaimed water to run our manufacturing facility systems. Through our RISE goals, we have committed to achieve net positive water globally, and as part of that effort, conserve 60 billion gallons of water in this decade. Water conservation reduces the amount of water needed from fresh water sources; we have conserved 35.9 billion gallons ${ }^{1}$ of water and enabled restoration of 9.6 billion gallons ${ }^{1}$ of water to local watersheds since 2020. In 2023, we linked a portion of our executive and employee performance bonus to our target to conserve and restore 12.0 billion gallons of water during the year.


## Circular Economy and Waste Management

We have long been committed to waste management, recycling, and circular economy strategies that enable the recovery and productive re-use of waste streams. Our 2030 goals include a target of zero waste ${ }^{2}$ to landfill, as well as implementation of circular economy strategies for $60 \%$ of our manufacturing waste streams in partnership with our suppliers. We continue to focus on opportunities to upcycle waste by improving waste segregation practices and collaborating with our suppliers to evaluate new technologies for waste recovery. In 2023, we linked a portion of our executive and employee performance bonus to our interim target to achieve $5 \%$ of waste to landfill.

## Governance and Disclosure

We are committed to transparency around our carbon footprint and climate risk, and use the framework developed by the TCFD to inform our disclosure on climate governance, strategy, risk management, and metrics and targets. For governance and strategy, we follow an integrated approach to address climate change, with multiple teams responsible for managing climate-related activities, initiatives, and policies, with senior-level management involvement and board-level oversight, including the Corporate Governance and Nominating Committee. We describe our overall risk management processes in our Proxy Statement, and describe climate-related risks and opportunities in our annual Corporate Responsibility Report, the Intel Climate Change Policy, and "Risk Factors" within this Form 10-K. In addition to what is included in this Form 10-K, information about and progress toward our RISE goals is included in our Corporate Responsibility Report. Our Corporate Responsibility Report also includes a mapping of our disclosure to the TCFD, GRI and SASB frameworks. The Corporate Responsibility Report and our CDP Climate Change Survey are available on our website and are published annually. ${ }^{3}$ In November 2023, we published our first Climate Transition Action Plan, which is available on our website.

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## Management's Discussion and Analysis

## Our Products

We are a global IDM of CPUs and related solutions that we design, develop, manufacture, market, sell, support, and service. Our CPUs and related solutions are incorporated in computing and related end products and services, and utilized globally by consumers, enterprises, governments, and educational organizations. Our customers primarily include OEMs, ODMs, cloud service providers, and other manufacturers and service providers, such as industrial and communication equipment manufacturers and other cloud service providers who buy our products through distributor, reseller, retail, and OEM channels throughout the world. We market and sell these products directly through our global sales and marketing organizations and indirectly through channel partners. We manufacture our products at our fabrication and assembly and test facilities located throughout the world.

Our product offerings provide end-to-end solutions, scaling from data center to network, PCs, edge computing, and the emerging fields of AI and autonomous driving, to serve an increasingly smart and connected world. Products, such as our gaming CPUs, may be sold directly to end consumers, or they may be further integrated by our customers into end products such as notebooks and storage servers. Combining some of these products-for example, integrating FPGAs with Intel Xeon processors in a data center solution-enables incremental synergistic value and performance. In 2023 we launched new products, including the 13th Gen Intel Core mobile processor family, the 4th Gen Intel Xeon Scalable processors with Intel vRAN Boost, and the Intel Core Ultra processors, which feature our first integrated neural processing unit for power-efficient AI acceleration and local inference on the PC.

Our diverse product line includes CPU and chipset, an SoC, or a multichip package based on Intel architecture that processes data and controls other devices in a system. The primary CPU products in CCG are our Intel Core processors, which include designs specifically for notebook and desktop applications. The primary CPU product in DCAI is our Intel Xeon processor, which includes solutions for data center compute, networking, and the intelligent edge. The primary offerings of NEX include Intel Xeon, Intel Core, and Intel Atom ${ }^{\oplus}$ processor products.

During 2023, we managed our business through the operating segments that are presented below and have included the 2023, 2022 and 2021 financial results for each segment. "Note 3: Operating Segments" within the Notes to Consolidated Financial Statements of this Form $10-\mathrm{K}$ reconciles our segment revenues presented below to our total revenues, and our segment operating income (loss) presented below to our total operating income (loss), for each of the periods presented. We have also included a discussion of our 2023, 2022 and 2021 consolidated results of operations and related information subsequent to the operating segment discussion below.



## Overview

We are committed to advancing PC experiences by delivering an annual cadence of leadership products and deepening our relationships with industry partners to co-engineer and deliver leading platform innovation. We engage in an intentional effort to bring together the operating system, system architecture, hardware, and software application integration to enable industry-leading PC experiences. We embrace these opportunities by focusing our roadmap, delivering innovative PC capabilities, and designing advanced PC experiences. By doing this, we believe we help continue to fuel innovation across the industry, providing a solid source of IP, scale, and cash flow for Intel.
Key Business Developments

- We launched our 13th Gen Intel Core mobile and select desktop processors, Intel Core 14th Gen processors, and Intel Core Ultra processors, the first client processor family on Intel 4 technology that features a new neural processing unit to drive AI at scale.
- We launched the industry's first AI PC Acceleration Program to help enable AI on more than 100 million PCs through 2025.
- We worked with industry partners to co-engineer and deliver new experiences with the Intel ${ }^{\oplus}$ Evo ${ }^{T M}$ device, including phone to PC capabilities with Intel ${ }^{\circledR}$ Unison ${ }^{\text {TM }}$ application and future premium laptop experiences with AI and Intel Core Ultra processors.



## Market and Business Overview

## Market Trends and Strategy

In 2023, the PC market started to stabilize from a soft macroeconomic environment and inflationary pressures, with PC supply and demand levels beginning to normalize. We remain positive on the long-term outlook for PCs , as household density is stable to increasing, educational device penetration rates remain low outside of the US, and PC usage remains elevated compared to pre-pandemic rates ${ }^{1}$. Commercial growth opportunities also remain as corporations expand the size of their PC fleets, while also replacing older devices. Currently, approximately 200 million commercial devices are more than four years old ${ }^{2}$.

We see the AI PC as a critical inflection point for the PC market over the coming years, and we believe we are well positioned to capitalize on the emerging growth opportunity of AI. We believe that the PC is as essential as ever, and we expect our leadership in client AI to further support our original forecasted long-term PC TAM of approximately 300 million units ${ }^{3}$. Together with our industry partners, we are working to increase demand and drive market growth through enhanced PC capabilities, which we expect will lead to greater market penetration and faster PC refresh cycles.

As we continue on our strategy to develop more competitive products and more capabilities for customers, we are designing our product roadmap to drive product leadership grounded in a philosophy of openness and choice. We deliver value to our customers by leveraging our engineering capabilities and working with our partners across an open, innovative ecosystem to deliver technology that drives every major vector of the computing experience, including performance, power efficiency, battery life, connectivity, graphics, and form factors, to create the most advanced PC platforms.

## Products and Competition

We released our 14th Gen Intel Core desktop processor family, delivering improved single-threaded and multi-threaded performance when gaming, streaming, and recording. In addition, we released our first Intel Core Ultra family of processors, which utilizes a disaggregated architecture and is the first PC platform built on Intel 4 technology. Our latest processor family is the first client processor to feature a dedicated NPU for AI acceleration and delivers improved power efficiency and graphics performance. Intel Core Ultra represents an inflection point in Intel's client processor roadmap as we usher in the age of the AI PC. With new capabilities in the PC, including significantly improved battery life, AI capabilities with our NPU and GPU products, and up to double the graphics performance with Intel Core Ultra processors, we seek to provide compelling reasons to drive refresh in commercial and consumer markets. We expect to deliver more than 230 Intel Core Ultra designs to market.

There is strong demand for our 13th Gen Intel Core processor family, which features Intel Thread Director technology and our secondgeneration performance hybrid architecture. We expect to deliver more than 300 designs from partners across major multi-national corporations and leading manufacturers.

We continue to innovate beyond the CPU to deliver premium PC experiences with Intel Evo Edition laptops and Intel vPro Platforms. We worked with industry partners to co-engineer and deliver new experiences with Intel Evo Edition, which are designed to deliver key experience indicators such as responsiveness, battery life, intelligence collaboration, and Intel Unison Multi-Device Experience. Intel vPro is designed for enterprise needs and delivers increased productivity, connectivity, security features, and remote manageability.

We operate in a particularly competitive market. In processors, we compete with Advanced Micro Devices, Inc. (AMD) and vendors who design applications processors based on ARM architecture*, such as Qualcomm Inc. (Qualcomm), and Apple Inc. (Apple), with its M1 and M2 products. We expect this competitive environment to continue to intensify in 2024.

We remain committed to creating an open ecosystem to foster growth and technology innovations. We embrace and collaborate with a global ecosystem of industry partners to deliver leadership technologies together. We launched the industry's first AI PC Acceleration Program, designed to provide the software ecosystem with engineering tools and resources to enable AI on more than 100 million PCs through 2025. We also announced a collaboration with Microsoft to drive the development of AI on personal computing, with Intel Core Ultra processors and Windows 11 expected to scale across the ecosystem of Intel and Microsoft OEM and ISV partners.

During 2023, we continued to diversify our product strategy across nodes, advance our packaging capabilities with disaggregated silicon, and balance internal and external manufacturing. We increased our levels of operating inventory and worked with our customers to develop strategically located supply hubs that forward position inventory. In addition, we continue to invest in a globally diverse supply chain that enables us the flexibility and proximity to support customers. These have further enhanced the service and responsiveness we are able to provide our customers.

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Financial Performance


Revenue Summary

## 2023 vs. 2022

- Notebook revenue was $\$ 17.0$ billion, down $\$ 1.8$ billion from 2022. Notebook volume decreased $5 \%$ from 2022, driven by lower demand across market segments, partially offset by increased volume in the second half of the year as customer inventory levels normalized compared to higher levels in the first half. Notebook ASPs decreased $5 \%$ from 2022 due to relative strength in the education market segment resulting in a higher mix of small core products combined with a higher mix of older generation products.
- Desktop revenue was $\$ 10.2$ billion, down $\$ 495$ million from 2022. Desktop volume decreased $9 \%$ from 2022, driven by lower demand across market segments, partially offset by increased volume in the second half of the year as customer inventory levels normalized compared to higher levels in the first half. Desktop ASPs increased 5\% from 2022, due to an increased mix of product sales to the commercial and gaming market segments.
* Other revenue was $\$ 2.1$ billion, down $\$ 229$ million from 2022, primarily driven by the continued ramp down of our legacy smartphone modem business and lower demand for our wireless and connectivity products as a result of lower notebook volumes.


## 2022 vs. 2021

- Notebook revenue was $\$ 18.8$ billion, down $\$ 6.7$ billion from 2021. Notebook volume decreased $36 \%$ from 2021, driven by lower demand in the consumer and education market segments, and notebook ASPs increased $15 \%$ from 2021 due to an increased mix of commercial and consumer products and a lower mix of education products.
- Desktop revenue was $\$ 10.7$ billion, down $\$ 1.8$ billion from 2021. Desktop volume decreased $19 \%$ from 2021, driven by lower demand in the consumer and education market segments, and desktop ASPs increased $5 \%$ from 2021, primarily from an increased mix of commercial products.
- Other revenue was $\$ 2.3$ billion, down $\$ 870$ million from 2021, primarily driven by the continued ramp down of our legacy smartphone modem business and lower demand for our wireless and connectivity products.


Operating income increased 17\% year over year, and operating margin was $22 \%$ in 2023 and $18 \%$ in 2022.

## (In Millions)

| \$ | 6,520 | 2023 Operating Income |
| :---: | :---: | :---: |
|  | 1,692 | Lower period charges driven by the sell-through of previously reserved inventory and lower reserves taken in 2023 |
|  | 1,220 | Lower operating expenses driven by various cost-cutting measures |
|  | 268 | Lower period charges primarily driven by a decrease in product ramp costs |
|  | $(1,704)$ | Lower product margin primarily from lower notebook and desktop revenue |
|  | (385) | Higher unit cost primarily from increased mix of Intel 7 products |
|  | (140) | Higher period charges related to excess capacity charges |
| \$ | 5,569 | 2022 Operating Income |
|  | $(3,047)$ | Lower product margin from notebook revenue |
|  | $(2,183)$ | Higher notebook and desktop unit cost primarily from increased mix of Intel 7 products |
|  | $(1,306)$ | Lower product margin from desktop revenue |
|  | $(1,400)$ | Higher operating expenses driven by increased investments in leadership products |
|  | $(1,155)$ | Higher period charges primarily driven by inventory reserves taken in 2022 |
|  | (364) | Lower CCG other product margin driven by lower demand for our wireless and connectivity products and the continued ramp down from the exit of our 5 G smartphone modem business |
|  | (267) | Higher period charges primarily associated with the ramp of Intel 4 |
|  | (162) | Higher period charges related excess capacity charges |
|  | 192 | Lower period charges due to a benefit related to insurance proceeds received for business interruption and property damage that occurred in 2020 |
|  | (262) | Other |
| \$ | 15,523 | 2021 Operating Income |




## Overview

DCAI delivers cutting-edge workload-optimized solutions to cloud service providers and enterprises, along with silicon devices for communications service providers, network and edge, and HPC customers. Our unique capabilities enable us to help solve our customers' most complex challenges with the depth and breadth of our hardware and software portfolio, advanced packaging, and atscale manufacturing made possible through a resilient, global supply chain. Our global customers and partners encompass cloud hyperscalers, multinational corporations, small-and medium-sized enterprises, independent software vendors, systems integrators, communications service providers, and governments.

Key Business Developments

- We have sold more than 2 million 4th Generation Intel Xeon Scalable processors as of the end of 2023, and launched the 5th Gen Intel Xeon processors in Q4 2023.
- We were recognized by MLCommons, which published MLPerf Training performance benchmark data showing that 4th Gen Xeon and Intel Gaudi 2 are two compelling, open computing platforms in the AI market that compete on performance, price, and broad availability.
- We announced our intent to separate PSG into a standalone company, giving PSG the autonomy and operational and financial flexibility it needs to accelerate growth to more effectively compete in the FPGA market. Standalone financial reporting for PSG began January 1, 2024.



## Market and Business Overview

## Market Trends and Strategy

Data is a significant force in society and is generated daily at an unprecedented pace. The desire to harness insights from data to drive better outcomes for businesses and society is ever expanding. Al is becoming pervasive in nearly all applications, creating the potential for intelligence everywhere, and enabling powerful new uses of compute resources across all market segments. The installed base of Intel Xeon processors, combined with our portfolio of heterogeneous compute solutions (FPGAs, GPUs, IPUs, and AI accelerators), we believe positions us to lead in this high-growth area. DCAI is integral to our growth in AI through deep investments in the AI ecosystem, developer tools, frameworks, networking and memory, technologies, and open standards to drive a scalable path forward.

We take a system-level approach that supplies the necessary hardware and software optimized for power and performance. Our technology is differentiated at the system level and in high-growth workloads based on our integrated hardware acceleration engines and software. For example, architected into our Intel Xeon processors are Intel ${ }^{\circledR}$ Advanced Matrix Extensions (Intel ${ }^{\circledR}$ AMX) for AI acceleration; Intel ${ }^{\circledR}$ Software Guard Extensions (Intel ${ }^{\circledR}$ SGX), providing enclaves of protected memory designed to deliver enhanced security for sensitive data; and Inte ${ }^{(9)}$ Crypto Acceleration, which is designed to deliver breakthrough performance across cryptographic algorithms. We believe this acceleration and performance will continue to drive our differentiated value and growth across our customer base.

## Products and Competition

Our products and services include:

- A portfolio of hardware, including Intel Xeon processors, the Intel Xeon CPU Max Series, the Intel Data Center GPU Max Series, the Intel ${ }^{\oplus}$ Data Center GPU Flex Series, Intel Agilex ${ }^{\oplus}$ and Intel ${ }^{\oplus}$ Stratix ${ }^{\oplus}$ FPGAs, Intel ${ }^{\oplus}$ eASIC $^{\text {TM }}$ devices, and the Intel Gaudi processors.
- Platform enabling and validation in partnership with ODMs, OEMs, CSPs, and independent software vendors.
- Optimized solutions for leading workloads such as AI, cryptography, security, storage, and networking, leveraging differentiated features supporting diverse compute environments.

We provide our customers with an extensive portfolio of silicon and software products, engineered to deliver workload-optimized performance. Our hardware portfolio comprises CPUs, GPUs, domain-specific accelerators, and FPGAs, designed to support the performance, agility, and security that our customers demand. Deployment of our silicon platforms is accelerated by a software development environment that enables workload mobility across our heterogeneous architectures and enables developers to execute their workloads on the hardware that best meets application requirements.

Our competitors include AMD, providers of GPU products such as NVIDIA, companies developing their own custom silicon, and new entrants and incumbents developing ARM- and RISC-V-based products customized for specific data center workloads. We expect this competitive landscape to continue.

The Intel Xeon Scalable processor family delivers advanced CPUs for the data center, the network, and the edge, driving industry-leading performance, manageability, and security with differentiated features and capabilities. In 2023, we launched the 5th Gen Intel Xeon Scalable processors, which utilize modular SoCs for increased scalability and flexibility to deliver a range of products that meet the growing scale, processing, and power efficiency needs for AI, cloud, and enterprise installations.

Our Intel Gaudi 2 AI deep learning processor is engineered to allow customers to benefit from the most cost-effective, high-performance training and inference alternative to comparable GPUs.

Our FPGA and structured ASIC portfolio enhances Intel's ability to meet the needs of customers in the data center, across the network, and at the edge. In 2023, we released 21 new products within our FPGA business. These include the Intel Agilex 9 and Intel Agilex 7 product families, which are intended to handle the increased demand for customized workloads, including enhanced AI capabilities, and to provide lower total cost of ownership.

Our Intel Xeon CPU Max Series, introduced in 2022, was the first and only x86-based processor with high bandwidth memory for HPC and Al workloads. The Intel Data Center GPU Max Series 1550 and 1100 are now broadly available through OEM systems. Our Intel CPU Max Series includes 64GB of on-package high bandwidth memory, which benefits data-intensive HPC workloads. Our Intel Data Center GPU Flex Series offers customers a flexible, general-purpose GPU for the data center and the intelligent visual cloud. We delivered and installed, in collaboration with Argonne National Laboratory (ANL) and Hewlett Packard Enterprise (HPE), the largest cluster of Max GPUs to the Aurora Supercomputer at ANL.

The ubiquity of Intel Xeon in the installed base, along with our heterogeneous compute solutions combined with software that unlocks the value of our hardware, enable our customers to develop highly differentiated solutions. Our integrated approach has created significant value for Intel, our customers, and our partners by helping us mitigate risks, reduce costs, build brand value, and identify new market opportunities to apply our technology to address our customers' and society's most complex issues.



Revenue Summary
2023 vs. 2022
Revenue was $\$ 15.5$ billion, down $\$ 3.9$ billion from 2022, driven by a decrease in server revenue. Server volume decreased $37 \%$ from 2022, due to lower demand in a softening CPU data center market. Server ASPs increased 20\% from 2022, primarily due to a lower mix of hyperscale customer-related revenue and a higher mix of high core count products.

2022 vs. 2021
Revenue was $\$ 19.4$ billion, down $\$ 3.3$ billion from 2021, due to a decrease in server revenue, partially offset by higher other DCAI revenue. Server volume decreased $16 \%$ from 2021, led by enterprise customers in a competitive environment, and due to customers tempering purchases to reduce existing inventories in a softening data center market. Server ASPs decreased $5 \%$ from 2021, driven by a higher mix of revenue from hyperscale customers. Other DCAI revenue increased $18 \%$ from 2021 primarily driven by growth in our FPGA business.

## Operating Income (Loss) Summary

We had an operating loss of $\$ 530$ million in 2023, compared to operating income of $\$ 1.3$ billion in 2022.

## (In Millions)

| \$ | (530) | 2023 Operating Income (Loss) |
| :---: | :---: | :---: |
|  | $(2,709)$ | Lower product margin primarily due to lower server revenue |
|  | $(1,269)$ | Higher server unit cost primarily from increased mix of Intel 7 products |
|  | (171) | Higher period charges related to excess capacity charges |
|  | 1,337 | Lower operating expenses driven by various cost-cutting measures |
|  | 520 | Lower period charges primarily driven by a decrease in product ramp costs |
|  | 462 | Lower period charges driven by the sell-through of previously reserved inventory and lower reserves taken in 2023 |
| \$ | 1,300 | 2022 Operating Income |
|  | $(3,325)$ | Lower product margin from server revenue |
|  | $(1,137)$ | Higher period charges primarily associated with the ramp up of Intel 4 |
|  | $(1,043)$ | Higher operating expenses driven by increased investments in leadership products |
|  | (671) | Higher server unit cost from increased mix of 10 nm SuperFin products |
|  | (645) | Higher period charges driven by inventory reserves taken in 2022 |
|  | (189) | Higher period charges related to excess capacity charges |
|  | 785 | Higher product margin from DCAI other product revenue |
|  | 223 | Lower period charges due to a benefit related to insurance proceeds received for business interruption and property damage that occurred in 2020 |
|  | (74) | Other |
| \$ | 7,376 | 2021 Operating Income |




Overview
NEX transforms the world's networks and edge compute systems from fixed-function hardware to general-purpose compute, acceleration, and networking devices running cloud native software on programmable hardware. We work with partners and customers to deliver and deploy intelligent edge platforms that allow developers to achieve agility and to drive automation using AI for efficient operations while securing the integrity of their data at the edge. We have a broad portfolio of hardware and software platforms, tools, and ecosystem partnerships for the rapid digital transformation happening from the cloud to the edge. We are leveraging our core strengths in compute, connectivity, software, and manufacturing at scale to grow traditional markets and to accelerate entry into emerging ones.

## Key Business Developments

- We launched the 4th Gen Intel Xeon processor with Intel vRAN Boost, and announced the Intel Xeon D-1800 series and the Intel Xeon D-2800 series processors optimized for cloud, edge, and 5G networks.
- We continue to update solutions to improve developers' digital strategies and to accelerate market adoption of edge and Al applications. We announced 13th Gen Intel Core processors for Internet of Things edge and OpenVINO toolkit version 2023.1 with enhanced features for GenAl and edge computing.
- We continue to work with our ecosystem partners like Ericsson, Nokia, Cisco, Dell Technologies, HPE, Lenovo, Amazon, Google, and Microsoft to drive the software-defined transformation of the world's network and edge infrastructure and accelerate AI-driven automation of physical operations.



## Market and Business Overview

## Market Trends and Strategy

The Internet is undergoing a shift toward a cloud-to-edge infrastructure, combining unrivaled scale and capacity in the cloud with faster response times at nearby edges. As AI is transforming and automating every industry-from factories to smart cities to hospitals-the demand for high-performance computing at the edge has expanded exponentially. Networks are moving toward software, becoming more programmable and flexible.

Our network and edge solutions aim to unleash the power of intelligent edge solutions for our customers and move the world's networks to a software infrastructure that runs on Intel technologies by (1) providing edge-optimized, Al-enabled compute and connectivity solutions to run every workload at the edge, between the cloud and the end user, and (2) deploying software platforms that enable developers to build, deploy, run, manage, connect, and secure distributed edge infrastructure, applications, and edge Al across several verticals, such as industrials, federal, aerospace, retail, healthcare, education, and smart cities.

## Products and Competition

With a greater emphasis on systems and solutions designed to harness the growth of data processed at the edge to yield insights, our competitive landscape has shifted beyond application-specific standard product vendors to include cloud, network, and AI computing platform providers.

Today, we speed the deployment of network and edge computing solutions based on our open software frameworks, Al-enabled platform solutions, and edge and network-optimized broad silicon portfolio to address a wide range of applications across several markets.

On-Premises Edge: More than just providing silicon, we partner with companies to design and deliver solutions to help a wide range of customers transform their businesses and take advantage of the rapidly increasing number of connected and intelligent devices. We develop high-performance, Al-enabled compute platforms that solve for technology and business use cases that scale across several industries, such as retail, education, manufacturing, energy, healthcare, and medical.

We deliver edge-optimized AI-enabled platforms for edge applications based on our Intel Xeon, Intel Core, and Intel Atom processor portfolio, which reduces operational complexity for our customers and helps our customers create, store, and process data at the edge so they can analyze it faster and act on it sooner. We also build differentiated networking offerings that keep pace with industry speeds and deliver unique features needed for the intelligent edge, such as networking offloads, time-sensitive networking, and scalable reliable transport.

Enterprise Networking: Enterprises are evolving their networks to connect new and varying environments, host services from anywhere between cloud and edge, deliver heightened service levels, and handle growing volumes of devices and data. We are leading the world's shift to run networking workloads in software and create network function virtualization to provide our customers with more efficient, costeffective, and programmable platforms that enable secure, agile, and reliable networking solutions from edge to cloud. We work with our ecosystem partners of over 500 network builders to help enterprises optimize their networks with right-sized compute and connectivity requirements for current and future needs.

Telecommunication Networks: We lead 5G core network deployments, demonstrating that 5G base stations can be almost entirely built from software running on Intel Xeon processors with Intel vRAN Boost. We continue to drive the transformation from fixed-function networks onto Intel Xeon Scalable processors and Intel Xeon D processors coupled with our FlexCore and FlexRAN ${ }^{\text {TM }}$ software. Our customers are tier-one global communication service providers and their equipment suppliers. Our software-based cloud RAN platform is designed to allow operators to deploy the fastest cloud-native 5G infrastructure quickly and efficiently at scale to meet the needs of their end customers.

Cloud Networking: Our cloud customers require uncompromised data center network performance and reliability driven by increased networking investments to support AI cluster deployments. We address these requirements by providing our open-standards-based NICs and IPUs. The IPU, a new class of product, is an open and programmable compute platform that frees up more compute cycles for customers by running infrastructure workloads in a separate, secure, and isolated set of CPU cores.

Software and Platforms: Our customers' need for flexibility, programmability, and versatility drives workloads toward software and away from fixed-function hardware. As networking in the cloud, core network, 5 G , and private networks move to software, and as our edge customers increasingly deploy AI applications, we aim to simplify innovation on Intel hardware. We support our customers' software strategy at the edge with an edge-native software platform with modular building blocks, premium service, and support offerings. The platform enables developers to build, deploy, run, manage, connect, and secure distributed edge infrastructure, applications, and edge AI. The platform is a horizontal approach to scaling the needed infrastructure for the intelligent edge and hybrid AI, as well as bringing together an ecosystem of Intel and third-party vertical applications. Offering unique optimizations for network, the Internet of Things, hybrid AI, and edge workloads on Intel architecture, the platform also broadly supports diverse architectures and can be consumed on a modular basis-avoiding vendor lock-in. The platform delivers a seamless cloud-like experience, combining truly edge-native capabilities for security and zero-touch management with our deep industry experience and unrivaled ecosystem.


Financial Performance
$\qquad$
NEX Operating Income (Loss) \$B



Revenue Summary
2023 vs. 2022
Revenue was $\$ 5.8$ billion, down $\$ 2.6$ billion from 2022, as customers tempered purchases to reduce inventories and adjust to a lower demand environment across product lines.

2022 vs. 2021
Revenue was $\$ 8.4$ billion, up $\$ 744$ million from 2021, driven by higher Ethernet ASPs and increased demand for 5G products, partially offset by lower demand for Network Xeon. Ethernet demand declined in Q4 2022 due to lower server demand, and edge demand declined in Q4 2022 due to macroeconomic factors.

## Operating Income (Loss) Summary

We had an operating loss of $\$ 482$ million in 2023, compared to operating income of $\$ 1.0$ billion in 2022.
(In Millions)
$\$ \quad$ (482) 2023 Operating Income (Loss)
$(1,832)$ Lower product margin driven by lower revenue across NEX product lines
(181) Higher period charges driven by inventory reserves taken in 2023

498 Lower operating expenses driven by various cost-cutting measures
\$ 1,033 2022 Operating Income
(520) Higher operating expenses driven by increased investments in leadership products
(377) Higher period charges primarily associated with the ramp of Intel 4
(367) Higher period charges primarily due to other product enhancements
(290) Higher period charges driven by reserves taken in 2022 and lack of sell-through of reserves compared to 2021

522 Higher product margin from Ethernet revenue
203 Lower unit cost primarily from10nm SuperFin products
(73) Other
$\$ \quad 1,935 \quad 2021$ Operating Income



## Overview

Mobileye is a leader in the development and deployment of ADAS and autonomous driving technologies and solutions. We pioneered ADAS technology more than 20 years ago, and have continued to expand the scope of our ADAS offerings while playing a leading role in the evolution of autonomous driving solutions. Our portfolio of solutions is built upon a comprehensive suite of purpose-built software and hardware technologies designed to provide the capabilities needed to make the future of ADAS and autonomous driving a reality. These technologies can be harnessed to deliver mission-critical capabilities at the edge and in the cloud, advancing the safety of road users, and revolutionizing the driving experience and the movement of people and goods globally. Our customers and strategic partners include major global OEMs, Tier 1 automotive system integrators, and public transportation operators.

## Key Business Developments

- We launched EyeQ ${ }^{T M}$-based systems into approximately 300 different vehicle models and built significant traction with our advanced portfolio of products, including Cloud-enhanced ADAS, Mobileye SuperVision ${ }^{\text {TM }}$, and Mobileye Chauffeur ${ }^{\text {TM }}$.
- Mobileye SuperVision execution continues to progress as we delivered an over-the-air update in August 2023 delivering highway navigate-on-pilot capabilities that are now enabled in 22 cities, as compared to two cities at the August 2023 launch. Customer traction also saw an acceleration in 2023, as we achieved new SuperVision design wins with Porsche, FAW, Mahindra \& Mahindra, and a major global western OEM. We achieved our first production design wins for the Chauffeur product during 2023 as well, including with Polestar, FAW, and a major global western OEM.
- We were recognized as the leader in the development of autonomous vehicle technology by two leading research groups, Guidehouse Insights and ABI Research, excelling in quantitative and qualitative assessments across various criteria such as technology, innovation, strategy, implementation, and customer bases. We moved up six positions in the Guidehouse Leaderboard since the 2021 report, demonstrating progress in realizing our autonomous vision.



## Market and Business Overview

## Market Trends and Strategy

In 2023, the automotive industry grew with an approximately $9 \%$ increase in global vehicle production year over year. We expect industry ADAS volumes to grow faster than overall global vehicle production in the coming years and anticipate long-term ADAS growth from increases in the percentage of vehicles that are equipped with basic ADAS features from the factory. Despite our expectation for a decline in Mobileye ADAS volumes in 2024 due to a correction of inventory with our customers, we continue to believe we will benefit from positive industry ADAS growth over the medium-term. In addition to potential volume growth, our portfolio of advanced solutions has the potential to drive higher average system price over time.

Beyond ADAS solutions, we believe that the availability of AVs will cause a significant transformation in mobility, including vehicle ownership and utilization. We expect that AV technology will eventually be accessed by consumers through shared-vehicle MaaS networks, as well as in consumer-owned and operated AVs. We are pursuing this market trend by using our eyes-on/hands-off Mobileye SuperVision solution as a baseline to scale to our eyes-off/hands-off Mobileye Chauffeur consumer AV product in a variety of operational design domains. As it relates to AMaaS, we intend to primarily go to market by supplying Mobileye Drive ${ }^{\text {TM }}$ self-driving system to transportation network companies, public transit operators, and suppliers of AV-ready vehicle platforms. In some cases, we expect to bundle our Mobileye Drive self-driving system with Moovit's urban mobility and transit intelligence application and its global user base.

## Products and Competition

We currently ship a variety of ADAS solutions to a large number of global automakers. We are recognized for our top-rated safety solutions globally, and since 2007, we have introduced numerous industry-first ADAS products.

We are building a robust portfolio of end-to-end ADAS and autonomous driving solutions to provide the capabilities needed for the future of autonomous driving, leveraging a comprehensive suite of purpose-built software and hardware technologies. We pioneered "base" ADAS features to enhance vehicle safety and to meet global regulatory requirements and safety ratings with our driver assist solution and we have since created a new category of ADAS with our Cloud-Enhanced Driver-Assist ${ }^{T M}$ and premium driver assist offerings, such as Mobileye SuperVision. By leveraging Mobileye SuperVision's full-surround computer vision and True Redundancy ${ }^{\text {TM }}$, we are developing Mobileye Chauffeur, our consumer AV solution and Mobileye Drive, our eyes-off/hands-off autonomous driving solution designed for fleet deployment. Our current offerings to Tier 1 and OEM customers do not include cameras, radars, lidar systems, or other sensors (except in particular cases). We intend in the future to offer radar and lidar products that are currently in development stages.

The ADAS and autonomous driving industries are highly competitive. In the ADAS and consumer AV market, we face competition primarily from other external providers, including Tier 1 automotive suppliers and silicon providers, as well as in-house solutions developed by OEMs to a certain extent. Our Tier 1 customers may be developing or may in the future develop competing solutions. In the autonomous driving market, including AMaaS and consumer AV, we face competition from technology companies; internal development teams from the automakers themselves, sometimes in combination with investments in early-stage autonomous vehicle technology companies, Tier 1 automotive companies, as well as robotaxi providers.

[^7]

## Financial Performance



Revenue and Operating Income Summary
2023 vs. 2022
Revenue was $\$ 2.1$ billion, up $\$ 210$ million from 2022, primarily driven by higher demand for EyeQ products. Operating income was $\$ 664$ million, down \$26 million from 2022.

2022 vs. 2021
Revenue was $\$ 1.9$ billion, up $\$ 483$ million from 2021, primarily driven by higher demand for EyeQ products and Mobileye SuperVision systems. Operating income was $\$ 690$ million, up $\$ 136$ million from 2021, primarily due to higher revenue, partially offset by increased investments in leadership products.



## Overview

As the first Open System Foundry, we enable our customers' transition from general-purpose monolithic chips to systems of chips tailored to high-growth applications, including AI, and optimize their solutions by combining the best technologies from Intel and the ecosystem. We believe this combination of systems technology, systems expertise, ecosystem partnerships, and robust supply chain helps fuel the growth of our customers, creates more robust global supply chains, and ultimately transforms the foundry industry. Our customers and strategic partners include traditional fabless companies, cloud service providers, automotive, and military, aerospace, and defense firms. We also offer IMS mask-making equipment for advanced lithography used by most of the world's leading-edge foundries.

Key Business Developments

- In 2023, we were granted four design wins on Intel 18A, including a design win with a significant high performance computing customer on Intel 18A and a large prepayment. We have seen accelerated interest in our advanced packaging business, especially for AI related designs, and have secured five new design wins.
- Our IFS Accelerator Ecosystem Alliance program doubled in size to over 40 strategic agreements across EDA, silicon IP, design services, cloud, and USMAG alliances since launching in Q1 2022. We announced a multigenerational agreement with ARM and a definitive agreement with Synopsys. The ARM agreement is expected to enable chip designers to build optimized compute SoCs on the Intel 18A process. The Synopsys agreement expands the development of a portfolio of IP on Intel 3 and Intel 18A. These agreements and the IFS accelerator program are expected to enable customers to design using a robust suite of EDA and IP across IFS nodes, similar to the way they would design with their existing foundry supplier.
* We expanded partnerships under the Rapid Assured Microelectronics Prototypes-Commercial (RAMP-C) program created by the US Department of Defense in 2021 to assure domestic access to leading-edge technology and the US-based foundry ecosystem. The combination of expanded partnerships and RAMP-C enables customers to develop and fabricate chips on Intel 18A, including customers such as Nvidia, IBM, Microsoft, Boeing, and Northrop Grumman.
- We announced a commercial agreement with Tower, pursuant to which we are expected to provide foundry services and manufacturing capacity through our New Mexico advanced manufacturing facility for 300 mm advanced analog processing.



## Market and Business Overview

## Market Trends and Strategy

The chip industry is undergoing a structural transformation driven by:

- Five superpowers: ubiquitous compute, pervasive connectivity, cloud-to-edge infrastructure, AI, and sensing;
* A generational shift in computer architectures: the move from system on chip to system of chips (chiplets), increased tailoring of chips to workloads, especially AI, and the vertical integration into chipmaking by OEMs and CSPs;
- Increasing costs of R\&D and capacity for advanced node technologies; and
- Supply chain risk highlighted by geo-political issues and the growing need for a resilient, secure, and sustainable global supply chain.

These transformational trends are driving significant semiconductor market growth in leading-edge silicon and packaging technologies, especially in systems of chips for AI applications. Customers have to make complex design choices at every level of the system, from packaging technologies, process nodes, interconnects, physical IP, and compute elements to software. The abundance of technology choices and optimizations is adding complexity in design, technology, integration, and manufacturing.

Our IDM 2.0 strategy includes our pursuit of these complex manufacturing and market growth opportunities by making significant capital investments in leading-edge semiconductor technologies in order to create foundry capacity and establish IFS as a major provider of foundry services that provides semiconductor manufacturing solutions for others and for ourselves. We have made and expect to continue to make significant capital investments in furtherance of this strategy.

## Products and Competition

We seek to address this tectonic shift in the chip industry by enabling our customers to create optimized systems of chips by combining the best technologies from Intel and the ecosystem. We believe Open System Foundry is a world-class foundry offering, delivered from a resilient, secure, and sustainable source of supply and complemented by access to the systems of chips capabilities from Intel. The basic foundry offering is advanced process technologies backed by an ecosystem of IP, EDA, and design services, which enable customers to design as they would with other foundries. The systems of chips capabilities include advanced packaging technologies, software to accelerate bring-up and integration of complex chips, and driving standards that will improve system performance.

With our IFS accelerator program members and the Arm and Synopsys agreements, we believe we are well on the way to building out a world-class foundry offering. With the rise of AI, our advanced packaging business is expected to be another unique advantage for Intel. Chips created with us or other foundries can be packaged using Intel's advanced packaging technologies, including 2D and 2.5D/3D solutions designed to enable large, highly scalable packages at competitive costs. We continue to drive technologies, capabilities, and standards needed to optimize systems of chips, including the Universal Chiplet Interconnect Express* standard for communication between chips in a system, which was demonstrated in silicon in 2023. We accelerate our customers' designs by providing services and software that leverage Intel's vast experience as a systems company.

Our competitors are mostly pure-play foundries that focus on delivering a pure-play foundry offering from fabrication plants based primarily in Asia. Of the five major semiconductor foundries, TSMC, Samsung, Global Foundries (GF), United Microelectronics Corporation (UMC), and Semiconductor Manufacturing International Corporation (SMIC), only Samsung is an IDM and foundry, and only GF is headquartered in the US. TSMC leads the market with $59 \%$ market share, followed by Samsung at $16 \%$ in $2022^{1}$. Neither Samsung nor TSMC currently offers its most advanced nodes outside of Asia and both have limited advanced node capacity in the US.

We believe the Open System Foundry model delivers differentiated capabilities to help our customers lead in their industries while bringing stability to the global semiconductor supply chain. The momentum and customer commitments we are seeing demonstrate that our strategy and offerings are resonating, and we look to build on this success in 2024 and in future periods.

[^8]

Financial Performance


Revenue and Operating Income (Loss) Summary
2023 vs. 2022
Revenue was $\$ 952$ million, up $\$ 483$ million from 2022 , driven by higher packaging revenue. We had an operating loss of $\$ 482$ million, compared to an operating loss of $\$ 281$ million from 2022 , primarily due to increased spending to drive strategic growth.

2022 vs. 2021
Revenue was $\$ 469$ million, up $\$ 122$ million from 2021, primarily driven by higher sales of multi-beam mask writer tools. We had an operating loss of $\$ 281$ million, compared to operating income of $\$ 76$ million in 2021, primarily due to increased spending to drive strategic growth.


## Consolidated Results of Operations

For additional key highlights of our results of operations, see "A Year in Review."

| Years Ended <br> (In Millions, Except Per Share Amounts) | December 30, 2023 |  |  | December 31, 2022 |  |  | December 25, 2021 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount |  | \% of Net Revenue | Amount |  | \% of Net Revenue | Amount |  | \% of Net Revenue |
| Net revenue | \$ | 54,228 | 100.0 \% | \$ | 63,054 | 100.0 \% | \$ | 79,024 | 100.0 \% |
| Cost of sales |  | 32,517 | 60.0 \% |  | 36,188 | 57.4 \% |  | 35,209 | 44.6 \% |
| Gross margin |  | 21,711 | 40.0 \% |  | 26,866 | 42.6 \% |  | 43,815 | 55.4 \% |
| Research and development |  | 16,046 | 29.6 \% |  | 17,528 | 27.8 \% |  | 15,190 | 19.2 \% |
| Marketing, general, and administrative |  | 5,634 | 10.4 \% |  | 7,002 | 11.1 \% |  | 6,543 | 8.3 \% |
| Restructuring and other charges |  | (62) | (0.1)\% |  | 2 | -\% |  | 2,626 | 3.3 \% |
| Operating income |  | 93 | 0.2 \% |  | 2,334 | 3.7 \% |  | 19,456 | 24.6 \% |
| Gains (losses) on equity investments, net |  | 40 | 0.1 \% |  | 4,268 | 6.8 \% |  | 2,729 | 3.5 \% |
| Interest and other, net |  | 629 | 1.2 \% |  | 1,166 | 1.8 \% |  | (482) | (0.6)\% |
| Income before taxes |  | 762 | 1.4 \% |  | 7,768 | 12.3 \% |  | 21,703 | 27.5 \% |
| Provision for (benefit from) taxes |  | (913) | (1.7)\% |  | (249) | (0.4)\% |  | 1,835 | 2.3 \% |
| Net income |  | 1,675 | 3.1 \% |  | 8,017 | 12.7 \% |  | 19,868 | 25.1 \% |
| Less: Net income (loss) attributable to noncontrolling interests |  | (14) | - \% |  | 3 | - \% |  | - | - \% |
| Net income attributable to Intel | \$ | 1,689 | 3.1 \% | \$ | 8,014 | 12.7 \% | \$ | 19,868 | 25.1 \% |
| Earnings per share attributable to Inteldiluted | \$ | 0.40 |  | \$ | 1.94 |  | \$ | 4.86 |  |



## Revenue



2023 vs. 2022
2023 revenue was $\$ 54.2$ billion, down $\$ 8.8$ billion, or $14 \%$, from 2022. CCG revenue decreased $8 \%$ from 2022 primarily due to lower notebook and desktop volume driven by lower demand across market segments, partially offset by increased volume in the second half of the year as customer inventory levels normalized compared to higher levels in the first half. Notebook ASPs decreased due to the relative strength in the education market segment resulting in a higher mix of small core products combined with a higher mix of older generation products, and were partially offset by higher desktop ASPs due to an increased mix of product sales to the commercial and gaming market segments. DCAI revenue decreased $20 \%$ from 2022 due to lower server volume resulting from a softening CPU data center market, which was partially offset by higher server ASPs from a lower mix of hyperscale customer-related revenue and a higher mix of high core count products. NEX revenue decreased $31 \%$ from 2022 as customers tempered purchases to reduce existing inventories and adjust to a lower demand environment across product lines.

Incentives offered to certain customers to accelerate purchases and to strategically position our products with customers for market segment share purposes, contributed approximately $\$ 700$ million to our revenue during Q4 2023, the impacts of which were contemplated in our financial guidance for Q1 2024, as included in our Form 8-K dated January 25, 2024.

## 2022 vs. 2021

2022 revenue was $\$ 63.1$ billion, down $\$ 16.0$ billion, or $20 \%$, from 2021. CCG revenue was down $23 \%$ from 2021 due to lower notebook and desktop volume in the consumer and education market segments, and lower revenue due to the continued ramp down from the exit of our 5G smartphone modem business and lower demand for our wireless and connectivity products. Notebook volume decreased, driven by lower demand in the consumer and education market segments, while ASPs increased due to the resulting product mix. Desktop volume decreased, driven by lower demand in the consumer and education market segments while ASPs increased due to an increased mix of commercial products. DCAI revenue decreased $15 \%$ from 2021 due to lower server demand from enterprise customers, and due to customers tempering purchases to reduce existing inventories in a softening data center market. The decrease was partially offset by higher revenue from our FPGA business. Server ASPs decreased due to customer and product mix. NEX revenue increased $10 \%$ from 2021, driven by higher Ethernet ASPs and increased demand for 5G products, partially offset by lower demand for Network Xeon. Mobileye revenue increased $35 \%$ from 2021, primarily driven by higher demand for EyeQ products and Mobileye Supervision systems. The decrease in our "all other" revenue was due to revenue from the divested NAND memory business of $\$ 4.3$ billion recognized in 2021, for which historical results are recorded in "all other," and $\$ 584$ million of revenue recognized in 2021 from a prepaid customer supply agreement.

Incentives offered to certain customers to accelerate purchases and to strategically position our products with customers for market segment share purposes, particularly in CCG, contributed approximately \$1.7 billion to our revenue during Q4 2022.


## Gross Margin

We derived most of our overall gross margin in 2023 from the sale of products in the CCG and DCAI operating segments. Our overall gross margin dollars in 2023 decreased by $\$ 5.2$ billion, or $19 \%$, compared to 2022, and in 2022 decreased by $\$ 16.9$ billion, or $39 \%$, compared to 2021.

Gross Margin \$B
(Percentages in chart indicate gross margin as a percentage of total revenue)

(In Millions)

| \$ | 21,711 | 2023 Gross Margin |
| :---: | :---: | :---: |
|  | $(2,709)$ | Lower product margin primarily due to lower server revenue |
|  | $(1,832)$ | Lower product margin driven by lower revenue across NEX product lines |
|  | $(1,704)$ | Lower product margin primarily from lower notebook and desktop revenue |
|  | $(1,654)$ | Higher unit cost primarily from increased mix of Intel 7 products |
|  | (411) | Higher period charges related to excess capacity charges |
|  | 1,973 | Lower period charges driven by the sell-through of previously reserved inventory and lower reserves taken in 2023 |
|  | 788 | Lower period charges primarily driven by a decrease in product ramp costs |
|  | 723 | Absence of the inventory impairment charge taken in 2022 related to the wind down of our Intel Optane memory business |
|  | 204 | Absence of corporate charges from a patent settlement in 2022 |
|  | (533) | Other |
| \$ | 26,866 | 2022 Gross Margin |
|  | $(4,717)$ | Lower product margin primarily from lower notebook and desktop revenue |
|  | $(3,325)$ | Lower product margin primarily due to lower server revenue |
|  | $(2,651)$ | Higher unit cost primarily from increased mix of Intel 7 products and 10nm SuperFin |
|  | $(2,090)$ | Higher period charges primarily driven by inventory reserves taken in 2022 |
|  | $(1,995)$ | Lower gross margin related to the divested NAND memory business |
|  | $(2,148)$ | Higher period charges primarily associated with the ramp up of Intel 4 and other product enhancements |
|  | (723) | Inventory impairment related to the wind down of our Intel Optane memory business |
|  | (584) | Lack of revenue recognized in Q1 2021 from a prepaid customer supply agreement |
|  | (423) | Higher period charges due to excess capacity charges |
|  | (313) | Higher stock-based compensation |
|  | (204) | Corporate charges from patent settlement |
|  | 484 | Lower period charges due to a benefit related to insurance proceeds received for business interruption and property damage that occurred in 2020 |
|  | 522 | Higher product margin from NEX Ethernet revenue |
|  | 785 | Higher product margin from DCAI other product revenue |
|  | 433 | Other |
| \$ | 43,815 | 2021 Gross Margin |



We are making capital investments in furtherance of our IDM 2.0 strategy. As of December 30, 2023, our capital investments classified as construction in progress totaled $\$ 43.4$ billion ( $\$ 36.7$ billion as of December 31, 2022). These assets have not yet been placed into service and have not yet begun depreciating. As these construction-in-progress assets are placed into service, we expect to incur depreciation expense that impacts future production costs and, ultimately, cost of sales. To the extent we are unable to grow our revenues to offset these production costs, our gross margin and operating income will be unfavorably affected. Additionally, we could incur asset impairments on property, plant, and equipment assets if our IDM 2.0 strategy is not successful.

Effective January 2023, we increased the estimated useful life of certain production machinery and equipment from 5 to 8 years. When compared to the estimated useful life in place as of the end of 2022, we estimate total depreciation expense in 2023 was reduced by $\$ 4.2$ billion. We estimate this change resulted in an approximately $\$ 2.5$ billion increase to gross margin, $\$ 400$ million decrease in R\&D expenses, and $\$ 1.3$ billion decrease in ending inventory values. These estimates are based on the assets in use and under construction as of the beginning of 2023 and are calculated at that point in time. Most of the depreciation expense associated with this useful life change is included in overhead cost pools and is combined with other costs and other depreciation expense from assets placed into service after this calculation was performed, for which such costs are subsequently absorbed into inventory as each product passes through our manufacturing process. As a result, the actual amount of impact from the useful life change that is included in our 2023 operating results and financial position is impractical to individually and specifically quantify on a year-over-year basis.

## Operating Expenses

Total R\&D and MG\&A expenses for 2023 were $\$ 21.7$ billion, down $12 \%$ compared to 2022. These expenses represent $40.0 \%$ of revenue for 2023 and $38.9 \%$ of revenue for 2022. In support of our strategy, we continue to make significant investments to accelerate our process technology roadmap. This requires increased investments in R\&D and focused efforts to attract and retain talent. We have implemented certain cost-cutting measures while we continue to improve our product execution.

Research and Development \$B
Marketing, General, and Administrative \$B
(Percentages indicate expenses as a percentage of total revenue)


Research and Development
2023 vs. 2022
R\&D decreased by $\$ 1.5$ billion, or $8 \%$, driven by the following:

- The effects of various cost-cutting measures
+ Higher incentive-based cash compensation
2022 vs. 2021
R\&D spending increased by $\$ 2.3$ billion, or $15 \%$, driven by the following:
+ Investments in our process technology
+ Increase in corporate spending
+ Investments in leadership products
- Incentive-based cash compensation

Marketing, General, and Administrative

## 2023 vs. 2022

MG\&A decreased by $\$ 1.4$ billion, or $20 \%$, driven by the following:

- Lower corporate spending as a result of various cost-cutting measures
+ Higher incentive-based cash compensation
2022 vs. 2021
MG\&A spending increased by $\$ 459$ million, or $7 \%$, driven by the following:
+ Increase in corporate spending
- Incentive-based cash compensation



## Restructuring and Other Charges

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employee severance and benefit arrangements | \$ | 222 | \$ | 1,038 | \$ | 48 |
| Litigation charges and other |  | (329) |  | $(1,187)$ |  | 2,291 |
| Asset impairment charges |  | 45 |  | 151 |  | 287 |
| Total restructuring and other charges | \$ | (62) | \$ | 2 | \$ | 2,626 |

The 2022 Restructuring Program was approved to rebalance our workforce and operations and to create efficiencies and improve our product execution in alignment with our strategy. In 2023, activity related to the 2022 Restructuring Program consisted of cash settlements of previously accrued employee severance and benefit arrangements, as well as incremental accruals throughout the year and was substantially complete as of December 30, 2023. The 2022 Restructuring Plan, in conjunction with other initiatives, reduced our cost structure and allowed us to reinvest certain of these cost savings in resources and capacity to develop, manufacture, market, sell, and deliver our products in furtherance of our strategy. The cumulative cost of the 2022 Restructuring Program as of December 30, 2023 was $\$ 1.3$ billion.

Litigation charges and other includes a $\$ 1.2$ billion benefit in 2023 due to a reduction in the previously accrued $\$ 2.2$ billion charge as a result of developments in the VLSI litigation in Q4 2023. 2023 charges also include a $\$ 401$ million charge for an EC-imposed fine. In 2009, we recorded and paid an EC-imposed fine that was subsequently annulled, resulting in a benefit of $\$ 1.2$ billion in 2022. Also in 2023, we mutually agreed with Tower to terminate the acquisition agreement that was entered into during 2022 and, as a result, we paid a $\$ 353$ million termination fee to Tower in accordance with the terms of the agreement.

## Gains (Losses) on Equity Investments and Interest and Other, Net

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongoing mark-to-market adjustments on marketable equity securities | \$ | (36) | \$ | (787) | \$ | (130) |
| Observable price adjustments on non-marketable equity securities |  | 17 |  | 299 |  | 750 |
| Impairment charges |  | (214) |  | (190) |  | (154) |
| Sale of equity investments and other |  | 273 |  | 4,946 |  | 2,263 |
| Gains (losses) on equity investments, net | \$ | 40 | \$ | 4,268 | \$ | 2,729 |
| Interest and other, net | \$ | 629 | \$ | 1,166 | \$ | (482) |

## Gains (Losses) on Equity Investments, Net

Ongoing mark-to-market adjustments recognized in 2023, 2022, and 2021 were primarily driven by our investment in Montage Technology, Co. Ltd. (Montage).

In 2023, we recognized $\$ 243$ million of initial fair value adjustments in sale of equity investments and other related to the public market offerings of four of our portfolio companies; in 2022, we recognized $\$ 278$ million of initial fair value adjustments related to the public market offerings of five of our portfolio companies; and in 2021, we recognized $\$ 447$ million related to the public market offerings of four of our portfolio companies.

In 2022, the sale of McAfee Corp. (McAfee) consumer business was completed, and we received $\$ 4.6$ billion in cash for the sale of our remaining share of McAfee, recognizing a $\$ 4.6$ billion gain in sale of equity investments and other. In 2021, we recognized McAfee dividends of $\$ 1.3$ billion, which included a special dividend of $\$ 1.1$ billion paid in connection with the sale of McAfee's enterprise business, and recognized $\$ 228$ million related to the partial sale of our investment in McAfee.

In 2021, we recognized $\$ 471$ million in observable price adjustments related to our investment in Beijing Unisoc Technology Ltd.
Interest and Other, Net
In 2022, we recognized a gain of $\$ 1.0$ billion from the first closing of the divestiture of our NAND memory business.


## Provision for (Benefit from) Taxes

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Income before taxes | \$ | 762 | \$ | 7,768 | \$ | 21,703 |
| Provision for (benefit from) taxes | \$ | (913) | \$ | (249) | \$ | 1,835 |
| Effective tax rate |  | (119.8)\% |  | (3.2)\% |  | 8.5 \% |

Our effective tax rate decreased in 2023 compared to 2022, primarily driven by our R\&D tax credits, which provide a tax benefit based on our eligible R\&D spending and are not dependent on lower income before taxes, and a higher proportion of our income being taxed in non-US jurisdictions. Our benefit from income taxes increased in 2023 compared to 2022 primarily due to a higher proportion of our income being taxed in non-US jurisdictions. The 2023 shift in income was attributable to the 2022 tax costs associated with the gains recognized from the equity sale of McAfee and the divestiture of our NAND memory business.

Our effective tax rate decreased in 2022 compared to 2021, primarily driven by a higher proportion of our income being taxed in non-US jurisdictions and a change in tax law from 2017 Tax Reform related to the capitalization of R\&D expenses that went into effect in January 2022. In 2022 we recognized a benefit from taxes as compared to a provision for taxes in 2021 as the higher proportion of our income being taxed in non-US jurisdictions and the change in tax law from 2017 Tax Reform were only partially offset by the tax costs associated with the gains recognized from the equity sale of McAfee and the divestiture of our NAND memory business.

In 2021 the OECD announced an Inclusive Framework on Base Erosion and Profit Shifting including Pillar Two Model Rules defining the global minimum tax, which calls for the taxation of large multinational corporations at a minimum rate of $15 \%$. Subsequently multiple sets of administrative guidance have been issued. Many non-US tax jurisdictions have either recently enacted legislation to adopt certain components of the Pillar Two Model Rules beginning in 2024 (including the European Union Member States) with the adoption of additional components in later years or announced their plans to enact legislation in future years. We are continuing to evaluate the impacts of enacted legislation and pending legislation to enact Pillar Two Model Rules in the non-US tax jurisdictions we operate in.

## Liquidity and Capital Resources

We believe we have sufficient sources of funding to meet our business requirements for the next 12 months and in the longer term. Cash generated by operations, supplemented by our total cash and investments ${ }^{1}$, is our primary source of liquidity for funding our strategic business requirements. These sources are further supplemented by our committed credit facilities and other borrowing capacity and certain other Smart Capital initiatives that we have undertaken. Our short-term funding requirements include capital expenditures for worldwide manufacturing and assembly and test, including investments in our process technology roadmap; working capital requirements; and potential and pending acquisitions, strategic investments, and dividends. Our long-term funding requirements incrementally contemplate investments in significant manufacturing expansion plans and investments to accelerate our process technology. These plans include expanding existing operations in Arizona, Ireland, Israel, New Mexico, and Oregon, and investing in new leading-edge manufacturing facilities in Germany and Ohio. We also expect to continue to benefit from government incentives and any incentives above our current expectations would enable us to increase the pace and size of our investments. Conversely, incentives below our expectations would increase our anticipated cash requirements. We expect our planned capital investments to continue to put pressure on our adjusted free cash flow in the short term.

As we invest in multiple expansions, we expect our capital expenditures to continue to be higher than historical levels for the next several years. We expect to adjust the cadence of our investments based on the execution of our roadmap and changing business conditions. As of December 30, 2023, we had commitments for capital expenditures of $\$ 20.4$ billion for 2024 and had $\$ 7.1$ billion in capital expenditures committed in the long term. As of December 30, 2023, other purchase obligations and commitments in 2024 under our binding commitments for purchases of goods and services were $\$ 2.7$ billion, with an additional $\$ 5.6$ billion committed in the long term.

We have additional obligations as part of our ordinary course of business, beyond those committed for capital expenditures and other purchase obligations and commitments for purchases of goods and services. For example, see "Note 19: Commitments and Contingencies" within the Notes to Consolidated Financial Statements for information about our lease obligations, which include supply agreements structured as leases; "Note 8: Income Taxes" within the Notes to Consolidated Financial Statements for information about our tax obligations, including impacts from Tax Reform enacted in 2017 for the one-time transition tax on previously untaxed foreign earnings; and "Note 13: Borrowings" within the Notes to Consolidated Financial Statements for information about our debt obligations. The expected timing of payments of our obligations is estimated based on current information. Timing of payments and actual amounts paid may be different, depending on the timing of receipt of goods or services, or changes to agreed-upon amounts for some obligations. In addition, some of our purchasing requirements are not current obligations and are therefore not included in the amounts above. For example, some of these requirements are not handled through binding contracts or are fulfilled by vendors on a purchase order basis within short time horizons.


When assessing our current sources of liquidity, we include our total cash and investments ${ }^{1}$ as follows:

| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: |
| Cash and cash equivalents | \$ | 7,079 | \$ | 11,144 |
| Short-term investments |  | 17,955 |  | 17,194 |
| Loans receivable and other |  | 5 |  | 463 |
| Total cash and investments ${ }^{1}$ | \$ | 25,039 | \$ | 28,801 |
| Total debt | \$ | 49,266 | \$ | 42,051 |

${ }^{1}$ See "Non-GAAP Financial Measures" within MD\&A.
We maintain a diverse investment portfolio that we continually analyze based on issuer, industry, and country. Substantially all of our investments in debt instruments are in investment-grade securities.

Our sources of liquidity in 2023 included $\$ 1.5$ billion from partner contributions, net proceeds of $\$ 1.6$ billion from a secondary offering of Mobileye Class A common stock, $\$ 1.4$ billion of cash proceeds from the sale of minority stakes in our IMS business to both Bain Capital and TSMC, and government incentives of $\$ 1.0$ billion. Other potential sources of liquidity include our commercial paper program and our automatic shelf registration statement on file with the SEC, pursuant to which we may offer an unspecified amount of debt, equity, other securities, and non-recourse factoring arrangements with third-party financial institutions. Under our commercial paper program, we have an ongoing authorization from our Board of Directors to borrow up to $\$ 10.0$ billion and, as of December 30, 2023, we had no commercial paper obligations outstanding. During 2023, we issued a total of $\$ 11.0$ billion aggregate principal amount of senior notes for general corporate purposes, including, but not limited to, refinancing our outstanding debt and funding for working capital and capital expenditures. We also amended both our five-year $\$ 5.0$ billion variable-rate revolving credit facility agreement, extending that maturity date by one year to March 2028, and our 364 -day $\$ 5.0$ billion credit facility agreement, extending the maturity date to March 2024 . As of December 30, 2023, we had no borrowings outstanding on the revolving credit facilities.

In Q1 2023, we declared a reduced quarterly dividend on our common stock. This dividend reduction reflects our deliberate approach to capital allocation, is expected to support the critical investments needed to execute our business strategy, and is designed to position us to create long-term value. In January 2024, our Board of Directors declared a quarterly dividend of $\$ 0.125$ per share on the company's common stock, which will be payable on March 1, 2024 to stockholders of record as of February 7, 2024. Future declarations of dividends and the establishment of future record and payment dates are subject to the final determination of our Board of Directors.

Our cash and investments and related cash flows may be affected by certain discretionary actions we may take with customers and suppliers to accelerate or delay certain cash receipts or payments to manage liquidity, among other factors, for our strategic business requirements. In 2023 these actions included, among others, negotiating with suppliers to optimize our payment terms and conditions, adjusting the amounts and timing of cash flows associated with customer sales programs and collections, managing inventory levels and purchasing practices, and selling certain of our accounts receivable on a non-recourse basis to third-party financial institutions. While such actions have benefited, and may further benefit, cash flow in the near term, we may experience a corresponding detriment to cash flow in future periods as these actions cease or as the impacts of these actions reverse or normalize.

Our cash flows for each period were as follows:
Years Ended (In Millions)

| Net cash provided by operating activities | \$ | 11,471 | \$ | 15,433 | \$ | 29,456 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net cash used for investing activities |  | $(24,041)$ |  | $(10,231)$ |  | $(24,283)$ |
| Net cash provided by (used for) financing activities |  | 8,505 |  | 1,115 |  | $(6,211)$ |
| Net increase (decrease) in cash and cash equivalents | \$ | $(4,065)$ | \$ | 6,317 | \$ | $(1,038)$ |

## Operating Activities

Cash provided by operating activities is net income adjusted for certain non-cash items and changes in assets and liabilities.
For 2023 compared to 2022, the $\$ 4.0$ billion decrease in cash provided by operating activities was primarily driven by lower 2023 net income after adjusting for non-cash items, partially offset by 2023 cash-favorable working capital changes compared to 2022.

For 2022 compared to 2021 , the $\$ 14.0$ billion decrease in cash provided by operating activities was primarily driven by lower 2022 net income after adjusting for non-cash items, including the gain on the sale of McAfee and the pre-tax gain from the divestiture of our NAND business, partially offset by 2022 cash-favorable working capital changes compared to 2021.


## Investing Activities

Investing cash flows consist primarily of capital expenditures; investment purchases, sales, maturities, and disposals; proceeds from capital-related government incentives; and proceeds from divestitures. Our capital expenditures were $\$ 25.8$ billion in 2023 ( $\$ 24.8$ billion in 2022 and $\$ 18.7$ billion in 2021).

The increase in cash used for investing activities in 2023 compared to 2022 was primarily due to a lack of proceeds from the divestiture of our NAND business and from the sale of our remaining McAfee share that occurred in 2022, lower maturities and sales of short-term investments, and increased capital expenditures. These unfavorable cash flow impacts during 2023 were partially offset by higher 2023 proceeds from capital-related government incentives and by other cash favorable investment activities, including lower acquisitions during 2023.

The decrease in cash used for investing activities in 2022 compared to 2021 was primarily due to increased maturities and sales of shortterm investments, proceeds from the divestiture of our NAND business, and proceeds from the sale of our remaining share of McAfee, partially offset by an increase in capital expenditures.

## Financing Activities

Financing cash flows consist primarily of payment of dividends to stockholders, issuance and repayment of short-term and long-term debt, and proceeds from partner contributions and equity-related issuances.

The increase in cash provided by financing activities in 2023 compared to 2022 was primarily due to higher debt issuances along with lower repayment of long-term debt, decreased dividend payments to stockholders, and increased proceeds from sales of subsidiary shares, partially offset by commercial paper issuances in 2022 that were subsequently repaid in 2023. Our total dividend payments were $\$ 3.1$ billion in 2023, compared to $\$ 6.0$ billion in 2022. We have paid a cash dividend in each of the past 125 quarters.

Cash provided by financing activities in 2022 compared to cash used for financing activities in 2021 was primarily due to higher commercial paper and debt issuances, our 2022 curtailment of common stock repurchases, proceeds from the Mobileye IPO, and partner contributions for joint investments, partially offset by higher 2022 debt repayments.

## Critical Accounting Estimates

The methods, assumptions, and estimates that we use in applying our accounting policies may require us to apply judgments regarding matters that are inherently uncertain. We consider an accounting policy to be a critical estimate if: (1) we must make assumptions that are uncertain when the judgment is made, and (2) changes in the estimate assumptions, or selection of a different estimate methodology, could have a significant impact on our financial position and the results that we report in our Consolidated Financial Statements. While we believe that our estimates, assumptions, and judgments are reasonable, they are based on information available when the estimate was made.

Refer to "Note 2: Accounting Policies" within the Notes to Consolidated Financial Statements for further information on our critical accounting estimates, which are as follows, as well as our significant accounting policies:

- Inventories-the transition of manufacturing costs to inventory, net of factory excess capacity costs. Inventory reflected at the lower of cost or net realizable value considering forecasted future demand and market conditions;
* Long-lived assets-the valuation methods and assumptions used in assessing the impairment and evaluation of useful lives of property, plant, and equipment; identified intangibles; and impairment of goodwill, including the determination of asset groupings and the identification and allocation of goodwill to reporting units; and
- Loss contingencies-the estimation of when a loss is probable and reasonably estimable.



## Non-GAAP Financial Measures

In addition to disclosing financial results in accordance with US GAAP, this document contains references to the non-GAAP financial measures below. We believe these non-GAAP financial measures provide investors with useful supplemental information about our operating performance, enable comparison of financial trends and results between periods where certain items may vary independent of business performance, and allow for greater transparency with respect to key metrics used by management in operating our business and measuring our performance. These non-GAAP financial measures are used in our performance-based RSUs and our cash bonus plans.

Our non-GAAP financial measures reflect adjustments based on one or more of the following items, as well as the related income tax effects. Beginning in 2023, income tax effects are calculated using a fixed long-term projected tax rate of $13 \%$ across all adjustments. We project this long-term non-GAAP tax rate on an annual basis using a five-year non-GAAP financial projection that excludes the income tax effects of each adjustment. The projected non-GAAP tax rate also considers factors such as our tax structure, our tax positions in various jurisdictions, and key legislation in significant jurisdictions where we operate. This long-term non-GAAP tax rate may be subject to change for a variety of reasons, including the rapidly evolving global tax environment, significant changes in our geographic earnings mix, or changes to our strategy or business operations. Management uses this non-GAAP tax rate in managing internal short- and long-term operating plans and in evaluating our performance; we believe this approach facilitates comparison of our operating results and provides useful evaluation of our current operating performance. Prior-period non-GAAP financial measures have been retroactively adjusted to reflect this updated approach.

Our non-GAAP financial measures should not be considered a substitute for, or superior to, financial measures calculated in accordance with US GAAP, and the financial results calculated in accordance with US GAAP and reconciliations from these results should be carefully evaluated.

| Non-GAAP adjustment or measure | Definition | Usefulness to management and investors |
| :---: | :---: | :---: |
| NAND memory business | We completed the first closing of the divestiture of our NAND memory business to SK hynix on December 29, 2021 and fully deconsolidated our ongoing interests in the NAND OpCo Business in Q1 2022. | We exclude the impact of our NAND memory business in certain non-GAAP measures. While the second closing of the sale is still pending and subject to closing conditions, we deconsolidated this business in Q1 2022 and management does not view the historical results of the business as a part of our core operations. We believe these adjustments provide investors with a useful view, through the eyes of management, of our core business model and how management currently evaluates core operational performance. In making these adjustments, we have not made any changes to our methods for measuring and calculating revenue or other financial statement amounts. |
| Acquisition-related adjustments | Amortization of acquisition-related intangible assets consists of amortization of intangible assets such as developed technology, brands, and customer relationships acquired in connection with business combinations. Charges related to the amortization of these intangibles are recorded within both cost of sales and MG\&A in our US GAAP financial statements. Amortization charges are recorded over the estimated useful life of the related acquired intangible asset, and thus are generally recorded over multiple years. | We exclude amortization charges for our acquisitionrelated intangible assets for purposes of calculating certain non-GAAP measures because these charges are inconsistent in size and are significantly impacted by the timing and valuation of our acquisitions. These adjustments facilitate a useful evaluation of our current operating performance and comparison to our past operating performance and provide investors with additional means to evaluate cost and expense trends. |
| Share-based compensation | Share-based compensation consists of charges related to our employee equity incentive plans. | We exclude charges related to share-based compensation for purposes of calculating certain nonGAAP measures because we believe these adjustments provide better comparability to peer company results and because these charges are not viewed by management as part of our core operating performance. We believe these adjustments provide investors with a useful view, through the eyes of management, of our core business model, how management currently evaluates core operational performance, and additional means to evaluate expense trends, including in comparison to other peer companies. |



| Non-GAAP adjustment or measure | Definition | Usefulness to management and investors |
| :---: | :---: | :---: |
| Patent settlement | A portion of the charge from our IP settlements represents a catch-up of cumulative amortization that would have been incurred for the right to use the related patents in prior periods. This charge related to prior periods is excluded from our non-GAAP results; amortization related to the right to use the patents in the current and ongoing periods is included. | We exclude the catch-up charge related to prior periods for purposes of calculating certain non-GAAP measures because this adjustment facilitates comparison to past operating results and provides a useful evaluation of our current operating performance. |
| Optane inventory impairment | A charge in 2022 as we initiated the wind-down of our Intel Optane memory business. | We exclude these impairments for purposes of calculating certain non-GAAP measures because these charges do not reflect our current operating performance. This adjustment facilitates a useful evaluation of our current operating performance and comparisons to past operating results. |
| Restructuring and other charges | Restructuring charges are costs associated with a formal restructuring plan and are primarily related to employee severance and benefit arrangements. Other charges may include periodic goodwill and asset impairments, certain pension charges, and costs associated with restructuring activity. 2023 includes a benefit as a result of developments in the VLSI litigation in Q4 2023, an ECimposed fine, and a fee related to the termination of our agreement to acquire Tower. 2022 includes a benefit related to the annulled EC fine and 2021 includes a charge related to the VLSI litigation. | We exclude restructuring and other charges, including any adjustments to charges recorded in prior periods, for purposes of calculating certain non-GAAP measures because these costs do not reflect our core operating performance. These adjustments facilitate a useful evaluation of our core operating performance and comparisons to past operating results and provide investors with additional means to evaluate expense trends. |
| (Gains) losses on equity investments, net | (Gains) losses on equity investments, net consists of ongoing mark-to-market adjustments on marketable equity securities, observable price adjustments on nonmarketable equity securities, related impairment charges, and the sale of equity investments and other. | We exclude these non-operating gains and losses for purposes of calculating certain non-GAAP measures because it provides better comparability between periods. The exclusion reflects how management evaluates the core operations of the business. |
| (Gains) losses from divestiture | (Gains) losses are recognized at the close of a divestiture, or over a specified deferral period when deferred consideration is received at the time of closing. Based on our ongoing obligation under the NAND wafer manufacturing and sale agreement entered into in connection with the first closing of the sale of our NAND memory business on December 29, 2021, a portion of the initial closing consideration was deferred and will be recognized between first and second closing. | We exclude gains or losses resulting from divestitures for purposes of calculating certain non-GAAP measures because they do not reflect our current operating performance. These adjustments facilitate a useful evaluation of our current operating performance and comparisons to past operating results. |
| Adjusted free cash flow | We reference a non-GAAP financial measure of adjusted free cash flow, which is used by management when assessing our sources of liquidity, capital resources, and quality of earnings. Adjusted free cash flow is operating cash flow adjusted for (1) additions to property, plant, and equipment, net of proceeds from capital-related government incentives and partner contributions, (2) payments on finance leases, and (3) proceeds from the McAfee equity sale in 2022. | This non-GAAP financial measure is helpful in understanding our capital requirements and sources of liquidity by providing an additional means to evaluate the cash flow trends of our business. Since the 2017 divestiture, McAfee equity distributions and sales contributed to prior operating and free cash flow, and while the McAfee equity sale in Q1 2022 would have typically been excluded from adjusted free cash flow as an equity sale, we believe including the sale proceeds in adjusted free cash flow facilitate a better, more consistent comparison to current and past presentations of liquidity. |
| Total cash and investments | Total cash and investments is used by management when assessing our sources of liquidity, which include cash and cash equivalents, short-term investments, and loans receivable and other. | This non-GAAP measure is helpful in understanding our capital resources and liquidity position. |



Following are the reconciliations of our most comparable US GAAP measures to our non-GAAP measures presented:

| Years Ended (In Millions, Except Per Share Amounts) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net revenue | \$ | 54,228 | \$ | 63,054 | \$ | 79,024 |
| NAND memory business |  | - |  | - |  | $(4,306)$ |
| Non-GAAP net revenue | \$ | 54,228 | \$ | 63,054 | \$ | 74,718 |
| Gross margin percentage |  | 40.0 \% |  | 42.6 \% |  | 55.4 \% |
| Acquisition-related adjustments |  | 2.3 \% |  | 2.1 \% |  | 1.6 \% |
| Share-based compensation |  | 1.3 \% |  | 1.0 \% |  | 0.4 \% |
| Patent settlement |  | - \% |  | 0.3 \% |  | - \% |
| Optane inventory impairment |  | - \% |  | 1.1 \% |  | - \% |
| NAND memory business |  | - \% |  | - \% |  | 0.6 \% |
| Non-GAAP gross margin percentage |  | 43.6 \% |  | 47.3 \% |  | 58.1 \% |
| Earnings per share attributable to Intel-diluted | \$ | 0.40 | \$ | 1.94 | \$ | 4.86 |
| Acquisition-related adjustments |  | 0.33 |  | 0.37 |  | 0.36 |
| Share-based compensation |  | 0.77 |  | 0.76 |  | 0.50 |
| Patent settlement |  | - |  | 0.05 |  | - |
| Optane inventory impairment |  | - |  | 0.18 |  | - |
| Restructuring and other charges |  | (0.01) |  | - |  | 0.65 |
| (Gains) losses on equity investments, net |  | (0.01) |  | (1.04) |  | (0.67) |
| (Gains) losses from divestiture |  | (0.04) |  | (0.28) |  | - |
| NAND memory business |  | - |  | - |  | (0.33) |
| Adjustments attributable to non-controlling interest |  | (0.02) |  | - |  | - |
| Income tax effects |  | (0.37) |  | (0.31) |  | (0.32) |
| Non-GAAP earnings per share attributable to Intel-diluted | \$ | 1.05 | \$ | 1.67 | \$ | 5.05 |


| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  | Dec 26, 2020 |  | Dec 28, 2019 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net cash provided by operating activities | \$ | 11,471 | \$ | 15,433 | \$ | 29,456 | \$ | 35,864 | \$ | 32,618 |
| Net additions to property, plant, and equipment |  | $(23,228)$ |  | $(23,724)$ |  | $(18,567)$ |  | $(14,086)$ |  | $(15,948)$ |
| Payments on finance leases |  | (96) |  | (345) |  | - |  | - |  | - |
| Sale of equity investment |  | - |  | 4,561 |  | - |  | - |  | - |
| Adjusted free cash flow | \$ | $(11,853)$ | \$ | $(4,075)$ | \$ | 10,889 | \$ | 21,778 | \$ | 16,670 |
| Net cash used for investing activities | \$ | $(24,041)$ | \$ | $(10,231)$ | \$ | $(24,283)$ | \$ | $(21,351)$ | \$ | $(13,314)$ |
| Net cash provided by (used for) financing activities | \$ | 8,505 | \$ | 1,115 | \$ | $(6,211)$ | \$ | $(12,842)$ | \$ | $(18,129)$ |



## Risk Factors and Other Key Information

## Risk Factors

The following summarizes the material factors that make an investment in our securities speculative or risky. When any one or more of the following risks materialize from time to time, our business, reputation, financial condition, cash flows, and results of operations can be materially and adversely affected, and the trading price of our common stock could decline. These risk factors do not identify all risks that we face; our operations can also be affected by factors that are not presently known to us or that we currently consider to be immaterial to our operations, or by various risks that are generally applicable to most companies. Due to risks and uncertainties, known and unknown, our past financial results may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. Refer also to the other information set forth in this Form 10-K, including in the MD\&A and Financial Statements and Supplemental Details sections.

## We are in a highly competitive and rapidly changing industry.

The industry in which we operate is highly competitive and subject to rapid technological, geopolitical, and market developments; changes in industry standards; changes in customer and end-user needs, expectations, and preferences; and frequent product introductions and improvements. When we do not anticipate or respond to these developments, our competitive position can weaken, and our products or technologies can become uncompetitive or obsolete. Our competitive environment has intensified in recent years, and we expect it to continue to do so in the future. If we are not able to compete effectively, or if our foundry strategy is unsuccessful, our financial results will be adversely affected, including through reduced revenue and gross margin, and we may be required to accelerate the write-down of the value of certain assets.

We face intense competition across our product portfolio. Our competitors include companies offering platform products, such as AMD and Qualcomm; accelerator products such as GPUs, including those offered by NVIDIA; other accelerator products such as ASICs, application-specific standard products, and FPGAs; memory and storage products; connectivity and networking products; and other semiconductor products. Some of these competitors have developed or utilize competing computing architectures and platforms, such as the ARM architecture ${ }^{\star}$, and these architectures and platforms can produce beneficial network effects for competitors when an ecosystem of customers and application developers for such architectures and platforms grows at scale. For example, ARM-based products are being used in PCs and servers, which could lead to further development and growth of the ARM ecosystem. We also compete with internally developed semiconductors from OEMs, cloud service providers, and others, some of whom are customers. Some of these customers vertically integrate their own semiconductor designs with their software assets and/or customize their designs for specific computing workloads. For example, in 2020, Apple introduced PC products utilizing its own internally developed ARM-based semiconductor designs in place of our client CPUs, and we face increasing competition from Apple's products and ecosystem.

Most of our competitors rely on third-party foundries, such as TSMC or Samsung, for the manufacture and assembly and test of their semiconductor components and products. Manufacturing process and assembly and test improvements introduced by such foundries have contributed, and may continue to contribute, to increasingly competitive offerings by our competitors. Our process technology roadmap to regain transistor performance and power performance leadership by 2025 is subject to a number of risks, and we could fail to realize our goals, including due to changes in competitor technology roadmaps, changes affecting our projections regarding our technology or competing technology, and the risks described in the risk factor "The development and implementation of new semiconductor products and manufacturing technologies are subject to many risks and uncertainties." As an IDM, we have higher capital expenditures and R\&D spending than many of our fabless competitors due to the high ongoing investments required to maintain leadingedge process technology and manufacturing capacity. We also face new sources of competition as a result of changes in industry participants through, for example, acquisitions or business collaborations, as well as new entrants, including in China, which could have a significant impact on our competitive position. For example, we could face increased competition as a result of China's programs to promote a domestic semiconductor industry and supply chains.

Our products compete based on a number of factors, including performance, energy efficiency, ease-of-integration, ease-of-use, innovative design, features, workload optimization, price, quality, reliability, security, software ecosystem and developer support, time-tomarket, reliable product roadmap execution, brand recognition, customer support and customization, and availability. The importance of these factors varies by product and market segment. To the extent our products do not meet our customers' requirements across these factors in an increasingly competitive landscape, our business and results of operations can be harmed. Introduction of competitive new products and technologies, aggressive pricing, and other actions taken by competitors can harm demand for our products, exert downward pricing pressure on our products, and adversely affect our business. For example, our competitors have introduced data center and client platform products with performance improvements and additional processor core counts that have contributed to an increasingly competitive environment. Further, our DCAI revenue, platform ASPs and market share were negatively impacted by the competitive environment and the shift of customer spend towards GPUs during the past few years. Additionally, a number of business combinations and strategic partnerships in the semiconductor industry have occurred in recent years, and more could occur in the future. Consolidation could also lead to fewer customers, partners, or suppliers, any of which could negatively affect our financial results.


We have limited experience in the highly competitive and capital-intensive third-party foundry business. As we pursue our strategy to establish IFS as a major provider of foundry capacity to manufacture semiconductors for others, we will face intense competition from well-established competitors such as TSMC, Samsung, Global Foundries (GF), United Microelectronics Corporation (UMC), and Semiconductor Manufacturing International Corporation (SMIC). To succeed, we will need to compete effectively across factors such as availability and time-to-market of manufacturing technology; advances in manufacturing processes in areas such as performance, performance per watt, and density; multi-chip packaging; system integration; manufacturing capacity; price; margin; ease of use; quality; yields; customer satisfaction; and ecosystem support. Building and maintaining a competitive foundry business requires high ongoing investments to maintain leading-edge process technology and manufacturing capacity, which investments in many instances must be made ahead of customer commitments and may not be recouped. Moreover, many of the largest potential IFS customers are fabless semiconductor companies whose products compete with our own. As a result, our strategy requires us to overcome customer concerns regarding protection of confidentiality information, intellectual property, and foundry capacity, among other competitive concerns, to attract and retain such customers. Our limited third-party foundry experience also means we must continue to hire and retain talented employees with relevant foundry experience with respect to both leading-edge and legacy nodes. Our efforts may be hindered by the higher costs of, regulatory and environmental restrictions imposed upon, and time it takes to build fabrication and assembly and test facilities in the jurisdictions in which we operate and plan to build new or upgrade existing foundry facilities as compared to the jurisdictions in which our competitors predominantly operate their foundry facilities. Our construction projects to expand capacity require available sources of labor, materials, and equipment. Increasing demand for such sources, including from other foundries; supply constraints, labor shortages, and other adverse market conditions; issues with permits or approvals; on-site incidents; and other construction issues arise from time to time and can result in significant delays and increased costs for our projects, as well as legal and reputational harm. These significant hurdles to our foundry strategy make it highly risky and our success highly uncertain.

## We are making significant, long-term and inherently risky investments in R\&D and manufacturing facilities that may not realize a favorable return.

To compete successfully, we must maintain an effective R\&D program, develop new products and manufacturing processes, improve our products and processes, and make significant capital investments in new and existing manufacturing facilities, all ahead of competitors and market demand. The R\&D efforts and capital investments we require are intensive as we compete across both product and process technologies. We incurred R\&D expenses of $\$ 16.0$ billion in 2023, $\$ 17.5$ billion in 2022, and $\$ 15.2$ billion in 2021. We are focusing our R\&D efforts across several key areas, including process and packaging technology, our xPU products and features, AI, and software. These include ambitious initiatives, such as our efforts to introduce five new manufacturing process technologies, or nodes, in four years and our unified oneAPI portfolio of developer tools. Our investments are typically long-term and, even where successful, often do not contribute to our operating results for a number of years. We cannot guarantee that our efforts will deliver the benefits we anticipate, including as a result of our new products or technologies falling short of expectations or the offerings of competitors. For example, we previously experienced significant delays in the implementation of our 10 nm process technology, and during 2020, we announced that our then 7 nm process technology would be delayed relative to our prior expectations. In such instances where we do not timely introduce new manufacturing process technologies that improve performance, performance per watt, transistor density, die utilization, core counts, and/ or new features such as optimizations for Al and other workloads, with sufficient manufacturing yields and operational efficiency, relative to competing foundry processes, we have faced and will face cost, product performance, and time-to-market disadvantages relative to our competitors and adverse impacts to our financial condition as a result of higher operating costs, including as a result of additional costs from unused manufacturing capacity, higher leverage and borrowing costs, and pressure on our credit ratings. Further, we are not always able to timely or successfully develop new products, including as a result of bugs, late changes to features due to customer requests, or other design challenges. For example, in 2022, we announced that the release of Intel's 4th Gen Intel Xeon Scalable processor would be delayed from the first half of 2022 to the second half of 2022. To the extent our R\&D efforts do not develop new products on schedule with improvements in areas like performance, performance per watt, die utilization, and core counts, and/or with new features such as optimizations for Al and other workloads, our competitive position can be harmed. We have adopted a disaggregated design approach for some of our future products, in which different processors and components can be manufactured on different processes and connected by advanced packaging technology into a single package. This approach introduces new areas of complexity in design and manufacturability, particularly in the deployment of advanced packaging technologies, several of which are novel, have a limited manufacturing history, and/or have increased costs. Delays or failures in implementing disaggregated designs could adversely affect our ability to timely introduce competitive products. For example, adapting a processor or component design for a new or different manufacturing process involves additional R\&D expense and can result in delays in the development of the associated product and higher costs due to the utilization of more advanced and expensive capital equipment.


The investments required for our process technology roadmap and our worldwide manufacturing and assembly and test require capital expenditures above our historical levels. In recent years, the semiconductor manufacturing industry has seen very significant increases in the capital investments required for manufacturing facilities utilizing leading process technologies, including as a result of the use of EUV photolithography tools. Our ownership and operation of such high-tech fabrication facilities, and our need to build new and expand existing facilities in anticipation of future demand, has resulted and will continue to result in our incurring large capital outlays and high costs that are fixed or difficult to reduce in the short term. Such capital outlays and costs include those related to utilization of existing facilities, facility construction and equipment, R\&D, and the employment and training of a highly skilled workforce. To the extent customers are unwilling to pay prices to access the features that our process and product investments are expected to deliver or demand for our products, foundry capacity and assembly and test capacity decreases or we fail to forecast demand accurately, our gross margin and operating income can be disproportionately affected due to our high fixed cost structure, which is difficult to reduce quickly in response to lower demand and other unfavorable market factors. We could also be required to write off inventory or record excess manufacturing capacity charges, which would also lower our gross margin and operating income. To the extent the demand decrease is prolonged, our manufacturing or assembly and test capacity could be underutilized, and we may be required to write down our long-lived assets, which would increase our expenses. We may also be required to shorten the useful lives of under-used facilities and equipment and accelerate depreciation. As we continue to make substantial investments in increasing our manufacturing capacity as part of our IDM 2.0 strategy, these underutilization risks may be heightened. Conversely, at times, demand may increase or we may fail to forecast accurately or produce the mix of products demanded. To the extent we are unable to add capacity or increase production fast enough, we are at times required to make production decisions and/or are unable to fully meet market demand, which can result in a loss of revenue opportunities or market share, legal claims, and/or damage to customer relationships.

## The development and implementation of new semiconductor products and manufacturing technologies are subject to many risks and uncertainties.

We are continually engaged in the development of next-generation technologies. Forecasting our progress and schedule for developing advanced nodes and other technologies is challenging, and at times we encounter unexpected delays due to the complexity of interactions among steps in the manufacturing process, challenges in using new materials or new production equipment, and other issues. Diagnosing defects in our manufacturing processes often takes a long time, as manufacturing throughput times can delay our receipt of data about defects and the effectiveness of fixes, and defects can be more serious and difficult to resolve than initially anticipated.

We are not always successful or efficient in developing or implementing new process nodes and manufacturing processes. We experienced significant delays in implementing our 10 nm process technology, and in 2020, we encountered a defect mode in the development of our then 7 nm process technology that resulted in delays relative to our prior expectations. In 2022, Intel's 4th Gen Intel Xeon Scalable processor was delayed to allow for more platform and product validation time. These delays have allowed competitors using third-party foundries, such as TSMC, to benefit from advancements in manufacturing processes introduced ahead of us, including improvements in performance, energy efficiency, and other features, which have helped increase the competitiveness of their products. Because of these prior delays in our process technologies, we may experience greater adverse competitive impacts in the event of delays in the development of future manufacturing process technologies and products.

Our efforts to innovate involve significant expense and carry inherent risks, including difficulties in designing and developing nextgeneration process and packaging technologies, and investments in manufacturing assets and facilities that are made years in advance. We cannot guarantee that we will realize the expected benefits of next-generation process technologies, including the expected cost, performance, power, and density advantages, or that we will achieve an adequate return on our capital and R\&D investments, particularly as the development of new nodes has grown increasingly expensive. In such circumstances, we may be required to write down the value of some of our manufacturing assets and facilities, increasing our expenses.

Risks inherent in the development of next-generation process technologies include production timing delays, lower-than-anticipated manufacturing yields, longer manufacturing throughput times, failure to achieve expected performance, power, and area improvements, and product defects and errata (deviations from published specifications). Production timing delays have at times caused us to miss customer product design windows, which can result in lost revenue opportunities and damage to our customer relationships. Furthermore, when the introduction of next-generation process nodes is delayed, adding cores or other competitive features to our products can result in larger die size products, manufacturing supply constraints, and increased product costs. Lower manufacturing yields and longer manufacturing throughput times, compared to previous process nodes, can increase our product costs, adversely affect our gross margins, and contribute to manufacturing supply constraints. A new process node typically has higher costs compared to a mature node due to factors that include higher depreciation costs and lower yields, and costs and yields at times do not improve at the same rate as on prior nodes. As the die size of our products has increased and our manufacturing process nodes have shrunk, our products and manufacturing processes have grown increasingly complex and more susceptible to product defects and errata, which at times also contribute to production timing delays and lower yields that may also increase our costs to manufacture and warranty our products.

Our disaggregated design strategy poses increased logistical risks and challenges, particularly where we decide to manufacture different product components on different process technologies, including third-party foundries' process technologies. To combine components in a single package, they need to be manufactured on a timely basis and in sufficient quantities, while the manufacturing processes we utilize may have differing yields, throughput times, and capacity constraints. We may be required to safely store some components pending the manufacture of others. Delays or quality issues with one component could limit our ability to manufacture the entire completed product. In addition, the packaging technologies used to combine these components can increase our costs and may introduce additional complexity and quality issues. To the extent we are unable to manage these risks, our ability to timely supply competitive products can be harmed and our costs could increase.


From time to time, disruptions in the production process result from errors; defects in materials; delays in obtaining or revising permits and licenses; interruptions in our supply of materials, resources, or production equipment; adverse changes in equipment productivity; and disruptions at our fabrication and assembly and test facilities due to accidents, maintenance issues, power interruptions, equipment malfunctions, or unsafe working conditions-all of which could affect the timing of production ramps and yields and could result in production timing delays. Production issues periodically lead to increased costs and affect our ability to meet product demand, which can adversely impact our business and the results of operations.

## Our implementation of new business strategies and investments in new businesses, products, and technologies are inherently risky and do not always succeed.

Our IDM 2.0 strategy requires implementation of new business strategies, as well as many internal structural, systems and process changes. We have entered new businesses and introduced new products and services as we seek to capitalize on the opportunities presented by growth in semiconductor demand, ubiquitous compute, pervasive connectivity, cloud to edge infrastructure, Al, and sensing. In recent years, we have expanded our product offerings in areas such as discrete GPUs, mobility solutions, AI accelerators, IPU products, and silicon photonics. As part of our IDM 2.0 strategy, we announced plans to establish IFS as a major provider of foundry capacity to manufacture semiconductors for others and to implement an internal foundry operating model through updates to our processes, systems, and guardrails between our manufacturing and our individual product-based business units. The implementation of our internal foundry operating model requires many internal structural, system, and process changes to support the separation of the product and manufacturing sides of our business and our external foundry business, including a new ERP system. In parallel, we are undertaking significant efforts to separate out portions of our business, such as PSG and IMS, to raise capital and unlock value as we focus on our core product and manufacturing capabilities. Significant business changes are inherently risky and are not always successful. For example, in 2022, we wound down Intel Optane; in 2020, we agreed to sell our NAND memory business to SK hynix; and in 2019, we exited the 5G smartphone modem business based on our determination that there was no clear path to profitability for those businesses.

These new and developing areas and products represent a significant portion of our revenue growth opportunity, and they also introduce new sources of competition, including, in some cases, incumbent competitors with established technologies, ecosystems, and customer bases, lower prices, margins, or costs, and greater brand recognition. These developing products and market segments require significant investment, do not always grow as projected or at all, or sometimes adopt competing technologies, and we may not realize an adequate return on our investments. For example, Al and machine learning are increasingly driving innovations in technology, but if we fail to develop leading products for these workloads, or if our customers use competing technologies, we may not realize a return on our investments in these areas. Similarly, we expect intense competition related to the significant opportunity we see in networking infrastructure and the distribution of computing to the network edge and may not succeed in our efforts. To be successful, we need to cultivate relationships with customers and partners in these market segments and continue to improve our offerings. Despite our ongoing efforts, there is no guarantee that we will achieve or maintain market demand or acceptance for our products and services in these various market segments or realize an adequate return on our investments, which could lead to impairment of assets and restructuring charges, as well as opportunity costs.

## Our Smart Capital approach to capital spending, alternative financing arrangements and pursuit of government grants involves risks and may not be successful.

As we pursue our IDM 2.0 strategy, we have utilized our Smart Capital approach to capital spending in an effort to appropriately time and scale our capital investments. To support our capital investments, we have pursued alternative financing arrangements, such as our 2022 joint investment with Brookfield in the manufacturing expansion of our Arizona campus, and expect to enter into similar arrangements in the future. These transactions may fail to advance our business strategy, may include unfavorable pricing or other terms, and may fail to achieve their anticipated benefits. Our partners may also fail to satisfy financial or other obligations on which we rely and we may fail to resolve any potential disputes. Any of these risks, including our ability to effectuate any additional transactions at all, could have a material adverse effect on our business, results of operations, financial condition, or cash flows, which may limit our ability to raise sufficient capital for our required investments.

In addition, as part of our Smart Capital approach, we have applied for, received, and expect to receive additional grants and incentives from domestic and foreign local, regional and national governments. Legislation in the US and EU has been adopted to provide government funding for semiconductor manufacturing expansions in those regions, but there is uncertainty as to the amounts and timing of funding we may receive and as to the conditions and restrictions that may apply to us as a recipient of such funding. For example, we expect to receive substantial grants from the US government under the CHIPS Act to support significant planned new fabrication facilities in the US and the German government under the EU Chips Act to support significant planned new fabrication facilities in Germany. However, governments may choose not to award grants and incentives in sufficient amounts or in a timely manner to support our capital investment plans and to offset the higher costs of operations in many of the locations of our facilities as compared to those of many of our competitors, or we may be unable to comply with the requirements and limitations of such grants and incentives. To the extent such funding is below our expectations, we elect not to accept any grants or incentives due to burdensome compliance requirements, or we are required to return any amounts received from any grants or incentives due to an inability to comply with any requirements or limitations contained therein, our anticipated cash requirements would increase.


## Changes in product demand can adversely affect our financial results.

Our products are used in different market segments, and demand for our products varies within or among them. It is difficult to forecast these changes and their impact. For example, we expect the PC TAM to grow over time driven by factors such as a larger installed base, demand for AI capabilities, new platforms, shorter replacement cycles, and adoption in new markets; however, the PC industry has been highly cyclical in the past, and these growth expectations may not materialize, or we may fail to capitalize on them. Changes in the demand for our products, particularly our CCG, DCAI, and NEX platform products, have in the past and may in the future reduce our revenue, lower our gross margin, or require us to write down the value of our assets.

Important factors that lead to variation in the demand for our products include:

- business conditions, including downturns in the market segments in which we operate, or in global or regional economies;
- consumer confidence, income levels, and customer capital spending, which can be impacted by changes in market conditions, including changes in government borrowing or spending, taxation, interest rates, the credit market, current or expected inflation, employment, and energy or other commodity prices;
- geopolitical conditions, including trade policies and geopolitical tensions and conflicts;
- our ability to timely introduce competitive products;
- competitive and pricing pressures, including new product introductions and other actions taken by competitors;
- the level of our customers' inventories and computing capacity;
- customer order patterns and order cancellations, including as a result of maturing product cycles for our products, customers' products, and related products such as operating system upgrade cycles; and disruptions affecting customers, such as the delays in obtaining tools, components, and other supplies as a result of COVID-19-related port shutdowns in China that negatively impacted demand for our business in 2022, as well as the industry substrate and component shortages that negatively impacted demand across several of our businesses in 2021;
- market acceptance and industry support of our products and services, including the introduction and availability of software and other products used together with our products, such as software to harness the new AI capabilities of our latest CPUs, as well as our foundry services offerings through IFS; and
- customer product needs and emerging technology trends, including changes in the levels and nature of customer and end-user computing workloads, such as work- and learn-from-home trends.

Our pricing and margins vary across our products and market segments due in part to marketability of our products and differences in their features or manufacturing costs. For example, our core product offerings range from lower-priced and entry-level platforms, such as those based on Intel Atom processors, to higher-end platforms based on Intel Xeon processors. Our ancillary product offerings that extend beyond our core product lines typically have significantly lower margins than our higher-priced products, and at times are not profitable. To the extent demand shifts from our higher-priced to lower-priced core products in any of our market segments, or our ancillary products represent a greater share of our mix of products sold, our gross margin percentage has decreased and may decrease again.

## Macroeconomic conditions and geopolitical tensions and conflicts, including changes to trade policies and regulations, present significant risks to us in many jurisdictions.

We have manufacturing, assembly and test, R\&D, sales, and other operations in many countries, and some of our business activities are concentrated in one or more geographic areas. Our operations rely upon a supply chain that is also highly distributed, and with reliance in some instances on supplies or materials available in only one or more geographic areas. Moreover, sales outside the US accounted for $74 \%$ of our revenue for the fiscal year ended December 30, 2023, with revenue from billings to China contributing $27 \%$ of our total revenue. As a result, our operations and our financial results, including our ability to execute our business strategy, manufacture, assemble and test, design, develop, or sell products, and the demand for our products, are at times adversely affected by a number of global and regional factors outside of our control.

Adverse changes in global or regional economic conditions periodically occur, including recession or slowing growth; changes or uncertainty in fiscal, monetary, or trade policy; higher interest rates; tighter credit; inflation; lower capital expenditures by businesses, including on IT infrastructure; increases in unemployment; and lower consumer confidence and spending. Adverse changes in macroeconomic conditions can significantly harm demand for our products and make it more challenging to forecast our operating results and make business decisions, including regarding prioritization of investments in our business. An economic downturn or increased uncertainty may also lead to increased credit and collectability risks, higher borrowing costs or reduced availability of capital and credit markets, reduced liquidity, adverse impacts on our suppliers, failures of counterparties, including financial institutions and insurers, asset impairments, and declines in the value of our financial instruments.


Trade policies and disputes at times result in increased tariffs, trade barriers, and other protectionist measures, which can increase our manufacturing costs, make our products less competitive, reduce demand for our products, limit our ability to sell to certain customers, limit our ability to procure components or raw materials, or impede or slow the movement of our goods across borders. Increasing protectionism and economic nationalism may lead to further changes in trade policies and regulations, domestic sourcing initiatives, or other formal and informal measures that could make it more difficult to sell our products in, or restrict our access to, some markets. They can also result in declining consumer confidence and slowing economic growth or recession, and could cause our customers to reduce, cancel, or alter the timing of their purchases with us. Sustained geopolitical tensions could lead to long-term changes in global trade and technology supply chains, domestic sourcing initiatives, and decoupling of global trade networks, which could make it more difficult to sell our products in, or restrict our access to, some markets and have a material adverse effect on our business and growth prospects.

In particular, geopolitical and trade tensions between the US and China, one of our largest markets, have led to increased tariffs and trade restrictions, including tariffs applicable to some of our products, and have affected customer ordering patterns. Further, the US has imposed restrictions on the export of US-regulated products and technology to certain Chinese technology companies, including certain of our customers. Specifically, in 2022 the US significantly increased US export controls on semiconductor manufacturing equipment and on artificial intelligence and advanced computing products. In 2023, the US added to the restrictions in all three areas and also worked with Japan and the Netherlands to align on additional restrictions on semiconductor manufacturing equipment. During this time, the US has increasingly added Chinese companies to prohibited lists. In response, China has restricted US access to certain minerals and has blocked certain companies that provide products to Taiwan's military from selling products in China. These restrictions have in some instances reduced our sales and in a number of instances required specific governmental authorizations or exceptions - $\$ 3.2$ billion, or $6 \%$, of our 2023 revenue was dependent upon US government export control authorizations, an amount that we expect may increase in future years. These and potential future restrictions could adversely affect our financial performance and result in reputational harm to us. In addition, a number of semiconductor companies in China, including Semiconductor Manufacturing International Corporation (SMIC), are making significant investments, in many instances with the support of the Chinese government, in advanced semiconductor technologies to enable such companies to develop products and technologies that compete with ours. It is difficult to predict what further trade-related actions governments may take, the extent to which we may be able to mitigate the effects of any such actions, and the longer-term implications of such actions on the market opportunities for us and the competition we may face.

We can also be adversely affected by other global and regional factors that periodically occur, including:

- geopolitical and security issues, such as armed conflict and civil or military unrest, political instability, human rights concerns, and terrorist activity, including, for example:
- Russia's war with Ukraine, initiated in 2022, which resulted: in the imposition of financial and other sanctions and export controls against Russia and Belarus that caused us and other companies to limit or suspend Russian operations (we had no exports to Russia in 2023); Russia-imposed currency restrictions and regulations and other retaliatory trade and other actions; increased supply, commodity, and other costs; and increased risk of cyberattacks;
- tensions and conflict affecting Israel, where we have multiple semiconductor development centers and a leading-edge manufacturing facility and where our Mobileye business is headquartered and has most of its operations, and in surrounding areas, such as past conflicts in Lebanon and the current conflict in the Red Sea; and
- rising tensions between China and Taiwan;
- natural disasters, public health issues (including pandemics), and other catastrophic events;
- inefficient infrastructure and other disruptions, such as supply chain interruptions, materials shortages or delays, and large-scale outages or unreliable provision of services from utilities, transportation, data hosting, or telecommunications providers;
- formal or informal imposition of new or revised export, import, or doing-business regulations, including trade sanctions, tariffs, and changes in the ability to obtain export licenses, which could be changed without notice;
- government restrictions on, or nationalization of, our operations in any country, or restrictions on our ability to repatriate earnings from or distribute compensation or other funds in a particular country;
- adverse changes relating to government grants, tax credits, or other government incentives, including more favorable incentives provided to competitors;
- differing employment practices and labor issues, including restricted access to talent;
- ineffective legal protection of our IP rights in certain countries;
- local business and cultural factors that differ from our current standards and practices;
- continuing uncertainty regarding social, political, immigration, and tax and trade policies in the US and abroad; and
- fluctuations in the market values of our domestic and international investments, and in the capital and credit markets, which can be negatively affected by liquidity, credit deterioration or losses, interest rate changes, financial results, political risk, sovereign risk, or other factors.



## We are subject to numerous risks associated with the evolving market for products with Al capabilities.

The markets and use cases for products with AI capabilities have been rapidly evolving, are difficult to predict and may impact demand for our products. For example, in the last few years the demand for high-end GPUs for model training increased dramatically and has resulted and may continue to result in a significant shift in DCAI customer spend. The significant investments we have made to develop products and software to address what we believe will be increasing demand for Al capabilities may be insufficient, and we face significant hurdles, including whether demand will materialize, whether third-party developers will develop the software to utilize the AI capabilities of our products, and whether we will be successful in developing products that can compete with offerings by established competitors.

Our use of Al technology may subject us to reputational, financial, legal, or regulatory risks. As we incorporate Al technology into our products and services, any failure to address concerns relating to the responsible use of the evolving Al technology in our products and services may cause harm to our reputation or financial liability and, as such, may increase our costs to address or mitigate such risks and issues. Al technology may create ethical issues, generate defective algorithms, and present other risks that create challenges with respect to its adoption. In addition, evolving rules, regulations, and industry standards governing AI may require us to expend significant resources to modify, maintain, or align our business practices or products to comply with US and non-US rules and regulations, the nature of which cannot be determined at this time. Several jurisdictions around the globe, including the EU and certain US states, have already proposed or enacted laws governing AI. US federal agencies are likely to release AI regulations in the near future in light of the Biden administration's October 30, 2023 Executive Order on AI. The regulatory environment surrounding the impact of the implementation of Al on our products and services may adversely affect our ability to produce and export products and as a result may cause harm to our reputation and financial liability.

## We rely upon a complex global supply chain.

We have a highly complex global supply chain composed of thousands of suppliers. These suppliers provide direct materials for our production processes; supply tools, equipment, and IP (via licenses) for our factories; deliver logistics and packaging services; and supply software, lab and office equipment, and other goods and services used in our business. We also rely on suppliers to provide certain components for our products and to manufacture and assemble and test some of our components and products. From time to time, we are negatively impacted by supply chain issues, including:

- suppliers extending lead times, experiencing capacity constraints, limiting or canceling supply, allocating supply to other customers including competitors, delaying or canceling deliveries, or increasing prices;
- supplier quality issues;
- cybersecurity events, IP or other litigation, man-made or natural disasters, public health issues (including pandemics), operational failures, or other events that disrupt suppliers;
- long lead times to qualify alternate or additional suppliers, or the unavailability of qualified alternate suppliers; and
- increased legislation, regulation, or stakeholder expectations regarding responsible sourcing practices, such as heightened reporting and other obligations with regard to environmental impacts, the risk of forced labor, or supplier conduct that does not meet such standards, which can result in supply chain disruptions, the loss of a supplier, and the government seizure of goods.

These and other supply chain issues can increase our costs, disrupt or reduce our production, delay our product shipments, prevent us from meeting customer demand, damage our customer relationships, or negatively affect our reputation. They may keep us from successfully implementing our business strategy and can materially harm our business, competitive position, results of operation, and financial condition. From time to time, our customers experience disruptions or shortages in their own supply chains that constrain their demand for our products. During the past several years, macroeconomic and geopolitical conditions, as well as outbreaks of COVID-19, caused supply chain disruptions and delays in obtaining tools and other components, and the semiconductor industry experienced widespread shortages of substrates and other components and available foundry manufacturing capacity. These shortages have previously limited our ability to supply customer demand in certain of our businesses, and have adversely affected customer demand for our products, as some customers have been unable to procure sufficient quantities of third-party components used together with our products to produce finished systems. It is difficult to predict the future impact of these shortages when they occur.

To obtain future supply of certain materials and components, particularly substrates, and third-party foundry manufacturing capacity, we have entered into arrangements with some of our suppliers that involve long-term purchase commitments and/or large prepayments. These arrangements may not be adequate to meet our requirements, or our suppliers may fail to deliver committed volumes on time or at all, or their financial condition may deteriorate. If future customer demand over the horizon of such arrangements falls below our expectations, we could have excess or obsolete inventory, unneeded capacity, and increased costs, and our prepayments may not be fully utilized, and in some cases may not be fully recoverable.

We utilize third-party foundries and component suppliers to manufacture or supply certain components and products for areas such as networking, communications, graphics, programmable semiconductor solutions, and memory. As part of our IDM 2.0 strategy, we expect to increase our use of third-party foundries. Delays in the development of foundries' future manufacturing processes could delay the introduction of products or components we design for such processes, and insufficient foundry capacity could prevent us from meeting customer demand. We typically have less control over delivery schedules, design and manufacturing co-optimization, yields, quality, product quantities, and costs for components and products that are manufactured by third parties.


Where possible, we seek to have several sources of supply. However, for certain components, services, materials, and equipment, we rely on a single or a limited number of suppliers, or upon suppliers in a single location, which can impact the nature, quality, availability, and pricing of the products and services available to us. For example, ASML Holding N.V. (ASML) is currently the sole supplier of EUV photolithography tools that we are deploying in our Intel 4 and subsequent manufacturing process nodes. These tools are highly complex to develop and produce, and increasingly costly, and from time to time there are increases in lead times or delays in their development and availability, which could delay the development or ramp of our future process nodes. As a further example, a limited number of thirdparty foundries offer leading-edge manufacturing processes, and these providers are geographically concentrated in Asia. Supplier consolidation or business failures can also reduce the pool of qualified suppliers.

## We are subject to the risks of product defects, errata, or other product issues.

From time to time, we identify product defects, errata, and other product issues, which can result from problems in our product design or our manufacturing and assembly and test processes. Components and products we purchase or license from third-party suppliers, or gain through acquisitions, can also contain defects. Product issues also sometimes result from the interaction between our products and thirdparty products and software. We face risks if products that we design, manufacture, or sell, or that include our technology, cause personal injury or property damage, even where the cause is unrelated to product defects or errata. These risks may increase as our products are introduced into new devices, market segments, technologies, or applications, including transportation, autonomous driving, healthcare, communications, financial services, and other industrial, critical infrastructure, and consumer uses.
Costs from defects, errata, or other product issues could include:

- writing off some or all of the value of inventory;
- recalling products that have been shipped;
- providing product replacements or modifications;
- providing consideration to customers, including reimbursement for certain costs they incur;
- defending against litigation and/or paying resulting damages;
- paying fines imposed by regulatory agencies; and
- reputational harm.

These costs could be large and may increase expenses and lower gross margin, and/or result in delay or loss of revenue. Mitigation techniques designed to address product issues, including software and firmware updates, are not always available on a timely basis-or at all-and do not always operate as intended or effectively resolve such issues for all applications. We and third parties, such as hardware and software vendors, make prioritization decisions about which product issues to address, which can delay, limit, or prevent development or deployment of a mitigation and harm our reputation and result in costs. Product defects, errata, or other product issues and/or mitigation techniques can result in product failures, adverse performance and power effects, reboots, system instability or unavailability, loss of functionality, data loss or corruption, unpredictable system behavior, decisions by customers and end users to limit or change the applications in which they use our products or product features, and other issues. Product issues can damage our reputation, negatively affect product demand, delay product releases or deployment, result in legal liability, or make our products less competitive, which could harm our business and financial results. Subsequent events or new information can develop that change our assessment of the impact of a product issue. In addition, our liability insurance coverage has certain exclusions or may not adequately cover liabilities incurred. Our insurance providers may be unable or unwilling to pay a claim, and losses not covered by insurance could be large, which could harm our financial condition.

## We face risks related to security vulnerabilities in our products.

We or third parties regularly identify security vulnerabilities with respect to our processors and other products, as well as the operating systems and workloads that run on them and the components that interact with them. Components and IP we purchase or license from third parties for use in our products, as well as industry-standard specifications we implement in our products, are also regularly subject to security vulnerabilities. Our processors and other products are being used in application areas that create new or increased cybersecurity and privacy risks, including applications that gather and process large amounts of data, such as the cloud or Internet of Things, and critical infrastructure and automotive applications. The security vulnerabilities identified in our processors include a category known as side-channel vulnerabilities, such as the variants referred to as "Spectre" and "Meltdown." Additional categories and variants have been identified and are expected to continue to be identified. Publicity about these and other security vulnerabilities has resulted in, and is expected to continue to result in, increased attempts by third parties to identify additional vulnerabilities. Security and manageability features in our products cannot make our products absolutely secure, and these features themselves are subject to vulnerabilities and attempts by third parties to identify additional vulnerabilities. Vulnerabilities are not always mitigated before they become known. We, our customers, and the users of our products do not always promptly learn of or have the ability to fully assess the magnitude or effects of a vulnerability, including the extent, if any, to which a vulnerability has been exploited. Subsequent events or new information can develop that changes our assessment of the impact of a security vulnerability, including additional information learned as we develop and deploy mitigations or updates, become aware of additional variants, evaluate the competitiveness of existing and new products, and address future warranty or other claims or customer satisfaction considerations, as well as developments in the course of any litigation or regulatory inquiries or actions over these matters.


Mitigation techniques designed to address security vulnerabilities in our products, including software and firmware updates or other preventative measures, are not always available on a timely basis-or at all-and at times do not operate as intended or effectively resolve vulnerabilities for all applications. In addition, we are often required to rely on third parties, including hardware, software, and services vendors, as well as our customers and end users, to develop and/or deploy mitigation techniques, and the availability, effectiveness, and performance impact of mitigation techniques can depend solely or in part on the actions of these third parties in determining whether, when, and how to develop and deploy mitigations. Export restrictions may impede our ability to provide updates or patches to customers in certain geographies or that appear on sanctions lists, potentially leaving systems unpatched and open to exploitation. Further, sanctions lists may include third parties with whom we need to interact for coordinated vulnerability disclosure, which may impair our ability to receive information about vulnerabilities and to deliver mitigations for them. We and such third parties make prioritization decisions about which vulnerabilities to address, which can delay, limit, or prevent development or deployment of a mitigation and harm our reputation. Security vulnerabilities and/or mitigation techniques can result in adverse performance or power effects, reboots, system instability or unavailability, loss of functionality, data loss or corruption, unpredictable system behavior, decisions by customers and end users to limit or change the applications in which they use our products or product features, and/or the misappropriation of data by third parties.

Security vulnerabilities and any limitations or adverse effects of mitigation techniques can adversely affect our results of operations, financial condition, customer relationships, prospects, and reputation in a number of ways, any of which may be material. For example, whether or not vulnerabilities involve attempted or successful exploits, they may result in our incurring significant costs related to developing and deploying updates and mitigations, writing down inventory value, defending against product claims and litigation, responding to regulatory inquiries or actions, paying damages, addressing customer satisfaction considerations, providing product replacements or modifications, or taking other remedial steps with respect to third parties. Adverse publicity about security vulnerabilities or mitigations could damage our reputation with customers or users and reduce demand for our products and services. These effects may be greater to the extent that competing products are not susceptible to the same vulnerabilities or if vulnerabilities can be more effectively mitigated in competing products. Moreover, third parties can release information regarding potential vulnerabilities of our products before mitigations are available, which, in turn, could lead to attempted or successful exploits, adversely affect our ability to introduce mitigations, or otherwise harm our business and reputation.

## We are subject to increasing and evolving cybersecurity threats and privacy risks.

We face significant and persistent cybersecurity risks due to: the breadth of geographies, networks, and systems we must defend against cybersecurity attacks; the complexity, technical sophistication, value, and widespread use of our systems, products and processes; the attractiveness of our systems, products and processes to threat actors (including state-sponsored organizations) seeking to inflict harm on us or our customers; the substantial level of harm that could occur to us and our customers were we to suffer impacts of a material cybersecurity incident; and our use of third-party products, services and components. Such an incident, whether or not successful, could result in our incurring significant costs related to, for example, rebuilding our internal systems, writing down inventory value, implementing additional threat protection measures, providing modifications to our products and services, defending against litigation or enforcement proceedings, paying damages, providing customers with incentives to maintain a business relationship with us, or taking other remedial steps with respect to third parties, as well as incurring significant reputational harm. We regularly face attempts by malicious attackers who attempt to gain access to our network or data centers or those of our suppliers, customers, partners, end users, or other third parties; steal proprietary, personal, or confidential information related to our business, products, employees, suppliers, or customers; introduce malicious software to our systems or those of our suppliers, customers, partners, end users, or other third parties; interrupt our systems and services or those of our suppliers, customers, or others; or demand ransom to return control of such systems and services. As we grow certain emerging business lines, such as our foundry business and our cloud computing and software-as-a-service offerings, we expect to collect or host significant amounts of highly sensitive customer data, which may increasingly make us a target of attempts to steal or corrupt that data. Individuals and organizations, including malicious hackers, state-sponsored organizations, insider threats including employees and third-party service providers, and intruders into our physical facilities, at times attempt to gain unauthorized access to and/or corrupt the processes used to design and manufacture our hardware products and our associated software and services. We are also a frequent target of attackers that intend to sabotage, compromise, take control of, or otherwise corrupt our manufacturing or other processes, products, and services. In some instances, we, our suppliers, our customers, and the users of our products and services may be unaware of a threat or incident or its magnitude and effects, or we may be unable to timely mitigate the impacts of an incident.

Cyber attack attempts are increasing in number, magnitude, and technical sophistication, and if successful may expose us and the affected parties to loss or misuse of proprietary or confidential information or disruptions to our business operations, including our manufacturing operations, and could impact our financial results. We expect emerging technologies to contribute to the increasing sophistication of attacks and to lead to new threats. For example, threat actors may leverage emerging AI technologies to develop new hacking tools and attack vectors, exploit vulnerabilities, obscure their activities, and increase the difficulty of threat attribution.

As a developer of leading-node processes and widely utilized products, we have been, and expect to continue to be, the subject of intense efforts by sophisticated cyber adversaries, including state-sponsored organizations, who seek to compromise our systems, disrupt our operations or those of users of our products, or steal trade secrets. As geopolitical or armed global conflicts escalate, attacks against us, our customers, or our strategic allies may similarly intensify. For example, from 2019 to 2021, we, along with other companies with meaningful operations in Israel, were targets of concerted cyberattacks. In the fourth quarter of 2020, our Habana Labs subsidiary's network was breached in connection with a suspected unsuccessful ransomware attack, resulting in unauthorized third-party access of certain confidential information.


We are also subject to risks associated with attacks on products, services and components in our supply chain, such as the 2020 compromise of IT infrastructure management software provided by SolarWinds Corporation. These providers can experience breaches of their systems and products, or provide inadequate updates or support, which can impact the security of our systems and our proprietary or confidential information. Since 2021, we have observed an increase in ransomware attacks in our supply chain. In December 2021, a vulnerability named "Log4Shell" was reported for the widely used Java logging library, Apache Log4j* 2, and similar vulnerabilities affecting commonly used programs and tools were reported in 2022 and 2023.

We are required to comply with stringent, complex, and evolving laws, rules, regulations, and standards in many jurisdictions, as well as contractual obligations, relating to cybersecurity and data privacy. Our compliance efforts are complicated by the fact that these requirements and obligations may be subject to uncertain or inconsistent interpretations and enforcement, and may conflict among various jurisdictions. Any failure or perceived failure by us to comply with applicable laws, rules, regulations, standards, certifications, or contractual obligations, or any compromise of security that results in unauthorized access to, or unauthorized loss, destruction, use, modification, acquisition, disclosure, release, or transfer of personal information, may result in outcomes such as: requirements to modify or cease certain operations or practices; the expenditure of substantial costs, time, and other resources; proceedings or actions against us; legal liability; governmental investigations; enforcement actions; claims; fines; judgments; awards; penalties; sanctions; and potentially costly litigation (including class actions).

The theft, loss, or misuse of personal data collected, used, stored, or transferred by us to run our business, including data stored with vendors or other third parties, could result in significantly increased business and security costs or costs related to defending legal claims. Costs to comply with and implement privacy-related and data-protection measures are significant, and noncompliance could expose us to significant monetary penalties, damage to our reputation, suspension of online services or sites in certain countries, and even criminal sanctions. Even our inadvertent failure to comply with federal, state, or international privacy-related or data-protection laws and regulations could result in audits, regulatory inquiries, or proceedings against us by governmental entities or other third parties.

## We are subject to IP risks, including related litigation and regulatory proceedings.

We cannot always protect our IP or enforce our IP rights. We regard our patents, copyrights, trade secrets, and other IP rights as important to the success of our business. We rely on IP law-as well as confidentiality and licensing agreements with our customers, employees, technology development partners, and others-to protect our IP and IP rights. Our ability to enforce these rights is subject to general litigation risks, as well as uncertainty as to the enforceability of our IP rights in various countries and other geopolitical factors. We are not always able to obtain protection for our IP or enforce or protect our IP rights. When we seek to enforce our rights, we may be subject to claims that our IP rights are invalid, not enforceable, or licensed to an opposing party. Our assertion of IP rights may result in another party seeking to assert claims against us, which could harm our business. From time to time, governments adopt regulationsand governments or courts render decisions-requiring compulsory licensing of IP rights, or governments require products to meet standards that favor local companies. Our inability to enforce our IP rights under any of these circumstances can harm our competitive position and business. In some cases, our IP rights can offer inadequate protection for our innovations. In addition, the theft or unauthorized use or publication of our trade secrets and other confidential business information could harm our competitive position and reduce acceptance of our products; as a result, the value of our investment in R\&D, product development, and marketing could be reduced. This risk is heightened as competitors for technical talent increasingly seek to hire our employees.

Our licenses with other companies and participation in industry initiatives at times allow competitors to use some of our patent rights. Technology companies often bilaterally license patents between each other to settle disputes or as part of business agreements. Some of our competitors have in the past had, and may in the future have, licenses to some of our patents, and under current case law, some of the licenses can exhaust our patent rights as to licensed product sales under some circumstances. Our participation in industry standards organizations or with other industry initiatives at times requires us to offer to license our patents to companies that adopt industry-standard specifications. Depending on the rules of the organization, government regulations, or court decisions, we sometimes have to grant licenses to some of our patents for little or no cost, and as a result, we may be unable to enforce certain patents against others, and the value of our IP rights may be impaired.

Third parties assert claims based on IP rights against us and our products, which could harm our business. We face claims based on IP rights from individuals, companies, investment litigation entities, other non-practicing entities, academic and research institutions, and other parties. We have seen an increase in patent assertions and lawsuits initiated by well-funded non-practicing entities, including entities funded by third-party investment firms. These lawsuits can increase our cost of doing business, impact our reputation or relationship with customers, and could disrupt our operations if they succeed in blocking the trade of our products. The patent litigation environment has also become more challenging due to the emergence of venues adopting procedural and substantive rules that make them more favorable for patent asserters and courts in which injunctions are available for non-competitors. As a result, we believe we are facing a more hostile IP litigation environment than in past years.

We are typically engaged in a number of disputes involving IP rights. Claims that our products, technologies, or processes infringe the IP rights of others, regardless of their merits, cause us to incur large costs to respond to, defend, and resolve the claims, and they divert the efforts and attention of our management and technical personnel from our business and operations. In addition, we may face claims based on the alleged theft or unauthorized use or disclosure of third-party trade secrets, confidential information, or end-user data that we obtain in conducting our business. Any such incidents and claims could severely disrupt our business, and we could suffer losses, including the cost of product recalls and returns, and reputational harm. Furthermore, in many instances we agree to indemnify customers for certain IP rights claims against them. IP rights claims against our customers could also limit demand for our products or disrupt our customers' businesses, which could in turn adversely affect our results of operations.


As a result of IP rights claims, we could:

- pay monetary damages, payments to satisfy indemnification obligations, royalties, fines, or penalties;
- stop manufacturing, using, selling, offering to sell, or importing products or technology subject to claims;
- need to develop other products or technology not subject to claims, which could be time-consuming or costly; and/or
- enter into settlement or license agreements, which may not be available on commercially reasonable terms and may be costly.

These IP rights claims could harm our competitive position, result in expenses, or require us to impair our assets. If we alter or stop production of affected items, our revenue could be harmed.

We rely on access to third-party IP, which may not be available to us on commercially reasonable terms, if at all. Many of our products are designed to include third-party technology or implement industry standards, which may require licenses from third parties. In addition, from time to time, third parties notify us that they believe we are using their IP. There is no assurance that any necessary licenses or our existing licenses to such third-party IP can be obtained or are available on commercially reasonable terms or at all. Failure to obtain the right to use third-party technology, or to license IP on commercially reasonable terms, could preclude us from selling certain products or otherwise have a material adverse impact on our financial condition and operating results. To the extent our products include software that contains or is derived from open-source software, we may be required to make the software's source code publicly available and/or license the software under open-source licensing terms.

We are subject to risks associated with litigation and regulatory matters. From time to time, we face legal claims or regulatory matters involving stockholder, consumer, competition, commercial, IP, labor and employment, compliance, and other issues. As described in "Note 19: Commitments and Contingencies" within the Notes to Consolidated Financial Statements, we are engaged in a number of litigation and regulatory matters. Litigation and regulatory proceedings are inherently uncertain, and adverse rulings, excessive verdicts, or other events could occur, including monetary damages, fines, penalties, or injunctions stopping us from manufacturing or selling certain products, engaging in certain business practices, or requiring other remedies, such as compulsory licensing of patents. An unfavorable outcome can result in a material adverse impact on our business, financial condition, and results of operations. Regardless of the outcome, litigation and regulatory proceedings can be costly, time-consuming, disruptive to our operations, harmful to our reputation, and distracting to management.

## We must attract, retain, and motivate key talent.

We believe that hiring and retaining qualified executives, scientists, engineers, technical talent, sales representatives, and other professionals are critical to our business. The competition for highly skilled employees in our industry is intense, with the demand often exceeding supply. Competitors for technical talent increasingly seek to hire our employees, and the availability of flexible, hybrid, or work-from-home arrangements has both intensified and expanded competition. In addition, changes in immigration policies may further limit the pool of available talent and impair our ability to recruit and hire technical and professional talent. From time to time, we have intensified our efforts to recruit and retain talent, such as during 2021 and 1H 2022, and these efforts have increased our expenses. Further, we may not be successful in attracting, retaining, and motivating the workforce necessary to deliver on our strategy, and we have been required to curtail our planned hiring and reduce our workforce to respond to business conditions that differ from our expectations, which can be disruptive, compromise our ability to deliver on our strategy and workforce goals, and impact our ability to recruit in the future. Changes in employment-related laws applicable to our workforce practices may also result in increased expenses and less flexibility in how we meet our changing workforce needs. To help attract, retain, and motivate qualified employees, we use share-based awards, such as RSUs, and performance-based cash incentive awards. Sustained declines in our stock price or lower stock price performance relative to our competitors have been reducing the retention value of our share-based awards, which can impact the competitiveness of our compensation. Our employee hiring and retention also depend on our ability to build and maintain a diverse and inclusive workplace culture and be viewed as an employer of choice. To the extent our compensation programs and workplace culture are not viewed as competitive, or changes in our workforce and related restructuring, reduction-in-force or other initiatives are not viewed favorably, our ability to attract, retain, and motivate employees can be weakened, which could harm our results of operations. In addition, significant or prolonged turnover may negatively impact our operations and culture, as well as our ability to successfully maintain our processes and procedures, including due to the loss of historical, technical, and other expertise. Changes in our management team and any failure to successfully transition and assimilate key talent could disrupt our business and adversely affect our results of operations. To the extent we do not effectively hire, onboard, retain, and motivate key employees, our business can be harmed.

## We are subject to risks associated with our strategic transactions and investments.

We routinely evaluate opportunities and enter into agreements for possible acquisitions, divestitures, and other strategic transactions, which are an important component of our financial allocation strategy. These transactions involve numerous risks, including:

- our inability to identify opportunities in a timely manner or on terms acceptable to us;
- failure of the transaction to advance our business strategy and failure of its anticipated benefits to materialize;
- disruption of our ongoing operations and diversion of our management's attention;
- failure of partners to satisfy financial or other obligations on which we rely;
- our inability to exercise sole decision-making authority regarding a project, property, or entity;
- failure to complete a transaction in a timely manner, or at all, due to our inability to obtain required government or other approvals on a timely basis or without materially burdensome conditions or mandated acquisitions, divestitures, or disposals, IP disputes or other litigation, difficulty in obtaining financing on terms acceptable to us, or other unforeseen factors;

- our failure to realize a satisfactory return on our investment, potentially resulting in an impairment of goodwill and other assets, and restructuring charges;
- our inability to effectively enter new market segments through our strategic transactions or retain customers and partners of acquired businesses;
- our inability to retain key personnel of acquired or majority-owned businesses or our difficulty in integrating or separating employees, business systems, and technology or otherwise operating the acquired or majority-owned business;
- controls, processes, and procedures of acquired or majority-owned businesses that do not adequately ensure compliance with laws and regulations and create complexity and inconsistency in application of controls, processes and procedures, and our failure to identify and/or address compliance issues, including accounting errors, or liabilities;
- our inability to resolve impasses or disputes with partners, including as a result of differences in our interests or goals;
- our failure to identify, or our underestimation of, commitments, liabilities, accounting and other risks associated with acquired businesses or assets, majority-owned businesses or novel transactions; and
- the potential for our transactions to result in dilutive issuances of our equity securities or significant additional debt.

Any of these risks could have a material adverse effect on our business, results of operations, financial condition, or cash flows, particularly in the case of a large acquisition, divestiture or partial divestiture, or several concurrent strategic transactions. Moreover, our resources are limited and our decision to pursue a transaction has opportunity costs; accordingly, if we pursue a particular transaction, we at times need to forgo the prospect of entering into other transactions or otherwise investing our resources in a manner that could help us achieve our financial or strategic objectives.
Where an existing investment does not strategically align to our key priorities, we routinely evaluate opportunities for possible divestitures and other options. We may not realize the anticipated benefits of divestitures due to risks that include unfavorable prices and terms; changes in market, macroeconomic, or geopolitical conditions affecting the regions or industries in which we or counterparties operate; changes in applicable laws; failure to receive regulatory or governmental approvals; limitations or restrictions due to regulatory or governmental approvals, litigation, contractual terms, or other conditions; delays in closing; lack of support by third parties; actions by competitors; adverse effects on our business relationships, operating results, or business due to the announcement and pendency of such transactions; and continued financial obligations, unanticipated liabilities, or transition costs associated with such transactions. In some cases, we are not able to divest investments on acceptable terms or at all.
In addition, we make investments in public and private companies to further our strategic and financial objectives and to support certain key business initiatives. These companies can include early-stage companies still defining their strategic direction. Many of the instruments in which we invest are non-marketable and illiquid at the time of our initial investment, and we are not always able to achieve a return in a timely fashion, if at all. Our ability to realize a return on our investment in a private company, if any, is typically dependent on the company participating in a liquidity event, such as a public offering or acquisition. To the extent any of the companies in which we invest are not successful, which at times includes bankruptcy, we could recognize an impairment and/or lose all or part of our investment.

## We are subject to sales-related risks.

We face risks related to sales through distributors and other third parties. We sell a significant portion of our products through third parties, such as distributors, value-added resellers, and channel partners (collectively referred to as distributors), as well as OEMs and ODMs. We depend on many distributors to help us create end-customer demand, provide technical support and other value-added services to customers, fill customer orders, and stock our products. At times, we rely on one or more key distributors for a product, and a material change in our relationship with one or more of these distributors or their failure to perform as expected could reduce our revenue. Our ability to add or replace distributors for some of our products is limited. In addition, our distributors' expertise in the determination and stocking of acceptable inventory levels for some of our products is not always easily transferable to a new distributor; as a result, end customers may be hesitant to accept the addition or replacement of a distributor. Using third parties for distribution exposes us to many risks, including competitive pressure and concentration, credit, and compliance risks. Distributors and other third parties often sell products that compete with our products, and we sometimes need to provide financial and other incentives to focus them on the sale of our products. From time to time, they may face financial difficulties, including bankruptcy, which could harm our collection of accounts receivable and financial results. Further, any violations of the Foreign Corrupt Practices Act or similar laws by distributors or other thirdparty intermediaries could have a material impact on our business, including subjecting us to litigation or regulatory risk. Failure to manage risks related to our use of distributors and other third parties may reduce sales, increase expenses, and weaken our competitive position.
From time to time, our products are resold by third parties in an unauthorized "gray market." Our policies and procedures designed to keep our products away from the gray market may not be successful in achieving this objective. Gray market products can distort demand and pricing dynamics in our distribution channel and certain geographies, which at times adversely affects our revenue opportunities. Gray market activity is difficult to monitor and can make forecasting demand more challenging. Gray market products also sometimes include parts that have been altered or damaged, and our reputation may be harmed when these products fail or are found to be substandard.

We receive a significant portion of our revenue from a limited number of customers. Collectively, our three largest customers accounted for $40 \%$ of our net revenue in 2023, $42 \%$ of our net revenue in 2022 and $43 \%$ of our net revenue in 2021 . We expect a small number of customers will continue to account for a significant portion of our revenue in the foreseeable future.


Industry trends, such as the increasing shift of data center workloads to the public cloud, have increased the significance and purchasing power of certain customers, particularly hyperscalers, in some of our data center-focused businesses. The cloud and cloud applications represent an increasingly demanding computing environment. The further consolidation of computing workloads in the cloud, and consolidation among cloud service providers, can heighten the competitive importance of factors such as collaboration and customization with cloud service provider customers to optimize products for their environments; optimization for cloud services and applications; product performance; energy efficiency; feature differentiation; product quality, reliability, and factors affecting server uptime; and product security and security features. Our competitive position can be eroded to the extent we do not execute effectively across these factors. We are operating in an increasingly competitive environment, including serving cloud service provider customers, and the competitive environment adversely affected our results in DCAI in 2023 and 2022.

Some cloud service provider customers have also internally developed, and may continue to develop, their own semiconductors, including designs customized for their specific computing workloads. In addition, cloud services can be marketed to end users based on service levels or features rather than hardware specifications, or they can abstract hardware under layers of software, which can make it more difficult to differentiate our products to customers and end users. The shift of data center workloads to the cloud has also adversely affected, and may continue to affect, sales to enterprise customers when end users have elected to migrate workloads from their own internal data center infrastructures to cloud service providers. To the extent we differentiate our products through customization to meet cloud customer specifications, order changes, delays, or cancellations may result in non-recoverable costs.

The loss of key customers, a substantial reduction in sales to them, or changes in the timing of their orders can lead to a reduction in our revenue, increase the volatility of our results, and harm our results of operations and financial condition. For information about our customers who accounted for greater than $10 \%$ of our net consolidated revenue, see "Note 3: Operating Segments" within the Notes to Consolidated Financial Statements.

We face risks related to transactions with government entities. We receive proceeds from both US and non-US governments associated with grants, incentives, and sales of our products and services, and we are seeking to increase our sales of products and services to governmental entities in the future. Government demand and payment are often affected by public sector budgetary cycles and funding authorizations, including, with respect to US government contracts, congressional approval of appropriations, and can be adversely impacted by shutdowns of the US federal government. Government contracts are subject to procurement laws and regulations relating to the award, administration, and performance of those contracts, as well as oversight and penalties for violations. For example, certain agreements with the US government are subject to special rules on accounting, IP rights, expenses, reviews, information handling, security, customers, and/or employees, and failure or inability to comply with these rules could result in civil and criminal penalties and sanctions, including termination of contracts, fines, and suspension or debarment from future business with the US government.

## We face risks related to our debt obligations.

As we pursue our IDM 2.0 strategy, we have incurred significant debt obligations that could adversely affect our business and financial condition, including our ability to fully implement our strategy. As of December 30, 2023, we had $\$ 50.3$ billion in aggregate principal amount of senior unsecured notes and other borrowings outstanding. In addition, we have a commercial paper program of up to $\$ 10.0$ billion and credit facilities to backstop these programs and otherwise provide access to committed capital of up to $\$ 10.0$ billion. As we continue to pursue our IDM 2.0 strategy, we expect to incur additional indebtedness, refinance our existing debt, and issue additional notes or other debt securities in the future at a variety of interest rates, maturities, and terms. The semiconductor industry is a cyclical business and our revenue, cash flows, and outlook often fluctuate in accordance with this cycle, as well as prevailing macroeconomic conditions, our business strategy, and other risks described in these risk factors. These fluctuations, together with our debt level and related debt service obligations, could have the effect of, among other things, reducing our flexibility to respond to changing business and economic conditions and increasing the risk of a future downgrade in our credit ratings that can potentially impact the value of our outstanding debt and increase our borrowing costs. We may also be required to raise additional financing for working capital, capital expenditures, debt service obligations, debt refinancing, future acquisitions, or other general corporate purposes, which will depend on, among other factors, our financial position and performance, as well as prevailing market conditions and other factors beyond our control. Consequently, we may not be able to obtain additional financing or refinancing on terms acceptable to us, or at all, which could adversely impact our ability to finance our business strategy and service and repay outstanding indebtedness as it becomes due, all of which could adversely impact our business, financial condition, and the cost of borrowing.

## We have significantly reduced our return of capital to stockholders in recent years.

In recent years, we have not made repurchases of our stock and reduced the amount of our quarterly dividend. There can be no assurance that we will continue to pay dividends at the current level, or at all. In addition, we are not obligated to make repurchases under our stock repurchase program and there can be no assurances as to the amount, timing, and execution of any future share repurchases, or that any repurchases will enhance long-term stockholder value.


## Laws and regulations can have a negative impact on our business.

We are subject to complex and evolving laws and regulations worldwide that differ among jurisdictions and affect our operations in areas including, but not limited to: IP ownership and infringement; tax; import and export requirements; anti-corruption; foreign exchange controls and cash repatriation restrictions; data privacy and localization requirements; competition; advertising; employment and labor; product regulations; environment, health, and safety requirements; and consumer laws. Compliance with such requirements can be onerous and expensive and may otherwise impact our business operations negatively. For example, unfavorable developments with evolving laws and regulations worldwide related to 5G or autonomous driving technology and MaaS may limit global adoption, impede our strategy, or negatively impact our long-term expectations for our investments in these areas. Expanding privacy legislation and compliance costs of privacy-related and data-protection measures could adversely affect our customers and their products and services, particularly in cloud, Internet of Things, and AI applications, which could in turn reduce demand for our products used for those workloads.

Our policies, controls, and procedures designed to help provide for compliance with applicable laws cannot provide assurance that our employees, contractors, suppliers, or agents will not violate such laws or our policies. Violations of these laws and regulations can result in fines; criminal sanctions against us, our officers, or our employees; prohibitions on the conduct of our business; and damage to our reputation. The technology industry is subject to intense media, political, and regulatory scrutiny, which can increase our exposure to government investigations, legal actions, and penalties.

## We are affected by fluctuations in currency exchange rates.

We are exposed to adverse as well as beneficial movements in currency exchange rates. Although most of our sales occur in US dollars, expenses may be paid in local currencies. An increase in the value of the dollar can increase the real cost to our customers of our products in those markets outside the US where we sell in dollars, and a weakened dollar can increase the cost of expenses such as payroll, utilities, tax, and marketing expenses, as well as non-US dollar capital expenditures. We also conduct certain investing and financing activities in local currencies. Our hedging programs may not be effective to offset any, or more than a portion, of the adverse impact of currency exchange rate movements; therefore, changes in exchange rates can harm our results of operations and financial condition.

## Changes in our effective tax rate may impact our net income.

A number of factors can impact our future effective tax rate or cash payments, which could cause significant variability in our financial results including:

- changes in the volume and mix of profits earned and location of assets across jurisdictions with varying tax rates;
- changes in our business or legal entity operating model;
- the resolution of issues arising from tax audits, including payment of interest and penalties;
- changes in the valuation of our deferred tax assets and liabilities, and in deferred tax valuation allowances;
- adjustments to estimated taxes upon finalization of tax returns;
- increases in expenses not deductible for tax purposes, including impairments of goodwill;
- changes in available tax credits, including non-US tax credits, R\&D credits and refundable tax credits;
- expirations or changes in our ability to secure new tax holidays and incentives;
- changes in US federal, state, or foreign tax laws or their interpretation, including the global implementation of a minimum tax under Pillar Two of the OECD BEPS initiative;
- changes in US GAAP; and
* our decision to repatriate non-US earnings for which we have not previously provided for incremental taxes including any local country withholding taxes incurred upon repatriation.


## Catastrophic events can have a material adverse effect on our operations and financial results.

Our operations and business, and those of our customers and suppliers, can be disrupted by natural disasters; industrial accidents; public health issues and global pandemics such as COVID 19; cybersecurity incidents; interruptions of service from utilities, transportation restrictions or disruptions, telecommunications, or IT systems providers; manufacturing equipment failures; geopolitical conflict; terrorism; or other catastrophic events. For example, we have at times experienced disruptions in our manufacturing processes as a result of power outages, improperly functioning equipment, and disruptions in supply of raw materials or components, including cybersecurity incidents affecting our suppliers. Our headquarters and many of our operations and facilities are in locations that are prone to earthquakes and other natural disasters. Global climate change can result in certain natural disasters occurring more frequently or with greater intensity, such as drought, wildfires, storms, sea-level rise, and flooding, and could disrupt the availability of water necessary for the operation of our fabrication facilities, including our facilities located in water-sensitive regions such as Arizona and Israel. In addition, to the extent we are unable to successfully manage and conserve water resources, our reputation could be harmed. In recent years, the west coast of the US has experienced significant wildfires, including in Oregon, where we have major manufacturing facilities, and in California, where we are headquartered. The long-term effects of climate change on the global economy and the technology industry in particular are unclear but could be severe.


Catastrophic events including global pandemics could make it difficult or impossible to manufacture or deliver products to our customers, receive production materials from our suppliers, or perform critical functions, which could adversely affect our revenue and require significant recovery time and expenditures to resume operations. The COVID-19 pandemic previously resulted in substantial economic uncertainty and volatility and disrupted historical patterns related to demand for our products and services that may impact our ability to accurately predict future demand, trends, or other matters that may impact our financial performance. While we maintain business recovery plans, some of our systems are not fully redundant and we cannot be sure that our plans will fully protect us from such disruptions. Furthermore, even if our operations are unaffected or recover quickly, if our customers or suppliers cannot timely resume their own operations due to a catastrophic event, we may experience reduced or cancelled orders or disruptions to our supply chain that may adversely affect our results of operations.

## We are subject to risks associated with environmental, health, safety, and product regulations.

The design, manufacturing, assembly and test of our products require the use and purchase of materials and chemicals that are subject to a broad array of environmental, health, and safety laws and regulations. Our operations and those of our suppliers are further governed by regulations prohibiting the use of forced labor (e.g., mining conflict minerals), and restrictions on other materials, as well as laws or regulations governing the operation of our facilities, sale and distribution of our products, and use of our real property. The scope and interpretation of such laws and regulations, including the materials they govern, are complex and continue to evolve. The procedures and processes in place under our compliance program may become onerous or increasingly expensive to maintain and cannot guarantee compliance by employees or third parties to whom such laws apply. The amendment or expansion of these laws or regulations, as well as our failure or inability to comply with them (including as a result of acquired entities) can result in regulatory penalties, fines, and legal liabilities; increased costs; additional remediation obligations; suspension of production; alteration, suspension, or termination of our manufacturing and assembly and test processes, including due to an inability to find, afford, or attain adequate substitute materials, equipment, or processes; damage to our reputation; and restrictions on our operations or sales. In addition, the failure or inability to comply by our suppliers of these materials can require us to suspend or alter our production processes and sources, and result in increased risks and costs.

The failure or inability by us or our customers and suppliers to manage the use, transportation, emissions, discharge, storage, recycling, or disposal of hazardous materials can lead to increased costs or future liabilities. Environmental regulations, including with respect to the materials and processes we are permitted to use and as to air quality and wastewater requirements, may impede our ability to manufacture products or expand or modify our manufacturing capability in the future. Environmental laws and regulations sometimes require us to acquire additional pollution abatement or remediation equipment, modify product designs, cease the use of a particular material or process, remove or remediate hazardous substances, or incur other expenses or liabilities. Regulations in response to climate change could result in increased manufacturing costs associated with air pollution requirements. For example, semiconductor manufacturing uses perfluorocarbons, which have historically made up a large portion of our direct greenhouse gas emissions. New or increased regulations limiting the use of such compounds, or other greenhouse gas emissions, could require us to install additional abatement equipment, purchase carbon offsets, and/or alter, where feasible, our production processes and sources. In addition, new or increased climate change regulation could increase our energy costs, for example as a result of carbon pricing impacts on electrical utilities. Regulations in response to human health concerns may also limit or prohibit the use of a class of chemicals known as per- and polyfluoroalkyl substances (PFAS), which are found in parts, components, process chemicals and other materials used in semiconductor manufacturing. Such chemicals are critical to the manufacturing and functioning of many semiconductor products and there are limited technically and commercially feasible alternatives to them. As we expand our manufacturing capacity as part of our IDM 2.0 strategy, the impacts of future regulation could be magnified. Many new materials that we are evaluating for use in our operations are also subject to regulation under environmental laws and regulations. These restrictions could harm our business and results of operations by increasing our expenses or requiring us to alter manufacturing and assembly and test processes.

## Our initiatives and new legal requirements with respect to corporate responsibility matters present various risks.

Our corporate responsibility initiatives, including our RISE strategy and related goals, could expose us to heightened scrutiny and numerous financial, legal, reputational, operational, compliance, and other risks, including lost customer opportunities, which could negatively impact us. Our achievement of initiatives, aspirations, and goals related to corporate responsibility matters, including those related to sustainability, is not guaranteed and is subject to numerous conditions, risks, and expectations; as well as standards, processes, and methodologies that continue to evolve. Further, any failure to set or achieve corporate responsibility initiatives that meet our stakeholders' evolving expectations could also negatively impact us.

In addition, we are or expect to become subject to various new or proposed climate-related and other sustainability laws and regulations, including, for example, the state of California's new climate change disclosure requirements, the EU's new Corporate Sustainability Reporting Directive and proposed climate-change disclosure requirements from the SEC. Compliance with such laws and regulations, as well as the overall increased focus and scrutiny from the SEC and other regulators, investors, customers, vendors, employees, and other stakeholders concerning ESG and climate matters, could impose additional costs on us and expose us to new risks, including resulting in changes to our current ESG goals.


## Sales and Marketing

## Customers

We sell our products primarily to OEMs, ODMs, and cloud service providers. ODMs provide design and manufacturing services to branded and unbranded private-label resellers. In addition, our customers include other manufacturers and service providers, such as industrial and communication equipment manufacturers and other cloud service providers who buy our products through distributor, reseller, retail, and OEM channels throughout the world. For information on customers who accounted for greater than $10 \%$ of our net consolidated revenue, see "Note 3: Operating Segments" within the Notes to Consolidated Financial Statements.

Our worldwide reseller sales channel consists of thousands of indirect customers-systems builders that purchase Intel processors and other products from our distributors. Certain of our microprocessors and other products are also available in direct retail outlets.

## Sales Arrangements

Our products are sold through distribution channels throughout the world. Sales of our products are frequently made via purchase order acknowledgments that contain standard terms and conditions covering matters such as pricing, payment terms, and warranties, as well as indemnities for issues specific to our products, such as patent and copyright indemnities. Because our customers generally order from us on a purchase order basis, they can typically cancel, change, or delay product purchase commitments with little or no notice to us and without penalty. From time to time, we may enter into additional agreements with customers covering, for example, changes from our standard terms and conditions, new product development and marketing, and private-label branding. Our sales are routinely made using electronic and web-based processes that allow customers to review inventory availability and track the progress of specific goods ordered. Pricing on particular products may vary based on volumes ordered and other factors. We also offer discounts, rebates, and other incentives to customers to increase acceptance of our products and technology.

In accordance with contract terms, the revenue for combined performance obligations and standalone product sales is recognized at the time of product shipment from our facilities or delivery to the customer location, as determined by the agreed-upon shipping terms. Our standard terms and conditions of sale typically provide that payment is due at a later date, usually 30 days after shipment or delivery. We assess credit risk through quantitative and qualitative analysis. From this analysis, we establish shipping and credit limits and determine whether we will seek to use one or more credit support protection devices, such as obtaining a parent guarantee, standby letter of credit, or credit insurance. Credit losses may still be incurred due to bankruptcy, fraud, or other failure of the customer to pay.

Our sales to distributors are typically made under agreements allowing for price protection on unsold merchandise and a right of return on stipulated quantities of unsold merchandise. Under the price protection program, we give distributors credits for the difference between the original price paid and the current price that we offer. Our products typically have no contractual limit on the amount of price protection, nor is there a limit on the time horizon under which price protection is granted. The right of return granted generally consists of a stock rotation program in which distributors can exchange certain products based on the number of qualified purchases made by the distributor.

## Distribution

Distributors typically handle a wide variety of products, including those that compete with our products, and fill orders for many customers. Customers may place orders directly with us or through distributors. We have several distribution warehouses that are located in proximity to key customers.

## Seasonal Trends

Historically, our net revenue has typically been higher in the second half of the year than in the first half of the year, accelerating in the third quarter and peaking in the fourth quarter. In 2021, continued strong COVID-driven notebook demand in the first half of the year contributed to a flatter trend than we historically observe. In 2022, we had a flatter trend than we historically observe as we experienced the uncertainty and impacts, including demand volatility and supply chain disruption, of macroeconomic conditions, the potential for a recession, and the risk for continued COVID-related disruptions or shutdowns. In 2023, our net revenue seasonality was more consistent with our historical pre-pandemic trend.

## Marketing

Our global marketing objectives are to build a strong, well-known, differentiated, and meaningful Intel corporate brand that drives preference with businesses and consumers, and to offer a limited number of meaningful and valuable brands in our portfolio to aid businesses and consumers in making informed choices about technology purchases. The Intel Core processor family and the Intel Atom,
 Core ${ }^{\text {TM }}$ Ultra processors, powering the latest AI PCs, and our 5th Gen Intel Xeon processors, built with AI acceleration in every core. We also continue to bring to market new software services including independent attestation security with Intel ${ }^{(0)}$ Trust Authority, Intel ${ }^{(6)}$ Granulate ${ }^{T M}$ for workload compute optimization, and Intel Developer Cloud to accelerate AI development. Our foundry services business aims to offer leading-edge packaging and process technology, geographically balanced manufacturing capacity and a world-class IP portfolio.


We promote brand awareness and preference and generate demand through our own direct marketing, as well as through co-marketing programs. Our direct marketing activities primarily include advertising through digital and social media and television, as well as consumer and trade events, industry and consumer communications, and press relations. We market to consumer and business audiences and focus on building awareness and generating demand for our products. Our key messaging focuses on increased performance, improved energy efficiency, and other capabilities such as connectivity.

Certain customers participate in cooperative advertising and marketing programs. These cooperative advertising and marketing programs broaden the reach of our brands beyond the scope of our own direct marketing. Certain customers are licensed to place Inte logos on computing devices containing our microprocessors and processor technologies, and to use our brands in their marketing activities. The program partially reimburses customers for marketing activities for products featuring Intel brands, subject to customers meeting defined criteria. These marketing activities primarily include advertising through digital and social media and television, as well as press relations. We have also entered into joint marketing arrangements with certain customers.

## Quantitative and Qualitative Disclosures About Market Risk

We are affected by changes in currency exchange and interest rates, as well as equity and commodity prices. Our risk management programs are designed to reduce, but may not eliminate, the impacts of these risks. All of the following potential changes are based on sensitivity analyses performed on our financial positions as of December 30, 2023 and December 31, 2022. Actual results may differ materially.

## Currency Exchange Rates

We are exposed to currency exchange risks of non-US-dollar-denominated investments in debt and equity instruments, and may economically hedge this risk with foreign currency contracts, such as currency forward contracts or currency interest rate swaps. Gains or losses on these non-US-currency investments are generally offset by corresponding losses or gains on the related hedging instruments.

Substantially all of our revenue is transacted in US dollars. However, a portion of our operating expenditures and capital purchases are incurred in other currencies, primarily the Israeli shekel, the Malaysian ringgit, the European Union euro, the Japanese yen, and the Chinese yuan. We have established currency risk management programs to protect against currency exchange rate risks associated with non-US-dollar forecasted future cash flows and existing non-US-dollar monetary assets and liabilities. We may also hedge currency risk arising from funding of foreign currency-denominated future investments. We may utilize foreign currency contracts, such as currency forwards or option contracts in these hedging programs. We considered the historical trends in currency exchange rates and determined that it was reasonably possible that a weighted average adverse change of $10 \%$ in currency exchange rates could be experienced in the near term. Such an adverse change, after taking into account balance sheet hedges only and offsetting recorded monetary asset and liability positions outstanding as of December 30, 2023 and December 31, 2022, would result in an adverse impact on income before taxes of less than $\$ 53$ million and less than $\$ 64$ million, respectively.

## Interest Rates

We are exposed to interest rate risk related to our fixed-rate investment portfolio and outstanding debt. The primary objective of our investment policy is to preserve principal and provide financial flexibility to fund our business while maximizing yields, which generally track the SOFR. We generally enter into interest rate contracts to convert the returns on our fixed-rate debt investment with remaining maturities longer than six months into SOFR-based returns. We also entered into swaps to convert fixed-rate coupon payments into floating-rate coupon payments for a portion of our existing indebtedness. Gains or losses on these instruments are generally offset by corresponding losses or gains on the related hedging instruments.

A hypothetical change in benchmark interest rates of $1 \%$, after taking into account investment hedges, would have resulted in a change in the fair value of our investment portfolio of less than $\$ 100$ million as of December 30, 2023 and as of December 31, 2022.

Taking into account fixed-rate debt that is swapped to floating-rate debt, a hypothetical increase in interest rates of $1 \%$ would result in an increase in annual interest expense of approximately $\$ 120$ million from debt outstanding as of December 30, 2023 (a hypothetical increase of $1 \%$ would have resulted in an increase in annual interest expense of approximately $\$ 120$ million from debt outstanding as of December 31, 2022).

## Equity Prices

We are exposed to equity market risk through our investments in marketable equity securities, which we typically do not attempt to reduce or eliminate through hedging activities.


As of December 30, 2023, the fair value of our marketable equity securities was $\$ 1.2$ billion ( $\$ 1.3$ billion as of December 31, 2022). The substantial majority of our marketable equity securities portfolio as of December 30, 2023 was concentrated in securities traded on the Chinese Shanghai Stock Exchange Science and Technology Innovation Board. To determine reasonably possible decreases in the market value of our marketable equity securities, we have analyzed the historical market price sensitivity of our portfolio. Assuming a decline of $35 \%$ in market prices, the aggregate value of our marketable equity securities could decrease by $\$ 418$ million, based on the value as of December 30, 2023 (a decrease in value of $\$ 670$ million, based on the value as of December 31, 2022 using an assumed decline of $50 \%)$.

We utilize total return swaps to offset changes in liabilities related to the equity market risks of certain deferred compensation arrangements. Gains or losses from changes in fair value of these total return swaps are generally offset by the losses or gains on the related liabilities.

Many of the same factors that could result in an adverse movement of equity market prices affect our non-marketable equity investments, although we cannot always quantify the impacts directly. Financial markets are volatile, which could negatively affect the prospects of the companies we invest in, their ability to raise additional capital, and the likelihood of our ability to realize value in our investments through liquidity events such as IPOs, mergers, and private sales. These types of investments involve a great deal of risk, and there can be no assurance that any specific company will grow or become successful; consequently, we could lose all or part of our investment. Our nonmarketable equity securities had a carrying amount of $\$ 4.6$ billion as of December 30, 2023 ( $\$ 4.6$ billion as of December 31, 2022) and include our investment in Beijing Unisoc Technology Ltd. of $\$ 1.1$ billion ( $\$ 1.1$ billion as of December 31, 2022).

## Commodity Price Risk

Although we operate facilities that consume commodities, we are not directly affected by commodity price risk to a material degree. We have established forecasted transaction risk management programs to protect against fluctuations in commodity prices. We may use commodity derivatives contracts, such as commodity swaps, in these hedging programs. In addition, we have sourcing plans in place that are designed to mitigate the risk of a potential supplier concentration for our key commodities.

## Cybersecurity

We face significant and persistent cybersecurity risks due to: the breadth of geographies, networks, and systems we must defend against cybersecurity attacks; the complexity, technical sophistication, value, and widespread use of our systems, products and processes; the attractiveness of our systems, products and processes to threat actors (including state-sponsored organizations) seeking to inflict harm on us or our customers; the substantial level of harm that could occur to us and our customers were we to suffer impacts of a material cybersecurity incident; and our use of third-party products, services and components. We are committed to maintaining robust governance and oversight of these risks and to implementing mechanisms, controls, technologies, and processes designed to help us assess, identify, and manage these risks. While we have not, as of the date of this Form 10-K, experienced a cybersecurity threat or incident that resulted in a material adverse impact to our business or operations, there can be no guarantee that we will not experience such an incident in the future. Such incidents, whether or not successful, could result in our incurring significant costs related to, for example, rebuilding our internal systems, writing down inventory value, implementing additional threat protection measures, providing modifications or replacements to our products and services, defending against litigation, responding to regulatory inquiries or actions, paying damages, providing customers with incentives to maintain a business relationship with us, or taking other remedial steps with respect to third parties, as well as incurring significant reputational harm. In addition, these threats are constantly evolving, thereby increasing the difficulty of successfully defending against them or implementing adequate preventative measures. We have seen an increase in cyberattack volume, frequency, and sophistication. We seek to detect and investigate unauthorized attempts and attacks against our network, products, and services, and to prevent their occurrence and recurrence where practicable through changes or updates to our internal processes and tools and changes or updates to our products and services; however, we remain potentially vulnerable to known or unknown threats. In some instances, we, our suppliers, our customers, and the users of our products and services can be unaware of a threat or incident or its magnitude and effects. Further, there is increasing regulation regarding responses to cybersecurity incidents, including reporting to regulators, which could subject us to additional liability and reputational harm. See "Risk Factors" for more information on our cybersecurity risks and product vulnerability risks.

We aim to incorporate industry best practices throughout our cybersecurity program. Our cybersecurity strategy focuses on implementing effective and efficient controls, technologies, and other processes to assess, identify, and manage material cybersecurity risks. Our cybersecurity program is designed to be aligned with applicable industry standards and is assessed annually by independent third-party auditors. We have processes in place to assess, identify, manage, and address material cybersecurity threats and incidents. These include, among other things: annual and ongoing security awareness training for employees; mechanisms to detect and monitor unusual network activity; and containment and incident response tools. We actively engage with industry groups for benchmarking and awareness of best practices. We monitor issues that are internally discovered or externally reported that may affect our products, and have processes to assess those issues for potential cybersecurity impact or risk. We also have a process in place to manage cybersecurity risks associated with third-party service providers. We impose security requirements upon our suppliers, including: maintaining an effective security management program; abiding by information handling and asset management requirements; and notifying us in the event of any known or suspected cyber incident.


Our Board of Directors has ultimate oversight of cybersecurity risk, which it manages as part of our enterprise risk management program. That program is utilized in making decisions with respect to company priorities, resource allocations, and oversight structures. The Board of Directors is assisted by the Audit \& Finance Committee, which regularly reviews our cybersecurity program with management and reports to the Board of Directors. Cybersecurity reviews by the Audit \& Finance Committee or the Board of Directors generally occur at least twice annually, or more frequently as determined to be necessary or advisable. A number of Intel directors have experience in assessing and managing cybersecurity risk.

Our cybersecurity program is run by our Chief Information Security Officer (CISO), who reports to our Executive Vice President and Chief Technology Officer (CTO). Our CISO is informed about and monitors prevention, detection, mitigation, and remediation efforts through regular communication and reporting from professionals in the information security team, many of whom hold cybersecurity certifications such as a Certified Information Systems Security Professional or Certified Information Security Manager, and through the use of technological tools and software and results from third party audits. Our CISO and CTO have extensive experience assessing and managing cybersecurity programs and cybersecurity risk. Our CISO has served in that position since 2015 and, before Intel, was previously the Chief Security Officer at McAfee and the Chief Information Officer and CISO for the US House of Representatives. Our CTO joined Intel in 2021 and was previously Senior Vice President and CTO at VMware, with responsibility for product security. Our CISO and CTO regularly report directly to the Audit \& Finance Committee or the Board of Directors on our cybersecurity program and efforts to prevent, detect, mitigate, and remediate issues. In addition, we have an escalation process in place to inform senior management and the Board of Directors of material issues.

## Properties

As of December 30, 2023, our major facilities consisted of:

| (Square Feet in Millions) | United States | Other Countries | Total |
| :---: | :---: | :---: | :---: |
| Owned facilities | 38 | 28 | 66 |
| Leased facilities | 2 | 5 | 7 |
| Total facilities | 40 | 33 | 73 |

The facilities described above, including our principal executive offices located in the US, are suitable for our present purposes. The productive capacity in our facilities is being utilized or being prepared for utilization as we continue to make investments to expand our manufacturing capacity in support of our IDM 2.0 strategy. For more information on our manufacturing sites, see "Manufacturing Capital" within Fundamentals of Our Business.

We do not identify or allocate assets by operating segment, as they are interchangeable in nature and used by multiple operating segments. For information on net property, plant, and equipment by country, see "Note 6: Other Financial Statement Details" within the Notes to Consolidated Financial Statements.

## Market for Our Common Stock

The principal US market on which Intel's common stock (symbol INTC) is traded is the Nasdaq Global Select Market.
As of January 19, 2024, there were approximately 97,000 registered holders of record of Intel's common stock. A substantially greater number of holders of Intel common stock are "street name" or beneficial holders, whose shares of record are held by banks, brokers, and other financial institutions.


## Stock Performance Graph

The graph and table that follow compare the cumulative TSR of Intel's common stock with the cumulative total return of the S\&P 100 Index*, the S\&P 500 Index*, the S\&P 500 IT Index*, and the SOX Index*1 for the five years ended December 30, 2023. The cumulative returns shown on the graph are based on Intel's fiscal year.

Comparison of Five-Year Cumulative Return for Intel, S\&P 100 Index, S\&P 500 Index, S\&P 500 IT Index, and SOX Index


Years Ended
Intel Corporation
S\&P 100 Index
S\&P 500 Index
S\&P 500 IT Index
SOX Index

| Dec 29, 2018 |  | Dec 28, 2019 |  | Dec 26, 2020 |  | Dec 25, 2021 |  | Dec 31, 2022 |  | Dec 30, 2023 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 100 | \$ | 132 | \$ | 106 | \$ | 118 | \$ | 63 | \$ | 123 |
| \$ | 100 | \$ | 134 | \$ | 160 | \$ | 209 | \$ | 166 | \$ | 221 |
| \$ | 100 | \$ | 133 | \$ | 155 | \$ | 200 | \$ | 165 | \$ | 209 |
| \$ | 100 | \$ | 152 | \$ | 216 | \$ | 292 | \$ | 211 | \$ | 333 |
| \$ | 100 | \$ | 165 | \$ | 248 | \$ | 360 | \$ | 235 | \$ | 392 |

${ }^{1}$ The graph and table assume that $\$ 100$ was invested on the last day of trading for the fiscal year ended December 29, 2018 in Intel's common stock, the S\&P 100 Index, S\&P 500 Index, S\&P 500 IT Index, and PHLX Semiconductor Sector Index (SOX), and that all dividends were reinvested.

## Issuer Purchases of Equity Securities

We have an ongoing authorization, originally approved by our Board of Directors in 2005 and most recently amended on October 24, 2019, to repurchase shares of our common stock in open market or negotiated transactions. Our last share repurchase under this authorization occurred in Q1 2021, and no shares were repurchased during the fiscal year ending December 30, 2023. As of December 30,2023 , we were authorized to repurchase up to $\$ 110.0$ billion, of which $\$ 7.2$ billion remained available.

We issue RSUs as part of our equity incentive plans. In our Consolidated Financial Statements, we treat shares of common stock withheld for tax purposes on behalf of our employees in connection with the vesting of RSUs as common stock repurchases because they reduce the number of shares that would have been issued upon vesting. These withheld shares of common stock are not considered common stock repurchases under our authorized common stock repurchase program.

## Rule 10b5-1 Trading Arrangements

Our directors and officers (as defined in Rule 16a-1 under the Exchange Act) may from time to time enter into plans or other arrangements for the purchase or sale of our shares that are intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) or may represent a non-Rule 10b5-1 trading arrangement under the Exchange Act. During the quarter ended December 30, 2023, no such plans or arrangements were adopted or terminated, including by modification.


## Information About Our Executive Officers

| Name <br> Current Title |
| :--- |
| Patrick P. Gelsinger |
| Chief Executive Officer |


| Age | Experience |
| :---: | :---: |
| 62 | Mr. Gelsinger has been our Chief Executive Officer and a member of our Board of Directors since |
|  | February 2021. He has also served as a member and Chair of the Board of Directors of Mobileye, a |
|  | subsidiary of Intel, since September 2022. He joined Intel from VMware, Inc., a provider of cloud |
|  | computing and virtualization software and services, where he served as Chief Executive Officer from |
|  | September 2012 to February 2021. Prior to VMware, Mr. Gelsinger served as President and Chief |
|  | Operating Officer, EMC Information Infrastructure Products at EMC Corp., a data storage, |
|  | information security, and cloud computing company, from September 2009 to August 2012. Mr. |
|  | Gelsinger's career began at Intel, where he spent 30 years before joining EMC Corp. During his |
|  | initial tenure at Intel, Mr. Gelsinger served in a number of roles, including Senior Vice President and |
|  | Co-General Manager of the Digital Enterprise Group from 2005 to September 2009, Senior Vice |
|  | President, Chief Technology Officer from 2002 to 2005, and leader of the Desktop Products Group |

## Michelle Johnston

 HolthausExecutive Vice President and General Manager, Client Computing Group

## April Miller Boise 55

Executive Vice President, Chief Legal Officer and Corporate Secretary

## Christoph Schell

Executive Vice President, Chief Commercial Officer and General Manager, Sales, Marketing and
Communications Group

## David Zinsner

Executive Vice President and Chief Financial Officer

Ms. Johnston Holthaus has been our Executive Vice President and General Manager of the Client Computing Group since April 2022. She is responsible for running and growing the client business, including strategy, financial performance, and product development for the full portfolio of client technologies and platforms designed to enable exceptional personal computing experiences across mobile, desktop, and workstation devices. Ms. Johnston Holthaus previously served as Executive Vice President, Chief Sales Officer and General Manager, Sales, Marketing and Communications Group, from September 2019 to January 2022, and as Senior Vice President of Sales and Marketing and Acting Chief Marketing Officer from September 2017 to September 2019. In these roles, she was responsible for global sales and revenue and leading the company's efforts to foster innovative sales and marketing approaches that broaden Intel's business opportunities and enhance customer relationships worldwide. Ms. Johnston Holthaus joined Intel in 1996 and has served in a variety of sales and marketing, channel mobile, and channel desktop positions.

Ms. Miller Boise has been our Executive Vice President and Chief Legal Officer since July 2022 and Corporate Secretary since August 2022. Ms. Miller Boise leads Intel's global legal, trade, and government affairs team, is a member of Intel's Executive Leadership Team, and is a strategic advisor to the Company and the Board of Directors. Prior to joining Intel, she was Executive Vice President and Chief Legal Officer at Eaton Corp, a power management company. Before joining Eaton in 2020, she was Senior Vice President, Chief Legal Officer, and Corporate Secretary at Meritor Inc., a supplier of drivetrain, mobility, braking, aftermarket and electric powertrain solutions acquired by Cummins Inc. Ms. Miller Boise has more than 25 years of experience and has served in executive leadership roles, including chief legal officer, general counsel, and head of global mergers and acquisitions.

52 Mr. Schell has been our Executive Vice President and Chief Commercial Officer and General Manager of the Sales, Marketing and Communications Group since March 2022. In his role, he oversees Intel's global sales, business management, marketing, communications, corporate planning, customer support, and customer success teams, leading the company's efforts to foster innovative go-to-market approaches that broaden Intel's business opportunities and deepen customer and partner relationships and outcomes worldwide. Prior to joining Intel, Mr. Schell served as the Chief Commercial Officer of HP Inc., an American multinational information technology company, from November 2019 to March 2022. During his 25 years with HP, Mr. Schell held various senior management roles across the globe, including President of 3D Printing and Digital Manufacturing from November 2018 to October 2019 and President of the Americas region from November 2015 to November 2018. Prior to rejoining HP in 2014, Mr. Schell served as Executive Vice President of Growth Markets for Philips, a lighting solutions company, where he led the lighting business across Asia Pacific, Japan, Africa, Russia, India, Central Asia, and the Middle East. He started his career in his family's distribution and industrial solutions company before working in brand management at Procter \& Gamble.

55 Mr. Zinsner has been our Executive Vice President and Chief Financial Officer since January 2022, overseeing our global finance organization. He joined Intel from Micron Technology, Inc., a manufacturer of memory and storage products, where he most recently served as Executive Vice President and Chief Financial Officer from February 2018 to October 2021. From April 2017 to February 2018, he served as President and Chief Operating Officer of Affirmed Networks, Inc. From January 2009 to April 2017, he served as Chief Financial Officer of Analog Devices, Inc. From July 2005 to January 2009, Mr. Zinsner served as Chief Financial Officer of Intersil Corporation.


## Disclosure Pursuant to Section 13(r) of the Securities Exchange Act of 1934

Section $13(r)$ of the Exchange Act requires an issuer to disclose certain information in its periodic reports if it or any of its affiliates knowingly engaged in certain activities, transactions, or dealings with individuals or entities subject to specific US economic sanctions during the reporting period, even when the activities, transactions, or dealings are conducted in compliance with applicable law. On March 2, 2021, the US Secretary of State designated the Federal Security Service of the Russian Federation (FSB) as a party subject to one such sanction. Though Intel has suspended sales in Russia, there may be a need to file documents or engage with FSB as Intel winds up our local offices. All such dealings are explicitly authorized by General License 1B issued by the US Department of the Treasury's Office of Foreign Assets Control (OFAC), and there are no gross revenues or net profits directly associated with any such dealings by us with the FSB.

On April 15, 2021, the US Department of the Treasury designated Pozitiv Teknolodzhiz, AO (Positive Technologies), a Russian IT security firm, as a party subject to one of the sanctions specified in Section 13(r). Prior to the designation, we communicated with Positive Technologies regarding its IT security research and coordinated disclosure of security vulnerabilities identified by the firm. Based on a license issued by OFAC, we resumed such communications. There are no gross revenues or net profits directly associated with any such activities. We plan to continue these communications in accordance with the terms and conditions of the OFAC license.


## Financial Statements and Supplemental Details

We have defined certain terms and abbreviations used throughout our Form 10-K in "Key Terms" within this section.

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## Report of Independent Registered Public Accounting Firm

## To the Stockholders and the Board of Directors of Intel Corporation

## Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Intel Corporation (the Company) as of December 30, 2023 and December 31, 2022, the related consolidated statements of income, comprehensive income, cash flows and stockholders' equity for each of the three years in the period ended December 30, 2023, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 30, 2023 and December 31, 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 30, 2023, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 30, 2023, based on criteria established in Internal ControlIntegrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated January 25,2024 expressed an unqualified opinion thereon.

## Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the US federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

## Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.


## Inventory Valuation

Description of the Matter

How We Addressed the Matter in Our Audit

The Company's net inventory totaled \$11.1 billion as of December 30, 2023, representing $5.8 \%$ of total assets. As explained in "Note 2: Accounting Policies" within the consolidated financial statements, the Company computes inventory cost on a first-in, first-out basis, and applies judgment in determining saleability of products and the valuation of inventories. The Company assesses inventory at each reporting date in order to assert that it is recorded at net realizable value, giving consideration to, among other factors: whether the products have achieved the substantive engineering milestones to qualify for sale to customers; the determination of normal capacity levels in its manufacturing process to determine which manufacturing overhead costs can be included in the valuation of inventory; whether the product is valued at the lower of cost or net realizable value; and the estimation of excess and obsolete inventory or that which is not of saleable quality.

Auditing management's assessment of net realizable value for inventory was challenging because the determination of excess and obsolete inventory reserves and lower of cost or net realizable value is judgmental and considers a number of factors that are affected by market and economic conditions, such as customer forecasts, dynamic pricing environments, and industry supply and demand. Additionally, for certain new product launches there is limited historical data with which to evaluate forecasts.

We evaluated and tested the design and operating effectiveness of the Company's internal controls over the costing of inventory, the determination of whether inventory is of saleable quality, the determination of demand forecasts and related application against on hand inventory, and the calculation of lower of cost or net realizable value reserves including related estimated costs and selling prices.

Our audit procedures included, among others, testing the significant assumptions (e.g., estimated product demand forecasts, costs and selling prices) of the underlying data used in management's inventory valuation assessment. We compared the significant assumptions used by management to current industry and economic trends. We assessed whether there were any potential sources of contrary information, including historical forecast accuracy or history of significant revisions to previously recorded inventory valuation adjustments, and performed sensitivity analyses over significant assumptions to evaluate the changes in inventory valuation that would result from changes in the assumptions.
/s/ Ernst \& Young LLP
We have served as the Company's auditor since 1968.
San Jose, California
January 25, 2024


## Report of Independent Registered Public Accounting Firm

## To the Stockholders and the Board of Directors of Intel Corporation

## Opinion on Internal Control Over Financial Reporting

We have audited Intel Corporation's internal control over financial reporting as of December 30, 2023, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Intel Corporation (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 30, 2023, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2023 consolidated financial statements of the Company and our report dated January 25, 2024 expressed an unqualified opinion thereon.

## Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the US federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

## Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.
/s/ Ernst \& Young LLP
San Jose, California
January 25, 2024


## Consolidated Statements of Income

| Years Ended (In Millions, Except Per Share Amounts) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net revenue | \$ | 54,228 | \$ | 63,054 | \$ | 79,024 |
| Cost of sales |  | 32,517 |  | 36,188 |  | 35,209 |
| Gross margin |  | 21,711 |  | 26,866 |  | 43,815 |
| Research and development |  | 16,046 |  | 17,528 |  | 15,190 |
| Marketing, general, and administrative |  | 5,634 |  | 7,002 |  | 6,543 |
| Restructuring and other charges |  | (62) |  | 2 |  | 2,626 |
| Operating expenses |  | 21,618 |  | 24,532 |  | 24,359 |
| Operating income |  | 93 |  | 2,334 |  | 19,456 |
| Gains (losses) on equity investments, net |  | 40 |  | 4,268 |  | 2,729 |
| Interest and other, net |  | 629 |  | 1,166 |  | (482) |
| Income before taxes |  | 762 |  | 7,768 |  | 21,703 |
| Provision for (benefit from) taxes |  | (913) |  | (249) |  | 1,835 |
| Net income |  | 1,675 |  | 8,017 |  | 19,868 |
| Less: Net income (loss) attributable to non-controlling interests |  | (14) |  | 3 |  | - |
| Net income attributable to Intel | \$ | 1,689 | \$ | 8,014 | \$ | 19,868 |
| Earnings per share attributable to Intel-basic | \$ | 0.40 | \$ | 1.95 | \$ | 4.89 |
| Earnings per share attributable to Intel-diluted | \$ | 0.40 | \$ | 1.94 | \$ | 4.86 |
| Weighted average shares of common stock outstanding: |  |  |  |  |  |  |
| Basic |  | 4,190 |  | 4,108 |  | 4,059 |
| Diluted |  | 4,212 |  | 4,123 |  | 4,090 |

See accompanying notes.


## Consolidated Statements of Comprehensive Income

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net income | \$ | 1,675 | \$ | 8,017 | \$ | 19,868 |
| Changes in other comprehensive income (loss), net of tax: |  |  |  |  |  |  |
| Net unrealized holding gains (losses) on derivatives |  | 272 |  | (510) |  | (520) |
| Actuarial valuation and other pension benefits (expenses), net |  | 66 |  | 855 |  | 451 |
| Translation adjustments and other |  | 9 |  | (27) |  | (60) |
| Other comprehensive income (loss) |  | 347 |  | 318 |  | (129) |
| Total comprehensive income |  | 2,022 |  | 8,335 |  | 19,739 |
| Less: comprehensive income (loss) attributable to non-controlling interests |  | (14) |  | 3 |  | - |
| Total comprehensive income attributable to Intel | \$ | 2,036 | \$ | 8,332 | \$ | 19,739 |

See accompanying notes.


## Consolidated Balance Sheets

(In Millions, Except Par Value)

## Assets

Current assets:

| Cash and cash equivalents | \$ | 7,079 | \$ | 11,144 |
| :---: | :---: | :---: | :---: | :---: |
| Short-term investments |  | 17,955 |  | 17,194 |
| Accounts receivable, net |  | 3,402 |  | 4,133 |
| Inventories |  | 11,127 |  | 13,224 |
| Other current assets |  | 3,706 |  | 4,712 |
| Total current assets |  | 43,269 |  | 50,407 |
| Property, plant, and equipment, net |  | 96,647 |  | 80,860 |
| Equity investments |  | 5,829 |  | 5,912 |
| Goodwill |  | 27,591 |  | 27,591 |
| Identified intangible assets, net |  | 4,589 |  | 6,018 |
| Other long-term assets |  | 13,647 |  | 11,315 |
| Total assets | \$ | 191,572 | \$ | 182,103 |

Liabilities and stockholders' equity
Current liabilities:

| Short-term debt | \$ | 2,288 | \$ | 4,367 |
| :---: | :---: | :---: | :---: | :---: |
| Accounts payable |  | 8,578 |  | 9,595 |
| Accrued compensation and benefits |  | 3,655 |  | 4,084 |
| Income taxes payable |  | 1,107 |  | 2,251 |
| Other accrued liabilities |  | 12,425 |  | 11,858 |
| Total current liabilities |  | 28,053 |  | 32,155 |
| Debt |  | 46,978 |  | 37,684 |
| Other long-term liabilities |  | 6,576 |  | 8,978 |
| Commitments and Contingencies (Note 19) |  |  |  |  |
| Stockholders' equity: |  |  |  |  |
| Preferred stock, \$0.001 par value, 50 shares authorized; none issued |  | - |  | - |
| Common stock, $\$ 0.001$ par value, 10,000 shares authorized; 4,228 shares issued and outstanding ( 4,137 issued and outstanding in 2022) and capital in excess of par value |  | 36,649 |  | 31,580 |
| Accumulated other comprehensive income (loss) |  | (215) |  | (562) |
| Retained earnings |  | 69,156 |  | 70,405 |
| Total Intel stockholders' equity |  | 105,590 |  | 101,423 |
| Non-controlling interests |  | 4,375 |  | 1,863 |
| Total stockholders' equity |  | 109,965 |  | 103,286 |
| Total liabilities and stockholders' equity | \$ | 191,572 | \$ | $\underline{182,103}$ |

See accompanying notes.


## Consolidated Statements of Cash Flows

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cash and cash equivalents, beginning of period | \$ | 11,144 | \$ | 4,827 | \$ | 5,865 |
| Cash flows provided by (used for) operating activities: |  |  |  |  |  |  |
| Net income |  | 1,675 |  | 8,017 |  | 19,868 |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |  |  |
| Depreciation |  | 7,847 |  | 11,128 |  | 9,953 |
| Share-based compensation |  | 3,229 |  | 3,128 |  | 2,036 |
| Restructuring and other charges |  | (424) |  | 1,074 |  | 2,626 |
| Amortization of intangibles |  | 1,755 |  | 1,907 |  | 1,839 |
| (Gains) losses on equity investments, net |  | (42) |  | $(4,254)$ |  | $(1,458)$ |
| (Gains) losses on divestitures |  | - |  | $(1,059)$ |  | - |
| Changes in assets and liabilities: |  |  |  |  |  |  |
| Accounts receivable |  | 731 |  | 5,327 |  | $(2,674)$ |
| Inventories |  | 2,097 |  | $(2,436)$ |  | $(2,339)$ |
| Accounts payable |  | (801) |  | (29) |  | 1,190 |
| Accrued compensation and benefits |  | (614) |  | $(1,533)$ |  | 515 |
| Prepaid customer supply agreements |  | - |  | (24) |  | $(1,583)$ |
| Income taxes |  | $(3,531)$ |  | $(4,535)$ |  | (441) |
| Other assets and liabilities |  | (451) |  | $(1,278)$ |  | (76) |
| Total adjustments |  | 9,796 |  | 7,416 |  | 9,588 |
| Net cash provided by operating activities |  | 11,471 |  | 15,433 |  | 29,456 |
| Cash flows provided by (used for) investing activities: |  |  |  |  |  |  |
| Additions to property, plant, and equipment |  | $(25,750)$ |  | $(24,844)$ |  | $(18,733)$ |
| Additions to held for sale NAND property, plant, and equipment |  | - |  | (206) |  | $(1,596)$ |
| Proceeds from capital-related government incentives |  | 1,011 |  | 246 |  | 166 |
| Purchase of short-term investments |  | $(44,414)$ |  | $(43,647)$ |  | $(40,554)$ |
| Maturities and sales of short-term investments |  | 44,077 |  | 48,730 |  | 35,299 |
| Purchases of equity investments |  | (399) |  | (510) |  | (613) |
| Sales of equity investments |  | 472 |  | 4,961 |  | 581 |
| Proceeds from divestitures |  | - |  | 6,579 |  | - |
| Other investing |  | 962 |  | $(1,540)$ |  | 1,167 |
| Net cash used for investing activities |  | $(24,041)$ |  | $(10,231)$ |  | $(24,283)$ |
| Cash flows provided by (used for) financing activities: |  |  |  |  |  |  |
| Issuance of commercial paper, net of issuance costs |  | - |  | 3,945 |  | - |
| Repayment of commercial paper |  | $(3,944)$ |  | - |  | - |
| Payments on finance leases |  | (96) |  | (345) |  | - |
| Partner contributions |  | 1,511 |  | 874 |  | - |
| Proceeds from sales of subsidiary shares |  | 2,959 |  | 1,032 |  | - |
| Issuance of long-term debt, net of issuance costs |  | 11,391 |  | 6,548 |  | 4,974 |
| Repayment of debt |  | (423) |  | $(4,984)$ |  | $(2,500)$ |
| Proceeds from sales of common stock through employee equity incentive plans |  | 1,042 |  | 977 |  | 1,020 |
| Repurchase of common stock |  | - |  | - |  | $(2,415)$ |
| Payment of dividends to stockholders |  | $(3,088)$ |  | $(5,997)$ |  | $(5,644)$ |
| Other financing |  | (847) |  | (935) |  | $(1,646)$ |
| Net cash provided by (used for) financing activities |  | 8,505 |  | 1,115 |  | $(6,211)$ |
| Net increase (decrease) in cash and cash equivalents |  | $(4,065)$ |  | 6,317 |  | $(1,038)$ |
| Cash and cash equivalents, end of period | \$ | 7,079 | \$ | 11,144 | \$ | 4,827 |
| Supplemental disclosures: |  |  |  |  |  |  |
| Acquisition of property, plant, and equipment included in accounts payable and accrued liabilities | \$ | 4,804 | \$ | 5,431 | \$ | 1,619 |
| Cash paid during the year for: |  |  |  |  |  |  |
| Interest, net of capitalized interest | \$ | 613 | \$ | 459 | \$ | 545 |
| Income taxes, net of refunds | \$ | 2,621 | \$ | 4,282 | \$ | 2,263 |

## See accompanying notes.



## Consolidated Statements of Stockholders' Equity

| (In Millions, Except Per Share Amounts) | Common Stock and Capital in Excess of Par Value |  |  | Accumulated Other Comprehensive Income (Loss) |  | Retained Earnings |  | NonControlling Interests |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Shares | Amount |  |  |  |  |  |  |  |  |
| Balance as of December 26, 2020 | 4,062 | \$ | 25,556 | \$ | (751) | \$ | 56,233 | \$ | - | \$ 81,038 |
| Adjustment to opening balance for change in accounting principle |  |  |  |  |  |  | 35 |  |  | 35 |
| Opening Balance as of December 27, 2020 | 4,062 |  | 25,556 |  | (751) |  | 56,268 |  | - | 81,073 |
| Net income (loss) | - |  | - |  | - |  | 19,868 |  | - | 19,868 |
| Other comprehensive income (loss) | - |  | - |  | (129) |  | - |  | - | (129) |
| Employee equity incentive plans and other | 54 |  | 1,022 |  | - |  | - |  | - | 1,022 |
| Share-based compensation | - |  | 2,036 |  | - |  | - |  | - | 2,036 |
| Repurchase of common stock | (40) |  | (249) |  | - |  | $(2,166)$ |  | - | $(2,415)$ |
| Restricted stock unit withholdings | (6) |  | (359) |  | - |  | (61) |  | - | (420) |
| Cash dividends declared (\$1.39 per share of common stock) | - |  | - |  | - |  | $(5,644)$ |  | - | $(5,644)$ |
| Balance as of December 25, 2021 | 4,070 |  | 28,006 |  | (880) |  | 68,265 |  | - | 95,391 |
| Net income (loss) | - |  | - |  | - |  | 8,014 |  | 3 | 8,017 |
| Other comprehensive income (loss) | - |  | - |  | 318 |  | - |  | - | 318 |
| Proceeds from sales of subsidiary shares and partner contributions | - |  | 75 |  | - |  | - |  | 1,831 | 1,906 |
| Employee equity incentive plans and other | 79 |  | 1,009 |  | - |  | - |  | - | 1,009 |
| Share-based compensation | - |  | 3,099 |  | - |  | - |  | 29 | 3,128 |
| Restricted stock unit withholdings | (12) |  | (609) |  | - |  | 123 |  | - | (486) |
| Cash dividends declared ( $\$ 1.46$ per share of common stock) | - |  | - |  | - |  | $(5,997)$ |  | - | $(5,997)$ |
| Balance as of December 31, 2022 | 4,137 |  | 31,580 |  | (562) |  | 70,405 |  | 1,863 | 103,286 |
| Net income (loss) | - |  | - |  | - |  | 1,689 |  | (14) | 1,675 |
| Other comprehensive income (loss) | - |  | - |  | 347 |  | - |  | - | 347 |
| Proceeds from sales of subsidiary shares and partner contributions | - |  | 1,620 |  | - |  | - |  | 2,385 | 4,005 |
| Employee equity incentive plans and other | 107 |  | 1,044 |  | - |  | - |  | - | 1,044 |
| Share-based compensation | - |  | 3,088 |  | - |  | - |  | 141 | 3,229 |
| Restricted stock unit withholdings | (16) |  | (683) |  | - |  | 150 |  | - | (533) |
| Cash dividends declared ( $\$ 0.74$ per share of common stock) | - |  | - |  | - |  | $(3,088)$ |  | - | $(3,088)$ |
| Balance as of December 30, 2023 | 4,228 | \$ | 36,649 | \$ | (215) | \$ | 69,156 | \$ | 4,375 | \$109,965 |

See accompanying notes.


## Notes to Consolidated Financial Statements

## Note 1: Basis of Presentation

We have a 52- or 53-week fiscal year that ends on the last Saturday in December. Fiscal years 2023 and 2021 were 52-week fiscal years; 2022 was a 53 -week fiscal year. Fiscal 2024 is a 52 -week fiscal year. Our Consolidated Financial Statements include the accounts of Intel and our wholly owned and majority-owned subsidiaries, which include entities consolidated under the variable interest and voting interest models. We have eliminated intercompany accounts and transactions. We have reclassified certain prior period amounts to conform to current period presentation.

## Use of Estimates

The preparation of Consolidated Financial Statements in conformity with US GAAP requires us to make estimates and judgments that affect the amounts reported in our Consolidated Financial Statements and the accompanying notes. The actual results that we experience may differ materially from our estimates.

## Note 2 : Accounting Policies

## Revenue Recognition

We recognize net product revenue when we satisfy performance obligations as evidenced by the transfer of control of our products or services to customers. Substantially all of our revenue is derived from product sales. Our products often include a software component, such as firmware, that is highly interdependent and interrelated with the product and is substantially accounted for as a combined performance obligation. In accordance with contract terms, the revenue for combined performance obligations and standalone product sales is recognized at the time of product shipment from our facilities or delivery to the customer location, as determined by the agreedupon shipping terms.

We measure revenue based on the amount of consideration we expect to be entitled to in exchange for products or services. Variable consideration is estimated and reflected as an adjustment to the transaction price. We determine variable consideration, which consists primarily of various sales price concessions, by estimating the most likely amount of consideration we expect to receive from the customer based on historical analysis of customer purchase volumes. Sales rebates earned by customers are offset against their receivable balances. Rebates earned by customers when they do not have outstanding receivable balances are recorded within other accrued liabilities.

We make payments to our customers through cooperative advertising programs for marketing activities for some of our products. We generally record the payment as a reduction in revenue in the period that the revenue is earned, unless the payment is for a distinct service, which we record as an expense when the marketing activities occur.

## Inventories

We compute inventory cost on a first-in, first-out basis. Our process and product development life cycle corresponds with substantive engineering milestones. These engineering milestones are regularly and consistently applied in assessing the point at which our activities and associated costs change in nature from R\&D to cost of sales, and when cost of sales can be capitalized as inventory.

For a product to be manufactured in high volumes and sold to our customers under our standard warranty, it must meet our rigorous technical quality specifications. This milestone is known as PRQ. We have identified PRQ as the point at which the costs incurred to manufacture our products are included in the valuation of inventory. A single PRQ has previously valued inventory up to $\$ 870$ million in the quarter the PRQ milestone was achieved. Prior to PRQ, costs that do not meet the criteria for R\&D are included in cost of sales in the period incurred.

The valuation of inventory includes determining which fixed production overhead costs can be included in inventory based on the normal capacity of our manufacturing and assembly and test facilities. We apply our historical loading compared to our total available capacity in a statistical model to determine our expectations of normal capacity level. If the factory loading is below the established normal capacity level, a portion of our fixed production overhead costs would not be included in the cost of inventory; instead, it would be recognized as cost of sales in that period. We refer to these costs as excess capacity charges. Excess capacity charges were $\$ 834$ million in 2023, $\$ 423$ million in 2022, and insignificant in 2021.

Inventory is valued at the lower of cost or net realizable value, based upon assumptions about future demand and market conditions. Product-specific facts and circumstances reviewed in the inventory valuation process include a review of our customer base, the stage of the product life cycle, variations in market pricing, and an assessment of selling price in relation to product cost. Lower of cost or net realizable value inventory reserves fluctuate as we ramp new process technologies, with costs generally improving over time due to scale and improved yields. Additionally, inventory valuation is impacted by cyclical changes in market conditions and the associated pricing environment.


The valuation of inventory also requires us to estimate obsolete and excess inventory, as well as inventory that is not of saleable quality. We use a demand forecast to develop our short-term manufacturing plans to enable consistency between inventory valuations and build decisions. For certain new products, we have limited historical data when developing these demand forecasts. We compare the estimate of future demand to work in process and finished goods inventory levels to determine the amount, if any, of obsolete or excess inventory. When our demand forecast for specific products is greater than actual demand and we fail to reduce manufacturing output accordingly, we write off amounts considered to be excess inventory.

## Long-Lived Assets

## Property, Plant, and Equipment

We compute depreciation using the straight-line method over the estimated useful life of assets. We also capitalize interest on borrowings related to eligible capital expenditures. Capitalized interest is added to the cost of qualified assets and depreciated together with that asset cost.

At least annually, we evaluate the period over which we expect to recover the economic value of our property, plant, and equipment, considering factors such as the process technology cadence between node transitions, changes in machinery and equipment technology, and re-use of machinery and tools across each generation of process technology. As we make manufacturing process conversions and other factory planning decisions, we use assumptions involving the use of management judgments regarding the remaining useful lives of assets, primarily process-specific semiconductor manufacturing tools and building improvements. When we determine that the useful lives of assets are shorter or longer than we had originally estimated, we adjust the rate of depreciation to reflect the assets' revised useful lives. Effective January 2023, the estimated useful lives of certain machinery and equipment in our wafer fabrication facilities were increased from 5 to 8 years. This change in estimate was applied prospectively beginning in the first quarter of 2023.

Assets are categorized and evaluated for impairment at the lowest level of identifiable cash flows. Factors that we consider in deciding when to perform an impairment review include significant under-performance of a business or product line in relation to expectations, significant negative industry or economic trends, and significant changes or planned changes in our use and fungibility of the assets. If an asset grouping carrying value is not recoverable through the related undiscounted cash flows, the asset grouping is considered to be impaired.

## Identified Intangible Assets

We amortize acquisition-related intangible assets that are subject to amortization over their estimated useful lives. Acquisition-related, inprocess R\&D assets represent the fair value of incomplete R\&D projects that had not reached technological feasibility as of the date of acquisition; initially, these are classified as in-process R\&D and are not subject to amortization. Once these R\&D projects are completed, the asset balances are transferred from in-process R\&D to acquisition-related developed technology and are subject to amortization from that point forward. The asset balances relating to projects that are abandoned after acquisition are impaired and expensed to R\&D.

We perform periodic reviews of significant finite-lived identified intangible assets to determine whether facts and circumstances indicate that the carrying amount may not be recoverable. These reviews can be affected by various factors, including external factors such as industry and economic trends, and internal factors such as changes in our business strategy and our forecasts for specific product lines. Periodically, we also evaluate the estimated remaining useful lives of purchased intangible assets and whether events or changes in circumstances warrant a revision to the remaining periods of amortization. We may adjust the period over which these assets are amortized to reflect the period in which they contribute to our cash flows.

## Goodwill

Our reporting units are the same as our operating segments. We evaluate our reporting units annually or when triggered, such as upon reorganization of our operating segments. We perform an annual impairment assessment of goodwill at the reporting unit level in the fourth quarter of each year, or more frequently if indicators of potential impairment exist. The reporting unit's carrying value used in an impairment assessment represents the assignment of various assets and liabilities, excluding certain corporate assets and liabilities, such as cash, investments, and debt. The impairment assessment may include both qualitative and quantitative factors to assess the likelihood of an impairment.

Qualitative factors used include industry and market considerations, overall financial performance, and other relevant events and factors affecting the reporting unit. We may also perform a quantitative analysis to support the qualitative factors by applying sensitivities to assumptions and inputs used in measuring a reporting unit's fair value.

Our quantitative impairment assessment considers both the income approach and the market approach to estimate a reporting unit's fair value. Significant estimates include market segment growth rates, our assumed market segment share, estimated gross margins, operating expenses, and discount rates based on a reporting unit's weighted average cost of capital. We test the reasonableness of the inputs and outcomes of our discounted cash flow analysis against available market data. These estimates change from year to year based on operating results, market conditions, and other factors and could materially affect the determination of each reporting unit's fair value and potential goodwill impairment for each reporting unit. Our quantitative assessment is sensitive to changes in underlying estimates and assumptions, the most sensitive of which is the discount rate.


We test the reasonableness of the inputs and outcomes of our discounted cash flow analysis against available market data. In 2023, the fair value for all of our reporting units exceeded their carrying value, and our annual qualitative assessment did not indicate that a more detailed quantitative analysis was necessary.

## Government Incentives

Government incentives, including cash grants and refundable tax credits, are recognized when there is reasonable assurance that the incentive will be received and we will comply with the conditions specified in the agreement or statutory requirements. We record capitalrelated incentives as a reduction to property, plant, and equipment, net within our Consolidated Balance Sheets and recognize a reduction to depreciation expense over the useful life of the corresponding acquired asset. We record operating-related incentives as a reduction to expense in the same line item on the Consolidated Statements of Income as the expenditure for which the incentive is intended to compensate.

## Fair Value

When determining fair value, we consider the principal or most advantageous market in which we would transact, as well as assumptions that market participants would use when pricing the asset or liability. Our financial assets are measured and recorded at fair value on a recurring basis, except for equity securities measured using the measurement alternative, equity method investments, and grants receivable. We assess fair value hierarchy levels for our issued debt and fixed-income investment portfolio based on the underlying instrument type.

The three levels of inputs that may be used to measure fair value are:

* Level 1. Quoted prices in active markets for identical assets or liabilities. We evaluate security-specific market data when determining whether a market is active.
- Level 2. Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in less active markets, or model-derived valuations. All significant inputs used in our valuations, such as discounted cash flows, are observable or can be derived principally from or corroborated with observable market data for substantially the full term of the assets or liabilities. We use yield curves, overnight indexed swap curves, currency spot and forward rates, and credit ratings as significant inputs in our valuations. Level 2 inputs also include non-binding market consensus prices, as well as quoted prices that were adjusted for securityspecific restrictions. When we use non-binding market consensus prices, we corroborate them with quoted market prices for similar instruments or compare them to output from internally developed pricing models such as discounted cash flow models.
- Level 3. Unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of assets or liabilities. We monitor and review the inputs and results of these valuation models to help confirm that the fair value measurements are reasonable and consistent with market experience in similar asset classes. Level 3 inputs also include non-binding market consensus prices or non-binding broker quotes that we were unable to corroborate with observable market data.


## Debt Investments

Debt investments include investments in corporate debt, government debt, and financial institution instruments. Unhedged debt investments with original maturities of approximately three months or less from the date of purchase are classified within cash and cash equivalents. Unhedged debt investments with original maturities at the date of purchase greater than approximately three months and all economically hedged debt investments are classified as short-term investments, as they represent the investment of cash available for current operations.

For certain of our marketable debt investments, we economically hedge market risks at inception with a related derivative instrument, or the marketable debt investment itself is used to economically hedge currency exchange rate risk from remeasurement. These hedged investments are reported at fair value. Gains or losses on these investments arising from changes in fair value due to interest rate and currency market fluctuations and credit market volatility, largely offset by losses or gains on the related derivative instruments and balance sheet remeasurement, are recorded in interest and other, net. Our remaining unhedged marketable debt investments are reported at fair value, with unrealized gains or losses, net of tax, recorded in accumulated other comprehensive income (loss). We determine the cost of the investment sold based on an average cost basis at the individual security level and record the interest income and realized gains or losses on the sale of these investments in interest and other, net.

Unhedged debt investments are subject to periodic impairment reviews. For investments in an unrealized loss position, we determine whether a credit loss exists by considering information about the collectability of the instrument, current market conditions, and reasonable and supportable forecasts of economic conditions. We recognize an allowance for credit losses, up to the amount of the unrealized loss when appropriate, and write down the amortized cost basis of the investment if it is more likely than not we will be required or we intend to sell the investment before recovery of its amortized cost basis. Allowances for credit losses and write-downs are recognized in interest and other, net, and unrealized losses not related to credit losses are recognized in accumulated other comprehensive income (loss).


## Equity Investments

We regularly invest in equity securities of public and private companies to promote business and strategic objectives. Equity investments are measured and recorded as follows:

- Marketable equity securities are equity securities with RDFV that are measured and recorded at fair value on a recurring basis with changes in fair value, whether realized or unrealized, recorded through the income statement.
- Non-marketable equity securities are equity securities without RDFV that are measured and recorded using a measurement alternative that measures the securities at cost minus impairment, if any, plus or minus changes resulting from qualifying observable price changes.
- Equity method investments are equity securities in investees we do not control but over which we have the ability to exercise significant influence. Equity method investments are measured at cost minus impairment, if any, plus or minus our share of equity method investee income or loss. Our proportionate share of the income or loss from equity method investments is recognized on a one-quarter lag.

Realized and unrealized gains and losses resulting from changes in fair value or the sale of our equity investments are recorded in gains (losses) on equity investments, net. The carrying value of our non-marketable equity securities is adjusted for qualifying observable price changes resulting from the issuance of similar or identical securities in an orderly transaction by the same issuer. Determining whether an observed transaction is similar to a security within our portfolio requires judgment based on the rights and preferences of the securities.

Non-marketable equity securities and equity method investments (collectively referred to as non-marketable equity investments) are also subject to periodic impairment reviews. Our quarterly impairment analysis considers both qualitative and quantitative factors. When indicators of impairment exist, we prepare quantitative assessments of the fair value of our non-marketable equity investments using both the market and income approaches.

- Non-marketable equity securities are tested for impairment using a qualitative model similar to the model used for goodwill and property, plant, and equipment. Upon determining that an impairment may exist, the security's fair value is calculated and compared to its carrying value, and an impairment is recognized immediately if the carrying value exceeds the fair value.
- Equity method investments are subject to periodic impairment reviews using the other-than-temporary impairment model, which considers the severity and duration of a decline in fair value below cost and our ability and intent to hold the investment for a sufficient period of time to allow for recovery.

Impairments of equity investments are recorded in gains (losses) on equity investments, net.

## Derivative Financial Instruments

Our primary objective for holding derivative financial instruments is to manage currency exchange rate risk and interest rate risk, and, to a lesser extent, equity market risk, commodity price risk, and credit risk. We enter into master netting arrangements to mitigate credit risk in derivative transactions by permitting net settlement of transactions with the same counterparty. We also enter into collateral security arrangements with certain of our counterparties to exchange cash collateral when the net fair value of certain derivative instruments fluctuates from contractually established thresholds. For presentation on our Consolidated Balance Sheets, we do not offset fair value amounts recognized for derivative instruments under master netting arrangements. Our derivative financial instruments, including related collateral amounts, are presented at fair value on a gross basis and are included in other current assets, other long-term assets, other accrued liabilities, or other long-term liabilities.

Cash flow hedges use foreign currency contracts, such as currency forwards and currency interest rate swaps, to hedge exposures for variability in the US-dollar equivalent of non-US-dollar-denominated cash flows associated with our forecasted operating and capital purchases spending.

The after-tax gains or losses from the effective portion of a cash flow hedge is reported as a component of accumulated other comprehensive income (loss) and reclassified into earnings in the same period or periods in which the hedged transaction affects earnings, and in the same line item on the Consolidated Statements of Income as the impact of the hedge transaction. For foreign currency contracts hedging our capital purchases, forward points are excluded from the hedge effectiveness assessment, and are recognized in earnings in the same income statement line item used to present the earnings effect of the hedged item. If the cash flow hedge transactions become improbable, the corresponding amounts deferred in accumulated other comprehensive income (loss) would be immediately reclassified to interest and other, net. Cash flows associated with these derivatives are classified in the Consolidated Statements of Cash Flows in the same section as the underlying item.

Fair value hedges use interest rate contracts, such as interest rate swaps, to hedge against changes in the fair value on certain of our fixed-rate indebtedness attributable to changes in the benchmark interest rate. The gains or losses on these hedges, as well as the offsetting losses or gains related to the changes in the fair value of the underlying hedged item attributable to the hedged risk, are recognized in earnings in the current period, primarily in interest and other, net. Cash flows associated with these derivatives are classified in the Consolidated Statements of Cash Flows in the same section as the underlying item, primarily within net cash provided by (used for) financing activities.


Non-designated hedges use foreign currency contracts to economically hedge the functional currency equivalent cash flows of recognized monetary assets and liabilities, and non-US-dollar-denominated debt instruments classified as hedged investments. We also use interest rate contracts to hedge interest rate risk related to our US-dollar-denominated fixed-rate debt investments classified as hedged investments. The change in fair value of these derivatives is recorded through earnings in the line item on the Consolidated Statements of Income to which the derivatives most closely relate, primarily in interest and other, net. Changes in the fair value of the underlying assets and liabilities associated with the hedged risk are generally offset by the changes in the fair value of the related derivatives.

## Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist principally of investments in debt instruments, derivative financial instruments, reverse repurchase agreements, and trade and other receivables. We generally place investments with high-credit-quality counterparties and, by policy, we limit the amount of credit exposure to any one counterparty based on our analysis of that counterparty's relative credit standing. As required per our investment policy, substantially all of our investments in debt instruments are in investment-grade instruments. Credit-rating criteria for derivative instruments are similar to those for other investments.

We enter into master netting arrangements to mitigate credit risk in derivative transactions by permitting net settlement of transactions with the same counterparty. Due to master netting arrangements, the amounts subject to credit risk related to derivative instruments are generally limited to the amounts, if any, by which the counterparty's obligations exceed our obligations with that counterparty. As of December 30, 2023, our total credit exposure to any single counterparty, excluding money market funds invested in US treasury and US agency securities and reverse repurchase agreements collateralized by treasury and agency securities, did not exceed $\$ 1.6$ billion. To further reduce credit risk, we enter into collateral security arrangements with certain of our derivative counterparties and obtain and secure collateral from counterparties against obligations, including securities lending transactions when we deem it appropriate. Cash collateral exchanged under our collateral security arrangements is included in other current assets, other long-term assets, other accrued liabilities, or other long-term liabilities. For reverse repurchase agreements collateralized by other securities, we do not record the collateral as an asset or a liability unless the collateral is repledged.

A substantial majority of our trade receivables are derived from sales to OEMs and ODMs. We also have accounts receivable derived from sales to industrial and communications equipment manufacturers in the computing and communications industries. We believe the net accounts receivable balances from our three largest customers ( $50 \%$ as of December 30,2023) do not represent a significant credit risk, based on cash flow forecasts, balance sheet analysis, and past collection experience.

We have adopted credit policies and standards intended to accommodate industry growth and inherent risk. We believe credit risks are moderated by the financial stability of our major customers. We assess credit risk through quantitative and qualitative analysis. From this analysis, we establish shipping and credit limits and determine whether we will seek to use one or more credit support protection devices, such as obtaining a parent guarantee, standby letter of credit, or credit insurance.

## Variable Interest Entities

We have economic interests in entities that are VIEs. If we conclude we are the primary beneficiary of the VIE, we are required to consolidate the entity in our financial statements. To determine if we are the primary beneficiary, we evaluate whether we have the power to direct the activities that most significantly impact the VIE's economic performance and the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. Our evaluation includes identification of significant activities and an assessment of our ability to direct those activities based on governance provisions and arrangements to provide services to the VIE. Periodically, we assess whether any changes in our interest or relationship with the entity affect our determination of whether the entity is a VIE and, if so, whether we are the primary beneficiary.

## Non-Controlling Interests

Our Consolidated Financial Statements include the accounts of majority-owned subsidiaries consolidated under the variable interest and voting interest models. Non-controlling interests represent the portion of equity not attributable to Intel and are reported as a separate component of equity, net of tax and transaction costs, on our Consolidated Balance Sheets. Net income (loss) and comprehensive income (loss) for majority-owned subsidiaries are attributed to Intel and to non-controlling interest holders on our Consolidated Statements of Income and Consolidated Statements of Comprehensive Income based on respective ownership percentages. We account for changes in ownership of our majority-owned subsidiaries as equity transactions when we retain a controlling financial interest.


## Business Combinations

We allocate the purchase price paid for assets acquired and liabilities assumed in connection with our acquisitions based on their estimated fair values at the time of acquisition. This allocation involves a number of assumptions, estimates, and judgments in determining the fair value of the following:

- inventory; property, plant, and equipment; pre-existing liabilities or legal claims; and contingent consideration; each as may be applicable;
- intangible assets, including the valuation methodology, estimations of future cash flows, discount rates, market segment growth rates, and our assumed market segment share, as well as the estimated useful life of intangible assets;
- deferred tax assets and liabilities, uncertain tax positions, and tax-related valuation allowances, which are initially estimated as of the acquisition date; and
- goodwill as measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed.

Our assumptions and estimates are based upon comparable market data and information obtained from our management and the management of the acquired companies. These assumptions and estimates are used to value assets acquired and liabilities assumed, and to allocate goodwill to the reporting units of the business that are expected to benefit from the business combination. During the measurement period, which may be up to one year from the business acquisition date, we may recognize adjustments to the assets acquired, liabilities assumed, and related goodwill.

## Employee Equity Incentive Plans

We use the straight-line amortization method to recognize share-based compensation expense over the service period of the award, net of estimated forfeitures. Upon exercise, cancellation, forfeiture, or expiration of stock options, or upon vesting or forfeiture of RSUs, we eliminate deferred tax assets for options and RSUs with multiple vesting dates for each vesting period on a first-in, first-out basis as if each vesting period were a separate award.

For the majority of RSUs granted, the number of shares of common stock issued on the date the RSUs vest is net of the minimum statutory withholding requirements that we pay in cash to the appropriate taxing authorities on behalf of our employees. The obligation to pay the relevant taxing authority is contingent upon continued employment. In addition, the amount of the obligation is unknown, as it is based in part on the market price of our common stock when the awards vest.

## Income Taxes

We compute the provision for income taxes using the asset and liability method, under which deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities, and for operating losses and tax credit carryforwards. We measure deferred tax assets and liabilities using the currently enacted tax rates that apply to taxable income in effect for the years in which those tax assets are expected to be realized or settled.

We assess the likelihood that we will be able to recover our deferred tax assets. If recovery is not likely, we must increase our provision for taxes by recording a valuation allowance against the deferred tax assets that we estimate will not ultimately be recoverable. We believe that we will ultimately recover the deferred tax assets recorded on our Consolidated Balance Sheets. Recovery of a portion of our deferred tax assets is affected by management's plans with respect to holding or disposing of certain investments; therefore, such changes could also affect our future provision for taxes.

We recognize tax benefits from uncertain tax positions only if (based on the technical merits of the position) it is more likely than not that the tax positions will be sustained on examination by the tax authority. The tax benefits recognized in the financial statements from such positions are measured based on the largest amount that is more than $50 \%$ likely to be realized upon ultimate settlement. We recognize interest and penalties related to unrecognized tax benefits within the provision for (benefit from) taxes on the Consolidated Statements of Income.

We recognize the tax impact of including certain foreign earnings in US taxable income as a period cost. We have recognized deferred income taxes for local country income and withholding taxes that could be incurred on distributions of certain non-US earnings or for outside basis differences in our subsidiaries, because we do not plan to indefinitely reinvest such earnings and basis differences. Remittances of non-US earnings are based on estimates and judgments of projected cash flow needs, as well as the working capital and investment requirements of our non-US and US operations. Material changes in our estimates of cash, working capital, and investment needs in various jurisdictions could require repatriation of indefinitely reinvested non-US earnings, which could be subject to applicable non-US income and withholding taxes.


## Leases

Leases consist of real property and machinery and equipment. Our lease terms may include options to extend when it is reasonably certain that we will exercise such options. For leases for supplier capacity, we account for the lease and non-lease components as a single lease component. For all other leases, we account for the lease and non-lease components separately and do not include the nonlease components in our leased assets and corresponding liabilities. Payments on leases may be fixed or variable, and variable lease payments are based on output of the underlying leased assets.

## Loss Contingencies

We are subject to loss contingencies, including various legal and regulatory proceedings, asserted and potential claims, liabilities related to repair or replacement of parts in connection with product defects, as well as product warranties and potential asset impairments that arise in the ordinary course of business and are subject to change, including due to sudden or rapid developments in proceedings or claims. An estimated loss from such contingencies is recognized as a charge to income if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. We evaluate developments that could affect prior disclosures or previously accrued liabilities, and make adjustments as appropriate. Significant judgment is required to determine both likelihood of there being, and the estimated amount of, a loss related to such matters. If one or more of these matters were resolved against us for amounts in excess of management's estimates of losses, our results of operations and financial condition could be materially adversely affected.

## Note 3: Operating Segments

We previously announced the organizational change to integrate AXG into CCG and DCAI. This change is intended to drive a more effective go-to-market capability and to accelerate the scale of these businesses, while also reducing costs. As a result, we modified our segment reporting in the first quarter of 2023 to align to this and certain other business reorganizations. All prior-period segment data has been retrospectively adjusted to reflect the way our CODM internally receives information and manages and monitors our operating segment performance starting in fiscal year 2023.

We manage our business through the following operating segments:

- Client Computing Group
- Data Center and AI
- Network and Edge
- Mobileye
- Intel Foundry Services

We derive a substantial majority of our revenue from our principal products that incorporate various components and technologies, including a microprocessor and chipset, a stand-alone SoC, or a multichip package, which are based on Intel architecture.

CCG, DCAI, and NEX are our reportable operating segments. Mobileye and IFS do not qualify as reportable operating segments; however, we have elected to disclose the results of these non-reportable operating segments. When we enter into federal contracts, they are aligned to the sponsoring operating segment.

We have sales and marketing, manufacturing, engineering, finance, and administration groups. Expenses for these groups are generally allocated to the operating segments.
We have an "all other" category that includes revenue, expenses, and charges such as:

- results of operations from non-reportable segments not otherwise presented, and from start-up businesses that support our initiatives;
- historical results of operations from divested businesses;
- amounts included within restructuring and other charges;
- employee benefits, compensation, impairment charges, and other expenses not allocated to the operating segments; and
* acquisition-related costs, including amortization and any impairment of acquisition-related intangibles and goodwill.

The CODM, who is our CEO, allocates resources to and assesses the performance of each operating segment using information about the operating segment's revenue and operating income (loss). The CODM does not evaluate operating segments using discrete asset information, and we do not identify or allocate assets by operating segments. Based on the interchangeable nature of our manufacturing and assembly and test assets, most of the related depreciation expense is not directly identifiable within our operating segments, as it is included in overhead cost pools and subsequently absorbed into inventory as each product passes through our manufacturing process. Because our products are then sold across multiple operating segments, it is impracticable to determine the total depreciation expense included as a component of each operating segment's operating income (loss) results. We do not allocate gains and losses from equity investments, interest and other income, share-based compensation, or taxes to our operating segments. Although the CODM uses operating income (loss) to evaluate the segments, operating costs included in one segment may benefit other segments. The accounting policies for segment reporting are the same as for Intel as a whole.


Net revenue and operating income (loss) for each period were as follows:

Years Ended (In Millions)
Net revenue:
Client Computing
Desktop
Notebook
Other

Data Center and AI
Network and Edge
Mobileye
Intel Foundry Services
All other
Total net revenue

Operating income (loss):
Client Computing
Data Center and AI
Network and Edge
Mobileye
Intel Foundry Services
All other

## Total operating income (loss)

Dec 30, 2023 Dec 31, 2022 Dec 25, 2021

| \$ | 10,166 | \$ | 10,661 | \$ | 12,437 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16,990 |  | 18,781 |  | 25,443 |
|  | 2,102 |  | 2,331 |  | 3,201 |
|  | 29,258 |  | 31,773 |  | 41,081 |
| \$ | 15,521 | \$ | 19,445 | \$ | 22,774 |
|  | 5,774 |  | 8,409 |  | 7,665 |
|  | 2,079 |  | 1,869 |  | 1,386 |
|  | 952 |  | 469 |  | 347 |
|  | 644 |  | 1,089 |  | 5,771 |
| \$ | 54,228 | \$ | 63,054 | \$ | 79,024 |


| $\$$ | 6,520 | $\$$ | 5,569 | $\$$ |
| :--- | :---: | ---: | :--- | ---: |
|  | $(530)$ | 1,300 | 15,523 |  |
|  | $(482)$ | 1,033 | 7,376 |  |
|  | 664 | 690 | 1,935 |  |
|  | $(482)$ | $(281)$ | 554 |  |
|  | $(5,597)$ | $(5,977)$ | 76 |  |
|  |  |  |  | $(6,008)$ |
|  | $\$$ | 2,334 | $\$$ | 19,456 |

In 2022, we initiated the wind-down of our Intel Optane memory business, which is part of our DCAI operating segment. While Intel Optane is a leading technology, it was not aligned to our strategic priorities. Separately, we continue to embrace the CXL standard. As a result, we recognized an inventory impairment of $\$ 723$ million in cost of sales on the Consolidated Statements of Income in 2022. The impairment charge is recognized as a corporate charge in the "all other" category presented above.

In 2023, substantially all of the revenue from our three largest customers was from the sale of platforms and other components by our CCG and DCAI operating segments. Our three largest customers accounted for the following percentage of our net revenue:

| Years Ended | Dec 30, 2023 | Dec 31, 2022 | Dec 25, 2021 |
| :---: | :---: | :---: | :---: |
| Dell Inc. | 19 \% | 19 \% | 21 \% |
| Lenovo Group Limited | 11 \% | 12 \% | 12 \% |
| HP Inc. | 10 \% | 11 \% | 10 \% |
| Total percentage of net revenue | $40 \%$ | 42 \% | 43 \% |

Net revenue by region, based on the billing location of the customer, was as follows:

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| China | \$ | 14,854 | \$ | 17,125 | \$ | 22,961 |
| Singapore |  | 8,602 |  | 9,664 |  | 18,096 |
| United States |  | 13,958 |  | 16,529 |  | 14,322 |
| Taiwan |  | 6,867 |  | 8,287 |  | 11,418 |
| Other regions |  | 9,947 |  | 11,449 |  | 12,227 |
| Total net revenue | \$ | 54,228 | \$ | 63,054 | \$ | 79,024 |



## Note 4 : Non-Controlling Interests

| (In Millions) | Dec 30, 2023 |  |  | Dec 31, 2022 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | lling sts | NonControlling Ownership \% |  | lling sts | NonControlling Ownership \% |
| Arizona Fab LLC | \$ | 2,359 | 49 \% | \$ | 874 | 49 \% |
| Mobileye |  | 1,838 | 12 \% |  | 989 | 6 \% |
| IMS Nanofabrication |  | 178 | 32 \% |  | - | - \% |
| Non-controlling interests, net of tax | \$ | 4,375 |  | \$ | 1,863 |  |

## Semiconductor Co-Investment Program

In 2022, we closed a transaction with Brookfield Asset Management (Brookfield) resulting in the formation of Arizona Fab LLC (Arizona Fab), a VIE that we consolidate into our financial statements because we are the primary beneficiary. Generally, contributions will be made to, and distributions will be received from, Arizona Fab based on both parties' proportional ownership. We will be the sole operator of two new chip factories that will be constructed by Arizona Fab, and we will have the right to purchase $100 \%$ of the related factory output. Once production commences, we will be required to operate Arizona Fab at minimum production levels measured in wafer starts per week and will be required to limit excess inventory held on site, or we will be subject to certain penalties.

We have an unrecognized commitment to fund our respective share of the total construction costs of Arizona Fab of $\$ 29.0$ billion.
As of December 30, 2023, a substantial majority of the assets of Arizona Fab consisted of property, plant, and equipment. The assets held by Arizona Fab, which can be used only to settle obligations of the VIE and are not available to us, were $\$ 4.8$ billion as of December 30, 2023 ( $\$ 1.8$ billion as of December 31, 2022).

## Mobileye

In 2022, Mobileye completed its IPO and certain other equity financing transactions that resulted in net proceeds of $\$ 1.0$ billion. During the second quarter of 2023, we converted 38.5 million of our Mobileye Class B shares into Class A shares, representing 5\% of Mobileye's outstanding capital stock, and subsequently sold the Class $A$ shares for $\$ 42$ per share as part of a secondary offering, receiving net proceeds of $\$ 1.6$ billion and increasing our capital in excess of par value by $\$ 663$ million, net of tax. We continue to consolidate the results of Mobileye into our consolidated financial statements.

## IMS Nanofabrication

In the third and fourth quarters of 2023, we closed agreements to sell a combined $32 \%$ minority stake in our IMS business, a business within our IFS operating segment -including a $20 \%$ stake to Bain Capital and a $10 \%$ stake to TSMC. Net proceeds resulting from the minority stake sales totaled $\$ 1.4$ billion, and our capital in excess of par value increased by $\$ 958$ million, net of tax. We continue to consolidate the results of IMS into our consolidated financial statements.


## Note 5: Earnings Per Share

| Years Ended (In Millions, Except Per Share Amounts) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net income | \$ | 1,675 | \$ | 8,017 | \$ | 19,868 |
| Less: Net income (loss) attributable to non-controlling interests |  | (14) |  | 3 |  | - |
| Net income attributable to Intel | \$ | 1,689 | \$ | 8,014 | \$ | 19,868 |
| Weighted average shares of common stock outstanding-basic |  | 4,190 |  | 4,108 |  | 4,059 |
| Dilutive effect of employee incentive plans |  | 22 |  | 15 |  | 31 |
| Weighted average shares of common stock outstanding-diluted |  | 4,212 |  | 4,123 |  | 4,090 |
| Earnings per share attributable to Intel-basic | \$ | 0.40 | \$ | 1.95 | \$ | 4.89 |
| Earnings per share attributable to Intel-diluted | \$ | 0.40 | \$ | 1.94 | \$ | 4.86 |

We computed diluted earnings per share of common stock based on the weighted average number of shares of common stock outstanding plus potentially dilutive shares of common stock outstanding during the period. Potentially dilutive shares of common stock from employee incentive plans are determined by applying the treasury stock method to the assumed exercise of outstanding stock options, the assumed vesting of outstanding RSUs, and the assumed issuance of common stock under the 2006 ESPP.

During 2022, 70 million RSUs and stock options, as calculated on a weighted average basis for the year, were excluded from the computation of diluted earnings per share in the table above because they would have been anti-dilutive. These RSUs and options could potentially be included in the diluted earnings per share calculation in the future if the average market value of the common shares increases above the exercise price. For all other periods presented, securities that would have been anti-dilutive were insignificant and have been excluded from the computation of diluted earnings per share.

## Note 6 : Other Financial Statement Details

## Accounts Receivable

We sell certain of our accounts receivable on a non-recourse basis to third-party financial institutions. We record these transactions as sales of receivables and present cash proceeds as cash flows provided by operating activities in the Consolidated Statements of Cash Flows. Accounts receivable sold under non-recourse factoring arrangements were $\$ 2.0$ billion during 2023 and $\$ 665$ million during 2022. After the sale of our accounts receivable, we expect to collect payment from the customers and remit it to the third-party financial institution.

## Inventories

| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: |
| Raw materials | \$ | 1,166 | \$ | 1,517 |
| Work in process |  | 6,203 |  | 7,565 |
| Finished goods |  | 3,758 |  | 4,142 |
| Total inventories | \$ | 11,127 | \$ | 13,224 |



## Property, Plant, and Equipment

| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: |
| Land and buildings | \$ | 51,182 | \$ | 44,808 |
| Machinery and equipment |  | 100,033 |  | 92,711 |
| Construction in progress |  | 43,442 |  | 36,727 |
| Total property, plant, and equipment, gross |  | 194,657 |  | 174,246 |
| Less: Accumulated depreciation |  | $(98,010)$ |  | $(93,386)$ |
| Total property, plant, and equipment, net | \$ | 96,647 | \$ | 80,860 |

Our depreciable property, plant, and equipment assets are depreciated over the following estimated useful lives: machinery and equipment, 3 to 8 years; and buildings, 10 to 25 years. Effective January 2023, we increased the estimated useful life of certain production machinery and equipment from 5 to 8 years. When compared to the estimated useful life in place as of the end of 2022, we estimate this change increased gross margin in 2023 by approximately $\$ 2.5$ billion and decreased R\&D expense by approximately $\$ 400$ million. As of December 30, 2023, we estimate this change decreased ending inventory values by approximately $\$ 1.3$ billion. These estimates are based on the assets in use and under construction as of the beginning of 2023 and are calculated at that point in time.

Net property, plant, and equipment by country at the end of each period was as follows:

| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: |
| United States | \$ | 63,234 | \$ | 53,681 |
| Ireland |  | 16,746 |  | 13,179 |
| Israel |  | 9,290 |  | 7,908 |
| Other countries |  | 7,377 |  | 6,092 |
| Total property, plant, and equipment, net | \$ | 96,647 | \$ | 80,860 |

## Government Incentives

We enter into government incentive arrangements with local, regional, and national governments, both US and non-US. These arrangements vary in size, duration, and conditions and allow us to maintain a market-comparable foothold across various geographies. These incentives are primarily structured as cash grants and refundable tax credits. Capital-related incentives have terms of up to 15 years and operating-related incentives have terms that can vary widely. We are eligible to receive these incentives because we engage in qualifying capital investments, R\&D, and other activities as defined by the relevant government entities. This includes qualifying capital investments for semiconductor wafer and advanced packaging manufacturing facilities construction and acquisition of equipment. Each incentive requires that we comply with certain conditions for a period that may exceed the incentive terms. These conditions can include achievement of future operational targets and committing to minimum levels of capital investment. If conditions are not satisfied, the incentives may be subject to reduction, recapture, or termination.

Capital-related incentives reduced gross property, plant, and equipment by $\$ 5.5$ billion as of December 30, 2023 ( $\$ 3.3$ billion as of December 31, 2022), of which $\$ 2.2$ billion was recognized in 2023 ( $\$ 373$ million in 2022). Capital-related incentives reduced depreciation expense by $\$ 226$ million in 2023, of which substantially all reduced cost of sales ( $\$ 230$ million in 2022, all of which reduced cost of sales). Related incentives recognized during each period consisted of the following:

- US federal government pursuant to the US CHIPS and Science Act - We recognized a non-cash refundable advanced manufacturing investment tax credit of $\$ 845$ million in 2023, which is recorded as an offset to income taxes payable. No incentives were recognized in 2022.
- US state governments - We recognized $\$ 723$ million of grants in 2023 related to two new leading-edge chip factories in Ohio. No incentives were recognized in 2022.
- Non-US governments - We recognized $\$ 645$ million of grants and refundable tax credits in 2023 ( $\$ 373$ million in 2022), a majority of which related to the expansion of silicon wafer manufacturing facilities in Ireland.

Operating-related incentives benefited operating income by $\$ 202$ million in 2023 ( $\$ 104$ million in 2022), a majority of which was recorded in cost of sales.

Capital-related and operating-related grants receivables totaled $\$ 559$ million as of December 30, 2023 ( $\$ 437$ million as of December 31, 2022), a majority of which pertained to capital-related grants and were recognized as non-cash investing activities. A substantial majority of the grants receivables were recorded within other long-term assets on our Consolidated Balance Sheets as of December 30, 2023 and as of December 31, 2022. Capital-related refundable tax credits totaled $\$ 365$ million as of December 30, 2023 (no balance as of December 31, 2022) and were recorded within income taxes payable on our Consolidated Balance Sheets.


## Other Accrued Liabilities

Other accrued liabilities include deferred compensation of $\$ 2.9$ billion as of December 30, 2023 ( $\$ 2.4$ billion as of December 31, 2022).

## Advertising

Advertising costs, including direct marketing, are expensed as incurred and recorded within MG\&A expenses. Advertising costs were $\$ 950$ million in 2023 ( $\$ 1.2$ billion in 2022 and $\$ 1.1$ billion in 2021).

Interest and Other, Net

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest income | \$ | 1,335 | \$ | 589 | \$ | 144 |
| Interest expense |  | (878) |  | (496) |  | (597) |
| Other, net |  | 172 |  | 1,073 |  | (29) |
| Total interest and other, net | \$ | 629 | \$ | 1,166 | \$ | (482) |

Interest expense is net of $\$ 1.5$ billion of interest capitalized in 2023 ( $\$ 785$ million in 2022 and $\$ 398$ million in 2021).
Other, net includes a $\$ 1.0$ billion gain recognized in 2022 from the first closing of the divestiture of our NAND memory business.

## Note 7 : Restructuring and Other Charges

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employee severance and benefit arrangements | \$ | 222 | \$ | 1,038 | \$ | 48 |
| Litigation charges and other |  | (329) |  | $(1,187)$ |  | 2,291 |
| Asset impairment charges |  | 45 |  | 151 |  | 287 |
| Total restructuring and other charges | \$ | (62) | \$ | 2 | \$ | 2,626 |

The 2022 Restructuring Program was approved to rebalance our workforce and operations to create efficiencies and improve our product execution in alignment with our strategy. Restructuring charges are primarily comprised of employee severance and benefit arrangements and are recorded as corporate charges in the "all other" category presented in "Note 3: Operating Segments" within the Notes to Consolidated Financial Statements. These actions were substantially complete as of December 30, 2023.

Restructuring activity for the 2022 Restructuring Program was as follows:

| (In Millions) | Employee Severance and Benefit Arrangements |  |
| :---: | :---: | :---: |
| Accrued restructuring balance as of December 25, 2021 | \$ | - |
| Accruals and adjustments |  | 1,038 |
| Cash payments |  | (165) |
| Accrued restructuring balance as of December 31, 2022 |  | 873 |
| Accruals and adjustments |  | 222 |
| Cash payments |  | $(1,013)$ |
| Accrued restructuring balance as of December 30, 2023 | \$ | 82 |

The accrued restructuring balances as of December 30, 2023 and December 31, 2022 were recorded as current liabilities within accrued compensation and benefits on the Consolidated Balance Sheets. The cumulative cost of the 2022 Restructuring Program as of December 30,2023 was $\$ 1.3$ billion.

Litigation charges and other includes a $\$ 1.2$ billion benefit in 2023 due to a reduction in the previously accrued $\$ 2.2$ billion charge as a result of developments in the VLSI litigation in the fourth quarter of 2023. 2023 charges also include a $\$ 401$ million charge for an ECimposed fine. In 2009, we recorded and paid an EC-imposed fine that was subsequently annulled, resulting in a benefit of $\$ 1.2$ billion in 2022. Refer to "Note 19: Commitments and Contingencies" within the Notes to Consolidated Financial Statements for further information on legal proceedings related to the VLSI litigation and EC fine.

Also in 2023, we mutually agreed with Tower to terminate the agreement we entered into during 2022 to acquire Tower due to our inability to obtain required regulatory approvals in a timely manner. We paid a termination fee in accordance with the terms of the agreement, resulting in a $\$ 353$ million charge included in litigation charges and other.


Note 8: Income Taxes

## Provision for (Benefit From) Taxes

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Income (losses) before taxes: |  |  |  |  |  |  |
| US | \$ | $(4,749)$ | \$ | $(1,161)$ | \$ | 9,361 |
| Non-US |  | 5,511 |  | 8,929 |  | 12,342 |
| Total income before taxes |  | 762 |  | 7,768 |  | 21,703 |
| Provision for (benefit from) taxes: |  |  |  |  |  |  |
| Current: |  |  |  |  |  |  |
| Federal |  | 538 |  | 4,106 |  | 1,304 |
| State |  | 23 |  | 68 |  | 75 |
| Non-US |  | 535 |  | 735 |  | 1,198 |
| Total current provision for (benefit from) taxes |  | 1,096 |  | 4,909 |  | 2,577 |
| Deferred: |  |  |  |  |  |  |
| Federal |  | $(2,048)$ |  | $(5,806)$ |  | (863) |
| State |  | (21) |  | (40) |  | (25) |
| Non-US |  | 60 |  | 688 |  | 146 |
| Total deferred provision for (benefit from) taxes |  | $(2,009)$ |  | $(5,158)$ |  | (742) |
| Total provision for (benefit from) taxes | \$ | (913) | \$ | (249) | \$ | 1,835 |
| Effective tax rate |  | (119.8)\% |  | (3.2)\% |  | 8.5 \% |

The difference between the tax provision at the statutory federal income tax rate and the tax provision as a percentage of income before income taxes (effective tax rate) for each period was as follows:

| Years Ended | Dec 30, 2023 | Dec 31, 2022 | Dec 25, 2021 |
| :---: | :---: | :---: | :---: |
| Statutory federal income tax rate | 21.0 \% | 21.0 \% | 21.0 \% |
| Increase (reduction) in rate resulting from: |  |  |  |
| Research and development tax credits | (99.0) | (11.4) | (2.4) |
| Non-US income taxed at different rates | (60.6) | (13.4) | (5.9) |
| Foreign derived intangible income benefit | (25.1) | (9.7) | (2.2) |
| Restructuring of certain non-US subsidiaries | (15.8) | (2.2) | (3.4) |
| Share-based compensation | 34.3 | 3.0 | - |
| Unrecognized tax benefits and settlements | 16.3 | 4.5 | 1.1 |
| Non-deductibility of European Commission fine | 11.1 | (4.1) | - |
| Other | (2.0) | 9.1 | 0.3 |
| Effective tax rate | (119.8)\% | (3.2)\% | 8.5 \% |

Our effective tax rate decreased in 2023 compared to 2022, primarily driven by our R\&D tax credits, which provide a tax benefit based on our eligible R\&D spending and are not dependent on lower income before taxes, and a higher proportion of our income being taxed in non-US jurisdictions.

Our effective tax rate decreased in 2022 compared to 2021, primarily driven by a higher proportion of our income being taxed in non-US jurisdictions and a change in tax law from 2017 Tax Reform related to the capitalization of R\&D expenses that went into effect in January 2022.

We derive the effective tax rate benefit attributed to non-US income taxed at different rates primarily from our operations in Hong Kong, Ireland, Israel, and Malaysia. The statutory tax rates in these jurisdictions range from $12.5 \%$ to $24.0 \%$. We are subject to reduced tax rates in Israel and Malaysia as long as we conduct certain eligible activities and make certain capital investments. We have conditional reduced tax rates that expire at various dates through 2056, and we expect to apply for renewals upon expiration. In 2023 the tax benefit specifically attributable to tax holidays was $\$ 129$ million ( $\$ 220$ million for 2022 and $\$ 187$ million for 2021) with a $\$ 0.03$ impact on diluted earnings per share ( $\$ 0.05$ for 2022 and $\$ 0.05$ for 2021).


## Deferred and Current Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts for income tax purposes. Significant components of our deferred tax assets and liabilities at the end of each period were as follows:

| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: |
| Deferred tax assets: |  |  |  |  |
| R\&D expenditures capitalization | \$ | 7,726 | \$ | 5,067 |
| State credits and net operating losses |  | 2,624 |  | 2,259 |
| Inventory |  | 1,430 |  | 1,788 |
| Accrued compensation and other benefits |  | 931 |  | 1,031 |
| Share-based compensation |  | 586 |  | 557 |
| Litigation charge |  | 308 |  | 470 |
| Other, net |  | 926 |  | 709 |
| Gross deferred tax assets |  | 14,531 |  | 11,881 |
| Valuation allowance |  | $(3,047)$ |  | $(2,586)$ |
| Total deferred tax assets |  | 11,484 |  | 9,295 |
| Deferred tax liabilities: |  |  |  |  |
| Property, plant, and equipment |  | $(5,156)$ |  | $(4,776)$ |
| Licenses and intangibles |  | (494) |  | (386) |
| Unrealized gains on investments and derivatives |  | (358) |  | (415) |
| Other, net |  | (203) |  | (470) |
| Total deferred tax liabilities |  | $(6,211)$ |  | $(6,047)$ |
| Net deferred tax assets (liabilities) | \$ | 5,273 | \$ | 3,248 |
| Reported as: |  |  |  |  |
| Deferred tax assets |  | 5,459 |  | 3,450 |
| Deferred tax liabilities |  | (186) |  | (202) |
| Net deferred tax assets (liabilities) | \$ | 5,273 | \$ | 3,248 |

Changes in the valuation allowance for deferred tax assets were as follows:

| Years Ended (In Millions) | Balance at Beginning of Year |  | Additions Charged to Expenses/ Other Accounts |  | Net (Deductions) Recoveries |  | Balance at End of Year |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation allowance for deferred tax assets |  |  |  |  |  |  |  |  |
| December 30, 2023 | \$ | 2,586 | \$ | 461 | \$ | - | \$ | 3,047 |
| December 31, 2022 | \$ | 2,259 | \$ | 401 | \$ | (74) | \$ | 2,586 |
| December 25, 2021 | \$ | 1,963 | \$ | 442 | \$ | (146) | \$ | 2,259 |

Deferred tax assets are included within other long-term assets on the Consolidated Balance Sheets.
The valuation allowance as of December 30, 2023 included allowances primarily related to unrealized state credit carryforwards of $\$ 2.6$ billion.

As of December 30, 2023, our federal and non-US net operating loss carryforwards for income tax purposes were $\$ 325$ million and $\$ 1.7$ billion, respectively. The majority of the federal and non-US net operating loss carryforwards have no expiration date. The remaining federal and non-US net operating loss carryforwards expire at various dates through 2040. The federal and non-US net operating loss carryforwards include $\$ 141$ million and $\$ 1.7$ billion, respectively, that are not likely to be recovered and have been reduced by a valuation allowance.

As of December 30, 2023, we have undistributed earnings of certain foreign subsidiaries of approximately $\$ 19.9$ billion that we have indefinitely invested, and on which we have not recognized deferred taxes. Estimating the amount of potential tax is not practicable because of the complexity and variety of assumptions necessary to compute the tax.


Current income taxes receivable of $\$ 59$ million as of December 30, 2023 ( $\$ 138$ million as of December 31, 2022) are included in other current assets.

Long-term income taxes payable of $\$ 2.6$ billion as of December 30, 2023 ( $\$ 3.8$ billion as of December 31, 2022) are primarily composed of the transition tax from Tax Reform, which is payable over eight years beginning in 2018, as well as amounts for uncertain tax positions, reduced by the associated deduction for state taxes and non-US tax credits.

## Uncertain Tax Positions

| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning gross unrecognized tax benefits | \$ | 1,229 | \$ | 1,020 | \$ | 828 |
| Settlements and effective settlements with tax authorities |  | (288) |  | (18) |  | (25) |
| Changes in balances related to tax position taken during prior periods |  | - |  | (120) |  | (26) |
| Changes in balances related to tax position taken during current period |  | 183 |  | 347 |  | 243 |
| Ending gross unrecognized tax benefits | \$ | 1,124 | \$ | 1,229 | \$ | 1,020 |

If the remaining balance of unrecognized tax benefits were recognized in a future period, it would result in a tax benefit of $\$ 962$ million as of December 30, 2023 ( $\$ 914$ million as of December 31, 2022) and a reduction in the effective tax rate. Interest, penalties, and accrued interest related to unrecognized tax benefits were insignificant in the periods presented.

We regularly engage in discussions and negotiations with tax authorities regarding tax matters in the various jurisdictions in which we conduct business. Although the timing of the resolutions and/or closures of audits is highly uncertain, it is reasonably possible that certain US federal and non-US tax audits may be concluded within the next 12 months, which could increase or decrease the balance of our gross unrecognized tax benefits. We estimate that the unrecognized tax benefits as of December 30, 2023 could decrease by as much as $\$ 314$ million in the next 12 months.

We file federal, state, and non-US tax returns. We are no longer subject to US federal and non-US tax examinations for years prior to 2018 and 2015, respectively. For US state tax returns, we are no longer subject to tax examination for years prior to 2015.

## Note 9: Investments

## Short-term Investments

Short-term investments include marketable debt investments in corporate debt, government debt, and financial institution instruments, and are recorded within cash and cash equivalents and short-term investments on the Consolidated Balance Sheets. Government debt includes instruments such as non-US government bills and bonds and US agency securities. Financial institution instruments include instruments issued or managed by financial institutions in various forms, such as commercial paper, fixed- and floating-rate bonds, money market fund deposits, and time deposits. As of December 30, 2023 and December 31, 2022, substantially all time deposits were issued by institutions outside the US.

The fair value of our economically hedged marketable debt investments was $\$ 17.1$ billion as of December 30, 2023 ( $\$ 16.2$ billion as of December 31, 2022). For hedged investments still held at the reporting date, we recorded net gains of $\$ 534$ million in 2023 (net losses of $\$ 748$ million in 2022 and net losses of $\$ 606$ million in 2021). Net losses on the related derivatives were $\$ 472$ million in 2023 (net gains of $\$ 752$ million in 2022 and net gains of $\$ 609$ million in 2021).

Our remaining unhedged marketable debt investments are reported at fair value, with unrealized gains or losses, net of tax, recorded in accumulated other comprehensive income (loss). The adjusted cost of our unhedged investments was $\$ 4.7$ billion as of December 30, 2023 ( $\$ 10.2$ billion as of December 31, 2022), which approximated the fair value for these periods.

The fair value of marketable debt investments, by contractual maturity, as of December 30,2023, was as follows:

| (In Millions) | Fair Value |
| :--- | ---: |
| Due in 1 year or less | $\$ 8$ |
| Due in 1-2 years | 9,575 |
| Due in 2-5 years | 2,375 |
| Due after 5 years | 7,134 |
| Instruments not due at a single maturity date | 442 |
| Total | $\mathbf{2 , 2 7 4}$ |



## Equity Investments

| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: |
| Marketable equity securities ${ }^{1}$ | \$ | 1,194 | \$ | 1,341 |
| Non-marketable equity securities |  | 4,630 |  | 4,561 |
| Equity method investments |  | 5 |  | 10 |
| Total | \$ | 5,829 | \$ | 5,912 |

${ }^{1}$ Over $90 \%$ of our marketable equity securities are subject to trading-volume or market-based restrictions, which limit the number of shares we may sell in a specified period of time, impacting our ability to liquidate these investments. The trading volume restrictions generally apply for as long as we own more than $1 \%$ of the outstanding shares. Market-based restrictions result from the rules of the respective exchange.

The components of gains (losses) on equity investments, net for each period were as follows:

| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ongoing mark-to-market adjustments on marketable equity securities | \$ | (36) | \$ | (787) | \$ | (130) |
| Observable price adjustments on non-marketable equity securities |  | 17 |  | 299 |  | 750 |
| Impairment charges |  | (214) |  | (190) |  | (154) |
| Sale of equity investments and other ${ }^{1}$ |  | 273 |  | 4,946 |  | 2,263 |
| Total gains (losses) on equity investments, net | \$ | 40 | \$ | 4,268 | \$ | 2,729 |

1 Sale of equity investments and other includes initial fair value adjustments recorded upon a security becoming marketable, realized gains (losses) on sales of non-marketable equity investments and equity method investments, and our share of equity method investee gains (losses) and distributions.

As of December 30,2023, the cumulative amount of impairments for equity securities without readily determinable fair value was $\$ 1.1$ billion ( $\$ 955$ million as of December 31, 2022) and upward observable price adjustments were $\$ 1.4$ billion ( $\$ 1.4$ billion as of December 31, 2022).

Net unrealized gains and losses for our marketable and non-marketable equity securities during each period still held at the reporting date were as follows:

| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net gains (losses) recognized during the period on equity securities | \$ | 19 | \$ | (314) | \$ | 1,210 |
| Less: Net (gains) losses recognized during the period on equity securities sold during the period |  | (5) |  | 1 |  | (259) |
| Net unrealized gains (losses) recognized during the period on equity securities still held at the reporting date | \$ | 14 | \$ | (313) | \$ | 951 |

McAfee Corp.
During 2022, the sale of McAfee's consumer business was completed and we received $\$ 4.6$ billion in cash for the sale of our remaining share of McAfee, recognizing a $\$ 4.6$ billion gain in sale of equity investments and other. In 2021, we recognized McAfee dividends of $\$ 1.3$ billion, which included a special dividend of $\$ 1.1$ billion paid in connection with the sale of McAfee's enterprise business, and recognized $\$ 228$ million related to the partial sale of our investment in McAfee.

Beijing Unisoc Technology Ltd.
We account for our interest in Beijing Unisoc Technology Ltd. (Unisoc) as a non-marketable equity security. During 2021, we recognized $\$ 471$ million in observable price adjustments in our investment in Unisoc and as of December 30, 2023, the net book value of the investment was $\$ 1.1$ billion ( $\$ 1.1$ billion as of December 31, 2022).


## Note 10 : Divestitures

## NAND Memory Business

On December 29, 2021, we closed the first phase of our agreement with SK hynix Inc. (SK hynix) to divest our NAND memory business for $\$ 9.0$ billion in cash. Our NAND memory business includes our NAND memory technology and manufacturing business (the NAND OpCo Business), of which we deconsolidated our ongoing interests as part of the sale. The transaction will be completed in two closings and upon the first closing in the first quarter of 2022, SK hynix paid $\$ 7.0$ billion of consideration and we recognized a pre-tax gain of $\$ 1.0$ billion within interest and other, net, and tax expense of $\$ 495$ million. We recorded a receivable in other long-term assets for the remaining proceeds we will receive upon the second closing of the transaction, expected to be no earlier than March 2025. The receivable outstanding was $\$ 2.0$ billion as of December 30, 2023 and $\$ 1.9$ billion December 31, 2022.

The wafer manufacturing and sale agreement includes incentives and penalties that are contingent on the cost of operation and output of the NAND OpCo Business. These incentives and penalties present a maximum exposure of up to $\$ 500$ million annually, and $\$ 1.5$ billion in the aggregate. We are currently in negotiations with SK hynix to update the operating plan of the NAND OpCo Business in light of the current business environment and projections, which may impact the metrics associated with the incentives and penalties and our expectations of the performance of the NAND OpCo Business against those metrics.

We were reimbursed for costs that we incurred on behalf of the NAND OpCo Business for corporate function services, which include human resources, information technology, finance, supply chain, and other compliance requirements. Reimbursed expenses approximated $\$ 145$ million in 2022 and $\$ 125$ million in 2023. We recorded a receivable due from the NAND OpCo Business, a deconsolidated entity, of $\$ 145$ million within other current assets as of December 30, 2023 ( $\$ 133$ million recorded as of December 31, 2022).

## Note 11 : Goodwill

| (In Millions) | Dec 31, 2022 |  | Acquisitions |  | Transfers |  | Other |  | Dec 30, 2023 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Client Computing | \$ | 4,254 | \$ | - | \$ | 495 | \$ | - | \$ | 4,749 |
| Data Center and AI |  | 9,013 |  | - |  | (292) |  | - |  | 8,721 |
| Network and Edge |  | 2,809 |  | - |  | - |  | - |  | 2,809 |
| Mobileye |  | 10,919 |  | - |  | - |  | - |  | 10,919 |
| Accelerated Computing Systems and Graphics |  | 596 |  | - |  | (596) |  | - |  | - |
| All other |  | - |  | - |  | 393 |  | - |  | 393 |
| Total | \$ | 27,591 | \$ | - | \$ | - | \$ | - | \$ | 27,591 |
| (In Millions) | Dec 25, 2021 |  | Acquisitions |  | Transfers |  | Other |  | Dec 31, 2022 |  |
| Client Computing | \$ | 4,237 | \$ | 17 | \$ | - | \$ | - | \$ | 4,254 |
| Data Center and AI |  | 8,595 |  | 418 |  | - |  | - |  | 9,013 |
| Network and Edge |  | 2,774 |  | 35 |  | - |  | - |  | 2,809 |
| Mobileye |  | 10,928 |  | - |  | - |  | (9) |  | 10,919 |
| Accelerated Computing Systems and Graphics |  | 429 |  | 167 |  | - |  | - |  | 596 |
| All other |  | - |  | - |  | - |  | - |  | - |
| Total | \$ | 26,963 | \$ | 637 | \$ | - | \$ | (9) | \$ | 27,591 |

As described in "Note 3: Operating Segments" within the Notes to Consolidated Financial Statements, we integrated AXG into CCG and DCAI in the first quarter of 2023. As a result, of the total $\$ 596$ million of goodwill previously allocated to AXG, we reallocated $\$ 495$ million to CCG and $\$ 101$ million to DCAI based on the relative fair value of our updated operating segments. We performed a quantitative impairment assessment for each of our reporting units immediately before and after our business reorganization, concluding that goodwill was not impaired. We also reallocated $\$ 393$ million of goodwill from DCAI to other businesses during 2023.

During the fourth quarter of 2023 and 2022, we completed our annual impairment assessments and concluded that goodwill was not impaired. During the second quarter of 2021, we recognized a goodwill impairment loss of $\$ 238$ million related to two non-strategic businesses that we exited, recorded within our "all other" category. The accumulated impairment loss as of December 30, 2023 was $\$ 957$ million: $\$ 365$ million associated with CCG, $\$ 275$ million associated with DCAI, $\$ 79$ million associated with NEX, and the remainder associated with non-reportable segments.


In the first quarter of 2022, we retrospectively adjusted all prior-period amounts in our goodwill footnote to reflect changes to our operating segments. We reallocated goodwill among our affected reporting units based on the relative fair value of our new operating segments. We performed a quantitative impairment assessment for each of our reporting units immediately before and after our business reorganization, concluding that goodwill was not impaired.

## Note 12 : Identified Intangible Assets

|  | December 30, 2023 |  |  |  |  |  | December 31, 2022 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (In Millions) | Gross Assets |  | Accumulated Amortization |  | Net |  | Gross Assets |  | Accumulated Amortization |  | Net |  |
| Developed technology | \$ | 10,520 | \$ | $(7,996)$ | \$ | 2,524 | \$ | 10,964 | \$ | $(7,216)$ | \$ | 3,748 |
| Customer relationships and brands |  | 1,986 |  | $(1,286)$ |  | 700 |  | 1,986 |  | $(1,114)$ |  | 872 |
| Licensed technology and patents |  | 3,088 |  | $(1,728)$ |  | 1,360 |  | 3,219 |  | $(1,821)$ |  | 1,398 |
| Other non-amortizing intangibles |  | 5 |  | - |  | 5 |  | - |  | - |  | - |
| Total identified intangible assets | \$ | 15,599 | \$ | $(11,010)$ | \$ | 4,589 | \$ | 16,169 | \$ | $(10,151)$ | \$ | 6,018 |

During 2022 and 2023, we entered into and/or renewed several licensed technology arrangements totaling $\$ 634$ million and $\$ 309$ million respectively, which are subject to amortization.

Amortization expenses recorded for identified intangible assets in the Consolidated Statements of Income for each period and the weighted average useful life were as follows:

|  |  |  |  |  |  | Weighted <br> Average |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Years Ended (In Millions) |  |  |  |  |  |  |

${ }^{1}$ Represents weighted average useful life in years of intangible assets as of December 30, 2023.
We expect future amortization expense for the next five years and thereafter to be as follows:

| (In Millions) |  | 2024 |  | 2025 |  | 2026 |  | 2027 |  | 2028 |  | after |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Future amortization expenses | \$ | 1,360 | \$ | 948 | \$ | 742 | \$ | 552 | \$ | 339 | \$ | 643 | \$ | 4,584 |

## Note 13 : Borrowings

## Short-Term Debt

As of December 30, 2023, short-term debt was $\$ 2.3$ billion, composed of the current portion of long-term debt. As of December 31, 2022, short-term debt was $\$ 4.4$ billion, composed of $\$ 423$ million of the current portion of long-term debt and $\$ 3.9$ billion of commercial paper. The current portion of long-term debt includes debt classified as short-term based on time remaining until maturity.

We have an ongoing authorization from our Board of Directors to borrow up to $\$ 10.0$ billion under our commercial paper program. As of December 30, 2023 we had no commercial paper outstanding ( $\$ 3.9$ billion as of December 31, 2022).


| (In Millions) | Dec 30, 2023 |  |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Effective Interest Rate | Amount |  | Amount |  |
| Fixed-rate senior notes: |  |  |  |  |  |
| 2.88\%, due May 2024 | 2.32\% | \$ | 1,250 | \$ | 1,250 |
| 2.70\%, due June 2024 | 2.14\% |  | 600 |  | 600 |
| 3.40\%, due March 2025 | 3.45\% |  | 1,500 |  | 1,500 |
| 3.70\%, due July 2025 | 7.29\% |  | 2,250 |  | 2,250 |
| 4.88\%, due February 2026 | 4.96\% |  | 1,500 |  | - |
| 2.60\%, due May 2026 | 5.79\% |  | 1,000 |  | 1,000 |
| 3.75\%, due March 2027 | 3.79\% |  | 1,000 |  | 1,000 |
| 3.15\%, due May 2027 | 6.35\% |  | 1,000 |  | 1,000 |
| $3.75 \%$, due August 2027 | 3.82\% |  | 1,250 |  | 1,250 |
| 4.88\%, due February 2028 | 4.94\% |  | 1,750 |  | - |
| 1.60\%, due August 2028 | 1.67\% |  | 1,000 |  | 1,000 |
| 4.00\%, due August 2029 | 4.06\% |  | 850 |  | 850 |
| 2.45\%, due November 2029 | 2.39\% |  | 2,000 |  | 2,000 |
| 5.13\%, due February 2030 | 5.17\% |  | 1,250 |  | - |
| 3.90\%, due March 2030 | 3.93\% |  | 1,500 |  | 1,500 |
| 2.00\%, due August 2031 | 2.03\% |  | 1,250 |  | 1,250 |
| 4.15\%, due August 2032 | 4.18\% |  | 1,250 |  | 1,250 |
| 4.00\%, due December 2032 | 7.21\% |  | 750 |  | 750 |
| 5.20\%, due February 2033 | 5.25\% |  | 2,250 |  | - |
| 4.60\%, due March 2040 | 4.61\% |  | 750 |  | 750 |
| 2.80\%, due August 2041 | 2.81\% |  | 750 |  | 750 |
| 4.80\%, due October 2041 | 7.16\% |  | 802 |  | 802 |
| 4.25\%, due December 2042 | 7.45\% |  | 567 |  | 567 |
| 5.63\%, due February 2043 | 5.64\% |  | 1,000 |  | - |
| 4.90\%, due July 2045 | 7.29\% |  | 772 |  | 772 |
| 4.10\%, due May 2046 | 6.58\% |  | 1,250 |  | 1,250 |
| 4.10\%, due May 2047 | 6.53\% |  | 1,000 |  | 1,000 |
| 4.10\%, due August 2047 | 6.09\% |  | 640 |  | 640 |
| 3.73\%, due December 2047 | 6.99\% |  | 1,967 |  | 1,967 |
| 3.25\%, due November 2049 | 3.20\% |  | 2,000 |  | 2,000 |
| 4.75\%, due March 2050 | 4.74\% |  | 2,250 |  | 2,250 |
| 3.05\%, due August 2051 | 3.06\% |  | 1,250 |  | 1,250 |
| 4.90\%, due August 2052 | 4.90\% |  | 1,750 |  | 1,750 |
| 5.70\%, due February 2053 | 5.71\% |  | 2,000 |  | - |
| 3.10\%, due February 2060 | 3.11\% |  | 1,000 |  | 1,000 |
| 4.95\%, due March 2060 | 4.99\% |  | 1,000 |  | 1,000 |
| 3.20\%, due August 2061 | 3.21\% |  | 750 |  | 750 |
| 5.05\%, due August 2062 | 5.05\% |  | 900 |  | 900 |
| 5.90\%, due February 2063 | 5.91\% |  | 1,250 |  | - |



| (In Millions) | Dec 30, 2023 |  |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Effective Interest Rate | Amount |  | Amount |  |
| Oregon and Arizona bonds ${ }^{1}$ : |  |  |  |  |  |
| 2.40\% - 2.70\%, due December 2035-2040 | -\% |  | - |  | 423 |
| 3.80\% - 4.10\%, due December 2035-2040 | 3.89\% |  | 423 |  | - |
| 5.00\%, due September 2042 | 3.64\% |  | 131 |  | 131 |
| 5.00\%, due June 2049 | 2.15\% |  | 438 |  | 438 |
| $5.00 \%$, due September 2052 | 4.26\% |  | 445 |  | 445 |
| Total senior notes and other borrowings |  |  | 50,285 |  | 39,285 |
| Unamortized premium/discount and issuance costs |  |  | (445) |  | (417) |
| Hedge accounting fair value adjustments |  |  | (574) |  | (761) |
| Long-term debt |  |  | 49,266 |  | 38,107 |
| Current portion of long-term debt |  |  | $(2,288)$ |  | (423) |
| Total long-term debt |  | \$ | 46,978 | \$ | 37,684 |

${ }^{1}$ These bonds may be remarketed or tendered on a periodic basis and will be classified within the current portion of long-term debt in the twelve months before remarketing or tendering.

## Senior Notes

In 2023, we issued a total of $\$ 11.0$ billion aggregate principal amount of senior notes.
In 2022, we issued a total of $\$ 6.0$ billion aggregate principal amount of senior notes, including our inaugural green bond issuance of $\$ 1.3$ billion principal amount, and settled in cash $\$ 1.6$ billion of our senior notes that matured in May 2022, $\$ 1.0$ billion of our senior notes that matured in July 2022, and $\$ 1.9$ billion of our senior notes that matured in December 2022. We also early cash settled $\$ 400$ million of our senior notes due November 2023.

Our fixed-rate senior notes pay interest semiannually. We may redeem the fixed-rate notes prior to their maturity at our option at specified redemption prices and subject to certain restrictions. The obligations under the notes rank equally in right of payment with all of our other existing and future senior unsecured indebtedness and will effectively rank junior to all liabilities of our subsidiaries.

## Oregon and Arizona Bonds

In 2023, we remarketed $\$ 423$ million aggregate principal amount of bonds issued by the Industrial Development Authority of the City of Chandler, Arizona (the Arizona bonds) and the State of Oregon Business Development Commission (the Oregon bonds). The bonds are unsecured general obligations in accordance with loan agreements we entered into with each of the Industrial Development Authority of the City of Chandler, Arizona (CIDA) and the State of Oregon Business Development Commission. The bonds mature in 2035 and 2040 and have $3.8 \%$ and $4.1 \%$ coupons. Both the Arizona and Oregon bonds are subject to optional tender starting in February 2028 and mandatory tender in June 2028, at which time we may remarket the bonds for a new term period.

In 2022, we received proceeds of $\$ 600$ million in the aggregate for the sale of bonds issued by CIDA. The bonds are our unsecured general obligations in accordance with the loan with the CIDA. The bonds mature in 2042 and 2052 and carry an interest rate of $5.0 \%$. The bonds are subject to mandatory tender in September 2027, at which time we can re-market the bonds as either fixed-rate bonds for a specified period or as variable-rate bonds until another fixed-rate period is selected or until their final maturity date. We settled in cash \$138 million of bonds issued by the Oregon Business Development Commission in March 2022.

## Revolving Credit Facilities

In 2022, we entered into a $\$ 5.0$ billion, 364 -day variable-rate unsecured revolving credit facility that, if drawn, is expected to be used for general corporate purposes. In 2023, we extended the maturity date from November 2023 to March 2024. In 2022, we amended our $\$ 5.0$ billion variable-rate revolving credit facility agreement that we entered into in 2021, extending the maturity date by one year to March 2027 and transitioning from LIBOR to term SOFR. In 2023, we extended the maturity date by one year to March 2028.

The revolving credit facilities had no borrowings outstanding as of December 30, 2023 and December 31, 2022.

## Debt Maturities

Our aggregate debt maturities, based on outstanding principal as of December 30,2023, by year payable, are as follows:

| (In Millions) |  | 2024 |  | 2025 |  | 2026 |  | 2027 |  | 2028 |  | 2029 and thereafter |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 2,288 | \$ | 3,750 | \$ | 2,500 | \$ | 3,826 | \$ | 3,174 | \$ | 34,747 | \$ | 50,285 |



## Note 14 : Fair Value

Assets and Liabilities Measured and Recorded at Fair Value on a Recurring Basis

| (In Millions) | December 30, 2023 <br> Fair Value Measured and <br> Recorded at Reporting Date Using |  |  |  |  |  | Total |  | December 31, 2022 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | Fair V orded |  | Measur porting |  |  |  |  |
|  | Level 1 |  | Level 2 |  | Level 3 |  |  |  | Level 1 |  | Level 2 |  | Level 3 |  | Total |  |
| Assets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cash equivalents: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Corporate debt | \$ | - | \$ | 769 | \$ | - |  |  | \$ | 769 | \$ | - | \$ | 856 | \$ | - | \$ | 856 |
| Financial institution instruments ${ }^{1}$ |  | 2,241 |  | 835 |  | - |  | 3,076 |  | 6,899 |  | 1,474 |  | - |  | 8,373 |
| Reverse repurchase agreements |  | - |  | 2,554 |  | - |  | 2,554 |  | - |  | 1,301 |  | - |  | 1,301 |
| Short-term investments: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Corporate debt |  | - |  | 6,951 |  | - |  | 6,951 |  | - |  | 5,381 |  | - |  | 5,381 |
| Financial institution instruments ${ }^{1}$ |  | 33 |  | 4,215 |  | - |  | 4,248 |  | 196 |  | 4,729 |  | - |  | 4,925 |
| Government debt ${ }^{2}$ |  | - |  | 6,756 |  | - |  | 6,756 |  | 48 |  | 6,840 |  | - |  | 6,888 |
| Other current assets: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Derivative assets |  | 366 |  | 809 |  | - |  | 1,175 |  | - |  | 1,264 |  | - |  | 1,264 |
| Loans receivable |  | - |  | - |  | - |  | - |  | - |  | 53 |  | - |  | 53 |
| Marketable equity securities |  | 1,194 |  | - |  | - |  | 1,194 |  | 1,341 |  | - |  | - |  | 1,341 |
| Other long-term assets: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Derivative assets |  | - |  | 21 |  | - |  | 21 |  | - |  | 10 |  | - |  | 10 |
| Total assets measured and recorded at fair value | \$ | 3,834 | \$ | 22,910 | \$ | - | \$ | 26,744 | \$ | 8,484 | \$ | 21,908 | \$ | - |  | 30,392 |
| Liabilities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other accrued liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Derivative liabilities | \$ | - | \$ | 541 | \$ | 99 | \$ | 640 | \$ | 111 | \$ | 485 | \$ | 89 | \$ | 685 |
| Other long-term liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Derivative liabilities |  | - |  | 479 |  | - |  | 479 |  | - |  | 699 |  | - |  | 699 |
| Total liabilities measured and recorded at fair value | \$ | - | \$ | 1,020 | \$ | 99 | \$ | 1,119 | \$ | 111 | \$ | 1,184 | \$ | 89 | \$ | 1,384 |

1. Level 1 investments consist of money market funds. Level 2 investments consist primarily of commercial paper, certificates of deposit, time deposits, notes and bonds issued by financial institutions.
2. Level 1 investments consist primarily of US Treasury securities. Level 2 investments consist primarily of non-US government debt.

## Assets Measured and Recorded at Fair Value on a Non-Recurring Basis

Our non-marketable equity securities, equity method investments, and certain non-financial assets-such as intangible assets and property, plant, and equipment-are recorded at fair value only if an impairment or observable price adjustment is recognized in the current period. If an impairment or observable price adjustment is recognized on our non-marketable equity securities during the period, we classify these assets as Level 3.

We classify non-marketable equity securities and non-marketable equity method investments as Level 3 . Impairments recognized on these investments held as of December 30, 2023 were $\$ 202$ million ( $\$ 179$ million on investments held as of December 31, 2022).


## Financial Assets and Liabilities Not Recorded at Fair Value on a Recurring Basis

Financial assets and liabilities not recorded at fair value on a recurring basis include non-marketable equity securities and equity method investments that have not been remeasured or impaired in the current period, grants receivable, long-term receivables, and issued debt.

We classify the fair value of grants receivable, long-term receivables, and reverse repurchase agreements with original maturities greater than three months as Level 2. The estimated fair value of these financial assets approximates their carrying value. The aggregate carrying value of grants receivable as of December 30, 2023 was $\$ 559$ million (the aggregate carrying value of grants receivable as of December 31,2022 was $\$ 437$ million). The aggregate carrying value of reverse repurchase agreements with original maturities greater than three months as of December 30, 2023 was $\$ 0$ (the aggregate carrying value as of December 31, 2022 was $\$ 400$ million).

We classify the fair value of issued debt (excluding commercial paper) as Level 2. The fair value of these instruments was $\$ 47.6$ billion as of December 30, 2023 ( $\$ 34.3$ billion as of December 31, 2022).

## Note 15 : Other Comprehensive Income (Loss)

The changes in accumulated other comprehensive income (loss) by component and related tax effects for each period were as follows:

| (In Millions) | Unrealized Holding Gains (Losses) on Derivatives |  | Actuarial Valuation and Other Pension Expenses |  | Translation Adjustments and Other |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| December 26, 2020 | \$ | 731 | \$ | $(1,565)$ | \$ | 83 | \$ | (751) |
| Other comprehensive income (loss) before reclassifications |  | (434) |  | 476 |  | (58) |  | (16) |
| Amounts reclassified out of accumulated other comprehensive income (loss) |  | (226) |  | 101 |  | (19) |  | (144) |
| Tax effects |  | 140 |  | (126) |  | 17 |  | 31 |
| Other comprehensive income (loss) |  | (520) |  | 451 |  | (60) |  | (129) |
| December 25, 2021 |  | 211 |  | $(1,114)$ |  | 23 |  | (880) |
| Other comprehensive income (loss) before reclassifications |  | (910) |  | 923 |  | (28) |  | (15) |
| Amounts reclassified out of accumulated other comprehensive income (loss) |  | 410 |  | 82 |  | (6) |  | 486 |
| Tax effects |  | (10) |  | (150) |  | 7 |  | (153) |
| Other comprehensive income (loss) |  | (510) |  | 855 |  | (27) |  | 318 |
| December 31, 2022 |  | (299) |  | (259) |  | (4) |  | (562) |
| Other comprehensive income (loss) before reclassifications |  | 3 |  | 57 |  | 11 |  | 71 |
| Amounts reclassified out of accumulated other comprehensive income (loss) |  | 328 |  | 33 |  | - |  | 361 |
| Tax effects |  | (59) |  | (24) |  | (2) |  | (85) |
| Other comprehensive income (loss) |  | 272 |  | 66 |  | 9 |  | 347 |
| December 30, 2023 | \$ | (27) | \$ | (193) | \$ | 5 | \$ | $\underline{ }$ |

We estimate that we will reclassify approximately $\$ 13$ million (before taxes) of net derivative gains from accumulated other comprehensive income (loss) into earnings within the next 12 months.


## Note 16 : Derivative Financial Instruments

## Volume of Derivative Activity

Total gross notional amounts for outstanding derivatives (recorded at fair value) at the end of each period were as follows:

| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Foreign currency contracts | \$ | 30,064 | \$ | 31,603 | \$ | 38,024 |
| Interest rate contracts |  | 18,363 |  | 16,011 |  | 15,209 |
| Other |  | 2,103 |  | 2,094 |  | 2,517 |
| Total | \$ | 50,530 | \$ | 49,708 | \$ | 55,750 |

The total notional amount of outstanding pay-variable, receive-fixed interest rate swaps was $\$ 12.0$ billion as of December 30, 2023 and December 31, 2022.

Fair Value of Derivative Instruments in the Consolidated Balance Sheets

| (In Millions) | December 30, 2023 |  |  |  | December 31, 2022 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Assets ${ }^{1}$ |  | Liabilities ${ }^{2}$ |  | Assets ${ }^{1}$ |  | Liabilities ${ }^{2}$ |  |
| Derivatives designated as hedging instruments: |  |  |  |  |  |  |  |  |
| Foreign currency contracts ${ }^{3}$ | \$ | 255 | \$ | 142 | \$ | 142 | \$ | 290 |
| Interest rate contracts |  | - |  | 578 |  | - |  | 777 |
| Total derivatives designated as hedging instruments |  | 255 |  | 720 |  | 142 |  | 1,067 |
| Derivatives not designated as hedging instruments: |  |  |  |  |  |  |  |  |
| Foreign currency contracts ${ }^{3}$ |  | 314 |  | 363 |  | 866 |  | 194 |
| Interest rate contracts |  | 261 |  | 36 |  | 266 |  | 12 |
| Equity contracts |  | 366 |  | - |  | - |  | 111 |
| Total derivatives not designated as hedging instruments |  | 941 |  | 399 |  | 1,132 |  | 317 |
| Total derivatives | \$ | 1,196 | \$ | 1,119 | \$ | 1,274 | \$ | 1,384 |

${ }_{2}^{1}$ Derivative assets are recorded as other assets, current and long-term.
${ }^{2}$ Derivative liabilities are recorded as other liabilities, current and long-term.
${ }^{3}$ A substantial majority of these instruments mature within 12 months.

## Amounts Offset in the Consolidated Balance Sheets

Agreements subject to master netting arrangements with various counterparties, and cash and non-cash collateral posted under such agreements at the end of each period were as follows:

| (In Millions) | December 30, 2023 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross Amounts Recognized |  | Gross Amounts Offset in the Balance Sheet |  | Net Amounts Presented in the Balance Sheet |  | Gross Amounts Not Offset in the Balance Sheet |  |  |  | Net Amount |  |
|  |  |  | Financial Instruments | Cash and Non-Cash Collateral Received or Pledged |  |  |  |
| Assets: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Derivative assets subject to master netting arrangements | \$ | 1,047 | \$ | - |  |  | \$ | 1,047 | \$ | (617) | \$ | (430) | \$ | - |
| Reverse repurchase agreements |  | 2,554 |  | - |  | 2,554 |  | - |  | $(2,554)$ |  | - |
| Total assets |  | 3,601 |  | - |  | 3,601 |  | (617) |  | $(2,984)$ |  | - |
| Liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Derivative liabilities subject to master netting arrangements |  | 1,111 |  | - |  | 1,111 |  | (617) |  | (399) |  | 95 |
| Total liabilities | \$ | 1,111 | \$ | - | \$ | 1,111 | \$ | (617) | \$ | (399) | \$ | 95 |



| (In Millions) | Gross Amounts Recognized |  | Gross Amounts Offset in the Balance Sheet |  |  |  |  |  |  |  | Net Amount |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Net Amounts Presented in the Balance Sheet |  | Gross Amounts Not Offset in the Balance Sheet |  |  |  |  |  |
|  |  |  | Financial Instruments | Cash and Non-Cash Collateral Received or Pledged |  |  |  |
| Assets: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Derivative assets subject to master netting arrangements | \$ | 1,231 | \$ | - | \$ | 1,231 | \$ | (546) | \$ | (682) | \$ | 3 |
| Reverse repurchase agreements |  | 1,701 |  | - |  | 1,701 |  | - |  | $(1,701)$ |  | - |
| Total assets |  | 2,932 |  | - |  | 2,932 |  | (546) |  | $(2,383)$ |  | 3 |
| Liabilities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Derivative liabilities subject to master netting arrangements |  | 1,337 |  | - |  | 1,337 |  | (546) |  | (712) |  | 79 |
| Total liabilities | \$ | 1,337 | \$ | - | \$ | 1,337 | \$ | (546) | \$ | (712) | \$ | 79 |

We obtain and secure available collateral from counterparties against obligations, including securities lending transactions and reverse repurchase agreements, when we deem it appropriate.

## Derivatives in Cash Flow Hedging Relationships

The before-tax net gains or losses attributed to the effective portion of cash flow hedges recognized in other comprehensive income (loss) were $\$ 3$ million net gains in 2023 ( $\$ 910$ million net losses in 2022 and $\$ 434$ million net losses in 2021). Substantially all of our cash flow hedges are foreign currency contracts for all periods presented.

Amounts excluded from effectiveness testing were $\$ 221$ million net losses in 2023 ( $\$ 117$ million net losses in 2022 and $\$ 19$ million net losses in 2021).

For information on the unrealized holding gains (losses) on derivatives reclassified out of accumulated other comprehensive income (loss) into the Consolidated Statements of Income, see "Note 15: Other Comprehensive Income (Loss)" within the Notes to Consolidated Financial Statements.

## Derivatives in Fair Value Hedging Relationships

The effects of derivative instruments designated as fair value hedges, recognized in interest and other, net for each period were as follows:

|  | Gains (Losses) Recognized in Statement of Income on Derivatives |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years Ended (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| Interest rate contracts | \$ | 198 | \$ | $(1,551)$ | \$ | (723) |
| Hedged items |  | (198) |  | 1,551 |  | 723 |
| Total | \$ | - | \$ | - | \$ | - |

The amounts recorded on the Consolidated Balance Sheets related to cumulative basis adjustments for fair value hedges for each period were as follows:

| Line Item in the Consolidated Balance Sheets in Which the Hedged Item Is Included <br> (In Millions) | Carrying Amount of the Hedged Item Assets/ (Liabilities) |  |  |  | Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Amount Assets/(Liabilities) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 30, 2023 |  | Dec 31, 2022 |  |
| Long-term debt | \$ | $(11,419)$ | \$ | $(11,221)$ | \$ | 578 |  | 776 |



## Derivatives Not Designated as Hedging Instruments

The effects of derivative instruments not designated as hedging instruments on the Consolidated Statements of Income for each period were as follows:

| Years Ended (In Millions) | Location of Gains (Losses) Recognized in Income on Derivatives | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Foreign currency contracts | Interest and other, net | \$ | 106 | \$ | 1,492 | \$ | 677 |
| Interest rate contracts | Interest and other, net |  | 50 |  | 309 |  | 31 |
| Other | Various |  | 325 |  | (502) |  | 360 |
| Total |  | \$ | 481 | \$ | 1,299 | \$ | 1,068 |

## Note 17 : Retirement Benefit Plans

## Defined Contribution Plans

We provide tax-qualified defined contribution plans for the benefit of eligible employees, former employees, and retirees in the US and certain other countries. The plans are designed to provide employees with an accumulation of funds for retirement on a tax-deferred basis. For the benefit of eligible US employees, we also provide an unfunded non-tax-qualified supplemental deferred compensation plan for certain highly compensated employees.

We expensed $\$ 272$ million in 2023, $\$ 489$ million in 2022, and $\$ 444$ million in 2021 for matching contributions based on the amount of employee contributions under the US qualified defined contribution and non-qualified deferred compensation plans. The matching contribution in the US qualified defined contribution plan was reduced from March 1 through December 31, 2023.

## US Retiree Medical Plan

Upon retirement, we provide certain benefits to eligible US employees who were hired prior to 2014 under the US Retiree Medical Plan. The benefits can be used to pay all or a portion of the cost to purchase eligible coverage in a medical plan.

As of December 30, 2023 and December 31, 2022, the projected benefit obligation was $\$ 490$ million and $\$ 527$ million, which used the discount rates of $5.3 \%$ and $5.6 \%$. The December 30, 2023 and December 31, 2022 corresponding fair value of plan assets was $\$ 548$ million and $\$ 501$ million. As of December 30, 2023, the US Retiree Medical Plan was in the net asset position.

The investment strategy for US Retiree Medical Plan assets is to invest primarily in liquid assets, due to the level of expected future benefit payments. The assets are invested in tax-aware global equity and fixed-income long credit portfolios. Both portfolios are actively managed by external managers. The tax-aware global equity portfolio is composed of a diversified mix of equities in developed countries. The tax-aware fixed-income long credit portfolio is composed of domestic securities. The allocation to each asset class will fluctuate with market conditions, such as volatility and liquidity concerns, and will typically be rebalanced when outside the target ranges, which are $45 \%$ equity and $55 \%$ fixed-income investments. As of December 30, 2023, the majority of the US Retiree Medical Plan assets were invested in exchange-traded equity securities and were measured at fair value using Level 1 inputs. The remaining US Retiree Medical Plan assets were invested in fixed-income investments and were measured at fair value using Level 2 inputs.

As of December 30, 2023, the estimated benefit payments for this plan over the next 10 years are as follows:

| (In Millions) |  | 2024 |  | 2025 |  | 2026 |  | 2027 |  | 2028 |  | 2029-2033 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Postretirement medical benefits | \$ | 34 | \$ | 35 | \$ | 35 | \$ | 35 | \$ | 36 | \$ | 187 |

## Pension Benefit Plans

We provide defined-benefit pension plans in certain countries, most significantly Ireland, the US, Germany and Israel. The majority of the plans' benefits have been frozen.

## Benefit Obligation and Plan Assets for Pension Benefit Plans

The vested benefit obligation for a defined-benefit pension plan is the actuarial present value of the vested benefits to which the employee is currently entitled based on the employee's expected date of separation or retirement.


| (In Millions) | Dec 30, 2023 |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: |
| Changes in projected benefit obligation: |  |  |  |  |
| Beginning projected benefit obligation | \$ | 2,705 | \$ | 4,456 |
| Service cost |  | 36 |  | 58 |
| Interest cost |  | 127 |  | 91 |
| Actuarial (gain) loss |  | 57 |  | $(1,500)$ |
| Currency exchange rate changes |  | 38 |  | (233) |
| Plan settlements |  | (103) |  | (96) |
| Other |  | (35) |  | (71) |
| Ending projected benefit obligation ${ }^{1}$ |  | 2,825 |  | 2,705 |
| Changes in fair value of plan assets: |  |  |  |  |
| Beginning fair value of plan assets |  | 2,130 |  | 2,817 |
| Actual return on plan assets |  | 151 |  | (478) |
| Currency exchange rate changes |  | 34 |  | (102) |
| Plan settlements |  | (103) |  | (96) |
| Other |  | - |  | (11) |
| Ending fair value of plan assets ${ }^{2}$ |  | 2,212 |  | 2,130 |
| Net unfunded status | \$ | 613 | \$ | 575 |
| Amounts recognized in the Consolidated Balance Sheets |  |  |  |  |
| Other long-term assets | \$ | 62 | \$ | 74 |
| Other long-term liabilities | \$ | 675 | \$ | 649 |
| Accumulated other comprehensive loss (income), before tax ${ }^{3}$ | \$ | 410 | \$ | 406 |
| Accumulated benefit obligation | \$ | 2,706 | \$ | 2,507 |

${ }^{1}$ The projected benefit obligation was approximately $30 \%$ in the US and $70 \%$ outside of the US as of December 30, 2023 and December $31,2022$.
2 The fair value of plan assets was approximately $40 \%$ in the US and $60 \%$ outside of the US as of December 30, 2023 and December $31,2022$.
3 The accumulated other comprehensive loss (income), before tax, was approximately $70 \%$ in the US and $30 \%$ outside of the US as of December 30 , 2023 (approximately $90 \%$ in the US and 10\% outside of the US as of December 31, 2022).

Changes in actuarial gains and losses in the projected benefit obligation are generally driven by discount rate movement. We use the corridor approach to amortize actuarial gains and losses. Under this approach, net actuarial gains or losses in excess of $10 \%$ of the larger of the projected benefit obligation or the fair value of plan assets are amortized on a straight-line basis.

As of December 30, 2023, the accumulated benefit obligations were $\$ 0.8$ billion and $\$ 1.9$ billion for the US plan and non-US plans, respectively. As of December 30, 2023, the US plan was in the net asset position and the other non-US plans had projected benefit obligations and accumulated benefit obligations in excess of plan assets. As of December 31, 2022, the accumulated benefit obligations were $\$ 0.9$ billion and $\$ 1.6$ billion for the US plan and non-US plans, respectively. As of December 31, 2022, the US and Ireland plans were in the net asset position and the other non-US plans had projected benefit obligations in excess of plan assets. As of December 31, 2022, the US, Ireland, and Israel plans had assets in excess of accumulated benefit obligations, whereas the remaining non-US plans had accumulated benefit obligations in excess of plan assets.

Dec 30, 2023 Dec 31, 2022

| Plan with accumulated benefit obligation in excess of plan assets |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Accumulated benefit obligation | $\$$ | 1,857 | $\$$ | 559 |
| Plan assets | $\$$ | 1,301 | $\$$ | 97 |
|  |  |  |  |  |



## Assumptions for Pension Benefit Plans

|  |  | Dec 30, 2023 | Dec 31, 2022 |
| :---: | :---: | :---: | :---: |
| Weighted average actuarial assumptions used to determine benefit obligations |  |  |  |
| Discount rate |  | 4.5 \% | 4.9 \% |
| Rate of compensation increase |  | 3.3 \% | 3.7 \% |
|  | 2023 | 2022 | 2021 |
| Weighted average actuarial assumptions used to determine costs |  |  |  |
| Discount rate | 4.9 \% | 2.2 \% | 1.9 \% |
| Expected long-term rate of return on plan assets | 5.0 \% | 3.2 \% | 2.7 \% |
| Rate of compensation increase | 3.7 \% | 3.2 \% | 3.2 \% |

We establish the discount rate for each pension plan by analyzing current market long-term bond rates and matching the bond maturity with the average duration of the pension liabilities.

We establish the expected long-term rate of return on plan assets by developing a forward-looking, long-term return assumption for each pension fund asset class, taking into account factors such as the expected real return for the specific asset class and inflation. A single, long-term rate of return is then calculated as the weighted average of the target asset allocation percentages and the long-term return assumption for each asset class.

## Funding

Our practice is to fund the various pension plans in amounts sufficient to meet the minimum requirements of applicable local laws and regulations. Funding for the US Retiree Medical Plan is discretionary under applicable laws and regulations. Additional funding may be provided for the pension and retiree medical plans as deemed appropriate.

On a worldwide basis, our pension and retiree medical plans were $83 \%$ funded as of December 30, 2023. The US Pension Plan, which accounts for $26 \%$ of the worldwide pension and retiree medical benefit obligations, was $107 \%$ funded. Funded status is not indicative of our ability to pay ongoing pension benefits or of our obligation to fund retirement trusts. Required pension funding for US retirement plans is determined in accordance with ERISA, which sets required minimum contributions. Cumulative company funding to the US Pension Plan currently exceeds the minimum ERISA funding requirements.

## Net Periodic Benefit Cost

The net periodic benefit cost for pension and US retiree medical benefits was $\$ 107$ million in 2023 ( $\$ 139$ million in 2022 and $\$ 162$ million in 2021).

## Pension Plan Assets

| (In Millions) | December 30, 2023 |  |  |  |  |  |  |  | Dec 31, 2022 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair Value Measured at Reporting Date Using |  |  |  |  |  | Total |  | Total |  |
|  | Level 1 |  | Level 2 |  | Level 3 |  |  |  |  |  |
| Equity securities | \$ | - | \$ | 383 | \$ | - | \$ | 383 | \$ | 297 |
| Fixed income |  | - |  | 139 |  | 25 |  | 164 |  | 130 |
| Assets measured by fair value hierarchy | \$ | - | \$ | 522 | \$ | 25 | \$ | 547 | \$ | 427 |
| Assets measured at net asset value |  |  |  |  |  |  |  | 1,648 |  | 1,683 |
| Cash and cash equivalents |  |  |  |  |  |  |  | 17 |  | 20 |
| Total pension plan assets at fair value |  |  |  |  |  |  | \$ | 2,212 | \$ | 2,130 |

## US Plan Assets

The investment strategy for US Pension Plan assets is to manage the funded status volatility, taking into consideration the investment horizon and expected volatility to help enable sufficient assets to be available to pay pension benefits as they come due. The allocation to each asset class will fluctuate with market conditions, such as volatility and liquidity concerns, and will typically be rebalanced when outside the target ranges, which are $91 \%$ fixed income and $9 \%$ equity investments. During 2023, the US Pension Plan assets were invested in collective investment trust funds, which are measured at net asset value.


## Non-US Plan Assets

The investments of the non-US plans are managed by insurance companies, pension funds, or third-party trustees, consistent with regulations or market practice of the country where the assets are invested. The investment manager makes investment decisions within the guidelines set by Intel or local regulations. Investments managed by qualified insurance companies or pension funds under standard contracts follow local regulations, and we are not actively involved in their investment strategies. For the assets that we have the discretion to set investment guidelines, the assets are invested in developed country equity investments and fixed-income investments, either through index funds or direct investment. In general, the investment strategy is designed to accumulate a diversified portfolio among markets, asset classes, or individual securities to reduce market risk and to help enable sufficient pension assets to be available to pay benefits as they come due. The equity investments in the non-US plan assets are invested in a diversified mix of equities of developed countries, including the US, and emerging markets throughout the world. We have control over the investment strategy related to the majority of the assets measured at net asset value, which are invested in hedge funds, bond index funds, and equity index funds. The target allocation of the non-US plan assets that we have control over was approximately $40 \%$ fixed income, $40 \%$ equity, and $20 \%$ hedge fund investments in 2023.

## Estimated Future Benefit Payments for Pension Benefit Plans

As of December 30,2023, estimated benefit payments over the next 10 years are as follows:

| (In Millions) | 2024 |  | 2025 |  | 2026 |  | 2027 |  | 2028 |  | 2029-2033 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pension benefits | \$ | 95 | \$ | 97 | \$ | 101 | \$ | 106 | \$ | 109 | \$ | 638 |

## Note 18 : Employee Equity Incentive Plans

Our equity incentive plans are broad-based, long-term programs intended to attract and retain talented employees and align stockholder and employee interests. Our plans include our 2006 Plan and our 2006 ESPP.

Under the 2006 Plan, 1.1 billion shares of common stock have been authorized for issuance as equity awards to employees and nonemployee directors through June 2026. As of December 30, 2023, 194 million shares of common stock remained available for future grants.

Under the 2006 Plan, we may grant RSUs and stock options. We grant RSUs with a service condition as well as RSUs with a market condition, performance condition, and a service condition, which we call PSUs. PSUs are granted to a group of senior officers and employees. For PSUs granted in 2023 and 2022, the number of shares of our common stock to be received at vesting at the end of the three-year performance period will range from $0 \%$ to $200 \%$ of the target grant amount. The PSU payout will be determined based on our performance (i) relative to annual targets for each year in the performance period with respect to a revenue growth metric, weighted $60 \%$, and a cash flow from operations metric, weighted $40 \%$, which results are then averaged at the end of the three-year performance period; and (ii) as may be adjusted by two equally weighted modifiers: the TSR of our common stock measured against the benchmark TSR of above median of the S\&P 500 Index over a three-year period and revenue CAGR for the three-year performance period. TSR is a measure of stock price appreciation plus any dividends paid in this performance period. For 2023 PSUs, overall payout will be capped at target grant amount if our absolute TSR is negative. As of December 30, 2023, 16 million PSUs were outstanding. PSUs vest three years and one month following the start of the performance period. Other RSU awards and option awards generally vest over four years from the grant date.

## Share-Based Compensation

Share-based compensation recognized in 2023 was $\$ 3.2$ billion ( $\$ 3.1$ billion in 2022 and $\$ 2.0$ billion in 2021). During 2023, the tax benefit that we realized for the tax deduction from share-based awards totaled $\$ 571$ million ( $\$ 478$ million in 2022 and $\$ 377$ million in 2021).

We estimate the fair value of RSUs and PSUs with a service condition or performance condition using the value of our common stock on the date of grant, reduced by the present value of dividends expected to be paid on our shares of common stock prior to vesting. We estimate the fair value of PSUs with a market condition using a Monte Carlo simulation model as of the date of grant using historical volatility.


## Restricted Stock Units and Performance Stock Units

Weighted average assumptions used in estimating grant values were as follows:

|  | Dec 30, 2023 |  | Dec 31, 2022 |  | Dec 25, 2021 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Estimated values | \$ | 28.92 | \$ | 41.12 | \$ | 50.82 |
| Risk-free interest rate |  | 4.7 \% |  | 2.2 \% |  | 0.2 \% |
| Dividend yield |  | 1.6 \% |  | 3.4 \% |  | 2.6 \% |
| Volatility |  | 36 \% |  | 40 \% |  | 37 \% |

Summary of activities:

|  | Number of Stock Units Outstanding (In Millions) |  | Weighted Average GrantDate Fair Value |  |
| :---: | :---: | :---: | :---: | :---: |
| December 31, 2022 | \$ | 158.7 | \$ | 45.56 |
| Granted | \$ | 98.2 | \$ | 28.92 |
| Vested | \$ | (63.6) | \$ | 43.22 |
| Forfeited | \$ | (20.4) | \$ | 44.87 |
| December 30, 2023 | \$ | 172.9 | \$ | 37.05 |
| Expected to vest | \$ | 153.9 | \$ | 37.45 |

The aggregate fair value of awards that vested in 2023 was $\$ 2.2$ billion ( $\$ 2.0$ billion in 2022 and $\$ 1.7$ billion in 2021), which represents the market value of our common stock on the date that the RSUs vested. The grant-date fair value of awards that vested in 2023 was $\$ 2.7$ billion ( $\$ 2.5$ billion in 2022 and $\$ 1.4$ billion in 2021). The number of RSUs vested includes shares of common stock that we withheld on behalf of employees to satisfy the minimum statutory tax withholding requirements. RSUs that are expected to vest are net of estimated future forfeitures.

As of December 30,2023, unrecognized compensation costs related to RSUs granted under our equity incentive plans were $\$ 4.0$ billion. We expect to recognize those costs over a weighted average period of 1.3 years.

## Stock Purchase Plan

The 2006 ESPP allows eligible employees to purchase shares of our common stock at $85 \%$ of the value of our common stock on specific dates. Under the 2006 ESPP, 523 million shares of common stock are authorized for issuance through August 2026. As of December 30, 2023, 157 million shares of common stock remained available for issuance.

Employees purchased 43 million shares of common stock in 2023 for $\$ 1.0$ billion under the 2006 ESPP ( 27 million shares of common stock for $\$ 931$ million in 2022 and 22 million shares of common stock for $\$ 925$ million in 2021). As of December 30, 2023, unrecognized share-based compensation costs related to rights to acquire shares of common stock under the 2006 ESPP totaled $\$ 57$ million. We expect to recognize those costs over a period of approximately two months.


## Note 19 : Commitments and Contingencies

## Leases

We recognized operating leased assets in other long-term assets of $\$ 505$ million and corresponding accrued liabilities of $\$ 142$ million, and other long-term liabilities of $\$ 289$ million as of December 30, 2023. Our operating leases have remaining terms of 1 to 13 years and may include options to extend the leases for up to 38 years. The weighted average remaining lease term was 6.0 years, and the weighted average discount rate was $5.0 \%$ as of December 30, 2023, for our operating leases.

Operating lease expense was $\$ 407$ million in 2023 ( $\$ 729$ million in 2022 and $\$ 798$ million in 2021), including $\$ 213$ million in variable lease expense in 2023 ( $\$ 551$ million in 2022 and $\$ 620$ million in 2021).

In 2022 and 2021, we signed finance leases for supplier capacity. The leases will commence upon start of supplier production and will have a weighted average remaining lease term of 6.0 years upon commencement. We recognized finance leased assets in property, plant, and equipment of $\$ 619$ million as of December 30, 2023 ( $\$ 430$ million as of December 31, 2022).

Discounted and undiscounted lease payments under non-cancelable leases as of December 30, 2023 were as follows:

| (In Millions) | 2024 |  | 2025 |  | 2026 |  | 2027 |  | 2028 |  | Thereafter |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operating lease payments | \$ | 149 | \$ | 110 | \$ | 62 | \$ | 44 | \$ | 31 | \$ | 103 | \$ | 499 |
| Finance lease payments | \$ | 480 | \$ | 70 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 550 |
| Present value of lease payments |  |  |  |  |  |  |  |  |  |  |  |  | \$ | 978 |

## Commitments

Commitments for capital expenditures totaled $\$ 27.5$ billion as of December 30, 2023, (\$31.0 billion as of December 31, 2022), a substantial majority of which will be due within the next 12 months. Other purchase obligations and commitments totaled approximately $\$ 8.3$ billion as of December 30, 2023 (approximately $\$ 10.7$ billion as of December 31, 2022).

Other purchase obligations and commitments include payments due under supply agreements and various types of licenses and agreements to purchase goods or services. Contractual obligations for purchases of goods or services relate to agreements that are enforceable and legally binding and that specify all significant terms, including fixed or minimum quantities; fixed, minimum, or variable price provisions; and the approximate timing of the transaction. Other purchase obligations reflect the non-cancelable portion or the minimum cancellation fee under the agreement.

Other purchase commitments also include our unrecognized commitment to fund our respective share of the total construction costs of $\$ 29.0$ billion of Arizona Fab in connection with the definitive agreement entered into with Brookfield. Our remaining unfunded contribution was $\$ 12.3$ billion as of December 30, 2023.

## Legal Proceedings

We are regularly party to various ongoing claims, litigation, and other proceedings, including those noted in this section. As of December 30,2023 , we have accrued a charge of $\$ 1.0$ billion related to litigation involving VLSI and a charge of $\$ 401$ million related to an ECimposed fine, both as described below. Excluding the VLSI claims described below, management at present believes that the ultimate outcome of these proceedings, individually and in the aggregate, will not materially harm our financial position, results of operations, cash flows, or overall trends; however, legal proceedings and related government investigations are subject to inherent uncertainties, and unfavorable rulings, excessive verdicts, or other events could occur. Unfavorable resolutions could include substantial monetary damages, fines, or penalties. Certain of these outstanding matters include speculative, substantial, or indeterminate monetary awards. In addition, in matters for which injunctive relief or other conduct remedies are sought, unfavorable resolutions could include an injunction or other order prohibiting us from selling one or more products at all or in particular ways, precluding particular business practices, or requiring other remedies. An unfavorable outcome may result in a material adverse impact on our business, results of operations, financial position, and overall trends. We might also conclude that settling one or more such matters is in the best interests of our stockholders, employees, and customers, and any such settlement could include substantial payments. Except as specifically described below, we have not concluded that settlement of any of the legal proceedings noted in this section is appropriate at this time.

## European Commission Competition Matter

In 2009, the EC found that we had used unfair business practices to persuade customers to buy microprocessors in violation of Article 82 of the EC Treaty (later renumbered Article 102) and Article 54 of the European Economic Area Agreement. In general, the EC found that we violated Article 82 by offering alleged "conditional rebates and payments" that required customers to purchase all or most of their x86 microprocessors from us and by making alleged "payments to prevent sales of specific rival products." The EC ordered us to end the alleged infringement referred to in its decision and imposed a $€ 1.1$ billion fine, which we paid in the third quarter of 2009.


We appealed the EC decision to the European Court of Justice in 2014, after the General Court (then called the Court of First Instance) rejected our appeal of the EC decision in its entirety. In September 2017, the Court of Justice sent the case back to the General Court to examine whether the rebates at issue were capable of restricting competition. In January 2022, the General Court annulled the EC's 2009 findings against us regarding rebates, as well as the $€ 1.1$ billion fine imposed on Intel, which was returned to us in February 2022. The General Court's January 2022 decision did not annul the EC's 2009 finding that we made payments to prevent sales of specific rival products.

In April 2022, the EC appealed the General Court's decision to the Court of Justice. In addition, in September 2023 the EC imposed a $€ 376$ million ( $\$ 401$ million) fine against us based on its finding that we made payments to prevent sales of specific rival products. We have appealed the EC's decision. We have accrued a charge for the fine and are unable to make a reasonable estimate of the potential loss or range of losses in excess of this amount given the procedural posture and the nature of these proceedings.

In a related matter, in April 2022 we filed applications with the General Court seeking an order requiring the EC to pay us approximately $€ 593$ million in default interest on the original $€ 1.1$ billion fine that was held by the EC for 12 years, which applications have been stayed pending the EC's appeal of the General Court's January 2022 decision.

## Litigation Related to Security Vulnerabilities

In June 2017, a Google research team notified Intel and other companies that it had identified security vulnerabilities, the first variants of which are now commonly referred to as "Spectre" and "Meltdown," that affect many types of microprocessors, including our products. As is standard when findings like these are presented, we worked together with other companies in the industry to verify the research and develop and validate software and firmware updates for impacted technologies. In January 2018, information on the security vulnerabilities was publicly reported, before software and firmware updates to address the vulnerabilities were made widely available.

As of January 24, 2024, consumer class action lawsuits against us were pending in the US, Canada, and Argentina. The plaintiffs, who purport to represent various classes of purchasers of our products, generally claim to have been harmed by our actions and/or omissions in connection with Spectre, Meltdown, and other variants of this class of security vulnerabilities that have been identified since 2018, and assert a variety of common law and statutory claims seeking monetary damages and equitable relief. In the US, class action suits filed in various jurisdictions were consolidated for all pretrial proceedings in the US District Court for the District of Oregon, which entered final judgment in favor of Intel in July 2022 based on plaintiffs' failure to plead a viable claim. Plaintiffs appealed, and in November 2023 the Ninth Circuit Court of Appeals affirmed the district court's judgment. In Canada, an initial status conference has not yet been scheduled in one case relating to Spectre and Meltdown pending in the Superior Court of Justice of Ontario, and a stay of a second case pending in the Superior Court of Justice of Quebec is in effect. In Argentina, Intel Argentina was served with, and responded to, a class action complaint relating to Spectre and Meltdown in June 2022. The Argentinian court dismissed plaintiffs' claims for lack of standing in May 2023, and plaintiffs have appealed. In November 2023, new plaintiffs filed a consumer class action complaint in the US District Court for the Northern District of California with respect to a further vulnerability variant disclosed in August 2023 and commonly referred to as "Downfall." We moved to dismiss that complaint in January 2024. Additional lawsuits and claims may be asserted seeking monetary damages or other related relief. Given the procedural posture and the nature of these cases, including that the pending proceedings are in the early stages, that alleged damages have not been specified, that uncertainty exists as to the likelihood of a class or classes being certified or the ultimate size of any class or classes if certified, and that there are significant factual and legal issues to be resolved, we are unable to make a reasonable estimate of the potential loss or range of losses, if any, that might arise from these matters.

## Litigation Related to 7nm Product Delay Announcement

Multiple securities class action lawsuits were filed in the US District Court for the Northern District of California against us and certain officers following our July 2020 announcement of 7 nm product delays. The court consolidated the lawsuits and appointed lead plaintiffs in October 2020, and in January 2021 plaintiffs filed a consolidated complaint. Plaintiffs purport to represent all persons who purchased or otherwise acquired our common stock from October 25,2019 through October 23,2020 , and they generally allege that defendants violated the federal securities laws by making false or misleading statements about the timeline for 7 nm products. In March 2023, the court granted the defendants' motion to dismiss the consolidated complaint, and in April 2023 entered judgment. Plaintiffs have appealed. Given the procedural posture and the nature of the case, including that it is in the early stages, that alleged damages have not been specified, that uncertainty exists as to the likelihood of a class being certified or the ultimate size of any class if certified, and that there are significant factual and legal issues to be resolved, we are unable to make a reasonable estimate of the potential loss or range of losses, if any, that might arise from the matter. In July 2021, we introduced a new process node naming structure, and the 7 nm process is now called Intel 4.

## Litigation Related to Patent and IP Claims

We have had IP infringement lawsuits filed against us, including but not limited to those discussed below. Most involve claims that certain of our products, services, and technologies infringe others' IP rights. Adverse results in these lawsuits may include awards of substantial fines and penalties, costly royalty or licensing agreements, or orders preventing us from offering certain features, functionalities, products, or services. As a result, we may have to change our business practices, and develop non-infringing products or technologies, which could result in a loss of revenue for us and otherwise harm our business. In addition, certain agreements with our customers require us to indemnify them against certain IP infringement claims, which can increase our costs as a result of defending such claims, and may require that we pay significant damages, accept product returns, or supply our customers with non-infringing products if there were an adverse ruling in any such claims. In addition, our customers and partners may discontinue the use of our products, services, and technologies, as a result of injunctions or otherwise, which could result in loss of revenue and adversely affect our business.


## VLSI Technology LLC v. Intel

In October 2017, VLSI Technology LLC (VLSI) filed a complaint against us in the US District Court for the Northern District of California alleging that various Intel FPGA and processor products infringe eight patents VLSI acquired from NXP Semiconductors, N.V. (NXP). VLSI granted Intel a covenant not to sue on the two patents the court said can proceed to trial as it appeals losses it suffered earlier in the case on three other patents. VLSI has requested that the judge take the trial scheduled for March 2024 off calendar. In April 2019, VLSI filed three infringement suits against us in the US District Court for the Western District of Texas accusing various of our processors of infringement of eight additional patents it had acquired from NXP:

- The first Texas case went to trial in February 2021, and the jury awarded VLSI $\$ 1.5$ billion for literal infringement of one patent and $\$ 675$ million for infringement of another patent under the doctrine of equivalents. In April 2022, the court entered final judgment, awarding VLSI $\$ 2.1$ billion in damages and approximately $\$ 162.3$ million in pre-judgment and post-judgment interest. We appealed the judgment to the Federal Circuit Court of Appeals, including the court's rejection of Intel's claim to have a license from Fortress Investment Group's acquisition of Finjan. The Federal Circuit Court heard oral argument in October 2023. In December 2023, the Federal Circuit reversed the finding of infringement as to the patent for which VLSI was awarded $\$ 675$ million. The Federal Circuit affirmed the finding of infringement as to the patent for which VLSI had been awarded $\$ 1.5$ billion, but vacated the damages award and will send the case back to the trial court for further damages proceedings on that patent. The Federal Circuit also ruled that Intel can advance the defense that it is licensed to VLSI's patents. In December 2021 and January 2022 the PTAB instituted IPRs on the claims found to have been infringed in the first Texas case, and in May and June 2023 found all of those claims unpatentable; VLSI has appealed the PTAB's decision.
* The second Texas case went to trial in April 2021, and the jury found that we do not infringe the asserted patents. VLSI had sought approximately $\$ 3.0$ billion for alleged infringement, plus enhanced damages for willful infringement. The court has not yet entered final judgment.
* The third Texas case went to trial in November 2022, with VLSI asserting one remaining patent. The jury found the patent valid and infringed, and awarded VLSI approximately $\$ 949$ million in damages, plus interest and a running royalty. The court has not yet entered final judgment. In February 2023, we filed motions for a new trial and for judgment as a matter of law notwithstanding the verdict on various grounds. Further appeals are possible.
In May 2019, VLSI filed a case in Shenzhen Intermediate People's Court against Intel, Intel (China) Co., Ltd., Intel Trading (Shanghai) Co., Ltd., and Intel Products (Chengdu) Co., Ltd. VLSI asserted one patent against certain Intel Core processors. Defendants filed an invalidation petition in October 2019 with the China National Intellectual Property Administration (CNIPA) which held a hearing in September 2021. The Shenzhen court held trial proceedings in July 2021, and September 2023. VLSI sought an injunction as well as RMB 1.3 million in costs and expenses, but no damages. In September 2023, the CNIPA invalidated every claim of the asserted patent. In November 2023, the trial court dismissed VLSI's case.

In May 2019, VLSI filed a case in Shanghai Intellectual Property Court against Intel (China) Co., Ltd., Intel Trading (Shanghai) Co., Ltd., and Intel Products (Chengdu) Co., Ltd. asserting one patent against certain Intel core processors. The court held a trial hearing in December 2020, where VLSI requested expenses (RMB 300 thousand) and an injunction. In December 2022, we filed a petition to invalidate the patent at issue. The court held a second trial hearing in May 2022, and in October 2023, issued a decision finding no infringement and dismissing all claims. In November 2023, VLSI appealed the finding of non-infringement.

As a result of recent developments in the VLSI litigation, we revised our loss exposure estimate and reduced our previously accrued charge of $\$ 2.2$ billion to approximately $\$ 1.0$ billion. While we dispute VLSI's claims and intend to vigorously defend against them, we are unable to make a reasonable estimate of losses in excess of recorded amounts given recent developments and future proceedings.

## R2 Semiconductor Patent Litigation

In November 2022, R2 Semiconductor, Inc. (R2) filed a lawsuit in the High Court of Justice in the UK against Intel Corporation (UK) Limited and Intel Corporation, and a lawsuit in the Dusseldorf Regional Court in Germany against Intel Deutschland GmbH and certain Intel customers. R2 asserts one European patent is infringed by Intel's Ice Lake, Tiger Lake, Alder Lake and Ice Lake Server (Xeon) processors (the accused products), and customer servers and laptops that contain those processors. R2 seeks an injunction in both actions prohibiting the sale and requiring the recall of the alleged infringing products. Intel is indemnifying its customers in the German lawsuit.

Intel disputes R2's claims and intends to defend the lawsuits vigorously. In December 2022, Intel responded in the UK action that the asserted patent is not infringed and that the patent is invalid. In April 2023, defendants filed statements of defense in the German action that the asserted patent is not infringed and that an injunction would be a disproportionate remedy. In May 2023, defendants also filed a nullity action in the German Federal Patent Court on the ground that the asserted patent is invalid.


In December 2023, the German Federal Patent Court issued a preliminary opinion finding R2's patent valid. The German Federal Patent Court's final decision on invalidity is expected in October 2024. In December 2023, the court in Dusseldorf held a trial on the issue of infringement, and will hand down a decision in February 2024. If defendants lose at trial in Germany, the Dusseldorf Regional Court could impose an injunction and recall order prohibiting sales of some or all of the accused products, and potentially other products, in Germany. The order could take effect and remain in place unless overturned on appeal, or unless the patent is invalidated by the German Federal Patent Court.

Trial in the UK matter is scheduled for April 2024. Given the procedural posture and the nature of these cases, including that there are significant factual and legal issues to be resolved and that uncertainty exists as to the scope of an injunction, if any, we are unable to make a reasonable estimate of the potential loss or range of losses, if any, that might arise from these lawsuits.

## Business Interruption Insurance Proceeds

We received $\$ 484$ million of insurance proceeds, primarily in the fourth quarter of 2022, to compensate for business interruption and property damage from a temporary electrical breakdown that occurred at one of our facilities in 2020 . We recognized these receipts as a reduction of cost of sales.


## Key Terms

We use terms throughout our document that are specific to Intel or that are abbreviations that may not be commonly known or used. Below is a list of these terms used in our document.

| Term | Definition |
| :---: | :---: |
| 2006 ESPP | 2006 Employee Stock Purchase Plan |
| 2006 Plan | 2006 Equity Incentive Plan |
| 5G | The fifth-generation mobile network, which brings dramatic improvements in network speeds and latency, and which we view as a transformative technology and opportunity for many industries |
| ADAS | Advanced driver-assistance systems |
| AI | Artificial intelligence |
| AMaaS | Autonomous Mobility as a Service |
| ARM | Advanced RISC machine |
| ASIC | Application-specific integrated circuit |
| ASP | Average selling price |
| AV | Autonomous vehicle |
| AXG | Advanced Computing and Graphics operating segment |
| Bain Capital | Bain Capital Special Situations |
| BEPS | Base Erosion and Profit Shifting |
| CAGR | Compound annual growth rate |
| CCG | Client Computing Group operating segment |
| CDP | A nonprofit organization that runs a global disclosure system for investors, companies, cities, states, and regions to manage their environmental impacts |
| CEO | Chief executive officer |
| CFO | Chief financial officer |
| CODM | Chief operating decision maker |
| COVID-19 | The infectious disease caused by coronavirus (aka SARS-CoV-2), which was declared a global pandemic by the World Health Organization |
| CPU | Processor or central processing unit |
| CSP | Cloud service provider |
| CXL | Compute Express Link, an open standard for high-speed CPU-to-device and CPU-to-memory connections |
| DCAI | Data Center and Artificial Intelligence operating segment |
| EC | European Commission |
| EDA | Electronic design automation, tools used to design and verify electronic systems, such as integrated circuits and printed circuit boards |
| Edge computing or intelligent edge | The placement of resources to move, store, and process data closer to where data is generated and consumed |
| EEO-1 | EEO-1 Component 1 report, a mandatory annual data collection that requires employers meeting certain criteria to submit demographic workforce data, including data by race/ethnicity, sex, and job categories. |
| ERP | Enterprise Resource Planning |
| EPS | Earnings per share |
| ERISA | Employee Retirement Income Security Act |
| ESG | Environmental, social, and governance |
| EUV | Extreme ultraviolet lithography |
| Exchange Act | Securities Exchange Act of 1934 |
| Form 10-K | Annual Report on Form 10-K for the year ended December 30, 2023 |
| Foveros | Intel's high-performance three-dimensional stacked chip architecture |
| FPGA | Field-programmable gate array |
| GenAI | Generative AI refers to deep-learning models that can generate high-quality text, images, and other content based on the data they were trained on |
| GPU | Graphics processing unit |
| GRI | Global Reporting Initiative |
| HPC | High-performance computing |
| IDM | Integrated device manufacturer, a semiconductor company that both designs and builds chips |
| Intel | Intel Corporation |



| IFS | Foundry Services operating segmen |
| :---: | :---: |
| IMS | IMS Nanofabrication GmbH, a business within IFS that develops and produces electron-beam systems for the semiconductor industry |
| Internet of Things | The Internet of Things market in which we sell our NEX and Mobileye products |
| IP | Intellectual property |
| IPO | Initial public offering |
| IPU | Infrastructure processing unit, a programmable networking device designed to enable cloud and communication service providers to reduce overhead and free up performance for CPUs |
| ISV | Independent software vendor |
| kWh | Kilowatt-hour |
| MaaS | Mobility as a Service |
| MD\&A | Management's Discussion and Analysis |
| MG\&A | Marketing, general, and administrative |
| NAND | NAND flash memory |
| Network Xeon | Part of the Intel Xeon processor family designed for network and edge solutions |
| NEX | Networking and Edge operating segment |
| nm | Nanometer |
| NPU | Neural processing unit |
| OECD | Organization for Economic Co-operation and Development |
| OEM | Original equipment manufacturer |
| oneAPI | Open, cross-architecture programming model that frees developers to use a single code base across multiple architectures |
| OKR | Objective and key results, a goal-setting method used widely across industries as a proven approach to setting and achieving challenging goals |
| PRQ | Product release qualification, the milestone when costs to manufacture a product are included in inventory valuation |
| PSG | Programmable Solutions Group |
| PSU | Performance stock unit |
| RAN | Radio access network |
| R\&D | Research and development |
| RDFV | Readily determinable fair value |
| RSU | Restricted stock unit |
| SaaS | Software as a Service |
| SASB | Sustainability Accounting Standards Board |
| SCIP | Semiconductor Co-Investment Program |
| SEC | US Securities and Exchange Commission |
| SoC | A system on a chip, which integrates most of the components of a computer or other electronic system into a single silicon chip. We offer a range of SoC products in CCG, DCAI, and NEX. Our DCAI and NEX businesses offer SoCs across many market segments for a variety of applications, including products targeted for 5G base stations and network infrastructure |
| SOFR | Secured Overnight Financing Rate, a benchmark interest rate for US-dollar-denominated derivatives and loans, replacing LIBOR |
| TAM | Total addressable market |
| Tax Reform | US Tax Cuts and Jobs Act |
| TCFD | Task Force on Climate-Related Financial Disclosures |
| Tower | Tower Semiconductor Ltd |
| TSMC | Taiwan Semiconductor Manufacturing Company |
| TSR | Total stockholder return |
| US GAAP | US Generally Accepted Accounting Principles |
| USMAG | United States Military, Aerospace, and Government |
| US Pension Plan | US Intel Minimum Pension Plan |
| US Retiree Medical Plan | US Postretirement Medical Benefits Plan |
| VIE | Variable interest entity |
| vRAN | Virtualized radio access network |
| xPU | A term for processors that are designed for one of four major computing architectures: CPU, GPU, AI accelerator, and FPGA |



## Controls and Procedures

## Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and principal financial officer, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well-designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected.

## Evaluation of Disclosure Controls and Procedures

Based on management's evaluation (with the participation of our principal executive officer and principal financial officer), as of the end of the period covered by this report, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) are effective to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

## Changes in Internal Control Over Financial Reporting

There were no changes to our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 30, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## Management Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and $15 \mathrm{~d}-15(\mathrm{f})$ under the Exchange Act) to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of Consolidated Financial Statements for external purposes in accordance with US GAAP.

Management assessed our internal control over financial reporting as of December 30, 2023. Management based its assessment on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Management's assessment included evaluation of elements such as the design and operating effectiveness of key financial reporting controls, process documentation, accounting policies, and our overall control environment.

Based on this assessment, management has concluded that our internal control over financial reporting was effective as of the end of the fiscal year to provide reasonable assurance regarding the reliability of financial reporting and the preparation of Consolidated Financial Statements for external reporting purposes in accordance with US GAAP. We reviewed the results of management's assessment with the Audit Committee of our Board of Directors.

Our independent registered public accounting firm, Ernst \& Young LLP, independently assessed the effectiveness of the company's internal control over financial reporting, as stated in the firm's attestation report, which is included within Financial Statements and Supplemental Details.


## Exhibits

1. Financial Statements: See "Index to Consolidated Financial Statements" within the Consolidated Financial Statements.
2. Financial Statement Schedules: Not applicable or the required information is otherwise included in the Consolidated Financial Statements and accompanying notes.
3. Exhibits: The exhibits listed in the accompanying index to exhibits are filed, furnished, or incorporated by reference as part of this Form 10-K.

Certain of the agreements filed as exhibits to this Form 10-K contain representations and warranties by the parties to the agreements that have been made solely for the benefit of the parties to the agreement. These representations and warranties:

- may have been qualified by disclosures that were made to the other parties in connection with the negotiation of the agreements, which disclosures are not necessarily reflected in the agreements;
- may apply standards of materiality that differ from those of a reasonable investor; and
- were made only as of specified dates contained in the agreements and are subject to subsequent developments and changed circumstances.

Accordingly, these representations and warranties may not describe the actual state of affairs as of the date that these representations and warranties were made or at any other time. Investors should not rely on them as statements of fact.


## Exhibit Index

| Exhibit Number | Exhibit Description | Incorporated by Reference |  |  |  | Filed or Furnished Herewith |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Form | File Number | Exhibit | Filing Date |  |
| 2.1 | Master Purchase Agreement between Intel Corporation and SK hynix Inc., dated as of October 19, 2020 | 8-K | 000-06217 | 2.1 | 10/20/2020 |  |
| 3.1 | Corrected Third Restated Certificate of Incorporation of Intel Corporation, dated October 23. 2023 | 10-Q | 000-06217 | 3.1 | 10/27/2023 |  |
| 3.2 | Intel Corporation Bylaws, as amended and restated on November 29, 2023 | 8-K | 000-06217 | 3.2 | 12/5/2023 |  |
| 4.1 | Indenture dated as of March 29, 2006 between Intel Corporation and Wells Fargo Bank, National Association (as successor to Citibank N.A.) (the "Open-Ended Indenture") | S-3ASR | 333-132865 | 4.4 | 3/30/2006 |  |
| 4.2 | First Supplemental Indenture to Open-Ended Indenture, dated as of December 3, 2007 | 10-K | 000-06217 | 4.2.4 | 2/20/2008 |  |
| 4.3 | Second Supplemental Indenture to Open-Ended Indenture for the Registrant's 1.95\% Senior Notes due 2016, 3.30\% Senior Notes due 2021, and 4.80\% Senior Notes due 2041, dated as of September 19, 2011 | 8-K | 000-06217 | 4.01 | 9/19/2011 |  |
| 4.4 | Third Supplemental Indenture to Open-Ended Indenture for the Registrant's 1.35\% Senior Notes due 2017, 2.70\% Senior Notes due 2022, 4.00\% Senior Notes due 2032, and 4.25\% Senior Notes due 2042, dated as of December 11, 2012 | 8-K | 000-06217 | 4.01 | 12/11/2012 |  |
| 4.5 | Fourth Supplemental Indenture to Open-Ended Indenture for the Registrant's $4.25 \%$ Senior Notes due 2042, dated as of December 14, 2012 | 8-K | 000-06217 | 4.01 | 12/14/2012 |  |
| 4.6 | Fifth Supplemental Indenture to Open-Ended Indenture, dated as of July 29, 2015, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 8-K | 000-06217 | 4.1 | 7/29/2015 |  |
| 4.7 | Eighth Supplemental Indenture to Open-Ended Indenture, dated as of May 19, 2016, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 8-K | 000-06217 | 4.1 | 5/19/2016 |  |
| 4.8 | Ninth Supplemental Indenture to Open-Ended Indenture, dated as of May 11, 2017, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 8-K | 000-06217 | 4.1 | 5/11/2017 |  |
| 4.9 | Tenth Supplemental Indenture to Open-Ended Indenture, dated as of June 16, 2017, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 8-K | 000-06217 | 4.1 | 6/16/2017 |  |
| 4.10 | Eleventh Supplemental Indenture to Open-Ended Indenture, dated as of August 14, 2017, among Intel Corporation, Wells Fargo Bank, National Association, as successor trustee, and Elavon Financial Services DAC. UK Branch, as paying. agent | 8-K | 000-06217 | 4.1 | 8/14/2017 |  |
| 4.11 | Twelfth Supplemental Indenture to Open-Ended Indenture, dated as of December 8, 2017, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 10-K | 000-06217 | 4.2.13 | 2/16/2018 |  |



| Exhibit Number | Exhibit Description | Incorporated by Reference |  |  |  | Filed or Furnished Herewith |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Form | File Number | Exhibit | Filing Date |  |
| 4.12 | Thirteenth Supplemental Indenture, dated as of November 21, 2019, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 8-K | 000-06217 | 4.1 | 11/21/2019 |  |
| 4.13 | Fourteenth Supplemental Indenture, dated as of February 13, 2020, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 8-K | 000-06217 | 4.1 | 2/13/2020 |  |
| 4.14 | Fifteenth Supplemental Indenture, dated as of February 13, 2020, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 8-K | 000-06217 | 4.2 | 2/13/2020 |  |
| 4.15 | Sixteenth Supplemental Indenture, dated as of March 25, 2020, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 8-K | 000-06217 | 4.1 | 3/25/2020 |  |
| 4.16 | Seventeenth Supplemental Indenture, dated as of August 12, 2021, between Intel Corporation and Wells Fargo Bank, National Association, as successor trustee | 8-K | 000-06217 | 4.1 | 8/12/2021 |  |
| 4.17 | Eighteenth Supplemental Indenture, dated as of August 5, 2022, between Intel Corporation and Computershare Trust Company, National Association (as successor to Wells Fargo Bank. National Association), as trustee | 8-K | 000-06217 | 4.1 | 8/5/2022 |  |
| 4.18 | Nineteenth Supplemental Indenture, dated as of February 10, 2023, between Intel Corporation and Computershare Trust Company, National Association (as successor to Wells Fargo Bank. National Association), as trustee | 8-K | 000-06217 | 4.1 | 2/10/2023 |  |
| 4.19 | Description of Intel Securities Registered under Section 12 of the Exchange Act | 10-K | 000-06217 | 4.18 | 1/27/2022 |  |
| $10.1{ }^{\dagger}$ | Intel Corporation 2006 Equity Incentive Plan, as amended and restated, effective May 11, 2023 | S-8 | 000-06217 | 99.1 | 9/26/2023 |  |
| $10.1 .2^{\dagger}$ | Intel Corporation Form of Notice of Grant Restricted Stock Units | 10-Q | 000-06217 | 10.1 | 10/25/2018 |  |
| $10.1 .3^{\dagger}$ | Intel Corporation Form of Restricted Stock Unit Grant Agreement under the 2006 Equity Incentive Plan (for RSUs with retirement vesting terms granted to executives on or after January 30, 2019) | 10-Q | 000-06217 | 10.3 | 4/26/2019 |  |
| 10.1.4 ${ }^{\dagger}$ | Intel Corporation Form of Restricted Stock Unit Grant Agreement under the 2006 Equity Incentive Plan (for RSUs without retirement vesting terms granted to executives on or after January 30, 2019) | 10-Q | 000-06217 | 10.4 | 4/26/2019 |  |
| $10.1 .5^{\dagger}$ | Intel Corporation Form of Restricted Stock Unit Grant Agreement under the 2006 Equity Incentive Plan (for performance-based RSUs granted to grandfathered executives on or after January 30. 2019) | 10-Q | 000-06217 | 10.5 | 4/26/2019 |  |
| $10.1 .6{ }^{\dagger}$ | Intel Corporation Form of Restricted Stock Unit Grant Agreement under the 2006 Equity Incentive Plan (for performance-based RSUs granted to nongrandfathered executives on or after January 30. 2019) | 10-Q | 000-06217 | 10.1 | 4/24/2020 |  |
| $10.1 .7^{\dagger}$ | Intel Corporation Form of Restricted Stock Unit Grant Agreement under the 2006 Equity Incentive Plan (for strategic growth performance-based RSUs granted to executives on or after February 1, 2019) | 10-Q | 000-06217 | 10.6 | 4/26/2019 |  |



| Exhibit Number | Exhibit Description | Incorporated by Reference |  |  |  | Filed or Furnished Herewith |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Form | File Number | Exhibit | Filing Date |  |
| $10.1 .8^{\dagger}$ | First Amendment to Option Agreement (Performance Options) between Intel and Patrick Gelsinger, dated November 18, 2022 | 8-K | 000-06217 | 10.1 | 11/22/2022 |  |
| $10.1 .9^{\dagger}$ | First Amendment to Restricted Stock Unit Agreement (Strategic Growth PSUs) between Intel and Patrick Gelsinger, dated November 18, 2022 | 8-K | 000-06217 | 10.2 | 11/22/2022 |  |
| 10.1.10 ${ }^{\dagger}$ | First Amendment to Restricted Stock Unit Agreement (Outperformance PSUs) between Intel and Patrick Gelsinger, dated November 18, 2022 | 8-K | 000-06217 | 10.3 | 11/22/2022 |  |
| 10.1.11 ${ }^{\dagger}$ | Intel Corporation Form of Stock Option Grant Agreement under the 2006 Equity Incentive Plan (for strategic growth performance-based stock options granted to executives on or after February 1.2019) | 10-Q | 000-06217 | 10.7 | 4/26/2019 |  |
| 10.1.12 ${ }^{\dagger}$ | Intel Corporation Form of Non-Employee Director Restricted Stock Unit Agreement under the 2006 Equity Incentive Plan (for RSUs granted to nonemployee directors on or after May 12, 2022) | 10-Q | 000-6217 | 10.3 | 10/28/2022 |  |
| 10.1.13 ${ }^{\dagger}$ | Intel Corporation 2021 Inducement Plan | S-8 | 333-253077 | 99.1 | 2/12/2021 |  |
| 10.1.14 ${ }^{\dagger}$ | Intel Corporation Restricted Stock Unit Agreement under the 2021 Inducement Plan (for time-vesting RSUs) | 10-Q | 000-06217 | 10.3 | 4/23/2021 |  |
| 10.1.15 ${ }^{\dagger}$ | Intel Corporation Restricted Stock Unit Agreement under the 2021 Inducement Plan (for optional investment matching RSUs) | 10-Q | 000-06217 | 10.4 | 4/23/2021 |  |
| 10.1.16 ${ }^{\dagger}$ | Intel Corporation Restricted Stock Unit Agreement under the 2021 Inducement Plan (for relative TSR performance-based RSUs) | 10-Q | 000-06217 | 10.5 | 4/23/2021 |  |
| 10.1.17 ${ }^{\dagger}$ | Intel Corporation Restricted Stock Unit Agreement under the 2021 Inducement Plan (for strategic. growth performance-based RSUs) | 10-Q | 000-06217 | 10.6 | 4/23/2021 |  |
| 10.1.18 ${ }^{\dagger}$ | Intel Corporation Restricted Stock Unit Agreement under the 2021 Inducement Plan (for outperformance performance-based RSUs) | 10-Q | 000-06217 | 10.7 | 4/23/2021 |  |
| 10.1.19 ${ }^{\dagger}$ | Intel Corporation Option Agreement under the 2021 Inducement Plan (for strategic growth performancebased stock options) | 10-Q | 000-06217 | 10.8 | 4/23/2021 |  |
| $10.2^{\dagger}$ | Intel Corporation Executive Annual Performance Bonus Plan, effective as of January 1, 2020 | 8-K | 000-06217 | 10.1 | 1/22/2020 |  |
| $10.3{ }^{\dagger}$ | Intel Corporation Sheltered Employee Retirement Plan Plus, as amended and restated, effective January 1, 2020 | 10-Q | 000-06217 | 10.3 | 4/24/2020 |  |
| $10.4{ }^{\dagger}$ | First Amendment to Intel Corporation Sheltered Employee Retirement Plan Plus dated January 1. $\underline{2020}$ | 10-Q | 000-06217 | 10.1 | 7/29/2022 |  |
| $10.5{ }^{\dagger}$ | Second Amendment to Intel Corporation Sheltered Employee Retirement Plan Plus dated January 1. 2023 | 10-K | 000-6218 | 10.5 | 1/27/2023 |  |
| $10.6{ }^{\dagger}$ | Intel Corporation 2006 Employee Stock Purchase Plan, as amended and restated, effective February 12. 2022 | 10-Q | 000-06217 | 10.2 | 4/29/2022 |  |
| $10.7{ }^{\dagger}$ | Intel Corporation 2006 Deferral Plan for Outside Directors, effective November 15, 2006 | 10-K | 000-06217 | 10.41 | 2/26/2007 |  |
| $10.8^{\dagger}$ | Form of Indemnification Agreement with Directors and Executive Officers | 10-K | 000-06217 | 10.15 | 2/22/2005 |  |



| Exhibit Number | Exhibit Description | Incorporated by Reference |  |  |  | Filed or Furnished Herewith |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Form | File Number | Exhibit | Filing Date |  |
| $10.9{ }^{\dagger}$ | Form of Indemnification Agreement with Directors and Executive Officers (for Directors and Executive Officers who joined Intel after July 1, 2016) | 10-Q | 000-06217 | 10.2 | 10/31/2016 |  |
| 10.10 | Settlement Agreement Between Advanced Micro <br> Devices, Inc. and Intel Corporation, dated <br> November 11, 2009 | 8-K | 000-06217 | 10.1 | 11/12/2009 |  |
| $10.11^{\dagger \dagger}$ | Patent Cross License Agreement between NVIDIA Corporation and Intel Corporation, dated January 10, 2011 | 8-K | 000-06217 | 10.1 | 1/10/2011 |  |
| $10.12^{\wedge}$ | Purchase and Contribution Agreement, dated as of August 22, 2022, by and among Intel Corporation. Arizona Fab HoldCo Inc., Foundry JV Holdco LLC, and Arizona Fab LLC | 8-K | 000-06217 | 10.1 | 8/23/2022 |  |
| $10.13^{\wedge}$ | Amended and Restated Limited Liability Company Agreement of Arizona Fab LLC by and between Arizona Fab HoldCo Inc. and Foundry JV Holdco LLC | 8-K | 000-06217 | 10.1 | 11/22/2022 |  |
| $10.14^{\dagger}$ | Offer Letter between Intel Corporation and Patrick Gelsinger, dated January 13, 2021 | 8-K | 000-06217 | 10.1 | 1/14/2021 |  |
| $10.15^{\dagger}$ | Offer Letter between Intel Corporation and David A. Zinsner dated January 6, 2022 | 8-K | 000-06217 | 10.1 | 1/10/2022 |  |
| $10.16{ }^{\dagger}$ | Offer Letter between Intel Corporation and Christoph Schell dated February 11, 2022 |  |  |  |  | X |
| $10.17^{\dagger}$ | Offer Letter between Intel Corporation and Sandra Rivera dated October 2, 2023 | 8-K | 000-06217 | 10.1 | 10/05/2023 |  |
| 21.1 | Intel Corporation Subsidiaries |  |  |  |  | $x$ |
| 23.1 | Consent of Ernst \& Young LLP. Independent Registered Public Accounting Firm |  |  |  |  | X |
| 31.1 | Certification of the Chief Executive Officer pursuant to Rule 13a-14(a) of the Exchange Act |  |  |  |  | X |
| 31.2 | Certification of the Chief Financial Officer pursuant to Rule 13a-14(a) of the Exchange Act |  |  |  |  | X |
| 32.1 | Certification of the Chief Executive Officer and the Chief Financial Officer pursuant to Rule 13a-14(b) of the Exchange Act and 18 U.S.C. Section 1350 |  |  |  |  | X |
| $97.1^{\dagger}$ | Intel Corporation Compensation Recoupment Policy, effective October 2, 2023 |  |  |  |  | X |
| 99.1 | Supplement to Present Required Information in Searchable Format |  |  |  |  | X |
| 101 | Inline XBRL Document Set for the consolidated financial statements and accompanying notes in Financial Statements and Supplemental Details |  |  |  |  | X |
| 104 | Cover Page Interactive Data File - formatted in Inline XBRL and included as Exhibit 101 |  |  |  |  | X |
| + Management contracts or compensation plans or arrangements in which directors or executive officers are eligible to participate. <br> \# Portions of this exhibit have been omitted pursuant to an order granting confidential treatment. <br> ${ }^{\wedge}$ Schedules and certain portions of this exhibit have been omitted pursuant to Item 601(a)(5)-(6) and Item 601(b)(10)(iv) of Regulation S-K. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |



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(a) Incorporated by reference to the applicable section of the 2024 Proxy Statement.


## Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INTEL CORPORATION
Registrant
By: /s/ PATRICK P. GELSINGER
Patrick P. Gelsinger
Chief Executive Officer, Director, and Principal Executive Officer January 25, 2024

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

| /s/ PATRICK P. GELSINGER | /s/ DAVID ZINSNER |
| :---: | :---: |
| Patrick P. Gelsinger | David Zinsner |
| Chief Executive Officer, Director, and Principal Executive Officer January 25, 2024 | Executive Vice President, Chief Financial Officer, and Principal Financial Officer January 25, 2024 |
| /s/ SCOTT GAWEL |  |
| Scott Gawel |  |
| Corporate Vice President, Chief Accounting Officer, and Principal Accounting Officer January 25, 2024 |  |
| /s/ JAMES J. GOETZ | /s/ DR. ANDREA J. GOLDSMITH |
| James J. Goetz | Dr. Andrea J. Goldsmith |
| Director | Director |
| January 25, 2024 | January 25, 2024 |
| /s/ ALYSSA HENRY | /s/ DR. OMAR ISHRAK |
| Alyssa Henry | Dr. Omar Ishrak |
| Director | Director |
| January 25, 2024 | January 25, 2024 |
| /s/ DR. TSU-JAE KING LIU | /s/ DR. RISA LAVIZZO-MOUREY |
| Dr. Tsu-Jae King Liu | Dr. Risa Lavizzo-Mourey |
| Director | Director |
| January 25, 2024 | January 25, 2024 |
| /s/ BARBARA G. NOVICK | /s/ GREGORY D. SMITH |
| Barbara G. Novick | Gregory D. Smith |
| Director | Director |
| January 25, 2024 | January 25, 2024 |
| /s/ LIP-BU TAN | /s/ DION J. WEISLER |
| Lip-Bu Tan | Dion J. Weisler |
| Director | Director |
| January 25, 2024 | January 25, 2024 |
| /s/ FRANK D. YEARY |  |
| Frank D. Yeary |  |
| Chair of the Board and Director January 25, 2024 |  |



## Corporate Directory

## BOARD OF DIRECTORS

Patrick P. Gelsinger
Chief Executive Officer

## James J. Goetz

Partner
Sequoia Capital

## Andrea J. Goldsmith

Dean of Engineering and Applied Science and
Professor of Engineering, Princeton University

## Alyssa H. Henry

Former Square CEO
Block, Inc.
Dr. Omar Ishrak
Former Executive and Chief Executive Officer
Medtronic plc
Dr. Risa Lavizzo-Mourey
Wood Johnson Foundation PIK
Population Health and Health Equity
Professor Emerita, University of Pennsylvania
Dr. Tsu-Jae King Liu
Dean and Roy W. Carlson Professor of Engineering
College of Engineering
University of California, Berkeley

## Barbara G. Novick

Co-Founder, Former Vice-Chairman and
Senior Advisor, BlackRock, Inc.
BlackRock, Inc.
Gregory D. Smith
Former Chief Financial Officer and
Executive Vice President, Enterprise Operations
The Boeing Company
Stacy. J Smith
Executive Chairman
Kioxia Corporation

## Lip-Bu Tan

Former Executive Chair and Chief Executive Officer Cadence Design Systems Inc.

Dion J. Weisler
Former President and Chief Executive Officer HP Inc.

Frank D. Yeary (Chair)
Principal
Darwin Capital Advisors, LLC

## EXECUTIVE OFFICERS

Patrick P. Gelsinger
Chief Executive Officer

## David Zinsner

Executive Vice President
Chief Financial Officer

## Michelle Johnston Holthaus

Executive Vice President
General Manager, Client Computing Group
April Miller Boise
Executive Vice President
Chief Legal Officer and Corporate Secretary

## Justin Hotard

Executive Vice President
General Manager, Data Center and AI Group

## Christoph Schell

Executive Vice President
Chief Commercial Officer and General Manager, Sales, Marketing and Communications Group

For additional listing of Intel senior management, visit the Executive Bios section of the Intel Newsroom at:
www.intel.com/newsroom


## Awards and Recognitions

Third-party ratings and rankings give us valuable feedback on our programs and practices, and help drive continuous improvement over time. Below is a selection of the corporate responsibility-related awards and recognitions that Intel received in 2023.

3BL Media. 100 Best Corporate Citizens<br>AISES. Top 50 Workplaces for Indigenous STEM Professionals<br>American Association of People with Disabilities and Disability:IN. Disability Equality Index<br>As You Sow. Clean200<br>Barron's. 100 Most Sustainable Companies<br>Bloomberg. Bloomberg Gender-Equality Index<br>CDP. "A-" Water Security Rating, "B" Climate Change Rating, Supplier Engagement Leadership Rating<br>Center for Political Accountability. CPA-Zicklin Index of Corporate Political Disclosure and Accountability - Trendsetter Company<br>Dow Jones Sustainability Index. North America Index<br>Ethisphere Institute. World's Most Ethical Companies<br>FTSE Group. FTSE4Good Index ${ }^{1}$<br>Gartner. Supply Chain Top 25<br>Hispanic Association of Corporate Responsibility. Corporate Inclusion Index 5-Star Rating for Governance<br>Human Rights Campaign. Corporate Equality Index<br>ISS. 1 rating in both Environment \& Social Quality Score ${ }^{2}$<br>JUST Capital and Forbes. JUST 100<br>KnowTheChain. Ranked \#2, Information \& Communications Technology ${ }^{3}$<br>LATINA Style 50. Top 50 Best Companies for Latinas to Work in the US<br>Minority Engineer. Top 50 Employers<br>National Business Inclusion Consortium. Best-of-the-Best Corporations for Inclusion<br>Newsweek. America's Most Responsible Companies, America's Greatest Workplaces for Women, World's Most Trustworthy Companies<br>Religious Freedom \& Business Foundation. Corporate Religious Equity, Diversity and Inclusion Index<br>RepTrak. Global RepTrak® 100<br>Wall Street Journal. Management Top 250<br>Women's Business Enterprise National Council. Top Corporations for Women's Business Enterprises<br>WE Connect International. Top 10 Global Champions for Supplier Diversity Inclusion<br>Women Engineer Magazine. Top 50 Employers - Reader's Choice

[^9]

## Investor Information

## Intel on NASDAQ

Intel's common stock trades on the Nasdaq Global Select Market* under the symbol INTC.

## Investor materials

Intel's Investor Relations website contains background on our company and our products, financial information, investor presentations, frequently asked questions, and our online annual report, as well as other useful information such as news releases and information on corporate governance practices and corporate responsibility. For investor information, including additional copies of our annual reports, 10-Ks, 10-Qs, or other financial information, visit our website at www.intc.com or call Intel at (408) 765-1480 (US); (44) 1793403000 (Europe); (852) 28444555 (Hong Kong); (81) 352239100 (Japan).

## Direct stock purchase plan

Intel's Direct Stock Purchase and Dividend Reinvestment Plan allows stockholders to reinvest dividends and purchase Intel common stock on a weekly basis. For more information, contact Intel's transfer agent, Computershare Trust Company, N.A., by phone at (800) 298-0146 (US and Canada) or (312) 360-5123 (worldwide), or by e-mail though Computershare's website at www.computershare.com/ contactus.

Transfer agent and registrar
Computershare Trust Company, N.A., 150 Royall Street, Suite 101, Canton, MA 02021
US Stockholders may call (800) 298-0146 (US and Canada) or (312) 360-5123 (worldwide), or send e-mail through Computershare's website at www.computershare.com/contactus with any questions regarding the transfer of ownership of Intel stock.

Independent registered public accounting firm
Ernst \& Young LLP, San Jose, California, US.

## About Intel

Intel (NASDAQ: INTC) is an industry leader, creating world-changing technology that enables global progress and enriches lives. Inspired by Moore's Law, we continuously work to advance the design and manufacturing of semiconductors to help address our customers' greatest challenges. By embedding intelligence in the cloud, network, edge and every kind of computing device, we unleash the potential of data to transform business and society for the better. To learn more about Intel's innovations, go to newsroom.intel.com and intel.com.

## Corporate governance and corporate responsibility

As a global technology and business leader, we are committed to doing the right things, the right way. The Intel Code of Conduct guides the actions of our employees, our directors, employees of our subsidiaries, and suppliers, independent contractors, and others who do business with us, with the aim of ensuring consistent and uncompromising integrity as we build trusted relationships around the world. For more information about our corporate governance practices, read our latest Proxy Statement or visit www.intel.com/governance.

Our integrated approach to corporate responsibility and sustainability-built on a strong foundation of transparency, governance, and ethics-creates value for Intel and our stockholders by helping us mitigate risks, reduce costs, build brand value, and identify new market opportunities. We set ambitious goals and make strategic investments to drive improvements in environmental sustainability, supply chain responsibility, diversity and inclusion, and social impact that benefit our various stakeholders, including, but not limited to, our people, customers, government, the environment, and society. Intel's annual Corporate Responsibility Report outlines our strategic priorities and performance on a range of environmental, social, and governance factors. The report and supporting materials are available at www.intel.com/responsibility.


The paper utilized in the production of this annual report is all certified for Forest Stewardship Council (FSC®) standards, which promote environmentally appropriate, socially beneficial, and economically viable management of the world's forests. This annual report was printed at a facility that uses exclusively vegetable based inks, $100 \%$ renewable wind energy, and releases zero VOCs into the environment.

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## wwwintel.com

News and information about Intel ${ }^{\ominus}$ products and technologies, customer support, careers, worldwide locations, corporate responsibility and
sustainability, and more.

## www-intc.com

Stock information, earnings and conference webcasts, annual reports, and corporate governance and historical financial information.




[^0]:    ${ }^{1}$ See "Non-GAAP Financial Measures" within MD\&A.

[^1]:    ${ }^{1}$ The contents of our Corporate Responsibility Report are referenced for general information only and are not incorporated by reference in this Form 10-K.

[^2]:    1 Undesired turnover includes all regular Intel employees who voluntarily left Intel, but does not include Intel contract employees, interns, or employees who separated from Intel due to divestiture, retirement, voluntary separation packages, death, job elimination, or redeployment.

[^3]:    ${ }^{1}$ This is a preliminary estimate. The final number will be reported in our 2023-24 Corporate Responsibility Report, to be issued later in 2024.

[^4]:    ${ }^{1}$ This is a preliminary estimate. The final number will be reported in our 2023-24 Corporate Responsibility Report, to be issued later in 2024.

[^5]:    ${ }^{1}$ This is a preliminary estimate. The final number will be reported in our 2023-24 Corporate Responsibility Report, to be issued later in 2024.
    ${ }^{2}$ Intel defines zero waste as less than $1 \%$.
    ${ }^{3}$ The contents of our website and our Corporate Responsibility Report, Climate Change Policy, Climate Transition Action Plan and CDP Climate Change Survey are referenced for general information only and are not incorporated by reference in this Form 10-K.

[^6]:    ${ }^{1}$ Source Intel calculated PC density from industry analyst reports.
    ${ }^{2}$ Source: Intel calculated volume of devices over four years old from industry analyst reports and internal data.
    ${ }^{3}$ Source: Intel calculated multi-year TAM forecast derived from industry analyst reports.

[^7]:    ${ }^{1}$ Source: S\&P Global Production Forecast

[^8]:    ${ }^{1}$ Source: TrendForce

[^9]:    ${ }^{1}$ FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that Intel Corporation has been independently assessed according to the FTSE4Good criteria, and has satisfied the requirements to become a constituent of the FTSE4Good Index Series. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. The FTSE4Good indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.
    ${ }^{2}$ Score as of end of year 2023
    ${ }^{3}$ KnowTheChain Ranking as of January 2024

