

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549
Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended October 29, 2022
OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to
Commission file number 1-7819

Analog Devices, Inc.

(Exact name of registrant as specified in its charter)

Massachusetts

(State or other jurisdiction of incorporation or organization)

One Analog Way, Wilmington, MA

(Address of principal executive offices)

04-2348234

(I.R.S. Employer Identification No.)

01887

(Zip Code)

(781) 935-5565

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock \$0.16 2/3 par value per share	ADI	Nasdaq Global Select Market

Securities registered pursuant to Section 12(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 No

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 No

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 No

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 No

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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately \$62,631,000,000 based on the last reported sale of the Common Stock on The Nasdaq Global Select Market on April 30, 2022. Shares of voting and non-voting stock beneficially owned by executive officers, directors and holders of more than 5% of the outstanding stock have been excluded from this calculation because such persons or institutions may be deemed affiliates. This determination of affiliate status is not a conclusive determination for other purposes.

As of October 29, 2022, there were 509,295,941 shares of Common Stock, \$0.16 2/3 par value per share, outstanding.

Documents Incorporated by Reference

Document Description	Form 10-K Part
Portions of the Registrant's Proxy Statement for the Annual Meeting of Shareholders to be held March 8, 2023	III

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Note About Forward-Looking Statements

This Annual Report on Form 10-K, including “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” contains forward-looking statements regarding future events and our future results that are subject to the safe harbor created under the Private Securities Litigation Reform Act of 1995 and other safe harbors under the Securities Act of 1933 and the Securities Exchange Act of 1934. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. These statements are based on current expectations, estimates, forecasts, and projections about the industries in which we operate and the beliefs and assumptions of our management. Words such as “expects,” “anticipates,” “targets,” “goals,” “projects,” “intends,” “plans,” “believes,” “seeks,” “estimates,” “continues,” “may,” “could” and “will,” and variations of such words and similar expressions are intended to identify such forward-looking statements. In addition, any statements that refer to projections regarding our future financial performance; our anticipated growth and trends in our businesses; new or improved innovative solutions, products, and technologies; the effects of business, economic, political, legal, and regulatory impacts or conflicts upon our global operations; changes in demand for semiconductors and the related changes in demand and supply for our products; manufacturing, delays, product availability, and supply chain disruptions; our ability to recruit or retain our key personnel; our future liquidity, capital needs and capital expenditures; our development of technologies and research and development investments; the impact of the COVID-19 pandemic on our business, financial condition and results of operations; our future market position and expected competitive changes in the marketplace for our products; our plans to pay dividends or repurchase stock; servicing our outstanding debt; our expected tax rate; the effect of changes in or the application of new or revised tax laws; expected cost savings; the effect of new accounting pronouncements; plans to integrate or realize the benefits or synergies expected of acquired businesses and technologies, including the acquired business, operations and employees of Maxim Integrated Products, Inc.; our continued initiatives to consolidate our footprint related to our business units including our manufacturing, engineering, sales, marketing and administrative offices; implementation of environment, health and safety standards; environment, social and governance related goals; and other characterizations of future events or circumstances are forward-looking statements. Readers are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties, and assumptions that are difficult to predict, including those identified in Part I, Item 1A. "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. We undertake no obligation to revise or update any forward-looking statements, including to reflect events or circumstances occurring after the date of the filing of this report, except to the extent required by law.

PART I

ITEM 1. BUSINESS

Company Overview, Strategy and Mission

Analog Devices, Inc. (we, Analog Devices or the Company) is a leading semiconductor company dedicated to solving our customers' most complex engineering challenges. We deliver innovations that connect technology to human breakthroughs and play a critical role at the intersection of the physical and digital world by providing the building blocks to sense, measure, interpret, connect and power. We design, manufacture, test and market a broad portfolio of solutions, including integrated circuits (ICs), software and subsystems that leverage high-performance analog, mixed-signal and digital signal processing technologies. Our comprehensive product portfolio, deep domain expertise and advanced manufacturing capabilities extend across high-performance precision and high-speed mixed-signal, power management and processing technologies – including data converters, amplifiers, power management, radio frequency (RF) ICs, edge processors and other sensors.

The Third Wave of Information and Communications Technology, as we refer to it at Analog Devices, is characterized by ubiquitous sensing, hyper-scale and edge computing and pervasive connectivity. These technological trends are driving a continuous evolution of new generations of applications that are increasing the demand for Analog Devices' high-performance analog, mixed-signal, power and RF ICs. We have positioned our business to capitalize on the secular growth opportunities across our markets and to deliver innovative solutions. Central to our strategy is our focus on challenges that our customers have across the most impactful application areas. That is built around the following three key priorities, which will continue to drive our long-term success:

- **Efficient use of capital.** Research and development (R&D) is critical to continue our cycle of innovation-driven success. We target the most attractive opportunities, particularly across our business-to-business (B2B) markets including Industrial, Automotive and Communications. We are also deeply committed to extracting value from our recent acquisitions to complement our R&D and drive long-term value creation. Through the development of cutting-edge innovations and our ability to solve difficult problems across a broad array of applications, we generate significant cash flow and are deeply committed to delivering strong shareholder returns.
- **Deepening customer-centricity.** Close customer relationships influence aspects of our business: from our broad range of product portfolios and applications expertise to manufacturing capabilities in high-performance power management and precision and high-speed signal processing technologies. At the same time, our engineering talent continues to be an important competitive differentiator in the semiconductor space. We strive to be the destination for the world's best engineering talent with a team of more than 11,400 engineers. Together, our products and our engineering talent enable us to partner with our customers, leveraging our analog domain expertise and receiving the full benefit of our technology capabilities to develop complete and innovative solutions.
- **Capitalizing on secular trends.** We are positioned to capitalize on important secular growth trends, including the Intelligent Edge, industrial automation, ubiquitous connectivity, electric vehicles, in-cabin experience, digital healthcare and space, as we are well-aligned with the key B2B markets driving this increase in data and we will continue to be a critical partner in the collection, creation and communication of our customers' edge data.

In addition to driving organic growth, our strategy involves expansion through the acquisition of businesses, assets or technologies that allow us to complement our existing product offerings, expand our market coverage, increase our engineering talent or enhance our technological capabilities. For example, we have executed on this strategy through:

- the acquisition of Hittite Microwave Corporation in the fiscal year ended November 1, 2014, which strengthened our market leadership in high-performance RF and broadened our portfolio across the entire frequency spectrum from DC to 100 gigahertz;
- the acquisition of Linear Technology Corporation (Linear) in the fiscal year ended October 28, 2017, which added high-performance power management and additional precision signal processing to our portfolio, expanding and diversifying our offerings to deliver more complete solutions; and
- the acquisition of Maxim Integrated Products, Inc. (Maxim) in the fiscal year ended October 30, 2021 (fiscal 2021), which strengthens our position as a high-performance analog semiconductor company.

We were incorporated in Massachusetts in 1965 with our corporate headquarters near Boston in Wilmington, Massachusetts. We have manufacturing facilities primarily in the United States, Ireland and Southeast Asia. Our common stock is listed on the Nasdaq Global Select Market under the symbol ADI and is included in the Standard & Poor's 500 Index.

Acquisition of Maxim Integrated Products, Inc.

On August 26, 2021 (Acquisition Date), we completed the acquisition of Maxim, an independent manufacturer of innovative analog and mixed-signal products and technologies. Pursuant to the Agreement and Plan of Merger, dated as of July 12, 2020 (the Merger Agreement), Maxim stockholders received, for each outstanding share of Maxim common stock, 0.6300 of a share of the Company's common stock as of the Acquisition Date, for total consideration of approximately \$28.0 billion of our common stock. The acquisition of Maxim is referred to as the Acquisition.

Available Information

We maintain a website with the address www.analog.com. We are not including the information contained on our website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K. We make available free of charge through our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K (including exhibits), and amendments to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the Securities and Exchange Commission (SEC). We also make available on our website our by-laws, corporate governance guidelines, the charters for our audit committee, compensation committee, and nominating and corporate governance committee, our equity award granting policies, our code of business conduct and ethics which applies to our directors, officers and employees, and our related person transaction policy, and such information is available in print and free of charge to any shareholder of Analog Devices who requests it. In addition, we intend to disclose on our website any amendments to, or waivers from, our code of business conduct and ethics that are required to be publicly disclosed pursuant to rules of the SEC or Nasdaq.

Products

Semiconductor components are the building blocks used in electronic systems and equipment. These components are classified as either discrete devices, such as individual transistors, or as ICs, in which a number of transistors and other elements are combined to form a more complicated electronic circuit.

Our ICs are designed to address a wide range of real-world signal processing applications. We sell our ICs to customers worldwide, many of whom use products spanning our core technologies in a wide range of applications. Our IC product portfolio includes both general-purpose products used by a broad range of customers and applications, as well as application-specific products designed for specific target markets. By using readily available, high-performance, general-purpose products in their systems, our customers can reduce the time they need to bring new products to market. Given the high cost of developing more customized ICs, our standard products often provide a cost-effective solution for many low to medium volume applications. More specifically, our analog ICs monitor, condition, amplify or transform continuous analog signals associated with physical properties, such as temperature, pressure, weight, light, sound or motion, and play an important role in bridging real world phenomena to a variety of electronic systems. Our analog ICs also provide voltage regulation and power control to electronic systems.

We also focus on working with leading customers to design application-specific solutions. We begin with our existing core technologies, which leverage our analog and mixed signal, power management, RF and microwave, edge processors and other sensors, and devise solutions that more closely meet the needs of a specific customer or group of customers. Because we have already developed the core technology platform for our general-purpose products, we can create application-specific solutions quickly and efficiently.

Our analog and mixed-signal IC technology has been the foundation of our business for over five decades, and we are one of the world's largest suppliers of high-performance analog ICs. Our analog signal processing ICs are primarily high-performance devices, offering higher dynamic range, greater bandwidth, and other enhanced features. We believe that the principal advantages these products have as compared to competitors' products include higher accuracy, higher speed, lower cost per function, smaller size, lower power consumption and fewer components, resulting in improved performance and reliability. Our product portfolio includes several thousand analog ICs, many of which can have several hundred end customers. Our analog ICs typically have long product life cycles. Our customers include original equipment manufacturers (OEMs) and customers who build electronic subsystems for integration into larger systems.

Our product offerings include more than 75,000 stock keeping units (SKUs) that can be aggregated into the following general categories:

- *Analog and Mixed Signal*—We are a leading supplier of data converter products. Data converters translate real-world analog signals into digital data and also translate digital data into analog signals. Data converters remain our largest and most diverse product family and an area where we are continuously innovating to enable our customers to redefine and differentiate their products. Our converter products combine sampling rates and accuracy with the low noise, power, price and small package size required by industrial, automotive, consumer, and communications electronics.

- *Power Management & Reference*—Power management and reference products, which include functions such as power conversion, driver monitoring, sequencing and energy management, provide efficient solutions for power management and conversion applications in the automotive, communications, industrial and high-end consumer markets. Our high-performance power ICs include powerful performance, integration and software design simulation tools to provide fast and accurate power supply designs.
- *Amplifiers/RF and Microwave*—We are also a leading supplier of high-performance amplifiers which are used to condition analog signals. High performance amplifiers emphasize the performance dimensions of speed and precision. Within this product portfolio we provide precision, instrumentation, high speed, intermediate frequency/RF/microwave, broadband, and other amplifiers. Our analog product line also includes a broad portfolio of high-performance RF and microwave ICs covering the entire RF signal chain. Our high-performance RF and microwave ICs support the high-performance requirements of cellular infrastructure and a broad range of applications in our target markets, including instrumentation, aerospace and automotive.
- *Sensors & Actuators*—Our analog technology portfolio is comprised of sensor and actuator products, including products based on micro-electro-mechanical systems (MEMS) technology. MEMS technology enables us to build extremely small sensors that incorporate an electromechanical structure and the supporting analog circuitry for conditioning signals obtained from the sensing element. Our MEMS product portfolio includes accelerometers used to sense acceleration, gyroscopes used to sense rotation, inertial measurement units used to sense multiple degrees of freedom combining multiple sensing types along multiple axes, and broadband switches suitable for radio and instrument systems. We offer other high-performance sensors, from temperature to magnetic fields, that are deployed in a variety of systems. In addition to sensor products, our other analog product category includes isolators that enable designers to implement isolation in designs without the cost, size, power, performance, and reliability constraints found with optocouplers.
- *Digital Signal Processing and System Products (DSPs)*—DSPs are optimized for high-speed numeric calculations, which are essential for instantaneous, or real-time, processing of digital data generated, in most cases, from analog to digital signal conversion. Our DSPs are designed to be fully programmable and to efficiently execute specialized software programs, or algorithms, associated with processing digitized real-time, real-world data. Programmable DSPs are designed to provide the flexibility to modify the device's function quickly and inexpensively using software. Our general-purpose DSP IC customers typically write their own algorithms using software development tools provided by us and third-party suppliers. Our DSPs are designed in families of products that share common architectures and therefore can execute the same software across a range of products.

Sales Channel

We sell our products globally through a direct sales force, third-party distributors, independent sales representatives and via our website. We have direct sales offices, sales representatives and/or distributors in over 50 countries. We support our worldwide sales efforts through our website and with extensive promotional programs that include editorial coverage and paid advertising in online and printed trade publications, webinars, social media and communities, promotional and training videos, direct mail programs, technical seminars and participation in trade shows. We publish, share and distribute technical content such as data sheets, application guides and catalogs. We maintain a staff of field application engineers who aid customers in incorporating our products into their products. In addition, we offer a variety of web-based tools that ease product selection and aid in the design process for our customers.

We believe distributors provide a cost-effective means of reaching a broad range of customers while providing efficient logistics services. From time to time, we may add or terminate distributors in specific geographies, or move customers to a direct support or fulfillment model as we deem appropriate given our strategies, the level of distributor business activity and distributor performance and financial condition.

These distributors typically maintain an inventory of our products. Some of them also sell products that compete with our products, including those for which we are an alternate source. We make sales to distributors under agreements that allow certain distributors to receive price adjustment credits and to return qualifying products for credit, as determined by us, in order to reduce the amounts of slow-moving, discontinued or obsolete product from their inventory. These agreements limit such returns to a certain percentage of our shipments to that distributor during the prior quarter. In addition, certain distributors are allowed to return unsold products if we terminate the relationship with the distributor. Additional information relating to our revenue and customer concentration is set forth in Note 21, *Concentrations of Risk*; Note 2n, *Revenue Recognition*; and Note 4, *Industry, Segment and Geographic Information*, of the Notes to Consolidated Financial Statements contained in Part II, Item 8 of this Annual Report on Form 10-K.

We typically do not have long-term sales contracts with our customers. In some of our markets where end-user demand may be particularly volatile and difficult to predict, some customers place orders that require us to manufacture product and

have it available for shipment, even though the customer is unwilling to make a binding commitment to purchase all, or even any, of the product. In other instances, we manufacture product based on forecasts of customer demand. As a result, we may incur inventory and manufacturing costs in advance of anticipated sales and are subject to the risk of cancellation of orders leading to a sharp reduction of sales and backlog. Further, those orders or forecasts may be for products that meet the customer's unique requirements so that those canceled orders would, in addition, result in an inventory of unsaleable products, resulting in potential inventory write-offs. As a result of lengthy manufacturing cycles for some of our products that are subject to these uncertainties, the amount of unsaleable product could be substantial.

Markets

The breakdown of our annual revenue by end market is set out in the table below:

End Market*	Percent of Fiscal 2022 Revenue	Percent of Fiscal 2021 Revenue	Percent of Fiscal 2020 Revenue
Industrial	51%	55%	54%
Automotive	21%	17%	14%
Communications	16%	16%	21%
Consumer	13%	11%	11%

*The sum of the individual percentages may not equal 100% due to rounding.

The following describes some of the characteristics of, and customer products within, our major end markets of Industrial, Automotive, Communications and Consumer:

Industrial — Our industrial market includes the following sectors:

Industrial Automation — We are a leader in industrial automation because we deliver robust, high performance solutions from our deep motion and process control expertise and precision sensing measurement and interpretation to expansive connectivity and power capabilities. We take real-world phenomena in the most complex environments on the factory floor and translate it into valuable insights and outcomes. We co-create with customers to architect robotics systems and solutions that improve dynamic behavior and precision while enhancing worker safety, machine health, and manufacturing flexibility. Our industrial automation market includes applications such as:

- Condition-based monitoring (CbM)
- Industrial robotics
- Factory and process control
- Industrial power supplies
- Industrial motion control

Instrumentation & Measurement — Trusted measurement is at the forefront of innovation. With the rapid pace of global transformation, from ubiquitous connectivity, to electrification, to artificial intelligence, to human health and environmental sustainability — all these trends require reliable and efficient test solutions from R&D to manufacturing to field deployment. We enable high performance measurement through our components and system solutions. Our RF, high-speed and power management products are designed to enable solutions for complying with evolving communications standards. Our high-voltage, isolation and precision products are a key part of the systems that are designed for safety, longevity and efficiency in electric vehicles and renewable energy. Beyond electrical testing, our precision and power technology enable analytical instruments for drug or vaccine R&D and manufacturing, food safety and quality, and environmental monitoring. Our instrumentation and measurement market includes applications such as:

- Automated test equipment
- Electronic test and measurement
- Environmental and process analysis
- Automotive and energy test
- Life sciences and drug discovery

Aerospace/Defense — The defense, commercial avionics and space markets all require high-performance ICs that meet rigorous environmental and reliability specifications. Many of our ICs can be supplied in versions that meet these standards. In addition, many products can be supplied to meet the standards required for broadcast satellites and other commercial space applications. Most of our products sold in this market are specially tested versions of products derived from our standard product offering. As end systems are becoming more complex, many of our customers in this market also look for us to provide higher levels of integration in order to minimize size, weight and power and to improve ease-of-use. As such, we also sell products in the form of SiPs (system in package), printed circuit board assemblies, modules, and subsystems. Customer

products include applications such as:

- Navigation systems
- Space and satellite communications
- Communication systems
- Radar systems
- Security devices
- Electronic surveillance and countermeasures

Healthcare — The healthcare market is evolving in response to the need for increased access to better and more affordable care, as well as a growing focus on preventative healthcare and the need to better manage chronic conditions. To help achieve this, we are collaborating with customers and partners on innovative solutions that are designed to achieve better outcomes for patients and physicians at reduced costs for all. Our offerings include both standard and application-specific products and are used in applications such as:

- Ultrasound systems
- X-Ray equipment (CT and DR)
- Image guided therapy
- Multi-parameter vital signs monitors
- Remote patient monitoring
- Anesthesia equipment
- Lab diagnostic equipment
- Surgical tools and instruments
- Blood analyzers
- Point-of-care diagnostics

Energy Management — The global drive towards improved energy efficiency, conservation, reliability and cleanliness is driving investments in electrification across many different application areas, including electric vehicle charging infrastructure, renewable energy, power transmission and distribution systems, electric meters and other innovative areas. The common characteristic behind these efforts is the addition of sensing, measurement and communication technologies to electrical infrastructure. Our offerings include both standard and application-specific products and are used in applications such as:

- Utility meters
- Electric vehicle charging infrastructure
- Substation relays and automation equipment
- Wind turbines
- Solar inverters
- Building energy automation/control

Automotive — We develop differentiated high-performance signal processing solutions, which enable sophisticated transportation systems that span infotainment, electrification and autonomous applications. Through collaboration with manufacturers worldwide, we have developed a broad portfolio of analog, digital, power and sensor ICs that address the emerging needs of this evolving industry. Our focus is on audio/video applications that lead to an enriched in-cabin experience, electrification applications that improve vehicle range and reduce emissions, and mission-critical perception and navigation applications that enable vehicles to more clearly sense the external environment. Specifically, we have developed products used in applications such as:

- Car audio, voice processing and connectivity
- Video processing and connectivity
- Battery monitoring and management systems

Communications — The development of broadband, wireless and internet infrastructures around the world has created an important market for our communications products. Communications technology involves the processing of signals that are converted from analog to digital and digital to analog form during the process of transmitting and receiving data. The need for higher speed and reduced power consumption, coupled with more reliable, bandwidth-efficient communications, creates demand for our products, which are used in the full spectrum of signal processing for data, video, voice and machine-to-machine communications. In wireless and wireline communication applications, our products are incorporated into:

- Cellular base station equipment
- Microwave backhaul systems
- Data centers and data storage
- Satellite and terrestrial broadband access equipment
- Optical and cable networking equipment for data center and carrier providers

Consumer — To address the market demand for state of the art personal and professional entertainment systems and the consumer demand for high quality user interfaces, music, movies and photographs, we have developed analog, digital and mixed-signal and power solutions that meet the rigorous cost and time-to-market requirements of the consumer electronics market. The emergence of high-performance, feature-rich consumer products has created a market for our high-performance ICs with a high level of specific functionality that enables best in class user experience and battery management. These products include:

- Portable devices (smart phones, tablets and wearable devices) for media and vital signs monitoring applications
- Prosumer audio/video equipment

See Note 4, *Industry, Segment and Geographic Information*, of the Notes to Consolidated Financial Statements contained in Part II, Item 8 of this Annual Report on Form 10-K for further information about our products by end market.

Competition

We believe that competitive performance in the marketplace for signal processing products depends upon multiple factors, including technological innovation, strength of brand, diversity of product portfolio, product performance, technical support, delivery capabilities, customer service quality, reliability and price, with the relative importance of these factors varying among products, markets, and customers. We compete with a number of semiconductor companies in markets that are highly competitive. Many companies have sufficient financial, manufacturing, technical, sales and marketing resources to develop and market products that compete with our products. Some of our competitors may have more advantageous supply or development relationships with our current and potential customers or suppliers. Our competitors also include both emerging companies selling specialized products in markets we serve and companies outside of the U.S., including entities associated with well-funded efforts by foreign governments to create indigenous semiconductor industries.

We believe that our technical innovation emphasizing product performance and reliability, supported by our commitment to strong customer service and technical support, enables us to make a fundamental difference to our customers' competitiveness in our chosen markets.

Seasonality

Our sales are subject to a varying degree of seasonality. Historically, sales to customers during our first fiscal quarter may be lower than other quarters due to plant shutdowns at some of our customers during the holiday season. In general, the seasonality for any specific period of time has not had a material impact on our results of operations. In addition, as explained in our risk factors contained in Item 1A of this Annual Report on Form 10-K, our revenue is more likely to be influenced on a quarter to quarter basis by cyclicalities in the semiconductor industry.

We believe that a number of factors should be used to assess future customer demand, including backlog, macroeconomic trends, customer insights and current customer bookings as compared to billings (book-to-bill) ratio. We define backlog to mean firm orders from a customer or distributor with a requested delivery date within thirteen weeks. However, backlog may be impacted by the tendency of customers to rely on shorter lead times available from suppliers, including us, in periods of depressed demand. In periods of increased demand, there is a tendency towards longer lead times that has the effect of increasing backlog and, in some instances, we may not have manufacturing capacity sufficient to fulfill all orders. We have experienced increased demand over the past two years leading to a constrained supply environment. In response, we have added manufacturing capacity to address some of the increased demand. As is customary in the semiconductor industry, we allow most orders to be canceled within a reasonable notification period or deliveries to be delayed by customers without significant penalty, while also allowing certain distributors to receive price adjustment credits and to return qualifying products for credit, as determined by us, in order to reduce the amounts of slow-moving, discontinued or obsolete product from their inventory.

Production Resources

Monolithic IC components are manufactured in a sequence of semiconductor production steps that include wafer fabrication, wafer testing, dicing the wafer into individual "chips," or dice, assembly of the dice into packages and electrical testing of the devices in final packaged form. The raw materials used to manufacture these devices include silicon wafers, processing chemicals (including liquefied gases), precious metals laminates, ceramic and plastic used for packaging. We utilize, develop and employ a wide variety of manufacturing processes, primarily based on bipolar and complementary metal-oxide semiconductor (CMOS) transistors, which are specifically tailored for use in fabricating high-performance analog, DSP and mixed-signal ICs. Devices such as MEMS, iCoupler® isolators and various sensors are fabricated using specialized processes, which typically use substantially similar equipment as bipolar and CMOS processes.

Our IC products are fabricated on proprietary processes at our internal production facilities in Wilmington, Massachusetts; Camas, Washington; Beaverton, Oregon; and Limerick, Ireland and also on a mix of proprietary and non-proprietary processes at third-party wafer fabricators. We currently source more than half of our wafer requirements annually from third-party wafer fabrication foundries, such as Taiwan Semiconductor Manufacturing Company (TSMC) and others, and the remainder is sourced internally. In addition, we operate an assembly, wafer sort and testing facility in Penang, Malaysia, and test facilities in the Philippines and Thailand. We also make extensive use of third-party subcontractors for the assembly and testing of our products.

Our products require a wide variety of components, raw materials and external foundry services, most of which we purchase from third-party suppliers. We have multiple sources for many of the components and materials that we purchase and incorporate into our products. If any of our key suppliers are unable or unwilling to manufacture and deliver sufficient quantities of components to us on the time schedule and of the quality that we require, we may be forced to seek to engage additional or replacement suppliers, which could result in significant expenses and disruptions or delays in manufacturing.

product development and shipment of product to our customers. Although we have experienced shortages of components, materials and external foundry services from time to time, we are working to balance these constraints as we shift our global resources and change capacity where appropriate.

Patents and Intellectual Property Rights

We seek to establish and maintain our proprietary rights in our technology and products through the use of patents, copyrights, mask works, trademarks and trade secrets. We have a program to file applications for and obtain patents, copyrights, mask works and trademarks in the United States and in selected foreign countries where we believe filing for such protection is appropriate. We also seek to maintain our trade secrets and confidential information by nondisclosure policies and through the use of appropriate confidentiality agreements. We have obtained a substantial number of patents and trademarks in the United States and in other countries. As of October 29, 2022, we held approximately 4,800 U.S. patents and approximately 440 published pending U.S. patent applications. There can be no assurance, however, that the rights obtained can be successfully enforced against infringing products in every jurisdiction. While our patents, copyrights, mask works, trademarks and trade secrets provide some advantage and protection, we believe our competitive position and future success is largely determined by such factors as the system and application knowledge, innovative skills, technological expertise and management ability and experience of our personnel; the range and success of new products being developed by us; our market brand recognition and ongoing marketing efforts; and customer service and technical support. It is generally our policy to seek patent protection for significant inventions that may be patented, though we may elect, in certain cases, not to seek patent protection even for significant inventions, if we determine other protection, such as maintaining the invention as a trade secret, to be more advantageous. We also have trademarks that are used in the conduct of our business to distinguish genuine Analog Devices products, and we maintain cooperative advertising programs to promote our brands and identify products containing genuine Analog Devices components.

Environment, Health and Safety Compliance

We are committed to protecting the environment and the health and safety of our employees, customers and the public. We endeavor to adhere to applicable environment, health and safety (EHS) regulatory and industry standards across all of our facilities, and to encourage pollution prevention, reduce our water and energy consumption, manage waste streams to divert from landfills, and strive towards continual improvement. We strive to achieve excellence in EHS management practices as an integral part of our total quality management system.

Our EHS management systems in all of our manufacturing facilities are certified to ISO 14001:2015 for environmental management. In addition, our legacy Analog Devices facilities are certified to ISO 45001 for occupational health and safety, and as part of our integration efforts, we are developing a path to certification for our legacy Maxim sites as well. Our industrial hygiene surveillance program minimizes and prevents exposures in the workplace. We use two industry standard metrics to assess injury performance and trends worldwide. In fiscal 2021 and the fiscal year ended October 29, 2022 (fiscal 2022), our global injury rates were lower than the U.S. semiconductor industry benchmark.

Our manufacturing facilities are subject to numerous and increasingly strict federal, state, local and foreign EHS laws and regulations, particularly with respect to the transportation, storage, handling, use, emission, discharge and disposal of certain chemicals used or produced in the semiconductor manufacturing process. Our products are subject to increasingly stringent regulations regarding substance content in jurisdictions where we sell products. Contracts with many of our customers reflect these and additional EHS compliance standards. Substance content of our products includes materials that are subject to conflict mineral reporting requirements. Compliance with these laws and regulations has not had a material impact on our capital expenditures, earnings, financial condition or competitive position. There can be no assurance, however, that current or future environmental laws and regulations will not impose costly requirements upon us. Any failure by us to comply with applicable environmental laws, regulations and contractual obligations could result in fines, suspension of production, the need to alter manufacturing processes and legal liability.

We are a member of the Responsible Business Alliance, which was formerly known as the Electronic Industry Citizenship Coalition, as well as a signatory to the United Nations Global Compact and the Business Ambition for 1.5°C campaign. Our 2021 Environment, Social and Governance (ESG) Report states our goals to be carbon neutral by calendar year 2030, to achieve net zero emissions by calendar year 2050 or sooner, to achieve a water recycling rate of at least 50% in manufacturing facilities by 2025, to comply with our code of business conduct and ethics and to apply fair labor standards. The ESG Report is available on our website at www.analog.com/sustainability. The contents of our website and the information contained in our ESG Report are not incorporated by reference into this Annual Report on Form 10-K.

To support our commitment to ESG, we have implemented an oversight structure which includes a quarterly reporting cadence both to senior management and the Nominating and Corporate Governance Committee of the Board of Directors. These quarterly reports include updates on progress against goals, assessment of regulatory preparedness, stakeholder engagement feedback, and programmatic progress and challenges.

Cybersecurity and Information Security Risk Oversight

We regularly perform risk assessments relating to cybersecurity and technology risks. Our enterprise security program has been developed based on industry standards, including those published by the International Organization for Standardization (ISO) and the National Institute of Standards and Technology. Highlights of the program include:

- A comprehensive set of enterprise security policies and procedures that guide our protection strategy.
- Protecting against threats through use of the following measures: identifying critical assets and high-risk threats; implementing cybersecurity detection, controls and remediation practices; implementing a third-party risk management program to evaluate our critical partners' cyber posture; and evaluating our program effectiveness by performing internal and external audits.

Risks identified by our cybersecurity program are analyzed to determine the potential impact on us and the likelihood of occurrence. Such risks are continuously monitored to ensure that the circumstances and severity of such risks have not changed. Senior leadership and our internal audit team regularly provide the Audit Committee of the Board of Directors with updates on the performance of our program. At least annually, the Chief Information Officer updates the full Board of Directors on information security matters and risk, including cybersecurity.

We conduct regular workforce training to instruct employees to identify cybersecurity concerns and take the appropriate action. We install and regularly update antivirus software on all company managed systems and workstations to detect and prevent malicious code from impacting our systems. In addition, we have a product security team focused on integrating risk and security best practices into our product development life cycle. Periodically, we are audited by an independent information systems expert to determine both the adequacy of, and compliance with, controls and standards.

We have determined that an information security risk insurance policy would not be effective, and that we should continue to self-insure for cybersecurity risks. We have not experienced a material security breach in the last three years, and as a result, we have not incurred any net expenses from such a breach. Furthermore, we have not been penalized or paid any amount under an information security breach settlement over the last three years.

Human Capital and Empowerment

Our company was founded on the principle that people are our greatest asset. Our future success depends in large part on the continued service of our key technical and senior management personnel, and on our ability to continue to attract, retain and motivate qualified employees, particularly highly-skilled engineers involved in the design, development, support and manufacture of new and existing products and processes. In order for us to attract the best talent, we aim to offer challenging work in an environment that enables our employees to learn, grow and reach their full potential.

Core to our empowerment strategy is embracing diversity and building a culture of inclusion across the organization. We are working to achieve this by expanding the diversity of our workforce, creating growth and development opportunities for our employees, embracing different perspectives and fostering an inclusive work environment for all. In addition, we encourage employees to organize and develop different employment networks, which contribute to our broader diversity and inclusion initiatives. Our current employee networks include the Analog Veterans Network, Neurodiversity Network, People of Color and Allies Network, Pride Network, Women's Leadership Network, Young Professionals Network, the Green Team and the Communities Activities Board. As noted in "Environment, Health and Safety Compliance" above, we published our 2021 ESG report which details our sustainability efforts, operations efficiency, employee engagement, and governance, and also provides a look at the state of our organization and an overview of some of the initiatives we have launched to drive continuous improvements across diversity and inclusion.

As of October 29, 2022, we had approximately 24,450 employees, of whom approximately 11,400 are in engineering roles. Approximately 59% of our workforce is male and 41% female. Our senior leadership team is 73% male and 27% female, while manager roles are approximately 75% male and 25% female. 30% of the members of our Board of Directors are female. For fiscal 2022, our voluntary employee turnover rate was approximately 11.2%.

Our human capital resource objectives include identifying, recruiting, retaining, incentivizing and integrating our existing and future employees. We strive to attract and retain the most talented employees in the industry and across the globe by offering competitive compensation and benefits that support their health, financial and emotional well-being. Our compensation philosophy is based on rewarding each employee's individual contributions and striving to achieve equal pay for equal work regardless of gender, race or ethnicity. We use a combination of fixed and variable pay including base salary, bonuses, performance awards and equity compensation. The principal purposes of our equity incentive plans are to attract, retain and motivate selected employees and directors through the granting of stock-based compensation awards. We offer employees benefits that vary by country and are designed to meet or exceed local laws and to be competitive in the marketplace. Examples of benefits offered in the U.S. include a 401(k) plan with employer contributions; health benefits; life, business travel and disability insurance; additional voluntary insurance; paid time off and parental leave; education assistance; paid counseling

assistance; backup child and adult care; adoption support; and family college planning. For further information concerning our equity incentive plans, see Note 3, *Stock-based Compensation and Shareholders' Equity*, of the Notes to Consolidated Financial Statements contained in Part II, Item 8 of this Annual Report on Form 10-K.

In order to ensure that we are meeting our human capital objectives we frequently utilize employee surveys to understand the effectiveness of our employee and compensation programs and where we can improve across the company. Our latest survey, which was completed in fiscal 2021 prior to the Acquisition, had a participation rate of over 83% of legacy employees of Analog Devices. The survey results indicated that we excel in areas including purpose, respectful treatment, commitment to diversity/inclusion and accountability. Our dual focus of being a great place to work and providing industry-leading benefits and work culture has led to strong employee satisfaction and pride that has been recognized across the globe, as evidenced with the following awards: *Forbes* World's Top Female Friendly Companies (2022, 2021), *Forbes* World's Best Employer List (2020) and *The Boston Globe's* Top Places to Work (2021, 2020).

ITEM 1A. RISK FACTORS

Set forth below and elsewhere in this report and in other documents we file with the Securities and Exchange Commission (SEC) are descriptions of certain risks and uncertainties that could cause our actual results to differ materially from the results contemplated by the forward-looking statements in this report. Additional risks and uncertainties not presently known to us or that we presently deem less significant may also adversely affect our business.

Risks Related to our Business, Operations, Industry and Partners

Global political and economic uncertainty and adverse conditions related to our international operations could materially and adversely affect our business, financial condition and results of operations.

We have significant operations and manufacturing facilities outside the United States, including in Ireland, the Philippines, Thailand, and Malaysia. A significant portion of our revenue is derived from customers in international markets, and we expect that international sales will continue to account for a significant portion of our revenue in the future. As a result of our international operations, our business, financial condition and results of operations could be negatively impacted by the following:

- political, legal and economic changes, crises or instability and civil unrest in markets in which we do business, such as potential macroeconomic weakness related to trade and political disputes between the United States and China, changes in China-Taiwan relations that may adversely affect our operations in Taiwan, our customers, and the technology industry supply chain, the United Kingdom's withdrawal from the European Union, the implementation of the United States-Mexico-Canada Agreement and the ongoing conflict between Russia and Ukraine;
- compliance requirements of U.S. customs and export regulations, including the Export Administration Regulations and the International Traffic and Arms Regulations;
- currency conversion risks and exchange rate and interest rate fluctuations, including the potential impact of the transition from LIBOR and the current increasing interest rate environment;
- instability of global credit and financial markets due to adverse macroeconomic conditions such as rising inflation, increasing interest rates and slower economic growth or recession that could, among other impacts, affect our ability to access external financing sources on acceptable terms or lead to financial difficulties or uncertainty of our customers, suppliers and distributors exposing us to late payments, cancelled orders and inventory challenges, among others;
- trade policy, commercial, travel, export or taxation disputes or restrictions, import or export tariffs, changes to export classifications or other restrictions imposed by the U.S. government or by the governments of the countries in which we do business, particularly in China;
- sanctions imposed by governments in countries in which we do business, including those imposed on Russia by, among others, the European Union, the U.S. and the United Kingdom in response to the ongoing conflict between Russia and Ukraine, which sanctions restrict a wide range of trade and financial dealings with Russian and Russian persons, as well as certain regions in Ukraine;
- complex, varying and changing government regulations and legal standards and requirements, particularly with respect to tax regulations, price protection, competition practices, export control regulations and restrictions, customs and tax requirements, immigration, anti-boycott regulations, data privacy, cyber security, sustainability and climate-related regulations, intellectual property, anti-corruption and environmental compliance, including the Foreign Corrupt Practices Act;
- economic disruption from terrorism and threats of terrorism and the response to them by the U.S. and its allies;
- increased managerial complexities, including different employment practices and labor issues;
- changes in immigration laws, regulations and procedures and enforcement practices of various government agencies;
- greater difficulty enforcing intellectual property rights and weaker laws protecting such rights;
- natural disasters or public health emergencies, such as the current COVID-19 pandemic;
- transportation disruptions and delays and increases in labor and transportation costs;
- changes to foreign taxes, tariffs and freight rates;
- fluctuations in raw material costs and energy costs due to general market factors and conditions such as inflation and supply chain constraints;
- greater difficulty in accounts receivable collections and longer collection periods; and
- increased costs associated with our foreign defined benefit pension plans.

Many of these factors and risks are present within our business operations in China. For example, changes in U.S.-China relations, the political environment or international trade policies and relations could result in further revisions to laws or regulations or their interpretation and enforcement, increased taxation, trade sanctions, the imposition of import or export duties and tariffs, restrictions on imports or exports, currency revaluations, or retaliatory actions, which have had and may continue to have an adverse effect on our business plans and operating results. In addition, expanded export restrictions limit our ability to sell to certain Chinese companies and to third parties that do business with those companies. These restrictions have created and may continue to create uncertainty and caution with our current or prospective customers and may cause them to amass large inventories of our products, replace our products with products from another supplier that is not subject to the export restrictions, or focus on building indigenous semiconductor capacity to reduce reliance on U.S. suppliers. Furthermore, if these export restrictions cause our current or potential customers to view U.S. companies as unreliable, we could suffer reputational damage or lose business to foreign competitors who are not subject to such export restrictions, and our business could be materially harmed. We are continuing to evaluate the impact of these restrictions on our business, but these actions may have direct and indirect adverse impacts on our revenues and results of operations in China and elsewhere. In addition, our success in the Chinese markets may be adversely affected by China's continuously evolving policies, laws and regulations, including those relating to antitrust, cybersecurity, data protection and data privacy, the environment, indigenous innovation and the promotion of a domestic semiconductor industry, and intellectual property rights and enforcement and protection of those rights.

We rely on third parties for supply of raw materials and parts, semiconductor wafer foundry services, assembly and test services, and transportation, among other things, and we generally cannot control their availability or conditions of supply or services.

We rely, and plan to continue to rely, on third-party suppliers and service providers, including raw material and components suppliers, semiconductor wafer foundries, assembly and test contractors, and freight carriers (collectively, vendors) in manufacturing our products. This reliance involves several risks, including reduced control over availability, capacity utilization, delivery schedules, manufacturing yields, costs, and supply chain allocations. We currently source more than half of our wafer requirements annually from third-party wafer foundries, including Taiwan Semiconductor Manufacturing Company (TSMC) and others. These foundries often provide wafer foundry services to our competitors and therefore periods of increased industry demand may result in capacity constraints. With respect to TSMC in particular, geopolitical changes in China-Taiwan relations could disrupt TSMC's operations, which would adversely affect our ability to manufacture certain products and as a result, could adversely affect our business and results of operations.

Our manufacturing processes require availability of certain raw materials and supplies. Limited or delayed access to these items could adversely affect our results of operations. In certain instances, one of our vendors may be the sole source of highly specialized processing services or materials. If such vendor is unable or unwilling to manufacture and deliver components to us on the time schedule and of the quality or quantity that we require, we may be forced to seek to engage an additional or replacement vendor, which could result in additional expenses and delays in product development or shipment of product to our customers. If additional or replacement vendors are not available, we may also experience delays in product development or shipment which could, in turn, result in the temporary or permanent loss of customers and as a result could adversely affect our business and results of operations.

The markets for semiconductor products are cyclical, and increased production may lead to overcapacity and lower prices, and conversely, we may not be able to satisfy unexpected demand for our products.

The cyclical nature of the semiconductor industry has resulted in periods when demand for our products has increased or decreased rapidly. The demand for our products is subject to the strength of our four major end markets of Industrial, Automotive, Communications, and Consumer. If we expand our operations and workforce too rapidly or procure excessive resources in anticipation of increased demand for our products, and that demand does not materialize at the pace at which we expect, or declines, or if we overbuild inventory in a period of decreased demand, our operating results may be adversely affected as a result of increased operating expenses, reduced margins, underutilization of capacity or asset impairment charges. These capacity expansions by us and other semiconductor manufacturers could also lead to overcapacity in our target markets which could lead to price erosion that could adversely impact our operating results. Conversely, during periods of rapid increases in demand, our available capacity may not be sufficient to satisfy the demand. In addition, we may not be able to expand our workforce and operations in a sufficiently timely manner, procure adequate resources and raw materials, locate suitable third-party suppliers, or respond effectively to changes in demand for our existing products or to demand for new products requested by our customers, and our current or future business could be materially and adversely affected.

A prolonged disruption of our internal manufacturing operations could have a material adverse effect on our business, financial condition and results of operations.

In addition to leveraging an outsourcing model for manufacturing operations, we also rely on our internal manufacturing operations located in the United States, Ireland, the Philippines, Thailand and Malaysia. A prolonged disruption at, or inability to utilize, one or more of our manufacturing facilities, loss of raw materials or damage to our manufacturing equipment for any reason, including due to the COVID-19 pandemic, natural or man-made disasters, civil unrest or other events outside of our control, such as widespread outbreaks of illness, or the failure to maintain our labor force at one or more of these facilities, may disrupt our operations, delay production, shipments and revenue and result in us being unable to timely satisfy customer demand. As a result, we could forgo revenue opportunities, potentially lose market share and damage our customer relationships, all of which could materially and adversely affect our business, financial condition and results of operations.

Our future success depends upon our ability to execute our business strategy, continue to innovate, improve our existing products, design, develop, produce and market new products, and identify and enter new markets.

Our future success significantly depends on our ability to execute our business strategy, continue to innovate, improve our existing products, and design, develop, produce and market innovative new products and system-level solutions. Product design, development, innovation and enhancement is often a complex, time-consuming and costly process involving significant investment in research and development with no assurance of return on investment. There can be no assurance that we will be able to develop and introduce new and improved products in a timely or efficient manner or that new and improved products, if developed, will achieve market acceptance. Our products generally must conform to various evolving and sometimes competing industry standards, which may adversely affect our ability to compete in certain markets or require us to incur significant costs. In addition, our customers generally impose very high quality and reliability standards on our products, which often change and may be difficult or costly to satisfy. Any inability to satisfy customer quality and reliability standards or comply with industry standards and technical requirements may adversely affect demand for our products and our results of operations.

Our growth is also dependent on our ability to identify and penetrate new markets where we have limited experience yet require significant investments, resources and technological advancements in order to compete effectively, and there can be no assurance that we will achieve success in these markets. There can be no assurance that the markets we serve and/or target based on our business strategy will grow in the future, that our existing and new products will meet the requirements of these markets, that our products, or the end-products in which our products are used, will achieve customer acceptance in these markets, that competitors will not force price reductions or take market share from us, or that we can achieve or maintain adequate gross margins or profits in these markets.

Our future revenue, gross margins, operating results, net income and earnings per share are difficult to predict and may materially fluctuate.

Our future revenue, gross margins, operating results, net income and earnings per share are difficult to predict and may be materially affected by a number of factors, including:

- the effects of adverse economic conditions in the markets in which we sell our products, including inflationary pressures, which has resulted, and may continue to result, in increased interest rates, fuel prices, wages, and other costs;
- changes in customer demand or order patterns for our products and/or for end products that incorporate our products;
- the timing, delay, reduction or cancellation of significant customer orders and our ability to manage inventory;
- our ability to accurately forecast distributor demand for our products;
- future distributor pricing credits and/or stock rotation rights;
- our ability to effectively manage our cost structure in both the short term and over a longer duration;
- changes in geographic, product or customer mix;
- the extent of the impact and the duration of the COVID-19 pandemic;
- changes in our effective tax rates or new or revised tax legislation in the United States, Ireland or worldwide;
- the effects of issued, threatened or retaliatory government sanctions, trade barriers or economic restrictions; changes in law, regulations or other restrictions, including executive orders; and changes in import and export regulations, including restrictions on exports to certain companies or to third parties that do business with such companies, export classifications, or duties and tariffs, particularly with respect to China;
- the timing of new product announcements or introductions by us, our customers or our competitors and the market acceptance of such products;
- pricing decisions and competitive pricing pressures;

- fluctuations in manufacturing yields, adequate availability of wafers and other raw materials, and manufacturing, assembly and test capacity;
- the ability of our third-party suppliers, subcontractors and manufacturers to supply us with sufficient quantities of raw materials, products and/or components;
- a decline in infrastructure spending by foreign governments, including China;
- a decline in the U.S. government defense budget, changes in spending or budgetary priorities, a prolonged U.S. government shutdown or delays in contract awards;
- a decline in our backlog;
- our ability to recruit, hire, retain and motivate adequate numbers of engineers and other qualified employees to meet the demands of our customers;
- our ability to generate new design opportunities and win competitive bid selection processes;
- the increasing costs of providing employee benefits worldwide, including health insurance, retirement plan and pension plan contributions and retirement benefits;
- our ability to utilize our manufacturing facilities at efficient levels;
- fluctuations in foreign currency exchange rates;
- potential litigation-related costs or product liability, warranty and/or indemnity claims, including those not covered by our suppliers or insurers;
- the difficulties inherent in forecasting future operating expense levels, including with respect to costs associated with labor, utilities, transportation and raw materials;
- the costs related to compliance with increasing worldwide government, environmental and social responsibility standards;
- new accounting pronouncements or changes in existing accounting standards and practices; and
- the effects of public health emergencies, civil unrest, natural disasters, widespread travel disruptions, security risks, terrorist activities, international conflicts and other events beyond our control.

In addition, the semiconductor market has historically been cyclical and subject to significant economic upturns and downturns. Our business and certain of the end markets we serve are also subject to rapid technological changes and material fluctuations in demand based on end-user preferences. There can be no assurance (i) that products stocked in our inventory will not be rendered obsolete before we ship them, or (ii) that we will be able to design, develop and produce products in a timely fashion to accommodate changing customer demand.

As a result of these and other factors, we may experience material fluctuations in future revenue, gross margins, operating results, net income and earnings per share on a quarterly or annual basis. Our historical financial performance and results of operations should not be relied upon as indicators of future performance or results. In addition, if our revenue, gross margins, operating results, net income and earnings per share results or expectations do not meet the expectations of securities analysts or investors, the market price of our common stock may decline.

We may not be able to compete successfully in markets within the semiconductor industry in the future.

We face intense competition in the semiconductor industry, and we expect this competition to increase in the future, including from companies located outside of the United States. Competition is generally based on innovation, design, quality and reliability of products, product performance, features and functionality, product pricing, availability and capacity, technological service and support, and the availability of integrated system solutions, with the relative importance of these factors varying among products, markets and customers. Many companies have sufficient financial, manufacturing, technical, sales and marketing resources to develop and market products that compete with our products. Some of our competitors may have more advantageous supply or development relationships with our current and potential customers or suppliers. Our competitors also include both emerging companies selling specialized products in markets we serve and companies outside of the U.S., including entities associated with well-funded efforts by foreign governments to create indigenous semiconductor industries. Existing or new competitors may develop products or technologies that more effectively address the demands of our customers and markets with enhanced performance, features and functionality, lower power requirements, greater levels of integration or lower cost. In addition, as we seek to expand our business, including the design and production of products and services for developing and emerging markets, we may encounter increased competition from our current competitors and/or new competitors. Increased competition in certain markets has resulted in and may continue to result in declining average selling prices, reduced gross margins and loss of market share in those markets. There can be no assurance that we will be able to compete successfully in the future against existing or new competitors, or that our operating results will not be adversely affected by increased competition. In addition, the semiconductor industry has experienced significant consolidation over the

past several years. Consolidation among our competitors could lead to a changing competitive landscape, which could negatively impact our competitive position and market share and harm our results of operations.

If we are unable to recruit or retain our key personnel, our ability to execute our business strategy will be adversely affected.

Our continued success depends to a significant extent upon the recruitment, retention and effective succession of our key personnel, including our leadership team, management and technical personnel, particularly our experienced engineers. The competition for these employees is intense and the labor market is tight. Further, we have recently experienced an increase in undesired attrition. The loss of key personnel or the inability to attract, timely hire and retain key employees with critical technical skills to achieve our strategy, including as a result of changes to immigration policies, could cause business disruptions, increased expenses to address any disruptions, and could have a material adverse effect on our business.

We believe that a critical contributor to our success to date has been our corporate culture, which we have built to foster innovation, teamwork and employee satisfaction. As we grow, including from the integration of employees and businesses acquired in connection with previous or future acquisitions, we may find it difficult to maintain important aspects of our corporate culture, which could negatively affect our ability to retain and recruit personnel who are essential to our future success.

We do not maintain any key person life insurance policy on any of our officers or other employees. The loss of one or more of our key employees, and any failure to have in place and execute an effective succession plan for key executives, could seriously harm our business.

Our customers typically do not make long-term product purchase commitments, and incorrect forecasts or reductions, cancellations or delays in orders for our products could adversely affect our operating results.

We typically do not have sales contracts with our customers that include long-term product purchase commitments. In certain markets where end-user demand may be particularly volatile and difficult to predict, some customers place orders that require us to manufacture product and have it available for shipment, even though the customer is unwilling to make a binding commitment to purchase all, or even any, of the product. In other instances, we manufacture product based on non-binding forecasts of customer demands, which may fluctuate significantly on a quarterly or annual basis and at times may prove to be inaccurate. Additionally, our U.S. government contracts and subcontracts may be funded in increments over a number of government budget periods and typically can be terminated by the government for its convenience. As a result, we may incur inventory and manufacturing costs in advance of anticipated sales, and we are subject to the risk of lower than expected orders or cancellations of orders, leading to a sharp reduction of sales and backlog. Further, if orders or forecasts for products that meet a customer's unique requirements are canceled or unrealized we may be left with an inventory of unsaleable products, causing potential inventory write-offs, and hindering our ability to recover our costs. As a result of lengthy manufacturing cycles for certain of the products that are subject to these uncertainties, the amount of unsaleable product could be substantial. Incorrect forecasts, or reductions, cancellations or delays in orders for our products could adversely affect our operating results.

Our operating results are dependent on the performance of independent distributors.

A significant portion of our sales are through independent global and regional distributors that are not under our control. These independent distributors generally represent product lines offered by several companies and thus could reduce their sales efforts for our products or they could terminate their representation of us. We generally do not require letters of credit from our distributors, including our largest distributor, and are not protected against accounts receivable default or declarations of bankruptcy by these distributors. Our inability to collect open accounts receivable could adversely affect our operating results. Termination of a significant distributor or a group of distributors, whether at our initiative or the distributor's initiative or through consolidation in the distribution industry, could disrupt our current business, and if we are unable to find suitable replacements with the appropriate scale and resources, our operating results could be adversely affected.

We are required to estimate the effects of returns and allowances provided to distributors and record revenue at the time of sale to the distributor. If our estimates of such credits and rights are materially understated, it could cause subsequent adjustments that negatively impact our revenues and gross profits in a future period.

Our industry faces challenges associated with products diverted from authorized distribution channels, which could result in reputational harm and have a material adverse effect our business and results of operations.

We market and sell our products directly and through third-party distributors. There is a risk that our products may be diverted from our authorized distribution channels and sold on the "gray market" in ways that are not in accordance with our established agreements, policies and procedures or at our established prices. Customers purchasing our products on the gray market or through other unauthorized channels may use our products for purposes for which they were not intended or that may be contrary to our ethical, legal and regulatory obligations. Customers may also purchase counterfeit or substandard products, including products that have been altered, mishandled or damaged, or purchase used products presented as new, each of which

could result in damage to property or persons. Further, sales through unauthorized channels could result in our products being sold at prices that are not our established prices and could result in lost revenue. These situations could have a material adverse effect on our business and operating results.

The extent to which the novel strain of the coronavirus (COVID-19) pandemic will adversely affect our business, financial condition and results of operations is uncertain.

The COVID-19 pandemic has created significant worldwide uncertainty, volatility and economic disruption and has impacted our workforce and operations, the operations of our customers, those of our respective vendors and suppliers and the global capital markets. During the course of the pandemic, many of the countries in which we operate took and continue to take measures to address the pandemic, which at times has resulted in disruptions at some of our manufacturing operations and facilities, including restrictions on our access to facilities. We may also continue to take actions as may be required by government authorities or that we determine are in the best interests of our employees, customers, partners, and suppliers, which may cause disruption to our business. The continued COVID-19 pandemic could also cause further disruption in our supply chain and customer demand, and could adversely affect the ability of our customers to perform, including in making timely payments to us, which could further impact our business, financial condition and results of operations. The ultimate impact of the COVID-19 pandemic on our business, results of operations, financial condition and cash flows continues to be largely dependent on future developments, including the duration, scope and severity of the pandemic, any additional resurgences, variants and severity of variants and the ability to effectively and widely manufacture and distribute vaccines, which are not within our control and cannot be accurately predicted and are uncertain. These events could adversely impact our business, results of operations, financial condition and cash flows. To the extent the COVID-19 pandemic adversely affects our business, results of operations, financial condition and cash flows, it may also heighten many of the other risks described in this “Risk Factors” section.

Our semiconductor products are complex and we may be subject to warranty, indemnity and/or product liability claims, which could result in significant costs and damage to our reputation and adversely affect customer relationships, the market acceptance of our products and our operating results.

Semiconductor products are highly complex and may contain defects that affect their quality or performance. Failures in our products and services or in the products of our customers could result in damage to our reputation for reliability and increase our legal or financial exposure to third parties. Certain of our products and services could also contain security vulnerabilities, defects, bugs and errors, which could also result in significant data losses, security breaches and theft of intellectual property. We generally warrant that our products will meet their published specifications, and that we will repair or replace defective products, for one year from the date title passes from us to the customer. We invest significant resources in the testing of our products; however, if any of our products contain defects, we may be required to incur additional development and remediation costs pursuant to warranty and indemnification provisions in our customer contracts and purchase orders. These problems may divert our technical and other resources from other product development efforts and could result in claims against us by our customers or others, including liability for costs and expenses associated with product defects, including recalls, which may adversely impact our operating results. We may also be subject to customer intellectual property indemnity claims. Our customers have on occasion been sued, and may be sued in the future, by third parties alleging infringement of intellectual property rights, or damages resulting from use of our products. Those customers may seek indemnification from us under the terms and conditions of our sales contracts with them. In certain cases, our potential indemnification liability may be significant.

Further, we sell to customers in industries such as automotive (including autonomous vehicles), aerospace, defense, and healthcare, where failure of the systems in which our products are integrated could cause damage to property or persons. We may be subject to product liability claims if our products, or the integration of our products, cause system failures. Any product liability claim, whether or not determined in our favor, could result in significant expense, divert the efforts of our technical and management personnel, and harm our business. In addition, if any of our products contain defects, or have reliability, quality or compatibility problems not capable of being resolved, our reputation may be damaged, which could make it more difficult for us to sell our products to customers and which could also adversely affect our operating results.

The fabrication of integrated circuits is highly complex and precise, and our manufacturing processes utilize a substantial amount of technology. Minute impurities, contaminants in the manufacturing environment, difficulties in the fabrication process, defects in the masks used in the wafer manufacturing process, manufacturing equipment failures, wafer breakage or other factors can cause a substantial percentage of wafers to be rejected or numerous dice on each wafer to be nonfunctional. While we have significant expertise in semiconductor manufacturing, it is possible that some processes could become unstable. This instability could result in manufacturing delays and product shortages, which could have a material adverse effect on our operating results.

Risk Related to Acquisitions and Strategic Transactions

Our acquisition of Maxim involves a number of risks that could adversely affect our business, financial condition and operating results, and we may not realize the financial and strategic goals we anticipate.

In August 2021, we completed our acquisition of Maxim, which we refer to as the acquisition or the merger. The ultimate success of the merger will depend on, among other things, the ability to continue to combine the two businesses in a manner that facilitates growth opportunities. Further, there are a large number of processes, policies, procedures, operations, technologies and systems that must continue to be integrated in connection with the ongoing integration of Maxim's business. The combined company has and may continue to incur ongoing restructuring, integration, and other costs associated with combining the operations of the two companies in connection with the merger. It is possible that the ongoing integration process could result in the loss of customers, the disruption of ongoing businesses, inconsistencies in standards, controls, procedures and policies, unexpected integration issues, higher than expected integration costs and an overall integration process that takes longer than originally anticipated and actual growth, if achieved, may be lower than what we expect and may take longer to achieve than anticipated. There can be no assurances that the two businesses can be integrated successfully in a way that maximizes the combined business to the fullest extent. If we are not able to successfully achieve our objectives, the benefits of the merger may not be fully realized or may take longer to achieve than expected.

To remain competitive, we may need to invest in or acquire other companies, purchase or license technology from third parties, or enter into other strategic transactions in order to introduce new products or enhance our existing products.

An element of our business strategy involves expansion through the acquisitions of businesses, assets, products or technologies that allow us to complement our existing product offerings, diversify our product portfolio, expand our market coverage, increase our engineering workforce, expand our technical skill sets or enhance our technological capabilities. We may not be able to find businesses that have the technology or resources we need and, if we find such businesses, we may not be able to invest in, purchase or license the technology or resources on commercially favorable terms or at all. Acquisitions, investments and technology licenses are challenging to complete for a number of reasons, including difficulties in identifying potential targets, the cost of potential transactions, competition among prospective buyers and licensees, the need for regulatory approvals, and difficulties related to integration efforts. In addition, investments in companies are subject to a risk of a partial or total loss of our investment. Both in the U.S. and abroad, governmental regulation of acquisitions, including antitrust and other regulatory reviews and approvals, has become more complex, increasing the costs and risks of undertaking and consummating significant acquisitions. In order to finance a potential transaction, we may need to raise additional funds by issuing securities or borrowing money. We may not be able to obtain financing on favorable terms, and the sale of our stock may result in the dilution of our existing shareholders or the issuance of securities with rights that are superior to the rights of our common shareholders.

Acquisitions also involve a number of challenges and risks, including:

- diversion of management's attention in connection with both negotiating the transaction and integrating the acquired assets and businesses;
- difficulty or delay integrating acquired technologies, operations, systems and infrastructure, and personnel with our existing businesses;
- strain on managerial and operational resources as management tries to oversee larger or more complex operations;
- the future funding requirements for acquired companies, including research and development costs, employee compensation and benefits, and operating expenses, which may be significant;
- servicing significant debt that may be incurred in connection with acquisitions;
- potential loss of key employees;
- exposure to unforeseen liabilities or regulatory compliance issues of acquired companies;
- higher than expected or unexpected costs relating to or associated with an acquisition and related integration of assets and businesses;
- difficulty realizing expected cost savings, operating synergies and growth prospects of an acquisition in a timely manner or at all; and
- increased risk of costly and time-consuming legal proceedings.

If we are unable to successfully address these risks, we may not realize some or all of the expected benefits of our acquisitions, which may have an adverse effect on our business strategy, plans and operating results.

Risks Related to Cyber, IP, Legal and Regulatory

Our computer systems and networks may be subject to attempted security breaches and other cybersecurity incidents and a significant disruption in, or breach in security of, our information technology systems or certain of our products could materially and adversely affect our business or reputation.

We rely on information technology systems throughout our company to keep financial records and customer data, process orders, manage inventory, coordinate shipments to customers, maintain confidential and proprietary information, assist in semiconductor engineering and other technical activities and operate other critical functions such as Internet connectivity, network communications and email. Our information technology systems may be susceptible to damage, disruptions or shutdowns due to power outages, hardware failures, telecommunication failures, employee malfeasance, user errors, catastrophes or other unforeseen events. Since the beginning of the COVID-19 pandemic, some of our employees have been working remotely, which may pose additional data security risks. We also rely upon external cloud providers for certain infrastructure activities. If we were to experience a prolonged disruption in the information technology systems that involve our internal communications or our interactions with customers or suppliers, it could result in the loss of sales and customers and significant incremental costs, which could adversely affect our business.

We may also be subject to security breaches of our information technology systems and certain of our products caused by viruses, illegal break-ins or hacking, sabotage, other cyber attacks, or acts of vandalism by third parties or our employees or contractors. Further, geopolitical tensions or conflicts, such as the ongoing conflict between Russia and Ukraine, may create a heightened risk of cyber attacks, which could result in significant losses and damage and, could damage our reputation with customers and suppliers if the confidential information of our customers, suppliers, employees or contractors is compromised. Our security measures or those of our third-party service providers may not detect or prevent security breaches, cyber attacks, defects, bugs or errors.

In addition, we provide our confidential and proprietary information to our strategic partners in certain cases where doing so is necessary to conduct our business. Those third parties may be subject to security breaches or otherwise compromise the protection of such information. Security breaches of our information technology systems or those of our partners could result in the misappropriation, loss or unauthorized disclosure of confidential and proprietary information belonging to us or to our employees, contractors, partners, customers, suppliers, or other third parties, system disruptions or denial of service, which could result in our suffering significant financial or reputational damage.

In the event of such breaches, we could be exposed to potential liability, litigation, and regulatory action, as well as the loss of existing or potential customers, damage to our reputation, and other financial loss. In addition, the cost and operational consequences of responding to breaches and implementing remediation measures could be significant.

We may be unable to adequately protect our proprietary intellectual property rights, which may limit our ability to compete effectively.

Our future success depends, in part, on our ability to protect our intellectual property. We primarily rely on patent, mask work, copyright, trademark and trade secret laws, as well as nondisclosure agreements, information security practices, and other methods, to protect our proprietary information, technologies and processes. Despite our efforts to protect our intellectual property, it is possible that competitors or other unauthorized third parties may obtain or disclose our confidential information, reverse engineer or copy our technologies, products or processes, make unlicensed copies or engage in unapproved distributions of our technology for unauthorized uses, or otherwise misappropriate our intellectual property. Moreover, the laws of foreign countries in which we design, manufacture, market and sell our products may afford little or no effective protection of our intellectual property.

There can be no assurance that the claims allowed in our issued patents will be sufficiently broad to protect our technology. In addition, any of our existing or future patents may be challenged, invalidated or circumvented. As such, any rights granted under these patents may not prevent others from exploiting our proprietary technology. We may not be able to obtain foreign patents or pending applications corresponding to our U.S. patents and applications. Even if patents are granted, we may not be able to effectively enforce our rights. If our patents and mask works do not adequately protect our technology, or if our registrations expire prior to end of life of our products, our competitors may be able to offer products similar to ours. Our competitors may also be able to develop similar technology independently or design around our patents.

We generally enter into confidentiality agreements with our employees, consultants and strategic partners. We also try to control access to and distribution of our technologies, documentation and other proprietary information. Despite these efforts, internal or external parties may attempt to copy, disclose, obtain or use our products or technology without our authorization. Also, former employees may seek employment with our business partners, customers or competitors, and may improperly use our proprietary information at their employer.

If we fail to comply with U.S. and foreign laws related to privacy, data security, and data protection, it could adversely affect our operating results and financial condition.

We are or may become subject to a variety of laws and regulations such as the European Union’s General Data Protection Regulation (the “GDPR”), China’s Personal Information Protection Law (the “PIPL”), or California’s Consumer Privacy Act (the “CCPA”) regarding privacy, data protection, and data security. These laws and regulations are continuously evolving and developing. The scope and interpretation of the laws that are or may be applicable to us are often uncertain and may be conflicting, particularly with respect to foreign laws.

In particular, there are numerous U.S. federal, state, and local laws and regulations and foreign laws and regulations regarding privacy and the collection, sharing, use, processing, disclosure, and protection of personal data. Such laws and regulations often vary in scope, may be subject to differing interpretations, and may be inconsistent among different jurisdictions. For example, the GDPR includes operational requirements for companies that receive or process personal data of residents of the European Union that are broader and more stringent than those in many other jurisdictions around the world. The GDPR includes significant penalties for non-compliance, and China’s PIPL imposes additional operational requirements relating to processing personal information and provides compressive penalty and enforcement mechanisms. Most notably, in the United States, California enacted the CCPA that requires covered companies to provide additional disclosures and data rights to data subjects. The CCPA went into effect on January 1, 2020. The California Privacy Rights Act (“CPRA”) passed by voters in November 2020 will expand the CCPA when the regulations become fully operative on January 1, 2023. The CPRA establishes the California Privacy Protection Agency to enforce Californians’ privacy rights under the CCPA. Since the CCPA was enacted, other states, including Virginia and Colorado, have enacted comprehensive privacy schemes.

The costs of compliance with, and other burdens imposed by, the GDPR, CCPA, and similar laws may limit the use and adoption of our products and services and/or require us to incur substantial compliance costs, which could have an adverse impact on our business. Further, our product offerings in the digital healthcare solutions space which include the collection and processing of sensitive personal information subject us to heightened requirements under data privacy laws.

Given that the scope, interpretation, and application of these laws and regulations are often uncertain and may be in conflict across jurisdictions, it is possible that these obligations may be interpreted and applied in a manner that is inconsistent from one jurisdiction to another and may conflict with other rules or our practices. Any failure or perceived failure by us or third party service providers to comply with our privacy or security policies or privacy-related legal obligations, or any compromise of security that results in the unauthorized release or transfer of personal data, may result in governmental enforcement actions, litigation, or negative publicity, and could have an adverse effect on our operating results and financial condition.

We are occasionally involved in litigation, administrative proceedings, and regulatory proceedings, which could be costly to resolve and could require us to redesign products, pay significant royalties or fines, or refrain from engaging in specific conduct.

From time to time, we are involved in various legal, administrative and regulatory proceedings, claims, demands and investigations relating to our business, including inquiries from and discussions with government entities regarding the compliance of our contracting and sales practices with laws and regulations which may result in claims with respect to commercial, product liability, intellectual property, cybersecurity, privacy, data protection, antitrust, breach of contract, employment, class action, whistleblower, mergers and acquisitions and other matters. We could also be subject to litigation or arbitration disputes arising under our contractual obligations, customer indemnity, warranty or product liability claims, or other matters that could lead to significant costs and expenses as we defend those claims or pay damage awards. For example, in March 2022, a putative class action was filed in the Court of Chancery of the State of Delaware against us and the former directors of Maxim as described in Part I, Item 3, “*Legal Proceedings*.”

Further, the semiconductor industry is characterized by frequent claims and litigation involving patent and other intellectual property rights. Other companies or individuals have obtained patents covering a variety of semiconductor designs and processes, and we might be required to obtain licenses under some of these patents or be precluded from making and selling infringing products, if those patents are found to be valid and infringed by us. In the event a third party makes a valid intellectual property claim against us and a license is not available to us on commercially reasonable terms, or at all, we could be forced either to redesign or to stop production of products incorporating that intellectual property, and our operating results could be materially and adversely affected. Litigation may be necessary to enforce our patents or other of our intellectual property rights or to defend us against claims of infringement.

These matters can be time-consuming, divert management’s attention and resources and cause us to incur significant expenses. Allegations made in the course of regulatory or legal proceedings may also harm our reputation, regardless of whether there is merit to such claims. Because litigation and the outcome of regulatory proceedings are inherently unpredictable, our business, financial condition or operating results could be materially affected by an unfavorable resolution of

one or more of these proceedings, claims, demands or investigations. There can be no assurance that we are adequately insured to protect against all claims and potential liabilities, and we may elect to self-insure with respect to certain matters. An adverse outcome in litigation or arbitration could have a material adverse effect on our financial position or on our operating results or cash flows in the period in which the dispute is resolved.

Environmental, social and governance (ESG) matters may have an adverse effect on our business, financial condition and results of operations, and damage our brand and reputation.

There is an increasing focus from investors, customers, employees and potential talent, as well as other stakeholders concerning ESG matters, including climate change and sustainability, human rights, support for local communities, Board of Directors and employee diversity, human capital management, employee health and safety practices, product quality, supply chain management, and corporate governance and transparency. Current and prospective investors are increasingly utilizing ESG data to inform their decisions, including investment and voting, using a multitude of evolving score and rating frameworks. Further, customers are also utilizing ESG data to inform their purchasing decisions. Additionally, public interest and legislative pressure related to public companies' ESG practices continue to grow. If our ESG practices fail to meet the expectations of investors, customers, employees or other stakeholders' evolving standards, our reputation, brand and employee retention may be negatively impacted, and our customers and suppliers may be unwilling to continue to do business with us. Additionally, there is increasing legislation globally which will require us to align programs to their expectations and disclose an increasing amount of information and data to illustrate our position and progress. If we do not adapt our strategy or execution quickly enough to meet the evolving expectations of our investors, customers, and regulators, or if our ESG data input, processing and reporting are incomplete or inaccurate, our business, financial condition, results of operations, brand and reputation could be adversely affected.

We are subject to environment, health and safety (EHS) standards and hazards which have the potential to adversely affect our business, increase our expenses, and adversely affect our reputation.

Our industry is subject to EHS requirements and laws, particularly those that control and restrict the sourcing, use, transportation, emission, discharge, storage and disposal of certain substances and materials used or produced in the semiconductor manufacturing process and which help ensure the health and safety of our employees. We are also required to obtain environmental permits from governmental authorities for certain of our operations. Public attention to environmental sustainability and social responsibility concerns continues to increase, and our customers routinely include stringent environmental and other standards in their contracts with us. Changes in EHS laws or regulations may require us to invest in costly equipment or make manufacturing process changes and may adversely affect the sourcing, supply and pricing of materials used in our products. In particular, climate change concerns and the potential resulting environmental impact may result in new or more stringent EHS laws and regulations that may affect us, our suppliers, and our customers. Such laws or regulations could cause us to incur additional direct costs for compliance or costs to control or reduce our environmental impact through, for example, carbon offsets, as well as increased indirect costs resulting from our customers, suppliers, or both incurring additional compliance costs that are passed on to us. These costs may adversely impact our results of operations and financial condition. In addition, we use hazardous and other regulated materials that subject us to risks of strict liability for damages caused by potential or actual releases of such materials. Any failure to control such materials adequately or to comply with existing or future EHS statutory or regulatory standards, requirements or contractual obligations could result in any of the following, each of which could have a material adverse effect on our business and operating results:

- liability for damages and remediation;
- the imposition of regulatory penalties and civil and criminal fines;
- the suspension or termination of the development, manufacture, sale, or use of certain of our products;
- changes to our manufacturing processes or a need to substitute materials that may cost more or be less available;
- damage to our reputation; and/or
- increased expenses associated with compliance.

If we fail to comply with government contracting regulations, we could suffer a loss of revenue or incur price adjustments or other penalties.

Some of our revenue is derived from contracts with agencies of the United States government and subcontracts with its prime contractors. As a United States government contractor or subcontractor, we are subject to federal contracting regulations, including the Federal Acquisition Regulations, which govern the allowability of costs incurred by us in the performance of United States government contracts. Certain contract pricing is based on estimated direct and indirect costs, which are subject to change. Additionally, the United States government is entitled after final payment on certain negotiated contracts to examine all of our cost records with respect to such contracts and to seek a downward adjustment to the price of the contract if it determines

that we failed to furnish complete, accurate and current cost or pricing data in connection with the negotiation of the price of the contract.

In connection with our United States government business, we are subject to evolving procurement rules and regulations, as well as government audits and to review and approval of our policies, procedures, and internal controls for compliance with procurement regulations and applicable laws, such as the Cybersecurity Maturity Model Certification. In certain circumstances, if we do not comply with the terms of a government contract or with regulations or statutes, we could be subject to downward contract price adjustments or refund obligations or could in extreme circumstances be assessed civil and criminal penalties or be debarred or suspended from obtaining future contracts for a specified period of time. Any such suspension or debarment or other sanction could have an adverse effect on our business.

Under some of our government subcontracts, we are required to maintain secure facilities and to obtain security clearances for personnel involved in performance of the contract, in compliance with applicable federal standards. If we were unable to comply with these requirements, or if personnel critical to our performance of these contracts were unable to obtain or maintain their security clearances, we might be unable to perform these contracts or compete for other projects of this nature, which could adversely affect our revenue.

Damage to our reputation can damage our business.

Our reputation is a critical factor in our relationships with customers, employees, governments, suppliers, and other stakeholders. Our failure to address, or the appearance of our failure to address, issues that give rise to reputational risk, including those described in this Risk Factors section, could significantly harm our reputation and our brands. We may be subject to reputational risks and our brand loyalty may decline if others adopt the same or confusingly similar marks in an effort to misappropriate and profit on our brand name and do not provide the same level of quality as is delivered by our solutions and services. It may also limit our ability to be seen as an employer of choice when competing for highly skilled employees and repairing our reputation and brands may be difficult, time-consuming, and expensive. To the extent we fail to respond quickly and effectively to address corporate and brand crises, the ensuing negative public reaction could significantly harm our reputation and our brands, which could lead to increases in litigation claims and asserted damages or subject us to regulatory actions or restrictions. If we fail to police, maintain, enhance and protect our brands, if we incur excessive expenses in this effort or if customers or potential customers are confused by others' trademarks, our business, operating results, and financial condition may be materially and adversely affected.

Increases in our effective tax rate, exposure to additional tax liabilities, or substantial changes in domestic or international corporate tax policies, regulations or guidance may adversely impact our results of operations.

Our effective tax rate reflects the applicable tax rate in effect in the various tax jurisdictions around the world where our income is earned. Our effective tax rate for the fiscal year ended October 29, 2022 was below the U.S. federal statutory rate of 21%. This is primarily due to lower statutory tax rates applicable to our operations in the foreign jurisdictions in which we earn income.

A number of factors may increase our future effective tax rate, including: new or revised tax laws or legislation or the interpretation of such laws or legislation by governmental authorities; increases in tax rates in various jurisdictions; variation in the mix of jurisdictions in which our profits are earned and taxed; deferred taxes arising from basis differences in investments in foreign subsidiaries; any adverse resolution of ongoing tax audits or adverse rulings from taxing authorities worldwide; changes in the valuation of our deferred tax assets and liabilities; adjustments to income taxes upon finalization of various tax returns; increases in expenses not deductible for tax purposes, including executive compensation subject to the limitations of Section 162(m) of the Internal Revenue Code and amortization of assets acquired in connection with strategic transactions; decreased availability of tax deductions for stock-based compensation awards worldwide; and changes in available tax credits. Any significant increase in our future effective tax rate could adversely impact our net income during future periods.

Compliance with tax legislation may require the collection of information not regularly produced by us, and therefore necessitate the use of estimates in our Consolidated Financial Statements and the exercise of significant judgment in accounting for its provisions. As regulations and guidance evolve with respect to tax legislation, and as more information is gathered and analyzed, our results may differ from previous estimates and may materially affect our Consolidated Financial Statements.

We are also subject to laws and regulations in various jurisdictions that determine how much profit has been earned and when it is subject to taxation in that jurisdiction. On August 16, 2022, the U.S. government enacted the Inflation Reduction Act (IRA) which imposes a 15% book minimum tax on corporations with three-year average annual adjusted financial statement income exceeding \$1 billion. We are in the process of assessing whether the book minimum tax would impact our effective tax rate. Corporate tax reform, anti-base-erosion rules and tax transparency continue to be high priorities in many jurisdictions. Changes in these laws and regulations, including those that align to or are associated with the Organization for Economic

Cooperation and Development's Base Erosion and Profit Shifting Actions Plans, could impact the jurisdictions where we are deemed to earn income, which could in turn adversely affect our tax liability and results of operations.

Risks Related to Financial Markets, Indebtedness and Capital Return

We have substantial existing indebtedness and the ability to incur significant additional indebtedness, which could limit our operations and our use of our cash flow and negatively impact our credit ratings.

As of October 29, 2022, we had approximately \$6.5 billion in outstanding indebtedness. In addition, we had \$2.5 billion of availability under our unsecured revolving credit facility. Our leverage could have negative consequences, including increasing our vulnerability to adverse economic and industry conditions, limiting our ability to obtain additional financing and limiting our ability to acquire new products and technologies through strategic acquisitions. Further, on October 5, 2021, we issued \$500 million aggregate principal amount of floating rate senior notes (the "Floating Rate Notes"). Our Floating Rate Notes and our net interest expense is exposed to changes in market interest rates and will increase as market interest rates rise. We may also incur additional debt, including debt with variable interest rates, in the future, which would increase these risks.

Our ability to make payments of principal and interest on our indebtedness when due depends upon our future operating performance, which may be impacted by general economic conditions, industry cycles and other factors beyond our control. If we are unable to service or refinance our debt, we may be required to divert funds that would otherwise be invested in growing our business operations or returned to shareholders, repatriate earnings as dividends from foreign locations with potential negative tax consequences, or sell selected assets. Such measures might not be sufficient to enable us to service our debt, which could negatively impact our financial results. In addition, we may not be able to obtain any such financing, refinancing or complete a sale of assets on economically favorable terms. In the case of financing or refinancing, favorable interest rates will depend on conditions in the debt capital markets. In addition, if our credit ratings are downgraded or put on watch for a potential downgrade, the applicable interest rate on borrowings under our current revolving credit facility may rise and our ability to obtain additional financing or refinance our existing debt may be negatively affected.

Restrictions in our revolving credit facility and outstanding debt instruments may limit our activities.

Our current revolving credit facility and outstanding debt instruments impose, and future debt instruments to which we may become subject may impose, restrictions that limit our ability to engage in activities that could otherwise benefit us, including to undertake certain transactions, to create certain liens on our assets and to incur certain subsidiary indebtedness. Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as changes in technology, government regulations and the level of competition in our markets. In addition, our revolving credit facility requires us to maintain compliance with specified financial ratios. If we breach any of the covenants under our revolving credit facility, the indentures governing our outstanding senior unsecured notes, or any future debt instruments to which we may become subject and do not obtain appropriate waivers, then, subject to applicable cure periods, our outstanding indebtedness thereunder could be declared immediately due and payable and/or we may be restricted from further borrowing under our revolving credit facility.

We may not meet expectations or targets in connection with our "green" financing arrangements, which could harm our reputation and business.

From time to time, we may enter into "green" financing arrangements that require us to use proceeds for environmental sustainability purposes or have targets related to environmental sustainability. For example, we entered into a revolving credit agreement on June 23, 2021 (the "Revolving Credit Agreement") that contains a sustainability-linked pricing component, which provides for interest rate and facility fee reductions or increases based on meeting or missing targets related to environmental sustainability, specifically greenhouse gas emissions and renewable energy usage. For calendar year 2021, we did not achieve the greenhouse gas emissions reduction threshold goal related to this sustainability-linked pricing component due in part to increased demand for product, which did not have a material impact on our business, net income, or financing costs. On October 5, 2021, we issued \$750 million sustainability-linked senior notes (the "Sustainability-Linked Senior Notes"). Our Sustainability-Linked Senior Notes initially bear interest at a rate of 1.7% per annum and are subject to an increase of an additional 30 basis points per annum from April 1, 2026 to the maturity date unless the Sustainability Performance Target (as defined in the Sustainability-Linked Senior Notes) has been satisfied. Failing to use the net proceeds under green financing arrangements that satisfies investor criteria and expectations regarding environmental impact or achieve targets related to environmental sustainability under such financing arrangements could result in reputational harm and our business and operating results could be negatively impacted.

If we are not able to meet our U.S. cash requirements, it may be necessary for us to consider repatriation of foreign earnings, which could have a material adverse effect on our results of operations and financial condition.

We carry outside basis differences in certain of our subsidiaries, primarily arising from acquisition accounting adjustments and certain undistributed earnings that are considered indefinitely reinvested. We intend to reinvest these funds in our international operations, and our current plans do not demonstrate a need to repatriate these earnings to fund our U.S. cash requirements. We require a substantial amount of cash in the United States for operating requirements, stock repurchases, cash dividends and acquisitions. If we are not able to meet our U.S. cash requirements through operations, borrowings under our current revolving credit facility, future debt or equity offerings or other sources of cash obtained at an acceptable cost, it may be necessary for us to consider repatriation of earnings that are indefinitely reinvested, and we may be required to pay additional taxes under current tax laws, which could have a material adverse effect on our results of operations and financial condition.

General Risk Factors

Our results of operations could be affected by natural disasters in the locations in which we operate.

We, like many companies in the semiconductor industry, rely on supplies, services, internal manufacturing capacity, wafer fabrication foundries and other subcontractors in locations around the world that are susceptible to natural disasters and other significant disruptions. Earthquakes, fires, tsunamis, flooding or other natural disasters may disrupt local semiconductor-related businesses and adversely affect manufacturing capacity, availability and cost of key raw materials, utilities and equipment, and availability of key services, including transport of our products worldwide. Our insurance may not adequately cover losses resulting from such disruptions. Any prolonged inability to utilize one of our manufacturing facilities, or those of our subcontractors or third-party wafer fabrication foundries, as a result of fire, flood, natural disaster, unavailability of utilities or otherwise, could result in a temporary or permanent loss of customers for affected products, which could have a material adverse effect on our results of operations and financial condition. In addition, global climate change may 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 located in semi-arid regions. The long-term effects of climate change on the global economy and the semiconductor industry in particular are unclear, but could be severe.

Our stock price may be volatile.

The market price of our common stock may be volatile, as it may be significantly affected by factors including:

- global economic conditions generally;
- crises in global credit, debt and financial markets;
- actual or anticipated fluctuations in our revenue and operating results;
- changes in financial estimates or other statements made by securities analysts or others in analyst reports or other publications, or our failure to perform in line with those estimates or statements or our published guidance;
- financial results and prospects of our customers;
- U.S. and foreign government actions, including with respect to trade, travel, export and taxation;
- the extent of the impact and the duration of the COVID-19 pandemic;
- changes in market valuations of other semiconductor companies;
- rumors and speculation in the press, investment community or on social media about us, our customers or other companies in our industry;
- announcements by us, our customers or our competitors of significant new products, technical innovations, material transactions, acquisitions or dispositions, litigation, capital commitments, including share repurchases and dividend policies, or revised earnings estimates;
- departures of key personnel;
- alleged noncompliance with laws, regulations or ethics standards by us or any of our employees, officers or directors; and
- negative media publicity targeting us or our suppliers, customers or competitors.

The stock market has historically experienced volatility, especially within the semiconductor industry, that often has been unrelated to the performance of particular companies, such as the response to rising inflation and increasing interest rates. These market fluctuations may cause our stock price to fall regardless of our operating results.

Our directors and executive officers periodically buy or sell shares of our common stock in the market, including pursuant to Rule 10b5-1 trading plans. Regardless of the individual's reasons for such purchases or sales, securities analysts and investors could view such transactions as positive or negative indicators and our stock price could be adversely affected as a result.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Manufacturing and other operations are conducted in several locations worldwide. The following tables provide certain information about our significant general offices and manufacturing facilities:

Properties Owned:	Use	Approximate Total Sq. Ft.
Cavite, Philippines	Wafer probe and testing, warehouse, engineering and administrative offices	1,518,000 sq. ft.
Wilmington, MA	Corporate headquarters, wafer fabrication, testing, engineering, sales, marketing and administrative offices	826,000 sq. ft.
Limerick, Ireland	Wafer fabrication, wafer probe and testing, warehouse and distribution, engineering and administrative offices	646,000 sq. ft.
San Jose, CA	Engineering, sales, marketing and administrative offices	435,000 sq. ft.
Beaverton, OR	Wafer fabrication, engineering and administrative offices	432,000 sq. ft.
Penang, Malaysia (1)	Wafer probe and testing, assembly and engineering offices	364,000 sq. ft.
Chonburi Province, Thailand	Wafer probe and testing, warehouse, engineering and administrative offices	194,000 sq. ft.
Chelmsford, MA	Final assembly of certain module and subsystem-level products, testing, engineering and administrative offices	174,000 sq. ft.
Camas, WA	Wafer fabrication	105,000 sq. ft.

Properties Leased:	Use	Approximate Total Sq. Ft.	Lease Termination (fiscal year)	Renewals
Bangalore, India	Engineering and administrative offices	175,000 sq. ft.	2027	1, five-yr. period
San Jose, CA	Manufacturing, marketing, and administrative offices	103,000 sq. ft.	2035	1, five-yr. period

(1) Leases on the land used for this facility expire in 2054 through 2057.

In addition to the properties listed in the above tables, we also own or lease a number of other facilities in various locations in the United States and internationally that are used for manufacturing, engineering, sales and marketing and administration activities. Leases for these leased facilities expire at various dates through the year 2039. We do not anticipate experiencing significant difficulty in retaining occupancy of any of our facilities through lease renewals prior to expiration or through month-to-month occupancy, or in replacing them with equivalent facilities. For information concerning our obligations under all operating leases, see Note 9, *Leases*, of the Notes to Consolidated Financial Statements contained in Part II, Item 8 of this Annual Report on Form 10-K.

ITEM 3. LEGAL PROCEEDINGS

From time to time in the ordinary course of our business, various claims, charges and litigation are asserted or commenced against us arising from, or related to, among other things, contractual matters, patents, trademarks, personal injury, environmental matters, product liability, insurance coverage, employment or employee benefits. As to such claims and litigation, we can give no assurance that we will prevail. We do not believe that any current legal matters will have a material adverse effect on our financial position, results of operations or cash flows. For information regarding material pending legal proceedings in which we are involved, see Note 10, *Commitments and Contingencies* of the Notes to Consolidated Financial Statements contained in Part II, Item 8 of this Annual Report on Form 10-K.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is listed on The Nasdaq Global Select Market under the symbol ADI. The number of holders of record of our common stock at November 18, 2022 was 2,382. This number does not include shareholders for whom shares are held in a "nominee" or "street" name. On October 28, 2022, the last reported sales price of our common stock on The Nasdaq Global Select Market was \$144.88 per share.

On November 21, 2022, our Board of Directors declared a cash dividend of \$0.76 per outstanding share of common stock. The dividend will be paid on December 15, 2022 to all shareholders of record at the close of business on December 5, 2022 and is expected to total approximately \$387.1 million. We currently expect quarterly dividends to continue in future periods, although they remain subject to determination and declaration by our Board of Directors. The payment of future dividends, if any, will be based on several factors, including our financial performance, outlook and liquidity.

Information regarding our equity compensation plans and the securities authorized for issuance thereunder is set forth in Item 12 of this Annual Report on Form 10-K.

Issuer Purchases of Equity Securities

The table below summarizes the activity related to stock repurchases for the three months ended October 29, 2022. We have an ongoing authorization, originally approved by our Board of Directors in 2004, and subsequently amended, to repurchase shares of our common stock in open market or negotiated transactions. In March 2020, we temporarily suspended our share repurchase program as a result of the global macroeconomic environment. That suspension continued through the fourth quarter of fiscal 2020 given the planned acquisition of Maxim Integrated Products, Inc. We reinstated the common stock repurchase program effective November 2020. As of October 29, 2022, the Company had repurchased a total of approximately 189.6 million shares of its common stock for approximately \$11.7 billion under our share repurchase program. An additional \$4.9 billion remains available for repurchase of shares under the current authorized program. Future repurchases of common stock will be dependent upon our financial position, results of operations, outlook, liquidity, and other factors we deem relevant.

Period	Total Number of Shares Purchased (1)	Average Price Paid Per Share (2)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (3)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
July 31, 2022 through August 27, 2022	1,572,964	\$ 172.62	1,515,606	\$ 5,471,910,519
August 28, 2022 through September 24, 2022	1,058,260	\$ 148.76	1,041,800	\$ 5,316,957,211
September 25, 2022 through October 29, 2022	2,718,976	\$ 143.15	2,705,200	\$ 4,929,659,276
Total	5,350,200	\$ 152.93	5,262,606	\$ 4,929,659,276

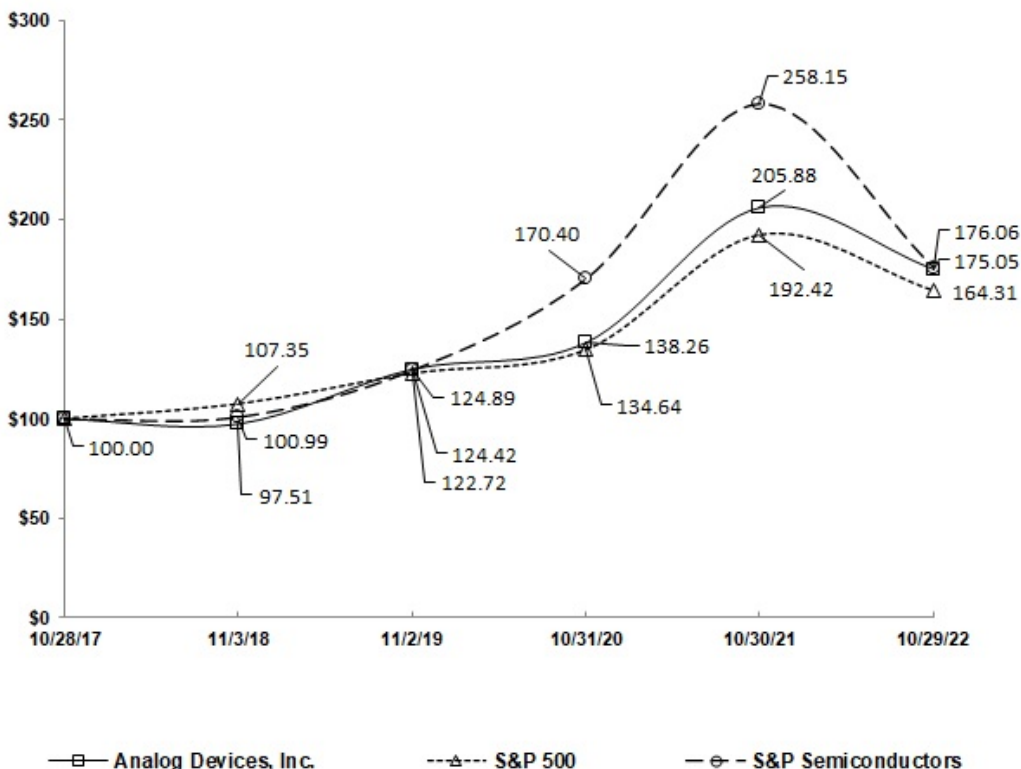
- (1) Includes 87,594 shares withheld by us from employees to satisfy employee tax obligations upon vesting of restricted stock units/awards granted to our employees under our equity compensation plans.
- (2) The average price paid for shares in connection with vesting of restricted stock units/awards are averages of the closing stock price at the vesting date which is used to calculate the number of shares to be withheld.
- (3) Shares repurchased pursuant to the stock repurchase program publicly announced on August 12, 2004. On August 25, 2021, the Board of Directors approved an increase to the current authorization for the stock repurchase program by an additional \$8.5 billion to \$16.7 billion in the aggregate. Under the repurchase program, we may repurchase outstanding shares of our common stock from time to time in the open market and through privately negotiated transactions. Unless terminated earlier by resolution of our Board of Directors, the repurchase program will expire when we have repurchased all shares authorized for repurchase under the repurchase program.

Comparative Stock Performance Graph

The following graph compares cumulative total shareholder return on our common stock since October 28, 2017 with the cumulative total return of the Standard & Poor’s (S&P) 500 Index and the S&P Semiconductors Index. This graph assumes the investment of \$100 on October 28, 2017 in our common stock, the S&P 500 Index and the S&P Semiconductors Index and assumes all dividends are reinvested. Measurement points are the last trading day for each respective fiscal year.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Analog Devices, Inc., the S&P 500 Index and the S&P Semiconductors Index



ITEM 6. RESERVED

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (all tabular amounts in thousands except per share amounts)

The following discussion includes results of operations and financial condition for the fiscal year ended October 29, 2022 (fiscal 2022) and the fiscal year ended October 30, 2021 (fiscal 2021) and year-over-year comparisons between fiscal 2022 and fiscal 2021. For discussion on results of operations and financial condition for fiscal 2021 and the fiscal year ended October 31, 2020 (fiscal 2020) and year-over-year comparisons between fiscal 2021 and fiscal 2020, please refer to Management’s Discussion and Analysis of Financial Condition and Results of Operations in Part II, Item 7 of our Annual Report on Form 10-K for fiscal 2021 filed with the Securities and Exchange Commission on December 3, 2021. Our fiscal year is the 52-week or 53-week period ending on the Saturday closest to the last day in October. Fiscal 2022 and fiscal 2021 were 52-week fiscal periods.

Impact of COVID-19 on our Business

The pandemic caused by the novel strain of the coronavirus (COVID-19) and the numerous measures implemented by government authorities in response, have impacted and may continue to impact our workforce and operations, the operations of our customers and those of our respective vendors and suppliers. We have significant operations worldwide, including in the United States, the Philippines, Ireland, Malaysia, Thailand and India. Each of these countries has been affected by the pandemic and taken measures to try to contain it, resulting in disruptions at some of our manufacturing operations and facilities, including restrictions on our access to facilities.

The spread of COVID-19 has caused us to modify our business practices (including restricting employee travel, modifying employee work locations and cancelling physical participation in meetings, events and conferences) and we may take further actions as may be required by government authorities or that we determine are in the best interests of our employees, customers, partners, suppliers and shareholders.

While we are confident that our strategy and long-term contingency planning have positioned us well to weather the current uncertainty, we cannot at this time fully quantify or forecast the impact of COVID-19 on our business. The ultimate impact of the COVID-19 pandemic on our business, results of operations, financial condition and cash flows continues to largely depend on future developments, including the duration, scope and severity of the pandemic, any additional resurgences, variants and severity of variants and the ability to effectively and widely manufacture and distribute vaccines, which are not within our control and cannot be accurately predicted and are uncertain.

Acquisition of Maxim Integrated Products, Inc.

On August 26, 2021 (Acquisition Date), we completed the acquisition of Maxim Integrated Products, Inc. (Maxim), an independent manufacturer of innovative analog and mixed-signal products and technologies. Pursuant to the Agreement and Plan of Merger, dated as of July 12, 2020 (the Merger Agreement), Maxim stockholders received, for each outstanding share of Maxim common stock, 0.6300 of a share of the Company’s common stock as of the Acquisition Date, for total consideration of approximately \$28.0 billion of our common stock. The acquisition of Maxim is referred to as the Acquisition. The consolidated financial statements included in this Annual Report on Form 10-K include the financial results of Maxim prospectively from the Acquisition Date. See Note 6, *Acquisitions*, of the Notes to the Consolidated Financial Statements contained in Part II, Item 8 of this Annual Report on Form 10-K for further information.

Results of Operations

Overview

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
Revenue	\$ 12,013,953	\$ 7,318,286	\$ 4,695,667	64 %
Gross margin %	62.7 %	61.8 %		
Net income	\$ 2,748,561	\$ 1,390,422	\$ 1,358,139	98 %
Net income as a % of revenue	22.9 %	19.0 %		
Diluted EPS	\$ 5.25	\$ 3.46	\$ 1.79	52 %

Revenue Trends by End Market

The following table summarizes revenue by end market. The categorization of revenue by end market is determined using a variety of data points including the technical characteristics of the product, the “sold to” customer information, the “ship to” customer information and the end customer product or application into which our product will be incorporated. As data systems for capturing and tracking this data and our methodology evolves and improves, the categorization of products by end market can vary over time. When this occurs, we reclassify revenue by end market for prior periods. Such reclassifications typically do not materially change the sizing of, or the underlying trends of results within, each end market.

	Fiscal 2022			Fiscal 2021	
	Revenue	% of Total Revenue (1)	Y/Y%	Revenue	% of Total Revenue (1)
Industrial	\$ 6,069,332	51 %	51 %	\$ 4,026,909	55 %
Automotive	2,515,513	21 %	102 %	1,248,169	17 %
Communications	1,880,697	16 %	56 %	1,206,867	16 %
Consumer	1,548,411	13 %	85 %	836,341	11 %
Total Revenue	\$ 12,013,953	100 %	64 %	\$ 7,318,286	100 %

(1) The sum of the individual percentages may not equal the total due to rounding.

Revenue increased across all end markets in fiscal 2022 as compared to fiscal 2021 primarily as a result of the Acquisition, which contributed approximately 65% of the increase in total revenue year over year, a broad-based increase in demand for our products across all end markets as well as inflationary price increases.

Revenue by Sales Channel

The following table summarizes revenue by sales channel. We sell our products globally through a direct sales force, third party distributors, independent sales representatives and via our website. Distributors are customers that buy products with the intention of reselling them. Direct customers are non-distributor customers and consist primarily of original equipment manufacturers (OEMs). Other customers include the U.S. government, government prime contractors and certain commercial customers for which revenue is recorded over time.

	Fiscal 2022		Fiscal 2021	
	Revenue	% of Total Revenue (1)	Revenue	% of Total Revenue (1)
Distributors	\$ 7,458,478	62 %	\$ 4,589,944	63 %
Direct customers	4,423,883	37 %	2,600,353	36 %
Other	131,592	1 %	127,989	2 %
Total Revenue	\$ 12,013,953	100 %	\$ 7,318,286	100 %

(1) The sum of the individual percentages may not equal the total due to rounding.

As indicated in the table above, the percentage of total revenue sold via each channel has remained relatively consistent in the periods presented, but can fluctuate from time to time based on end customer demand.

Revenue Trends by Geographic Region

Revenue by geographic region, based upon the geographic location of the distributors or OEMs who purchased the Company's products, for fiscal 2022 and fiscal 2021 was as follows:

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change (1)
United States	\$ 4,025,398	\$ 2,389,439	\$ 1,635,959	68 %
Rest of North and South America	72,497	42,830	29,667	69 %
Europe	2,534,423	1,592,989	941,434	59 %
Japan	1,221,549	787,966	433,583	55 %
China	2,563,536	1,614,396	949,140	59 %
Rest of Asia	1,596,550	890,666	705,884	79 %
Total Revenue	\$ 12,013,953	\$ 7,318,286	\$ 4,695,667	64 %

(1) The sum of the individual percentages may not equal the total due to rounding.

In all periods presented, the predominant countries comprising "Rest of North and South America" are Canada and Mexico; the predominant countries comprising "Europe" are Germany, Sweden, and the Netherlands; and the predominant countries comprising "Rest of Asia" are Taiwan, Malaysia, South Korea and Singapore.

Total revenue increased in fiscal 2022 as compared to fiscal 2021 due to the incremental impact of revenue from the Acquisition, broad-based, global demand in the semiconductor industry as well as inflationary price increases.

Gross Margin

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
Gross margin	\$ 7,532,474	\$ 4,525,012	\$ 3,007,462	66 %
Gross margin %	62.7 %	61.8 %		

Gross margin percentage in fiscal 2022 increased by 90 basis points compared to fiscal 2021 primarily as a result of favorable product mix, synergies related to the Acquisition and higher utilization of our factories due to increased customer demand, partially offset by additional cost of goods sold related to the Acquisition. This additional cost of goods sold related to the Acquisition consisted of amortization expense of intangible assets of \$857.1 million in fiscal 2022 compared to \$155.4 million in fiscal 2021, and nonrecurring fair value adjustments recorded to inventory of \$271.4 million in fiscal 2022 compared to \$331.1 million in fiscal 2021. In addition, gross margin percentage in fiscal 2022 included price increases in revenue to offset inflationary cost increases.

Research and Development (R&D)

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
R&D expenses	\$ 1,700,518	\$ 1,296,126	\$ 404,392	31 %
R&D expenses as a % of revenue	14 %	18 %		

R&D expenses increased in fiscal 2022 as compared to fiscal 2021 primarily as a result of the Acquisition.

R&D expenses as a percentage of revenue will fluctuate from year-to-year depending on the amount of revenue and the success of new product development efforts, which we view as critical to our future growth. We expect to continue the development of innovative technologies and processes for new products. We believe that a continued commitment to R&D is essential to maintain product leadership with our existing products as well as to provide innovative new product offerings.

Selling, Marketing, General and Administrative (SMG&A)

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
SMG&A expenses	\$ 1,266,175	\$ 915,418	\$ 350,757	38 %
SMG&A expenses as a % of revenue	11 %	13 %		

SMG&A expenses increased in fiscal 2022 as compared to fiscal 2021, primarily as a result of the Acquisition as well as higher salary and benefit expenses and higher variable compensation expenses, partially offset by lower acquisition-related transaction costs.

Amortization of Intangibles

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
Amortization expenses	\$ 1,012,572	\$ 536,811	\$ 475,761	89 %
Amortization expenses as a % of revenue	8 %	7 %		

Amortization expenses increased in fiscal 2022 as compared to fiscal 2021, primarily as a result of amortization expense of intangible assets recorded as part of the Acquisition.

Special Charges, Net

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
Special charges, net	\$ 274,509	\$ 84,456	\$ 190,053	225 %
Special charges, net as a % of revenue	2 %	1 %		

Special charges, net increased in fiscal 2022 as compared to fiscal 2021, primarily as a result of charges recorded as part of the integration of Maxim and continued organizational initiatives to better align our global workforce with our long-term strategic plan. During the third quarter of fiscal 2022, we transitioned our engineering, sales, marketing and administrative activities from a leased property in Santa Clara, California to an owned property in San Jose, California. As a result, we entered into a sublease agreement for a portion of the leased property and recorded an impairment charge of \$91.9 million in the third quarter of fiscal 2022 related to the associated asset group. The remaining charges were for severance and benefit costs as well as charges recorded from the acceleration of equity awards in connection with the termination of certain employees in manufacturing, engineering and SMG&A roles at sites assumed in connection with the Acquisition and various other locations throughout the world.

Operating Income

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
Operating income	\$ 3,278,700	\$ 1,692,201	\$ 1,586,499	94 %
Operating income as a % of revenue	27.3 %	23.1 %		

The increase in operating income in fiscal 2022 as compared to fiscal 2021 was primarily the result of a \$3,007.5 million increase in gross margin, partially offset by a \$475.8 million increase in amortization expenses, a \$404.4 million increase in R&D expenses, a \$350.8 million increase in SMG&A expenses and a \$190.1 million increase in special charges, net as more fully described above under the headings *Gross Margin*, *Amortization of Intangibles*, *Research and Development (R&D)*, *Selling, Marketing, General and Administrative (SMG&A)* and *Special Charges, Net*.

Nonoperating (Income) Expense

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
Total Nonoperating expense	\$ 179,951	\$ 363,487	\$ (183,536)	(50)%

The year-over-year decrease in nonoperating expense in fiscal 2022 as compared to fiscal 2021 was primarily the result of a loss on the extinguishment of debt of \$215.2 million related to debt transactions in the fourth quarter of fiscal 2021, partially offset by higher interest expense in fiscal 2022 related to our debt obligations and fewer gains on investments in fiscal 2022.

Provision for (Benefit From) Income Taxes

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
Provision for (benefit from) income taxes	\$ 350,188	\$ (61,708)	\$ 411,896	n/a
Effective income tax rate	11.3 %	(4.6)%		

Our effective tax rates for fiscal 2022 and fiscal 2021 were below the U.S. statutory rate of 21% due to lower statutory tax rates applicable to our operations in the foreign jurisdictions in which we earn income. In fiscal 2021, we recorded a net deferred tax benefit of \$188.8 million from deferred tax assets related to an intra-entity transfer of intangible assets. Also, our provision for income taxes increased in fiscal 2022 as a result of higher income before taxes primarily related to the Acquisition. For fiscal 2022 and fiscal 2021 our pretax income was primarily generated in Ireland at a tax rate of 12.5%.

See Note 12, *Income Taxes*, of the Notes to Consolidated Financial Statements contained in Item 8 of this Annual Report on Form 10-K for further discussion.

Net Income

	Fiscal Year		2022 over 2021	
	2022	2021	\$ Change	% Change
Net income	\$ 2,748,561	\$ 1,390,422	\$ 1,358,139	98 %
Net income, as a % of revenue	22.9 %	19.0 %		
Diluted EPS	\$ 5.25	\$ 3.46	\$ 1.79	52 %

The increase in net income in fiscal 2022 as compared to fiscal 2021 was a result of a \$1,586.5 million increase in operating income and a \$183.5 million decrease in nonoperating expense, partially offset by a \$411.9 million increase in provision for income taxes, as more fully described above under the headings *Operating Income*, *Nonoperating (Income) Expense*, and *Provision for (Benefit From) Income Taxes*.

Liquidity and Capital Resources

At October 29, 2022, our principal source of liquidity was \$1,470.6 million of cash and cash equivalents, of which approximately \$307.4 million was held in the United States and the balance of our cash and cash equivalents was held outside the United States in various foreign subsidiaries. We manage our worldwide cash requirements by, among other things, reviewing available funds held by our foreign subsidiaries and the cost effectiveness by which those funds can be accessed in the United States. We do not expect current regulatory restrictions or taxes on repatriation to have a material adverse effect on our overall liquidity, financial condition or results of operations. Our cash and cash equivalents consist of highly liquid investments with maturities of three months or less, including money market funds. We maintain these balances with high credit quality counterparties, continually monitor the amount of credit exposure to any one issuer and diversify our investments in order to minimize our credit risk.

We believe that our existing sources of liquidity and cash expected to be generated from future operations, together with existing and anticipated available short- and long-term financing, will be sufficient to fund operations, capital expenditures, research and development efforts and dividend payments (if any) in the immediate future and for at least the next twelve months.

	Fiscal Year	
	2022	2021
Net cash provided by operating activities	\$ 4,475,402	\$ 2,735,069
Net cash provided by operating activities as a % of revenue	37 %	37 %
Net cash (used for) provided by investing activities	\$ (657,368)	\$ 2,143,525
Net cash used for financing activities	\$ (4,290,720)	\$ (3,959,664)

The following changes contributed to the net change in cash and cash equivalents from fiscal 2021 to fiscal 2022.

Operating Activities

Cash provided by operating activities is net income adjusted for certain non-cash items and changes in assets and liabilities. The increase in cash provided by operating activities during fiscal 2022 as compared to fiscal 2021 was primarily a result of higher net income adjusted for noncash items offset by changes in working capital.

Investing Activities

Investing cash flows generally consist of capital expenditures, cash used for acquisitions and proceeds from or purchases of investments. The change in cash (used for) provided by investing activities during fiscal 2022 as compared to fiscal 2021 was primarily the result of cash received from the Acquisition during fiscal 2021, partially offset by an increase in cash used for capital expenditures during fiscal 2022.

Financing Activities

Financing cash flows consist primarily of payments of dividends to stockholders, repurchases of common stock, issuance and repayment of debt, and proceeds from the sale of shares of common stock pursuant to employee equity incentive plans. The change in cash used for financing activities during fiscal 2022 as compared to fiscal 2021 was primarily the result of a net decrease in debt in fiscal 2022 as compared to a net increase in debt in fiscal 2021, as well as higher dividend payments, partially offset by lower common stock repurchases.

Working Capital

	Fiscal Year		\$ Change	% Change
	2022	2021		
Accounts receivable, net	\$ 1,800,462	\$ 1,459,056	\$ 341,406	23 %
Days sales outstanding (1)	50	52		
Inventory	\$ 1,399,914	\$ 1,200,610	\$ 199,304	17 %
Days cost of sales in inventory (1)	106	118		

(1) We use the average of the current year and prior year ending net accounts receivable and ending inventory balance in our calculation of days sales outstanding and days cost of sales in inventory, respectively. Cost of sales amounts used in the calculation of days cost of sales in inventory include Acquisition accounting adjustments related to the sale of acquired inventory written up to fair value, amortization of developed technology intangible assets acquired and depreciation related to the write-up of fixed assets to fair value. The calculations above include the financial results of Maxim prospectively from the Acquisition Date.

The increase in accounts receivable for fiscal 2022 compared to fiscal 2021 was primarily the result of variations in the timing of collections and billings and increased revenue levels.

Inventory increased in fiscal 2022 as compared to fiscal 2021, primarily as a result of our efforts to balance manufacturing production, demand and inventory levels. Our inventory levels are impacted by our need to support forecasted sales demand and variations between those forecasts and actual demand. As of October 30, 2021, our inventory balance also included additional costs related to the Acquisition as a result of accounting for acquired inventory at fair-value.

Current liabilities decreased to \$2,442.7 million at October 29, 2022 from \$2,770.3 million recorded at the end of fiscal 2021, primarily due to early termination of debt, partially offset by higher accounts payable and accruals.

Revolving Credit Facility

Our Third Amended and Restated Revolving Credit Agreement, dated as of June 23, 2021, with Bank of America N.A. as administrative agent and the other banks identified therein as lenders (Revolving Credit Agreement) amended and restated our Second Amended and Restated Credit Agreement dated as of June 28, 2019 and provides for a five year unsecured revolving credit facility in an aggregate principal amount not to exceed \$2.5 billion (subject to certain terms and conditions).

We may borrow under this revolving credit facility in the future and use the proceeds for repayment of existing indebtedness, stock repurchases, acquisitions, capital expenditures, working capital and other lawful corporate purposes. The terms of the Revolving Credit Agreement impose restrictions on our ability to undertake certain transactions, to create certain liens on assets and to incur certain subsidiary indebtedness. In addition, the Revolving Credit Agreement contains a consolidated leverage ratio covenant of total consolidated funded debt to consolidated earnings before interest, taxes, depreciation, and amortization (EBITDA) of not greater than 3.5 to 1.0. As of October 29, 2022, we were in compliance with these covenants. See Note 13, *Revolving Credit Facility*, of the Notes to Consolidated Financial Statements contained in Item 8 of this Annual Report on Form 10-K for further information on our revolving credit facility.

Debt

As of October 29, 2022, we had approximately \$6.5 billion of carrying value outstanding on our debt. The difference in the carrying value of the debt and the principal is due to the unamortized discount and issuance fees and other adjustments on these instruments. The indentures governing certain of our debt instruments contain covenants that may limit our ability to: incur, create, assume or guarantee any debt or borrowed money secured by a lien upon a principal property; enter into sale and lease-back transactions with respect to a principal property; and consolidate with or merge into, or transfer or lease all or substantially all of our assets to, any other party. As of October 29, 2022, we were compliant with these covenants. See Note 14, *Debt* of the Notes to Consolidated Financial Statements contained in Item 8 of this Annual Report on Form 10-K for further information on our outstanding debt.

Stock Repurchase Program

Our common stock repurchase program has been in place since August 2004. Since inception, our Board of Directors has authorized us to repurchase \$16.7 billion of our common stock under the program, which includes the \$8.5 billion authorization approved by the Board of Directors on August 25, 2021. Under the program, we may repurchase outstanding shares of our common stock from time to time in the open market and through privately negotiated transactions. Unless terminated earlier by resolution of our Board of Directors, the repurchase program will expire when we have repurchased all shares authorized under the program.

As of October 29, 2022, \$4.9 billion remained available for repurchase under the current authorized program. The repurchased shares are held as authorized but unissued shares of common stock. We also repurchase shares in settlement of employee tax withholding obligations due upon the vesting of restricted stock units/awards or the exercise of stock options. Future repurchases of common stock will be dependent upon our financial position, results of operations, outlook, liquidity, and other factors we deem relevant.

Capital Expenditures

Net additions to property, plant and equipment were \$699.3 million in fiscal 2022 and were funded with a combination of cash on hand and cash generated from operations. We expect capital expenditures for fiscal 2023 to be between 6% and 8% of revenue, which is above our historical levels primarily due to our plans to continue to expand internal manufacturing capacity. These capital expenditures will be funded with a combination of cash on hand and cash expected to be generated from future operations, together with existing and anticipated available short- and long-term financing.

Dividends

On November 21, 2022, our Board of Directors declared a cash dividend of \$0.76 per outstanding share of common stock. The dividend will be paid on December 15, 2022 to all shareholders of record at the close of business on December 5, 2022 and is expected to total approximately \$387.1 million. We currently expect quarterly dividends to continue in future periods, although they remain subject to determination and declaration by our Board of Directors. The payment of future dividends, if any, will be based on several factors, including our financial performance, outlook and liquidity.

Contractual Obligations

The table below summarizes our material contractual obligations in specified periods as of October 29, 2022:

(thousands)	Total	Payment due by period			
		Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Debt obligations (1)	\$ 6,576,865	\$ —	\$ 900,000	\$ 1,400,000	\$ 4,276,865
Interest payments associated with debt obligations	2,446,434	198,459	373,706	323,989	1,550,280
Transition tax (2)	656,070	127,008	529,062	—	—
Operating leases (3)	454,543	31,199	131,498	113,183	178,663
Inventory-related purchase commitments (4)	428,352	130,069	168,817	64,364	65,102
Total	<u>\$ 10,562,264</u>	<u>\$ 486,735</u>	<u>\$ 2,103,083</u>	<u>\$ 1,901,536</u>	<u>\$ 6,070,910</u>

(1) Debt obligations are assumed to be held to maturity.

(2) Tax obligation relates to the one-time tax on deemed repatriated earnings under the Tax Cuts and Jobs Act of 2017 enacted in fiscal 2018.

(3) Certain of our operating lease obligations include escalation clauses. These escalating payment requirements are reflected in the table.

(4) We have supplier commitments for the purchase of materials and supplies in advance or with minimum purchase quantities.

As of October 29, 2022, our total liabilities associated with uncertain tax positions was \$194.4 million, which are

included in non-current income taxes payable in our Consolidated Balance Sheets contained in Item 8 of this Annual Report on Form 10-K. Due to the complexity associated with our tax uncertainties, we cannot make a reasonably reliable estimate of the period in which we expect to settle the non-current liabilities associated with these uncertain tax positions. Therefore, we have not included these uncertain tax positions in the above contractual obligations table.

New Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (FASB) and are adopted by us as of the specified effective date. Unless otherwise discussed, management believes that the impact of recently issued standards will not have a material impact on our future financial condition and results of operations. See Note 2s, *New Accounting Pronouncements*, of the Notes to Consolidated Financial Statements contained in Item 8 of this Annual Report on Form 10-K for a description of recently issued and adopted accounting pronouncements, including the dates of adoption and impact on our historical financial condition and results of operations.

Critical Accounting Policies and Estimates

Management's discussion and analysis of the financial condition and results of operations is based upon the Consolidated Financial Statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. We base our estimates and judgments on historical experience, knowledge of current conditions and beliefs of what could occur in the future based on available information. We consider the following accounting policies to be both those most important to the portrayal of our financial condition and those that require the most subjective judgment. If actual results differ significantly from management's estimates and projections, there could be a material effect on our financial statements. We also have other policies that we consider key accounting policies; however, the application of these policies does not require us to make significant estimates or judgments that are difficult or subjective.

Revenue Recognition

Recognition of revenue occurs when a customer obtains control of promised goods or services in an amount that reflects the consideration to which the providing entity expects to be entitled in exchange for those goods or services. We recognize revenue upon transfer of control of promised products or services to customers in an amount that reflects the consideration that we expect to receive in exchange for those products or services. We recognize revenue when all of the following criteria are met: (1) we have entered into a binding agreement, (2) the performance obligations have been identified, (3) the transaction price to the customer has been determined, (4) the transaction price has been allocated to the performance obligations in the contract, and (5) the performance obligations have been satisfied. The majority of our shipping terms permit us to recognize revenue at point of shipment or delivery. Certain shipping terms require the goods to be through customs or be received by the customer before title passes. In those instances, we defer the revenue recognized until title has passed. Shipping costs are charged to selling, marketing, general and administrative expense as incurred. Sales taxes are excluded from revenue.

Revenue from contracts with the United States government, government prime contractors and certain commercial customers is recorded over time using either units delivered or costs incurred as the measurement basis for progress toward completion. These measures are used to measure results directly and is generally the best measure of progress toward completion in circumstances in which a reliable measure of output can be established. Estimated revenue in excess of amounts billed is reported as unbilled receivables. Contract accounting requires judgment in estimating costs and assumptions related to technical issues and delivery schedule. Contract costs include material, subcontract costs, labor and an allocation of indirect costs. The estimation of costs at completion of a contract is subject to numerous variables involving contract costs and estimates as to the length of time to complete the contract. Changes in contract performance, estimated gross margin, including the impact of final contract settlements, and estimated losses are recognized in the period in which the changes or losses are determined.

Performance Obligations: Substantially all of our contracts with customers contain a single performance obligation, the sale of mixed-signal integrated circuit (IC) products. Such sales represent a single performance obligation because the sale is one type of good or includes multiple goods that are neither capable of being distinct nor separable from the other promises in the contract. This performance obligation is satisfied when control of the product is transferred to the customer, which occurs upon shipment or delivery. Unsatisfied performance obligations primarily represent contracts for products with future delivery dates and with an original expected duration of one year or less. We generally warrant that our products will meet their published specifications, and that we will repair or replace defective products, for one year from the date title passes from us to the customer. Specific accruals are recorded for known product warranty issues.

Transaction Price: The transaction price reflects our expectations about the consideration we will be entitled to receive from the customer and may include fixed or variable amounts. Fixed consideration primarily includes sales to direct customers and sales to distributors in which both the sale to the distributor and the sale to the end customer occur within the same reporting period. Variable consideration includes sales in which the amount of consideration that we will receive is unknown as

of the end of a reporting period. The vast majority of such consideration are credits issued to the distributor due to price protection, but also include sales made to distributors under agreements that allow certain rights of return, referred to as stock rotation. Price protection represents price discounts granted to certain distributors to allow the distributor to earn an appropriate margin on sales negotiated with certain customers and in the event of a price decrease subsequent to the date the product was shipped and billed to the distributor. Stock rotation allows distributors limited levels of returns in order to reduce the amounts of slow-moving, discontinued or obsolete product from their inventory. A liability for distributor credits covering variable consideration is made based on management's estimate of historical experience rates as well as considering economic conditions and contractual terms. To date, actual distributor claims activity has been materially consistent with the provisions we have made based on our historical estimates.

Contract Balances: Accounts receivable represents our unconditional right to receive consideration from our customers. Payments are typically due within 30 to 45 days of invoicing and do not include a significant financing component. To date, there have been no material impairment losses on accounts receivable. There were no material contract assets or contract liabilities recorded on the Consolidated Balance Sheets in any of the periods presented.

Inventory Valuation

We value inventories at the lower of cost (first-in, first-out method) or net realizable value. Because of the cyclical nature of the semiconductor industry, changes in inventory levels, obsolescence of technology, and product life cycles, we write down inventories to net realizable value. We employ a variety of methodologies to determine the net realizable value of inventory. While a portion of the calculation is determined via reference to the age of inventory and lower of cost or net realizable value calculations, an element of the calculation is subject to significant judgments made by us about future demand for our inventory. If actual demand for our products is less than our estimates, additional adjustments to existing inventories may need to be recorded in future periods. To date, our actual results have not been materially different than our estimates.

Long-Lived Assets

We review property, plant, and equipment and intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value of assets may not be recoverable. Recoverability of these assets is determined by comparison of their carrying value to the estimated future undiscounted cash flows that the assets are expected to generate over their remaining estimated lives. If such assets are considered to be impaired, the impairment to be recognized in earnings equals the amount by which the carrying value of the assets exceeds their fair value determined by either a quoted market price, if any, or a value determined by utilizing a discounted cash flow technique. Material impairment adjustments related to our property, plant, and equipment are reflected in our financial statements for the periods presented. Any deterioration in our business in the future could lead to such impairment adjustments in future periods.

Evaluation of impairment of long-lived assets requires estimates of future operating results that are used in the preparation of the expected future undiscounted cash flows. Actual future operating results and the remaining economic lives of our long-lived assets could differ from the estimates used in assessing the recoverability of these assets. These differences could result in impairment charges, which could have a material adverse impact on our results of operations. In addition, in certain instances, assets may not be impaired but their estimated useful lives may have decreased. In these situations, we amortize the remaining net book values over the revised useful lives.

Goodwill

Goodwill is subject to impairment tests annually or more frequently if events or changes in circumstances suggest that the carrying value of goodwill may not be recoverable, utilizing either the qualitative or quantitative method. We test goodwill for impairment at the reporting unit level, which we determined is consistent with our identified operating segments, on an annual basis on the first day of the fourth quarter (on or about July 31) or more frequently if we believe indicators of impairment exist or we reorganize our operating segments or reporting units.

We have the option to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its net book value. When using the qualitative method, we consider several factors, including the following:

- the amount by which the fair values of each reporting unit exceeded their carrying values as of the date of the most recent quantitative impairment analysis, which indicated there would need to be substantial negative developments in the markets in which these reporting units operate in order for there to be potential impairment;
- the carrying values of these reporting units as of the assessment date compared to their previously calculated fair values as of the date of the most recent quantitative impairment analysis;
- the current forecasts as compared to the forecasts included in the most recent quantitative impairment analysis;
- public information from competitors and other industry information to determine if there were any significant adverse trends in our competitors' businesses;

- changes in the value of major U.S. stock indices that could suggest declines in overall market stability that could impact the valuation of our reporting units;
- changes in our market capitalization and overall enterprise valuation to determine if there were any significant decreases that could be an indication that the valuation of our reporting units had significantly decreased; and
- whether there had been any significant increases to the weighted-average cost of capital rates for each reporting unit, which could materially lower our prior valuation conclusions under a discounted cash flow approach.

If we elect not to use this option, or we determine that it is more likely than not that the fair value of a reporting unit is less than its net book value, then we perform the quantitative goodwill impairment test. The quantitative goodwill impairment test requires an entity to compare the fair value of a reporting unit with its carrying amount. If fair value is determined to be less than carrying value, an impairment loss is recognized for the amount of the carrying value that exceeds the amount of the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. Additionally, we consider income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss, if applicable. We determine the fair value of our reporting units using a weighting of the income and market approaches. Under the income approach, we use a discounted cash flow methodology which requires management to make significant estimates and assumptions related to forecasted revenues, gross profit margins, operating income margins, working capital cash flow, perpetual growth rates, and long-term discount rates, among others. For the market approach, we use the guideline public company method. Under this method we utilize information from comparable publicly traded companies with similar operating and investment characteristics as the reporting units, to create valuation multiples that are applied to the operating performance of the reporting unit being tested, in order to obtain their respective fair values. In order to assess the reasonableness of the calculated reporting unit fair values, we reconcile the aggregate fair values of our reporting units determined, as described above, to our total company market capitalization, allowing for a reasonable control premium.

In fiscal 2022, we used a combination of the qualitative and quantitative methods of assessing goodwill for our reporting units. In fiscal 2021, we used the quantitative method of assessing goodwill for all reporting units. In all periods presented, we concluded the reporting units' fair values exceeded their carrying amounts as of the assessment dates and no risk of impairment existed.

Business Combinations

Under the acquisition method of accounting, we recognize tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values. We record the excess of the fair value of the purchase consideration over the value of the net assets acquired as goodwill. The accounting for business combinations requires us to make significant estimates and assumptions, especially with respect to intangible assets and the fair value of contingent payment obligations. Critical estimates in valuing purchased technology, customer lists and other identifiable intangible assets include future cash flows that we expect to generate from the acquired assets. If the subsequent actual results and updated projections of the underlying business activity change compared with the assumptions and projections used to develop these values, we could experience impairment charges which could be material. In addition, we have estimated the economic lives of certain acquired assets and these lives are used to calculate depreciation and amortization expense. If our estimates of the economic lives change, depreciation or amortization expenses could be accelerated or slowed.

We record contingent consideration resulting from a business combination at its fair value on the acquisition date. We generally determine the fair value of the contingent consideration using the income approach methodology of valuation. Each reporting period thereafter, we revalue these obligations and record increases or decreases in their fair value as an adjustment to operating expenses within the Consolidated Statements of Income. Changes in the fair value of the contingent consideration can result from changes in assumed discount periods and rates, and from changes pertaining to the achievement of the defined milestones. Significant judgment is employed in determining the appropriateness of these assumptions as of the acquisition date and for each subsequent period. Accordingly, future business and economic conditions, as well as changes in any of the assumptions described above, can materially impact the amount of contingent consideration expense we record in any given period.

Accounting for Income Taxes

We make certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of income tax credits, benefits, and deductions, and in the calculation of certain tax assets and liabilities, which arise from differences in the timing of the recognition of certain expenses for tax and financial statement purposes. We assess the likelihood of the realization of deferred tax assets and record a corresponding valuation allowance as necessary if we determine those deferred tax assets may not be realized due to the uncertainty of the timing and amount to be realized of certain state and international tax credit carryovers. In reaching our conclusion, we evaluate certain relevant criteria including the existence of deferred tax liabilities that can be used to realize deferred tax assets, the taxable income in prior carryback years in the impacted state and international jurisdictions that can be used to absorb net operating losses and taxable income in future years. Our judgments regarding future profitability may change due to future market conditions, changes in U.S. or international tax laws and other factors. These changes, if any, may require material adjustments to these deferred tax assets, which may result in an increase or decrease to our income tax provision in future periods.

We account for uncertain tax positions by first determining if it is “more likely than not” that a tax position will be sustained by the appropriate taxing authorities prior to recording any benefit in the financial statements. An uncertain income tax position is not recognized if it has less than a 50% likelihood of being sustained. For those tax positions where it is more likely than not that a tax position will be sustained, we have recorded the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit has been recognized in the financial statements. We classify interest and penalties related to uncertain tax positions within the provision for (benefit from) income taxes line of the Consolidated Statements of Income. We reevaluate these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in known facts or circumstances, changes in tax law, effectively settled issues under audit, and new guidance on legislative interpretations. A change in these factors could result in the recognition of an increase or decrease to our income tax provision, which could materially impact our consolidated financial position and results of operations.

In the ordinary course of global business, there are many transactions and calculations where the ultimate tax outcome is uncertain. Some of these uncertainties arise as a consequence of cost reimbursement and royalty arrangements among related entities. Although we believe our estimates are reasonable, no assurance can be given that the final tax outcome of these matters will not be different than that which is reflected in our historical income tax provisions and income tax liabilities. In the event our assumptions are incorrect, the differences could have a material impact on our income tax provision and operating results in the period in which such determination is made. In addition to the factors described above, our current and expected effective tax rate is based on then-current tax law. Significant changes during the year in enacted tax law could affect these estimates.

See Note 12, *Income Taxes*, of the Notes to Consolidated Financial Statements contained in Item 8 of this Annual Report on Form 10-K for further discussion.

Stock-Based Compensation

Stock-based compensation expense associated with stock options and related awards is recognized in the Consolidated Statements of Income. Determining the amount of stock-based compensation to be recorded requires us to develop estimates to be used in calculating the grant-date fair value of stock options, restricted stock units and market-based and/or performance-based restricted stock units. We calculate the grant-date fair values of stock options using the Black-Scholes valuation model. The grant-date fair value of restricted stock units with a service condition and restricted stock units with both service and performance conditions is calculated 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 common stock prior to vesting. For restricted stock units with both service and performance conditions, this grant-date fair value is also impacted by the number of units that are expected to vest during the performance period and is adjusted through the related stock-based compensation expense at each reporting period based on the probability of achievement of that performance condition. If we determine that an award is unlikely to vest, any previously recorded stock-based compensation expense is reversed in the period of that determination. The grant date fair value of restricted stock units and performance-based stock options with both service and market conditions are calculated using the Monte Carlo simulation model to estimate the probability of satisfying the performance condition stipulated in the award grant, including the possibility that the market condition may not be satisfied.

The use of valuation models requires us to make estimates of key assumptions such as expected volatility, expected term, risk-free interest rate, expected dividend yield, forfeiture rate and others. The estimate of these key assumptions is based on historical information and judgment regarding market factors and trends. We recognize the expense related to equity awards on a straight-line basis over the vesting period. See Note 2r, *Stock-based Compensation*, and Note 3, *Stock-Based Compensation and Shareholders' Equity*, of the Notes to Consolidated Financial Statements contained in Item 8 of this Annual Report on Form 10-K for more information related to stock-based compensation.

Contingencies

From time to time, in the ordinary course of business, various claims, charges and litigation are asserted or commenced against us arising from, or related to, among other things, contractual matters, patents, trademarks, personal injury, environmental matters, product liability, insurance coverage, employment or employment benefits. We periodically assess each matter to determine if a contingent liability should be recorded. In making this determination, we may, depending on the nature of the matter, consult with internal and external legal counsel and technical experts. Based on the information we obtain, combined with our judgment regarding all the facts and circumstances of each matter, we determine whether it is probable that a contingent loss may be incurred and whether the amount of such loss can be reasonably estimated. If a loss is probable and reasonably estimable, we record a contingent loss. In determining the amount of a contingent loss, we consider advice received from experts in the specific matter, current status of legal proceedings, settlement negotiations that may be ongoing, prior case history and other factors. If the judgments and estimates made by us are incorrect, we may need to record additional contingent losses that could materially adversely impact our results of operations.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Exposure

Our interest income and expense are sensitive to changes in the general level of interest rates. In this regard, changes in interest rates affect the interest earned or paid on our marketable securities and debt, as well as the fair value of our investments and debt.

Based on the \$500.0 million of our floating rate debt outstanding as of October 29, 2022, our annual interest expense would change by approximately \$5.0 million for each 100 basis point increase in interest rates.

Based on our cash and marketable securities outstanding as of October 29, 2022 and October 30, 2021, our annual interest income would change by approximately \$14.7 million and \$19.7 million, respectively, for each 100 basis point increase in interest rates.

To provide a meaningful assessment of the interest rate risk associated with our investment portfolio, we performed a sensitivity analysis to determine the impact a change in interest rates would have on the value of our investment portfolio assuming an immediate 100 basis point parallel shift in the yield curve. Based on investment positions as of October 29, 2022 and October 30, 2021, a hypothetical 100 basis point increase in interest rates across all maturities would not materially impact the fair market value of the portfolio in either period. If significant, such losses would only be realized if we sold the investments prior to maturity.

As of October 29, 2022, we had \$6.6 billion in principal amount of senior unsecured notes outstanding, with a fair value of \$5.5 billion. The fair value of our notes is subject to interest rate risk, market risk, and other factors. Generally, the fair value of our notes will increase as interest rates fall and decrease as interest rates rise. The fair values of our notes as of October 29, 2022 and October 30, 2021, assuming a hypothetical 100 basis point increase in market interest rates, are as follows:

(thousands)	October 29, 2022			October 30, 2021		
	Principal Amount Outstanding	Fair Value	Fair Value given an increase in interest rates of 100 basis points	Principal Amount Outstanding	Fair Value	Fair Value given an increase in interest rates of 100 basis points
Maxim 2023 Notes, due March 2023	\$ —	\$ —	\$ —	\$ 500,000	\$ 520,236	\$ 513,273
2024 Notes, due October 2024	500,000	491,982	483,035	500,000	500,482	486,201
2025 Notes, due April 2025	400,000	383,378	374,686	400,000	423,265	409,725
2026 Notes, due December 2026	900,000	851,479	820,203	900,000	986,243	941,160
Maxim 2027 Notes, due June 2027	59,788	54,771	52,534	500,000	542,942	515,866
2027 Notes, due June 2027	440,212	410,091	393,294	—	—	—
2028 Notes, due October 2028	750,000	621,093	588,044	750,000	743,109	696,554
2031 Notes, due October 2031	1,000,000	786,772	727,579	1,000,000	996,702	912,196
2032 Notes, due October 2032	300,000	278,359	257,337	—	—	—
2036 Notes, due December 2036	144,278	126,274	114,389	144,278	176,960	158,110
2041 Notes, due October 2041	750,000	513,709	450,337	750,000	758,246	652,754
2045 Notes, due December 2045	332,587	313,931	276,820	332,587	469,592	404,287
2051 Notes, due October 2051	1,000,000	640,766	545,958	1,000,000	1,029,830	848,513

Foreign Currency Exposure

As more fully described in Note 2i, *Derivative and Hedging Agreements*, of the Notes to Consolidated Financial Statements contained in Item 8 of this Annual Report on Form 10-K, we regularly hedge our non-U.S. dollar-based exposures by entering into forward foreign currency exchange contracts. The terms of these contracts are for periods matching the duration of the underlying exposure and generally range from one to twelve months. Currently, our largest foreign currency exposure is the Euro, primarily because our European operations have the highest proportion of our local currency denominated expenses. Relative to the net unhedged foreign currency exposures existing at October 29, 2022 and October 30, 2021, an immediate 10% unfavorable movement in foreign currency exchange rates would result in approximately \$69.5 million of losses and \$39.5 million of losses, respectively, in changes in earnings or cash flows over the course of the year.

The market risk associated with our derivative instruments results from currency exchange rates that are expected to offset the market risk of the underlying transactions, assets and liabilities being hedged. The counterparties to the agreements relating to our foreign exchange instruments consist of a number of major international financial institutions with high credit ratings. Based on the credit ratings of our counterparties as of October 29, 2022, we do not believe that there is significant risk of nonperformance by them. While the contract or notional amounts of derivative financial instruments provide one measure of the volume of these transactions, they do not represent the amount of our exposure to credit risk. The amounts potentially subject to credit risk (arising from the possible inability of counterparties to meet the terms of their contracts) are generally limited to the amounts, if any, by which the counterparties' obligations under the contracts exceed our obligations to the counterparties.

The following table illustrates the effect that an immediate 10% unfavorable or favorable movement in foreign currency exchange rates, relative to the U.S. dollar, would have on the fair value of our forward exchange contracts as of October 29, 2022 and October 30, 2021:

	October 29, 2022	October 30, 2021
Fair value of forward exchange contracts	\$ (16,984)	\$ (8,085)
Fair value of forward exchange contracts after a 10% unfavorable movement in foreign currency exchange rates asset	\$ 21,193	\$ 26,673
Fair value of forward exchange contracts after a 10% favorable movement in foreign currency exchange rates liability	\$ (51,604)	\$ (41,034)

The calculation assumes that each exchange rate would change in the same direction relative to the U.S. dollar. In addition to the direct effects of changes in exchange rates, such changes typically affect the volume of sales or the foreign currency sales price as competitors' products become more or less attractive. Our sensitivity analysis of the effects of changes in foreign currency exchange rates does not factor in a potential change in sales levels or local currency selling prices.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Analog Devices, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Analog Devices, Inc. (the Company) as of October 29, 2022 and October 30, 2021, the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended October 29, 2022, and the related notes and financial statement schedule listed in the Index at Item 15(a)(2) (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 October 29, 2022 and October 30, 2021, and the results of its operations and its cash flows for each of the three years in the period ended October 29, 2022, 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 October 29, 2022, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated November 22, 2022 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 U.S. 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 account or disclosure to which it relates.

Revenue Recognition – Measuring Price Protection Credits

Description of the Matter As described in Note 2n to the consolidated financial statements, the Company's sales contracts provide certain distributors with credits for price protection and rights of return, which results in variable consideration. During 2022, sales to distributors were \$7.5 billion net of expected price protection credits and rights of return for which the liability balance as of October 29, 2022 was \$749.4 million, of which the vast majority relates to the price protection credits.

Auditing the Company's measurement for price protection credits under distributor contracts involved especially challenging judgment because the calculation involves subjective management assumptions about estimates of expected price protection credits. For example, estimated price protection credits included in the transaction price reflects management's evaluation of contractual terms, historical experience and assumptions about future economic conditions. Changes in those assumptions can have a material effect on the amount recognized for price protection credits.

*How We Addressed
the Matter in Our
Audit*

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's process to calculate the price protection credits. For example, we tested controls over the appropriateness of assumptions management used as well as controls over the completeness and accuracy of the data underlying estimates of expected price protection credits.

Our audit procedures included, among others, inspecting contractual terms in distributor agreements and testing the underlying data used in management's calculation for completeness and accuracy as well as evaluating the significant assumptions used in the estimation of the price protection credits. We evaluated the Company's methods and assumptions used in the estimates, which included comparing the assumptions to historical trends. We inspected and tested the results of the Company's retrospective review analysis of actual price protection credits claimed by distributors, evaluated the estimates made based on historical experience and performed sensitivity analyses of the Company's significant assumptions to assess the impact on the price protection credits. We also evaluated whether the Company appropriately considered new information that could significantly change the estimated future price protection credits.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1967.

Boston, Massachusetts
November 22, 2022

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

ANALOG DEVICES, INC.

CONSOLIDATED STATEMENTS OF INCOME
Years ended October 29, 2022, October 30, 2021 and October 31, 2020

(thousands, except per share amounts)	2022	2021	2020
Revenue			
Revenue	\$ 12,013,953	\$ 7,318,286	\$ 5,603,056
Costs and Expenses			
Cost of sales	4,481,479	2,793,274	1,912,578
Gross margin	7,532,474	4,525,012	3,690,478
Operating expenses:			
Research and development	1,700,518	1,296,126	1,050,519
Selling, marketing, general and administrative	1,266,175	915,418	659,923
Amortization of intangibles	1,012,572	536,811	429,455
Special charges, net	274,509	84,456	52,337
	4,253,774	2,832,811	2,192,234
Operating income:	3,278,700	1,692,201	1,498,244
Nonoperating expense (income):			
Interest expense	200,408	184,825	193,305
Loss on extinguishment of debt	—	215,150	—
Interest income	(6,906)	(1,220)	(4,305)
Other, net	(13,551)	(35,268)	(2,373)
	179,951	363,487	186,627
Earnings			
Income before income taxes	3,098,749	1,328,714	1,311,617
Provision for (benefit from) income taxes	350,188	(61,708)	90,856
Net income	\$ 2,748,561	\$ 1,390,422	\$ 1,220,761
Shares used to compute earnings per common share — basic	519,226	397,462	368,633
Shares used to compute earnings per common share — diluted	523,178	401,288	371,973
Basic earnings per common share	\$ 5.29	\$ 3.50	\$ 3.31
Diluted earnings per common share	\$ 5.25	\$ 3.46	\$ 3.28

See accompanying Notes.

ANALOG DEVICES, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
Years ended October 29, 2022, October 30, 2021 and October 31, 2020

(thousands)	2022	2021	2020
Net income	\$ 2,748,561	\$ 1,390,422	\$ 1,220,761
Foreign currency translation adjustment	(46,341)	1,057	3,224
Change in unrecognized gains/losses on derivative instruments designated as cash flow hedges:			
Changes in fair value of derivatives (net of tax of \$2,902 in 2022, \$14,217 in 2021 and \$17,468 in 2020)	(30,331)	41,817	(51,437)
Adjustment for realized loss/(gain) reclassified into earnings (net of tax of \$5,054 in 2022, \$189 in 2021 and \$158 in 2020)	34,472	7,099	(839)
Total change in derivative instruments designated as cash flow hedges, net of tax	4,141	48,916	(52,276)
Changes in accumulated other comprehensive loss — pension plans:			
Change in actuarial gain/(loss) (net of tax of \$7,756 in 2022, \$637 in 2021 and \$5,167 in 2020)	30,613	12,923	(10,231)
Other comprehensive (loss) income	(11,587)	62,896	(59,283)
Comprehensive income	<u>\$ 2,736,974</u>	<u>\$ 1,453,318</u>	<u>\$ 1,161,478</u>

See accompanying Notes.

ANALOG DEVICES, INC.
CONSOLIDATED BALANCE SHEETS
October 29, 2022 and October 30, 2021

(thousands, except per share amounts)	2022	2021
ASSETS		
Current Assets		
Cash and cash equivalents	\$ 1,470,572	\$ 1,977,964
Accounts receivable less allowances of \$4,571 (\$2,658 in 2021)	1,800,462	1,459,056
Inventories	1,399,914	1,200,610
Prepaid expenses and other current assets	267,044	740,687
Total current assets	4,937,992	5,378,317
Other Assets		
Net property, plant and equipment	2,401,304	1,979,051
Other investments	122,285	127,856
Goodwill	26,913,134	26,918,470
Intangible assets, net	13,265,406	15,267,170
Deferred tax assets	2,264,888	2,267,269
Other assets	397,341	383,938
Total other assets	45,364,358	46,943,754
	\$ 50,302,350	\$ 52,322,071
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities		
Accounts payable	\$ 582,160	\$ 443,434
Income taxes payable	265,845	332,685
Debt, current	—	516,663
Accrued liabilities	1,594,650	1,477,530
Total current liabilities	2,442,655	2,770,312
Non-current Liabilities		
Long-term debt	6,548,625	6,253,212
Deferred income taxes	3,622,538	3,938,830
Income taxes payable	707,846	811,337
Other non-current liabilities	515,363	555,838
Total non-current liabilities	11,394,372	11,559,217
Commitments and contingencies (Note 10)		
Shareholders' Equity		
Preferred stock, \$1.00 par value, 471,934 shares authorized, none outstanding	—	—
Common stock, \$0.16 2/3 par value, 1,200,000,000 shares authorized, 509,295,941 shares outstanding (525,330,672 on October 30, 2021)	84,880	87,554
Capital in excess of par value	27,857,270	30,574,237
Retained earnings	8,721,325	7,517,316
Accumulated other comprehensive loss	(198,152)	(186,565)
Total shareholders' equity	36,465,323	37,992,542
	\$ 50,302,350	\$ 52,322,071

See accompanying Notes.

ANALOG DEVICES, INC.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
Years ended October 29, 2022, October 30, 2021 and October 31, 2020

(thousands)	Common Stock		Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive (Loss) Income
	Shares	Amount			
BALANCE, NOVEMBER 2, 2019	368,302	\$ 61,385	\$ 4,936,349	\$ 6,899,253	\$ (187,799)
Effect of Accounting Standards Update 2018-02				2,379	(2,379)
Net Income — 2020				1,220,761	
Dividends declared and paid - \$2.40 per share				(886,155)	
Issuance of stock under stock plans and other	3,110	518	67,885		
Issuance of stock as charitable contribution	336	56	39,944		
Stock-based compensation expense			149,518		
Other comprehensive loss					(59,283)
Common stock repurchased	(2,263)	(377)	(244,110)		
BALANCE, OCTOBER 31, 2020	369,485	61,582	4,949,586	7,236,238	(249,461)
Net Income — 2021				1,390,422	
Dividends declared and paid - \$2.69 per share				(1,109,344)	
Issuance of stock under stock plans and other	2,738	355	62,750		
Issuance of stock in connection with Acquisition	169,233	28,204	27,725,957		
Stock-based compensation expense			243,611		
Replacement share-based awards issued in connection with Acquisition			194,890		
Other comprehensive income					62,896
Common stock repurchased	(16,125)	(2,587)	(2,602,557)		
BALANCE, OCTOBER 30, 2021	525,331	87,554	30,574,237	7,517,316	(186,565)
Net Income — 2022				2,748,561	
Dividends declared and paid - \$2.97 per share				(1,544,552)	
Issuance of stock under stock plans and other	2,701	449	33,438		
Stock-based compensation expense			323,487		
Other comprehensive loss					(11,587)
Common stock repurchased	(18,736)	(3,123)	(3,073,892)		
BALANCE, OCTOBER 29, 2022	509,296	\$ 84,880	\$ 27,857,270	\$ 8,721,325	\$ (198,152)

See accompanying Notes.

ANALOG DEVICES, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
Years ended October 29, 2022, October 30, 2021 and October 31, 2020

(thousands)	2022	2021	2020
Cash flows from operating activities:			
Net income	\$ 2,748,561	\$ 1,390,422	\$ 1,220,761
Adjustments to reconcile net income to net cash provided by operations:			
Depreciation	283,338	231,275	233,775
Amortization of intangibles	2,014,161	843,359	577,148
Cost of goods sold for inventory acquired	271,396	331,083	—
Stock-based compensation expense	323,487	243,611	149,518
Non-cash contribution to charitable foundation	—	—	40,000
Loss on extinguishment of debt	—	215,150	—
Non-cash impairment charge	91,953	—	—
Non-cash operating lease costs	(44,087)	19,232	(257,607)
Other	(2,987)	(24,086)	5,418
Deferred income taxes	(326,755)	(406,922)	(113,948)
Change in operating assets and liabilities:			
Accounts receivable	(343,908)	(114,504)	(101,626)
Inventories	(470,725)	(65,114)	1,760
Prepaid expenses and other current assets	(79,439)	(53,326)	(3,666)
Prepaid income tax	14,855	(5,791)	—
Accounts payable and accrued liabilities	171,772	208,444	103,104
Income taxes payable, current	(91,852)	(6,797)	29,441
Other assets	(14,441)	(21,690)	—
Other liabilities	(69,927)	(49,277)	124,409
Total adjustments	1,726,841	1,344,647	787,726
Net cash provided by operating activities	4,475,402	2,735,069	2,008,487
Cash flows from investing activities:			
Additions to property, plant and equipment, net	(699,308)	(343,676)	(165,692)
Cash received from acquisition of Maxim, net of cash paid	—	2,450,550	—
Other	41,940	36,651	(14,831)
Net cash (used for) provided by investing activities	(657,368)	2,143,525	(180,523)
Cash flows from financing activities:			
Proceeds from debt	296,130	3,939,640	395,646
Early termination of debt	(519,116)	(3,591,982)	—
Debt repayments	—	—	(750,000)
Payments on revolver	(400,000)	(400,000)	(350,000)
Proceeds from revolver	400,000	400,000	350,000
Payment on derivative instrument	—	(153,161)	—
Prepayment for stock repurchases	—	(500,000)	—
Dividend payments to shareholders	(1,544,552)	(1,109,344)	(886,155)
Repurchase of common stock	(2,577,015)	(2,605,144)	(244,487)
Proceeds from employee stock plans	33,887	63,105	68,403
Other	19,946	(2,778)	(4,015)
Net cash used for financing activities	(4,290,720)	(3,959,664)	(1,420,608)
Effect of exchange rate changes on cash	(34,706)	3,174	182
Net (decrease) increase in cash and cash equivalents	(507,392)	922,104	407,538
Cash and cash equivalents at beginning of year	1,977,964	1,055,860	648,322
Cash and cash equivalents at end of year	\$ 1,470,572	\$ 1,977,964	\$ 1,055,860

See accompanying Notes.

ANALOG DEVICES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years ended October 29, 2022, October 30, 2021 and October 31, 2020

(all tabular amounts in thousands except per share amounts)

1. Description of Business

Analog Devices, Inc. (Analog Devices or the Company) is a leading semiconductor company dedicated to solving its customers' most complex engineering challenges. Since its inception in 1965, the Company has played a critical role at the intersection of the physical and digital world by providing the building blocks to sense, measure, interpret, connect and power. The Company designs, manufactures, tests and markets a broad portfolio of solutions, including integrated circuits (ICs), software and subsystems that leverage high-performance analog, mixed-signal and digital signal processing technologies. The Company's comprehensive product portfolio, deep domain expertise and advanced manufacturing capabilities extend across high-performance precision and high-speed mixed-signal, power management and processing technologies – including data converters, amplifiers, power management, radio frequency ICs, edge processors and other sensors. The Company's focus is largely on the business-to-business end markets of Industrial, Automotive and Communications and related applications, as well as Consumer applications, with the goal of driving sustainable and profitable growth over the long term.

2. Summary of Significant Accounting Policies

a. Principles of Consolidation

The Consolidated Financial Statements include the accounts of the Company and all of its subsidiaries. Upon consolidation, all intercompany accounts and transactions are eliminated. Certain amounts reported in previous years have been reclassified to conform to the presentation for the fiscal year ended October 29, 2022 (fiscal 2022). Such reclassified amounts are immaterial.

The Company's fiscal year is the 52-week or 53-week period ending on the Saturday closest to the last day in October. Fiscal 2022, the fiscal year ended October 30, 2021 (fiscal 2021) and the fiscal year ended October 31, 2020 (fiscal 2020) were 52-week fiscal periods.

On August 26, 2021 (Acquisition Date), the Company completed the acquisition of Maxim Integrated Products, Inc. (Maxim), an independent manufacturer of innovative analog and mixed-signal products and technologies. Pursuant to the Agreement and Plan of Merger, dated as of July 12, 2020 (the Merger Agreement), Maxim stockholders received, for each outstanding share of Maxim common stock, 0.6300 of a share of the Company's common stock as of the Acquisition Date for total consideration of approximately \$28.0 billion of the Company's common stock. The acquisition of Maxim is referred to as the Acquisition. The consolidated financial statements included in this Annual Report on Form 10-K include the financial results of Maxim prospectively from the Acquisition Date. See Note 6, *Acquisitions*, of the Notes to Consolidated Financial Statements for additional information.

b. Cash and Cash Equivalents

Cash and cash equivalents are highly liquid investments with insignificant interest rate risk and maturities of ninety days or less at the time of acquisition. Cash and cash equivalents consist primarily of government and institutional money market funds, corporate obligations such as commercial paper and floating rate notes, bonds, demand deposit accounts and bank time deposits.

The Company classifies its investments in readily marketable debt and equity securities as "held-to-maturity," "available-for-sale" or "trading" at the time of purchase. There were no transfers between investment classifications in any of the fiscal years presented. Held-to-maturity securities, which are carried at amortized cost, include only those securities the Company has the positive intent and ability to hold to maturity. Securities such as bank time deposits, which by their nature are typically held to maturity, are classified as such. The Company's other readily marketable cash equivalents are classified as available-for-sale. Available-for-sale securities are carried at fair value with unrealized gains and losses, net of related tax, reported in accumulated other comprehensive (loss) income (AOCI). Adjustments to the fair value of investments classified as available-for-sale are recorded as an increase or decrease in AOCI, unless the adjustment is considered an other-than-temporary impairment, in which case the adjustment is recorded as a charge in the Consolidated Statements of Income.

The Company periodically evaluates its investments for impairment. There were no other-than-temporary impairments of investments in any of the fiscal years presented.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Realized gains or losses on investments are determined based on the specific identification basis and are recognized in nonoperating (income) expense. There were no material net realized gains or losses from the sales of available-for-sale investments during any of the fiscal periods presented.

The components of the Company's cash and cash equivalents as of October 29, 2022 and October 30, 2021 were as follows:

	2022	2021
Cash	\$ 1,016,027	\$ 1,314,967
Available-for-sale securities	454,545	662,997
Total cash and cash equivalents	<u>\$ 1,470,572</u>	<u>\$ 1,977,964</u>

See Note 2j, *Fair Value*, of the Notes to Consolidated Financial Statements for additional information on the Company's cash equivalents.

c. Supplemental Cash Flow Statement Information

	2022	2021	2020
Cash paid during the fiscal year for:			
Income taxes	\$ 821,683	\$ 388,115	\$ 237,691
Interest	\$ 172,957	\$ 197,841	\$ 185,854
Noncash issuance of common stock for the Acquisition	\$ —	\$ 27,754,161	\$ —
Fair value of partially vested equity replacement awards issued for the Acquisition	\$ —	\$ 194,890	\$ —

d. Inventories

Inventories are valued at the lower of cost (first-in, first-out method) or net realizable value. The valuation of inventory requires the Company to estimate obsolete or excess inventory as well as inventory that is not of saleable quality. The Company employs a variety of methodologies to determine the net realizable value of its inventory. While a portion of the calculation to record inventory at its net realizable value is based on the age of the inventory and lower of cost or net realizable value calculations, a key factor in estimating obsolete or excess inventory requires the Company to estimate the future demand for its products. If actual demand is less than the Company's estimates, impairment charges, which are recorded to cost of sales, may need to be recorded in future periods. Inventory in excess of saleable amounts is not valued, and the remaining inventory is valued at the lower of cost or net realizable value.

Inventories at October 29, 2022 and October 30, 2021 were as follows:

	2022	2021
Raw materials	\$ 110,908	\$ 71,639
Work in process	904,648	858,627
Finished goods	384,358	270,344
Total inventories	<u>\$ 1,399,914</u>	<u>\$ 1,200,610</u>

e. Property, Plant and Equipment

The following table presents details of the Company's property, plant and equipment (PP&E), net of accumulated depreciation:

	2022	2021
Land and buildings	\$ 1,459,981	\$ 1,392,364
Machinery and equipment	3,817,812	3,210,879
Office equipment	152,858	164,431
Leasehold improvements	118,856	167,623
	<u>5,549,507</u>	<u>4,935,297</u>
Less accumulated depreciation and amortization	3,148,203	2,956,246
Net property, plant and equipment	<u>\$ 2,401,304</u>	<u>\$ 1,979,051</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

PP&E is recorded at cost, less allowances for depreciation. The straight-line method of depreciation is used for all classes of assets for financial statement purposes while both straight-line and accelerated methods are used for income tax purposes. Leasehold improvements are depreciated over the lesser of the term of the lease or the useful life of the asset. Repairs and maintenance charges are expensed as incurred. Depreciation is based on the following ranges of estimated useful lives:

Buildings	Up to 30 years
Machinery & equipment	3-10 years
Office equipment	3-10 years
Leasehold improvements	7-20 years

The Company reviews PP&E for impairment whenever events or changes in circumstances indicate that the carrying amount of assets may not be recoverable. Recoverability of these assets is determined by comparison of their carrying amount to the future undiscounted cash flows the assets are expected to generate over their remaining economic lives. If such assets are considered to be impaired, the impairment to be recognized in earnings equals the amount by which the carrying value of the assets exceeds their fair value determined by either a quoted market price, if any, or a value determined by utilizing a discounted cash flow technique. If such assets are not impaired, but their useful lives have decreased, the remaining net book value is depreciated over the revised useful life.

PP&E is identified as held for sale when it meets the held for sale criteria of Accounting Standards Codification Topic 360, *Property, Plant, and Equipment* (ASC 360). Depreciation is not recorded for assets that are classified as held for sale. When an asset meets the held for sale criteria, the lower of its carrying value or fair value less costs to sell is reclassified from the relevant PP&E line items and into current assets on the balance sheet, where it remains until it is either sold or it no longer meets the held for sale criteria. If the assets held for sale were carried at fair value, it would be considered a Level 3 fair value measurement, and determined based on the use of appraisals and input from market participants.

f. Goodwill and Intangible Assets

Goodwill

The Company evaluates goodwill for impairment annually, as well as whenever events or changes in circumstances suggest that the carrying value of goodwill may not be recoverable, utilizing either the qualitative or quantitative method. The Company tests goodwill for impairment at the reporting unit level, which the Company has determined is consistent with its identified operating segments, on an annual basis on the first day of the fourth quarter (on or about July 31) or more frequently if indicators of impairment exist or the Company reorganizes its operating segments or reporting units.

The Company has the option to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its net book value. When using the qualitative method, the Company considers several factors, including the following:

- the amount by which the fair values of each reporting unit exceeded their carrying values as of the date of the most recent quantitative impairment analysis, which indicated there would need to be substantial negative developments in the markets in which these reporting units operate in order for there to be potential impairment;
- the carrying values of these reporting units as of the assessment date compared to the previously calculated fair values as of the date of the most recent quantitative impairment analysis;
- the Company's current forecasts as compared to the forecasts included in the most recent quantitative impairment analysis;
- public information from competitors and other industry information to determine if there were any significant adverse trends in the Company's competitors' businesses;
- changes in the value of major U.S. stock indices that could suggest declines in overall market stability that could impact the valuation of the Company's reporting units;
- changes in the Company's market capitalization and overall enterprise valuation to determine if there were any significant decreases that could be an indication that the valuation of its reporting units had significantly decreased; and
- whether there had been any significant increases to the weighted-average cost of capital rates for each reporting unit, which could materially lower the Company's prior valuation conclusions under a discounted cash flow approach.

If the Company elects not to use this option, or it determines that it is more likely than not that the fair value of a reporting unit is less than its net book value, then the Company performs the quantitative goodwill impairment test. The quantitative goodwill impairment test requires an entity to compare the fair value of a reporting unit with its carrying amount. If

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

fair value is determined to be less than carrying value, an impairment loss is recognized for the amount of the carrying value that exceeds the amount of the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. Additionally, the Company considers income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss, if applicable. Management determines the fair values of the reporting units using a weighting of the income and market approaches. Under the income approach, it uses a discounted cash flow methodology, which requires management to make significant estimates and assumptions related to forecasted revenues, gross profit margins, operating income margins, working capital cash flow, perpetual growth rates and long-term discount rates, among others. For the market approach, it uses the guideline public company method. Under this method management utilizes information from comparable publicly traded companies with similar operating and investment characteristics as the reporting units, to create valuation multiples that are applied to the operating performance of the reporting unit being tested, in order to obtain its respective fair value. In order to assess the reasonableness of the calculated values, the aggregate fair values of the reporting units are reconciled to the Company's total market capitalization, allowing for a reasonable control premium.

In fiscal 2022, the Company used a combination of the qualitative and quantitative methods of assessing goodwill for the Company's reporting units. In fiscal 2021, the Company used the quantitative method of assessing goodwill for the Company's reporting units. In all periods presented, management concluded the reporting units' fair values exceeded their carrying amounts as of the assessment dates and no risk of impairment existed.

The Company's next annual impairment assessment will be performed as of the first day of the fourth quarter of the fiscal year ending October 28, 2023 (fiscal 2023) unless indicators arise that would require the Company to reevaluate at an earlier date.

The following table presents the changes in goodwill during fiscal 2022 and fiscal 2021:

	2022	2021
Balance at beginning of year	\$ 26,918,470	\$ 12,278,425
Acquisition of Maxim (Note 6)	15,267	14,645,076
Foreign currency translation adjustment and other adjustments	(20,603)	(5,031)
Balance at end of year	<u>\$ 26,913,134</u>	<u>\$ 26,918,470</u>

Intangible Assets

The Company reviews finite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value of assets may not be recoverable. If required, recoverability of these assets is determined by comparison of their carrying value to the estimated future undiscounted cash flows the assets are expected to generate over their remaining estimated useful lives. If such assets are considered to be impaired, the impairment to be recognized in earnings equals the amount by which the carrying value of the assets exceeds their estimated fair value determined by either a quoted market price, if any, or a value determined by utilizing a discounted cash flow technique.

In-process research and development (IPR&D) assets are considered indefinite-lived intangible assets until completion or abandonment of the associated research and development (R&D) efforts. Upon completion of the projects, the IPR&D assets are reclassified to technology-based intangible assets and amortized over their estimated useful lives.

As of October 29, 2022 and October 30, 2021, the Company's intangible assets consisted of the following:

	October 29, 2022		October 30, 2021	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Customer relationships	\$ 10,335,903	\$ 3,011,889	\$ 10,336,477	\$ 2,191,729
Technology-based	7,555,708	1,804,596	7,559,503	819,204
Trade-name	72,200	58,117	72,200	47,803
Backlog	361,200	213,346	361,200	32,746
Assembled workforce	1,800	1,679	1,800	750
IPR&D	28,222	—	28,222	—
Total (1)	<u>\$ 18,355,033</u>	<u>\$ 5,089,627</u>	<u>\$ 18,359,402</u>	<u>\$ 3,092,232</u>

(1) Foreign intangible asset carrying amounts are affected by foreign currency translation.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Amortization expense related to intangible assets was \$2,014.2 million, \$843.4 million and \$577.1 million in fiscal 2022, 2021 and 2020, respectively, and is recorded in Cost of sales and Amortization of intangibles on the Consolidated Statements of Income. The remaining amortization expense will be recognized over the remaining weighted average life of approximately 4.5 years.

The Company expects annual amortization expense for intangible assets as follows:

<u>Fiscal Year</u>	<u>Amortization Expense</u>	
2023	\$	1,955,394
2024	\$	1,732,867
2025	\$	1,572,000
2026	\$	1,522,480
2027	\$	1,520,586

g. Grant Accounting

Certain of the Company's subsidiaries have received grants from governmental agencies. These grants include capital, employment and research and development grants. Capital grants for the acquisition of property, plant and equipment are netted against the related capital expenditures and amortized as a credit to depreciation expense over the estimated useful life of the related asset. Employment grants, which relate to employee hiring and training, and research and development grants are recognized in earnings in the period in which the related expenditures are incurred by the Company.

h. Translation of Foreign Currencies

The functional currency for certain of the Company's foreign operations is the applicable local currency. Gains and losses resulting from translation of these foreign currencies into U.S. dollars are recorded in AOCI. Transaction gains and losses and re-measurement of foreign currency denominated assets and liabilities are included in income currently, including those at the Company's principal foreign manufacturing operations where the functional currency is the U.S. dollar. Foreign currency transaction gains or losses are included in Other, net in the Consolidated Statements of Income.

i. Derivative Instruments and Hedging Agreements

Foreign Exchange Exposure Management — The Company enters into forward foreign currency exchange contracts to offset certain operational and balance sheet exposures from the impact of changes in foreign currency exchange rates. Such exposures result from the portion of the Company's operations, assets and liabilities that are denominated in currencies other than the U.S. dollar, primarily the Euro; other significant exposures include the British Pound, Philippine Peso, Thai Baht, Malaysian Ringgit and the Japanese Yen. Derivative instruments are employed to eliminate or minimize certain foreign currency exposures that can be confidently identified and quantified. These foreign currency exchange contracts are entered into to support transactions made in the normal course of business, and accordingly, are not speculative in nature. The contracts are for periods consistent with the terms of the underlying transactions, generally one year or less. Hedges related to anticipated transactions are matched with the underlying exposures at inception and designated and documented as cash flow hedges. They are qualitatively evaluated for effectiveness on a quarterly basis. The gain or loss on the derivatives are reported as a component of AOCI in shareholders' equity and reclassified into earnings in the same line item on the Consolidated Statements of Income as the impact of the hedged transaction in the same period during which the hedged transaction affects earnings.

The total notional amounts of forward foreign currency derivative instruments designated as hedging instruments of cash flow hedges as of October 29, 2022 and October 30, 2021 was \$307.1 million and \$343.6 million, respectively. The fair values of forward foreign currency derivative instruments designated as hedging instruments in the Company's Consolidated Balance Sheets as of October 29, 2022 and October 30, 2021 were as follows:

	<u>Balance Sheet Location</u>	<u>Fair Value At</u>	
		<u>October 29, 2022</u>	<u>October 30, 2021</u>
Forward foreign currency exchange contracts	Accrued liabilities	\$ 18,050	\$ 7,113

Additionally, the Company enters into forward foreign currency contracts that economically hedge the gains and losses generated by the re-measurement of certain recorded assets and liabilities in a non-functional currency. Changes in the fair value of these undesignated hedges are recognized in other (income) expense immediately as an offset to the changes in the fair value of the asset or liability being hedged. As of October 29, 2022 and October 30, 2021, the total notional amount of these undesignated hedges was \$246.4 million and \$120.0 million, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The Company estimates that \$12.9 million, net of tax, of losses of forward foreign currency derivative instruments included in AOCI will be reclassified into earnings within the next 12 months.

All of the Company's derivative financial instruments are eligible for netting arrangements that allow the Company and its counterparties to net settle amounts owed to each other. Derivative assets and liabilities that can be net settled under these arrangements have been presented in the Company's Consolidated Balance Sheets on a net basis. As of October 29, 2022 and October 30, 2021, none of the netting arrangements involved collateral.

The following table presents the gross amounts of the Company's forward foreign currency exchange contracts and the net amounts recorded in the Company's Consolidated Balance Sheets as of October 29, 2022 and October 30, 2021:

	October 29, 2022	October 30, 2021
Gross amount of recognized liabilities	\$ (19,846)	\$ (8,404)
Gross amounts of recognized assets	2,862	319
Net liabilities offset and presented in the Consolidated Balance Sheets	\$ (16,984)	\$ (8,085)

Interest Rate Exposure Management — The Company's current and future debt may be subject to interest rate risk. The Company utilizes interest rate derivatives to alter interest rate exposure in an attempt to reduce the effects of the changes in interest rates. During fiscal 2019, the Company entered into an interest rate swap agreement which locked in the interest rate for up to \$1 billion in future debt issuances. The interest rate swap was designated and qualified as a cash flow hedge. During fiscal 2021, the Company issued \$1 billion of 2.100% Senior Notes due October 2031, and the swap was cash terminated in the amount of \$153.2 million. The accumulated loss recorded in AOCI will be reclassified to interest expense on a straight-line basis over the 10-year term of such Senior Notes.

The market risk associated with the Company's derivative instruments results from currency exchange rate or interest rate movements that are expected to offset the market risk of the underlying transactions, assets and liabilities being hedged. The counterparties to the agreements relating to the Company's derivative instruments consist of a number of major international financial institutions with high credit ratings. Based on the credit ratings of the Company's counterparties as of October 29, 2022 and October 30, 2021, nonperformance is not perceived to be a material risk. Furthermore, none of the Company's derivatives are subject to collateral or other security arrangements and none contain provisions that are dependent on the Company's credit ratings from any credit rating agency. While the contract or notional amounts of derivative financial instruments provide one measure of the volume of these transactions, they do not represent the amount of the Company's exposure to credit risk. The amounts potentially subject to credit risk (arising from the possible inability of counterparties to meet the terms of their contracts) are generally limited to the amounts, if any, by which the counterparties' obligations under the contracts exceed the obligations of the Company to the counterparties. As a result of the above considerations, the Company does not consider the risk of counterparty default to be significant.

The Company records the fair value of its derivative financial instruments in its Consolidated Financial Statements in other current assets, other assets, accrued liabilities and other non-current liabilities, depending on their net position, regardless of the purpose or intent for holding the derivative contract. Changes in the fair value of the derivative financial instruments are either recognized periodically in earnings or in shareholders' equity as a component of AOCI. Changes in the fair value of cash flow hedges are recorded in AOCI and reclassified into earnings in the same line item on the Consolidated Statements of Income as the impact of the hedged transaction when the underlying contract matures. Changes in the fair values of derivatives not qualifying for hedge accounting are reported in earnings as they occur.

For information on the unrealized holding gains (losses) on derivatives included in and reclassified out of AOCI into the Consolidated Statements of Income related to forward foreign currency exchange contracts, see Note 2o, *Accumulated Other Comprehensive (Loss) Income*, of the Notes to Consolidated Financial Statements.

j. Fair Value

The Company defines fair value as the price that would be received to sell an asset or be paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company applies the following fair value hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

Level 1 — Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Level 2 — Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 — Level 3 inputs are unobservable inputs for the asset or liability in which there is little, if any, market activity for the asset or liability at the measurement date.

The tables below, set forth by level, presents the Company's financial assets and liabilities, excluding accrued interest components, that were accounted for at fair value on a recurring basis as of October 29, 2022 and October 30, 2021. The tables exclude cash on hand and assets and liabilities that are measured at historical cost or any basis other than fair value. As of October 29, 2022 and October 30, 2021, the Company held \$1,016.0 million and \$1,315.0 million, respectively, of cash that was excluded from the tables below.

	October 29, 2022		
	Fair Value measurement at Reporting Date using:		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total
Assets			
Cash equivalents:			
Available-for-sale:			
Government and institutional money market funds	\$ 454,545	\$ —	\$ 454,545
Other assets:			
Deferred compensation investments	63,211	—	63,211
Total assets measured at fair value	\$ 517,756	\$ —	\$ 517,756
Liabilities			
Forward foreign currency exchange contracts (1)	\$ —	\$ 16,984	\$ 16,984
Total liabilities measured at fair value	\$ —	\$ 16,984	\$ 16,984

(1) The Company has master netting arrangements by counterparty with respect to derivative contracts. See Note 2i, *Derivative Instruments and Hedging Agreements*, of the Notes to Consolidated Financial Statements for more information related to the Company's master netting arrangements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	October 30, 2021		
	Fair Value measurement at Reporting Date using:		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total
Assets			
Cash equivalents:			
Available-for-sale:			
Government and institutional money market funds	\$ 662,997	\$ —	\$ 662,997
Other assets:			
Deferred compensation investments	71,301	—	71,301
Total assets measured at fair value	<u>\$ 734,298</u>	<u>\$ —</u>	<u>\$ 734,298</u>
Liabilities			
Forward foreign currency exchange contracts (1)	\$ —	\$ 8,085	\$ 8,085
Total liabilities measured at fair value	<u>\$ —</u>	<u>\$ 8,085</u>	<u>\$ 8,085</u>

(1) The Company has master netting arrangements by counterparty with respect to derivative contracts. See Note 2i, *Derivative Instruments and Hedging Agreements*, of the Notes to Consolidated Financial Statements for more information related to the Company's master netting arrangements.

The following methods and assumptions were used by the Company in estimating its fair value disclosures for financial instruments:

Cash equivalents — These investments are adjusted to fair value based on quoted market prices or are determined using a yield curve model based on current market rates.

Deferred compensation plan investments — The fair value of these mutual fund, money market fund and equity investments are based on quoted market prices.

Forward foreign currency exchange contracts — The estimated fair value of forward foreign currency exchange contracts, which includes derivatives that are accounted for as cash flow hedges and those that are not designated as cash flow hedges, is based on the estimated amount the Company would receive if it sold these agreements at the reporting date taking into consideration current exchange rates as well as the creditworthiness of the counterparty for assets and the Company's creditworthiness for liabilities. The fair value of these instruments is based upon valuation models using current market information such as strike price, spot rate, forward points, and maturity date.

Financial Instruments Not Recorded at Fair Value on a Recurring Basis

Santa Clara, California leased property asset group - As a result of a sublease transaction involving a leased property in Santa Clara, California during the third quarter of 2022, the Company estimated the fair value of the sublease assets using discounted cash flows from the estimated net sublease rental income discounted at a market rate and recorded an impairment charge which represented the excess carrying value of the asset group associated with the Santa Clara, California leased property over its estimated fair value. These assets are considered a Level 2 fair value measurement. See Note 5, *Special Charges, Net*, of the Notes to Consolidated Financial Statements for additional information.

Debt — The table below presents the estimated fair value of certain financial instruments not recorded at fair value on a recurring basis. The fair values of the senior unsecured notes are obtained from broker prices and are classified as Level 1 measurements according to the fair value hierarchy. See Note 14, *Debt*, of the Notes to Consolidated Financial Statements for further discussion related to outstanding debt.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	October 29, 2022		October 30, 2021	
	Principal Amount Outstanding	Fair Value	Principal Amount Outstanding	Fair Value
Maxim 2023 Notes, due March 2023	\$ —	\$ —	\$ 500,000	\$ 520,236
2024 Notes, due October 2024	500,000	491,982	500,000	500,482
2025 Notes, due April 2025	400,000	383,378	400,000	423,265
2026 Notes, due December 2026	900,000	851,479	900,000	986,243
Maxim 2027 Notes, due June 2027	59,788	54,771	500,000	542,942
2027 Notes, due June 2027	440,212	410,091	—	—
2028 Notes, due October 2028	750,000	621,093	750,000	743,109
2031 Notes, due October 2031	1,000,000	786,772	1,000,000	996,702
2032 Notes, due October 2032	300,000	278,359	—	—
2036 Notes, due December 2036	144,278	126,274	144,278	176,960
2041 Notes, due October 2041	750,000	513,709	750,000	758,246
2045 Notes, due December 2045	332,587	313,931	332,587	469,592
2051 Notes, due October 2051	1,000,000	640,766	1,000,000	1,029,830
Total Debt	\$ 6,576,865	\$ 5,472,605	\$ 6,776,865	\$ 7,147,607

k. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingencies at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Such estimates relate to the useful lives of fixed assets and identified intangible assets; allowances for doubtful accounts and customer returns; the net realizable value of inventory; potential reserves relating to litigation matters; accrued liabilities, including estimates of variable consideration related to distributor sales; accrued taxes; uncertain tax positions; deferred tax valuation allowances; assumptions pertaining to stock-based compensation payments and defined benefit plans; and fair value of acquired assets and liabilities, including inventory, property, plant and equipment, goodwill, and acquired intangibles; and other reserves. Actual results could differ from those estimates and such differences may be material to the financial statements.

l. Concentrations of Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of investments and trade accounts receivable.

The Company maintains cash and cash equivalents with high credit quality counterparties, continuously monitors the amount of credit exposure to any one issuer and diversifies its investments in order to minimize its credit risk.

The Company sells its products to distributors and original equipment manufacturers (OEMs) involved in a variety of industries including industrial, communications, automotive and consumer end markets. The Company has adopted credit policies and standards to accommodate growth in these markets. The Company performs continuing credit evaluations of its customers' financial condition and although the Company generally does not require collateral, the Company may require letters of credit from customers in certain circumstances. The Company provides reserves for estimated amounts of accounts receivable that may not be collected.

The Company's largest customer, which is a distributor rather than an end customer, accounted for approximately 22%, 26%, and 29% of net revenues in fiscal 2022, fiscal 2021 and fiscal 2020, respectively. The Company's next largest customer, which is also a distributor, accounted for approximately 10% and 11% of net revenues in fiscal 2022 and fiscal 2021, respectively. This next largest customer accounted for less than 10% of net revenues in fiscal 2020. No other customer accounted for greater than 10% of revenue in any period presented.

m. Concentration of Other Risks

The semiconductor industry is characterized by rapid technological change, competitive pricing pressures and cyclical market patterns. The Company's financial results are affected by a wide variety of factors, including general economic conditions worldwide, economic conditions specific to the semiconductor industry, the timely implementation of new

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

manufacturing technologies, the ability to safeguard patents and intellectual property in a rapidly evolving market and reliance on assembly and test subcontractors, third-party wafer fabricators and independent distributors. In addition, the semiconductor market has historically been cyclical and subject to significant economic downturns at various times. The Company is exposed to the risk of obsolescence of its inventory depending on the mix of future business. Additionally, more than half of the Company's purchases of external wafer and foundry services are from a limited number of suppliers, such as Taiwan Semiconductor Manufacturing Company (TSMC) and others. If these suppliers or any of the Company's other key suppliers are unable or unwilling to manufacture and deliver sufficient quantities of components, on the time schedule and of the quality that the Company requires, the Company may be forced to engage additional or replacement suppliers, which could result in significant expenses and disruptions or delays in manufacturing, product development and shipment of product to the Company's customers. Given the current demand environment in the semiconductor industry, the Company expects to face a constrained supply environment in the near term. Management is working to balance these constraints as it shifts the Company's global resources and adds capacity where appropriate.

n. Revenue Recognition

Recognition of revenue occurs when a customer obtains control of promised goods or services in an amount that reflects the consideration to which the providing entity expects to be entitled in exchange for those goods or services. The Company recognizes revenue upon transfer of control of promised products or services to customers in an amount that reflects the consideration the Company expects to receive in exchange for those products or services. The Company recognizes revenue when all of the following criteria are met: (1) the Company has entered into a binding agreement, (2) the performance obligations have been identified, (3) the transaction price to the customer has been determined, (4) the transaction price has been allocated to the performance obligations in the contract, and (5) the performance obligations have been satisfied. The majority of the Company's shipping terms permit the Company to recognize revenue at point of shipment or delivery. Certain shipping terms require the goods to be through customs or be received by the customer before title passes. In those instances, the Company defers the revenue recognized until title has passed. Shipping costs are charged to selling, marketing, general and administrative expense as incurred. Sales taxes are excluded from revenue.

Revenue from contracts with the United States government, government prime contractors and certain commercial customers is recorded over time using either units delivered or costs incurred as the measurement basis for progress toward completion. These measures are used to measure results directly and is generally the best measure of progress toward completion in circumstances in which a reliable measure of output can be established. Estimated revenue in excess of amounts billed is reported as unbilled receivables. Contract accounting requires judgment in estimating costs and assumptions related to technical issues and delivery schedule. Contract costs include material, subcontract costs, labor and an allocation of indirect costs. The estimation of costs at completion of a contract is subject to numerous variables involving contract costs and estimates as to the length of time to complete the contract. Changes in contract performance, estimated gross margin, including the impact of final contract settlements, and estimated losses are recognized in the period in which the changes or losses are determined.

Performance Obligations: Substantially all of the Company's contracts with customers contain a single performance obligation, the sale of mixed-signal integrated circuit products. Such sales represent a single performance obligation because the sale is one type of good or includes multiple goods that are neither capable of being distinct nor separable from the other promises in the contract. This performance obligation is satisfied when control of the product is transferred to the customer, which occurs upon shipment or delivery. Unsatisfied performance obligations primarily represent contracts for products with future delivery dates and with an original expected duration of one year or less. The Company generally offers a twelve-month warranty for its products. The Company's warranty policy provides for replacement of defective products. Specific accruals are recorded for known product warranty issues. Product warranty expenses during fiscal 2022, fiscal 2021 and fiscal 2020 were not material.

Transaction Price: The transaction price reflects the Company's expectations about the consideration it will be entitled to receive from the customer and may include fixed or variable amounts. Fixed consideration primarily includes sales to direct customers and sales to distributors in which both the sale to the distributor and the sale to the end customer occur within the same reporting period. Variable consideration includes sales in which the amount of consideration that the Company will receive is unknown as of the end of a reporting period. The vast majority of such consideration are credits issued to the distributor due to price protection, but also include sales made to distributors under agreements that allow certain rights of return, referred to as stock rotation. Price protection represents price discounts granted to certain distributors to allow the distributor to earn an appropriate margin on sales negotiated with certain customers and in the event of a price decrease subsequent to the date the product was shipped and billed to the distributor. Stock rotation allows distributors limited levels of returns in order to reduce the amounts of slow-moving, discontinued or obsolete product from their inventory. A liability for distributor credits covering variable consideration is made based on the Company's estimate of historical experience rates as well as considering economic conditions and contractual terms. To date, actual distributor claims activity has been materially

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

consistent with the provisions the Company has made based on its historical estimates. For fiscal 2022 and fiscal 2021, sales to distributors were approximately \$7.5 billion and \$4.6 billion, respectively, net of variable consideration for which the liability balances as of October 29, 2022 and October 30, 2021 were \$749.4 million and \$664.2 million, respectively, and were recorded in Accrued liabilities on the Consolidated Balance Sheets.

Contract Balances: Accounts receivable represents the Company's unconditional right to receive consideration from its customers. Payments are typically due within 30 to 45 days of invoicing and do not include a significant financing component. To date, there have been no material credit losses on accounts receivable. There were no material contract assets or contract liabilities recorded on the Consolidated Balance Sheets in any of the periods presented.

o. Accumulated Other Comprehensive (Loss) Income

AOCI includes certain transactions that have generally been reported in the Consolidated Statement of Shareholders' Equity. The changes in components of AOCI at October 29, 2022 and October 30, 2021 consisted of the following:

	Foreign currency translation adjustment	Unrealized holding gains/losses on derivatives	Pension plans	Total
October 30, 2021	\$ (25,795)	\$ (123,754)	\$ (37,016)	\$ (186,565)
Other comprehensive income before reclassifications	(46,341)	(33,233)	36,035	(43,539)
Amounts reclassified out of other comprehensive loss	—	39,526	2,334	41,860
Tax	—	(2,152)	(7,756)	(9,908)
Other comprehensive income	(46,341)	4,141	30,613	(11,587)
October 29, 2022	\$ (72,136)	\$ (119,613)	\$ (6,403)	\$ (198,152)

The amounts reclassified out of AOCI into the Consolidated Statements of Income, with presentation location during each period were as follows:

Comprehensive Income Component	2022	2021	Location
Changes in unrealized holding gains/losses on derivatives			
Currency forwards	\$ 9,474	\$ (2,682)	Cost of sales
	5,637	(1,622)	Research and development
	9,492	(958)	Selling, marketing, general and administrative
Interest rate derivatives	14,923	12,550	Interest expense
	39,526	7,288	Total before tax
	(5,054)	(189)	Tax
	<u>\$ 34,472</u>	<u>\$ 7,099</u>	Net of tax
Amortization of pension components included in the computation of net periodic benefit cost			
Actuarial losses	2,334	2,979	(1)
	(361)	339	Tax
	<u>\$ 1,973</u>	<u>\$ 3,318</u>	Net of tax
Total amounts reclassified out of AOCI, net of tax	<u>\$ 36,445</u>	<u>\$ 10,417</u>	

- (1) The amortization of pension components is included in the computation of net periodic benefit cost. See Note 11, *Retirement Plans*, of the Notes to Consolidated Financial Statements for further information.

p. Income Taxes

The Company makes certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of income tax credits, benefits, and deductions, and in the calculation of certain tax assets and liabilities, which arise from differences in the timing of the recognition of certain expenses for tax and financial statement purposes. The likelihood of the realization of deferred tax assets is assessed and a corresponding valuation allowance is recorded as necessary if management determines those deferred tax assets may not be realized due to the uncertainty of the timing and amount to be realized of certain state and international tax credit carryovers. In reaching this conclusion, the Company evaluates certain relevant criteria including the existence of deferred tax liabilities that can be used to realize deferred tax assets, the taxable income in prior carryback years in the impacted state and international jurisdictions that can be used to absorb net operating losses and taxable income in future years. Judgments regarding future profitability may change due to future market conditions, changes in U.S. or international tax laws and other factors. These changes, if any, may require material adjustments to these deferred tax assets, which may result in an increase or decrease to the income tax provision in future periods.

The Company accounts for uncertain tax positions by first determining if it is “more likely than not” that a tax position will be sustained by the appropriate taxing authorities prior to recording any benefit in the Consolidated Financial Statements. An uncertain income tax position is not recognized if it has less than a 50% likelihood of being sustained. For those tax positions where it is more likely than not that a tax position will be sustained, the Company has recorded the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, no tax benefit has been recognized in the financial statements. Management classifies interest and penalties related to uncertain tax positions within the provision for (benefit from) income taxes line of the Consolidated Statements of Income. Management reevaluates these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in known facts or circumstances, changes in tax law, effectively settled issues under audit, and new guidance on legislative interpretations. A change in these factors could result in the recognition of an increase or decrease to the Company's income tax provision which could materially impact its consolidated financial position and results of operations.

In the ordinary course of global business, there are many transactions and calculations where the ultimate tax outcome is uncertain. Some of these uncertainties arise as a consequence of cost reimbursement and royalty arrangements among related entities. Although the Company believes its estimates are reasonable, no assurance can be given that the final tax outcome of these matters will not be different than that which is reflected in the historical income tax provisions and income tax liabilities. In the event management's assumptions are incorrect, the differences could have a material impact on its income tax provision and operating results in the period in which such determination is made. In addition to the factors described above, the current and expected effective tax rate is based on then-current tax law. Significant changes in enacted tax law could affect these estimates. See Note 12, *Income Taxes*, of the Notes to Consolidated Financial Statements for further information related to income taxes.

q. Earnings Per Share of Common Stock

Basic earnings per share is computed based only on the weighted average number of common shares outstanding during the period. Diluted earnings per share is computed using the weighted average number of common shares outstanding during the period, plus the dilutive effect of potential future issuances of common stock relating to stock option programs and other potentially dilutive securities using the treasury stock method. In calculating diluted earnings per share, the dilutive effect of stock options and restricted stock units is computed using the average market price for the respective period. In addition, the assumed proceeds under the treasury stock method include the average unrecognized compensation expense of stock options that are in-the-money and restricted stock units. This results in the “assumed” buyback of additional shares, thereby reducing the dilutive impact of in-the-money stock options. Potential shares related to certain of the Company's outstanding stock options and restricted stock units were excluded because they were anti-dilutive. Those potential shares, determined based on the weighted average exercise prices during the respective periods, could be dilutive in the future.

In connection with the acquisition of Linear Technology Corporate (Linear), the Company granted restricted stock awards to replace outstanding restricted stock awards of Linear employees. These restricted stock awards entitle recipients to voting and nonforfeitable dividend rights from the date of grant. These unvested stock-based compensation awards are considered participating securities and the two-class method is used for purposes of calculating earnings per share. Under the two-class method, a portion of net income is allocated to these participating securities and therefore is excluded from the calculation of earnings per share allocated to common stock, as shown in the table below. The difference between the income allocated to participating securities under the basic and diluted two-class methods is not material.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table sets forth the computation of basic and diluted earnings per share:

	2022	2021	2020
Net income (1)	\$ 2,748,561	\$ 1,390,422	\$ 1,220,761
Basic shares:			
Weighted-average shares outstanding	519,226	397,462	368,633
Earnings per common share basic	\$ 5.29	\$ 3.50	\$ 3.31
Diluted shares:			
Weighted-average shares outstanding	519,226	397,462	368,633
Assumed exercise of common stock equivalents	3,952	3,826	3,340
Weighted-average common and common equivalent shares	523,178	401,288	371,973
Earnings per common share diluted	\$ 5.25	\$ 3.46	\$ 3.28
Anti-dilutive shares related to:			
Outstanding stock options	608	424	460

(1) For all fiscal years presented, income allocated to participating securities is not material.

r. Stock-Based Compensation

Stock-based compensation is measured at the grant date based on the grant-date fair value of the awards ultimately expected to vest and is recognized as an expense on a straight-line basis over the vesting period, which is generally four years for stock options and restricted stock units, or in annual installments of 25% on each of the first, second, third and fourth anniversaries of the date of grant. Restricted stock units with service and performance or market conditions generally vest in one installment on the third anniversary of the date of grant. For grants issued prior to fiscal 2018, the vesting period was generally five years for stock options, or in annual installments of 20% on each of the first, second, third, fourth and fifth anniversaries of the date of grant and in one installment on the third anniversary of the date of grant for restricted stock units/awards. The maximum contractual term of all stock options is ten years.

Determining the amount of stock-based compensation expense to be recorded requires the Company to develop estimates used in calculating the grant-date fair value of awards. These estimates may be based on different valuation models depending upon the type of award and may include assumptions, such as expected volatility, expected term, risk-free interest rate, expected dividend yield, forfeiture rate and others. The Company uses the Black-Scholes valuation model to calculate the grant-date fair value of stock option awards. The grant-date fair value of restricted stock units with a service condition and restricted stock units with both service and performance conditions is calculated using the value of the Company's common stock on the date of grant, reduced by the present value of dividends expected to be paid on the Company's common stock prior to vesting. For restricted stock units with both service and performance conditions, this grant-date fair value is also impacted by the number of units that are expected to vest during the performance period and is adjusted through the related stock-based compensation expense at each reporting period based on the probability of achievement of that performance condition. If the Company determines that an award is unlikely to vest, any previously recorded stock-based compensation expense is reversed in the period of that determination. The grant date fair value of restricted stock units and performance-based stock options with both service and market conditions is calculated using the Monte Carlo simulation model to estimate the probability of satisfying the performance condition stipulated in the award grant, including the possibility that the market condition may not be satisfied.

The fair value of shares to be issued under the Company's employee stock purchase plan (ESPP) is computed using the Black-Scholes model at the commencement of an offering period in June and December of each year. Stock-based compensation for the ESPP is expensed using an accelerated amortization model. Additionally, the Company estimates forfeitures at least annually based on historical experience and revises the estimates of forfeiture in subsequent periods if actual forfeitures differ from those estimates.

See Note 3, *Stock-Based Compensation and Shareholders' Equity*, of the Notes to Consolidated Financial Statements for additional information relating to stock-based compensation.

s. *New Accounting Pronouncements*

Standards Implemented During Fiscal 2022

Reference Rate Reform

In March 2020, the FASB issued ASU No. 2020-04, *Reference Rate Reform (Topic 848) - Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, which provides optional guidance for accounting for contracts, hedging relationships, and other transactions affected by reference rate reform, if certain criteria are met. The provisions of this standard are available for election through December 31, 2022. The Company adopted this standard in the first quarter of fiscal 2022 with no material impact on the Company's financial position and results of operations.

Standards to Be Implemented

Acquired Contract Assets and Contract Liabilities

In October 2021, the FASB issued ASU No. 2021-08, *Business Combinations (Topic 805): Accounting for Acquired Contract Assets and Contract Liabilities*. Under the new guidance (ASC 805-20-30-28), the acquirer should determine what contract assets and/or contract liabilities it would have recorded under ASC 606 (the revenue guidance) as of the acquisition date, as if the acquirer had entered into the original contract at the same date and on the same terms as the acquiree. The recognition and measurement of those contract assets and contract liabilities will likely be comparable to what the acquiree has recorded on its books under ASC 606 as of the acquisition date. ASU 2021-08 is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. ASU 2021-08 is effective for the Company in the first quarter of fiscal 2024. Early adoption is permitted, including in an interim period, for any period for which financial statements have not yet been issued. However, adoption in an interim period other than the first fiscal quarter requires an entity to apply the new guidance to all prior business combinations that have occurred since the beginning of the annual period in which the new guidance is adopted. The Company is currently evaluating the adoption date of ASU 2021-08 and the impact, if any, adoption will have on its financial position and results of operations.

3. Stock-Based Compensation and Shareholders' Equity

Equity Compensation Plans

The Company grants, or has granted, stock options and other stock and stock-based awards under the Company's 2020 Equity Incentive Plan (2020 Plan), which was approved by shareholders in March 2020. The 2020 Plan provides for the grant of up to 21.2 million shares of the Company's common stock, which includes shares under the Company's previous equity compensation plans, including the Amended and Restated 2006 Stock Incentive Plan and the Amended and Restated 2010 Equity Incentive Plan. The 2020 Plan provides for the grant of incentive stock options intended to qualify under Section 422 of the Internal Revenue Code of 1986, as amended, non-statutory stock options, stock appreciation rights, restricted stock, restricted stock units and other stock-based awards. Employees, officers, directors, consultants and advisors of the Company and its subsidiaries are eligible to be granted awards under the 2020 Plan. No award may be made under the 2020 Plan after March 11, 2030, but awards previously granted may extend beyond that date. The Company does not intend to grant further equity awards under any previous legacy equity compensation plans. In connection with the Acquisition, the Company assumed the Maxim 1996 Stock Incentive Plan (1996 Plan) and may grant stock options and other stock and stock-based awards under the 1996 Plan. As of October 29, 2022, a total of 16.8 million common shares were available for future grant under the 2020 Plan and 8.7 million common shares were available for future grant under the 1996 Plan.

Maxim Replacement Awards

In connection with the Acquisition, the Company issued equity awards, consisting of restricted stock awards and restricted stock units (replacement awards), to certain Maxim employees in replacement of Maxim equity awards. The replacement awards consist of restricted stock and restricted stock unit awards for approximately 3.7 million shares of the Company's common stock with a weighted average grant date fair value of \$161.63. The terms and intrinsic value of these replacement awards are substantially the same as the converted Maxim awards. The fair value of the replacement awards associated with services rendered through the Acquisition Date was recognized as a component of the total acquisition consideration, and the remaining fair value of the replacement awards associated with post-Acquisition services will be recognized as an expense on a straight-line basis over the remaining vesting period.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Modification of Awards

The Company has, from time to time, modified the terms of its equity awards to employees and directors. The modifications made to the Company's equity awards in fiscal 2022, fiscal 2021 and fiscal 2020 did not result in significant incremental compensation costs, either individually or in the aggregate.

Grant-Date Fair Value of Stock Options

Information pertaining to the Company's stock option awards and the related estimated weighted-average assumptions to calculate the fair value of stock options using the Black-Scholes valuation model granted in fiscal 2021 and fiscal 2020 is below. The Company did not grant stock option awards in fiscal 2022.

	2021	2020
Options granted (in thousands)	644	359
Weighted-average exercise price	\$145.04	\$94.41
Weighted-average grant-date fair value	\$33.35	\$18.81
Assumptions:		
Weighted-average expected volatility	35.3 %	29.5 %
Weighted-average expected term (in years)	5.0	5.0
Weighted-average risk-free interest rate	0.8 %	0.7 %
Weighted-average expected dividend yield	1.9 %	2.6 %

Expected volatility — The Company is responsible for estimating volatility and has considered a number of factors, including third-party estimates. The Company currently believes that the exclusive use of implied volatility results in the best estimate of the grant-date fair value of employee stock options because it reflects the market's current expectations of future volatility. In evaluating the appropriateness of exclusively relying on implied volatility, the Company concluded that: (1) options in the Company's common stock are actively traded with sufficient volume on several exchanges; (2) the market prices of both the traded options and the underlying shares are measured at a similar point in time to each other and on a date close to the grant date of the employee share options; (3) the traded options have exercise prices that are both near-the-money and close to the exercise price of the employee share options; and (4) the remaining maturities of the traded options used to estimate volatility are at least one year.

Expected term — The Company uses historical employee exercise and option expiration data to estimate the expected term assumption for the Black-Scholes grant-date valuation. The Company believes that this historical data is currently the best estimate of the expected term of a new option, and that generally its employees exhibit similar exercise behavior.

Risk-free interest rate — The yield on zero-coupon U.S. Treasury securities for a period that is commensurate with the expected term assumption is used as the risk-free interest rate.

Expected dividend yield — Expected dividend yield is calculated by annualizing the cash dividend declared by the Company's Board of Directors for the current quarter and dividing that result by the closing stock price on the date of grant. Until such time as the Company's Board of Directors declares a cash dividend for an amount that is different from the current quarter's cash dividend, the current dividend will be used in deriving this assumption. Cash dividends are not paid on options, restricted stock, replacement awards or restricted stock units. In connection with the acquisition of Linear, the Company granted restricted stock awards to replace outstanding restricted stock awards of Linear employees. These restricted stock awards specific to legacy Linear awards entitle recipients to voting and nonforfeitable dividend rights from the date of grant.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Employee Stock Purchase Plan (ESPP)

Beginning in fiscal 2022, the Company offers an ESPP to eligible employees, providing the opportunity to purchase shares of the Company's common stock at a discount through payroll deductions. Offering periods begin in June and December each year. U.S. employees are allowed to purchase the Company's common stock at the lesser of 85% of the fair market value of the common stock at either the beginning or end of the offering period. Eligible employees outside of the U.S. are allowed to purchase the Company's common stock at the lesser of 80% of the fair market value of the common stock at either the beginning or end of the offering period.

Stock-Based Compensation Expense

The amount of stock-based compensation expense recognized during a period is based on the value of the awards that are ultimately expected to vest. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The term "forfeitures" is distinct from "cancellations" or "expirations" and represents only the unvested portion of the surrendered stock-based award. Based on an analysis of its historical forfeitures, the Company has applied an annual forfeiture rate of 5.0% to all unvested stock-based awards as of October 29, 2022. This analysis will be re-evaluated annually and the forfeiture rate will be adjusted as necessary. Ultimately, the actual expense recognized over the vesting period will only be for those awards that vest.

Total stock-based compensation expense recognized is as follows:

	2022	2021	2020
Cost of sales	\$ 36,773	\$ 22,028	\$ 17,684
Research and development	121,298	86,820	73,366
Selling, marketing, general and administrative	133,900	80,099	56,838
Special charges, net	31,516	54,664	1,630
Total stock-based compensation expense	<u>\$ 323,487</u>	<u>\$ 243,611</u>	<u>\$ 149,518</u>

As of October 29, 2022 and October 30, 2021, the Company capitalized \$13.1 million and \$8.7 million, respectively, of stock-based compensation in inventory.

Stock-Based Compensation Activity

A summary of the activity under the Company's stock option plans as of October 29, 2022 and changes during the fiscal year then ended is presented below:

	Options Outstanding (in thousands)	Weighted- Average Exercise Price Per Share	Weighted- Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
Options outstanding at October 30, 2021	3,746	\$85.22		
Options exercised	(545)	\$62.16		
Options forfeited	(7)	\$97.94		
Options outstanding at October 29, 2022	<u>3,194</u>	\$89.13	4.9	\$178,511
Options exercisable at October 29, 2022	<u>2,351</u>	\$73.93	3.8	\$166,927
Options vested or expected to vest at October 29, 2022 (1)	<u>3,161</u>	\$88.67	4.9	\$178,134

(1) In addition to the vested options, the Company expects a portion of the unvested options to vest at some point in the future. The number of options expected to vest is calculated by applying an estimated forfeiture rate to the unvested options.

The total intrinsic value of options exercised (i.e., the difference between the market price at exercise and the price paid by the employee to exercise the options) during fiscal 2022, fiscal 2021 and fiscal 2020 was \$56.2 million, \$93.2 million and \$76.3 million, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

A summary of the Company's restricted stock unit and award activity as of October 29, 2022 and changes during the fiscal year then ended is presented below:

	Restricted Stock Units/Awards Outstanding (in thousands)	Weighted- Average Grant- Date Fair Value Per Share
Restricted stock units/awards outstanding at October 30, 2021	5,924	\$132.59
Units/Awards granted	2,173	\$154.46
Restrictions lapsed	(2,156)	\$128.19
Forfeited	(619)	\$139.12
Restricted stock units/awards outstanding at October 29, 2022	<u>5,322</u>	<u>\$142.54</u>

As of October 29, 2022, there was \$545.2 million of total unrecognized compensation cost related to unvested stock-based awards comprised of stock options, restricted stock awards and restricted stock unit awards. That cost is expected to be recognized over a weighted-average period of 1.4 years. The total grant-date fair value of awards that vested during fiscal 2022, fiscal 2021 and fiscal 2020 was approximately \$283.0 million, \$207.0 million and \$174.1 million, respectively.

Common Stock Repurchases

In fiscal 2021, the Company entered into accelerated share repurchase agreements (ASR) with third party financial institutions, paid \$2.5 billion and received an initial delivery of 12.3 million shares of common stock, which represented approximately 80% of the notional amount of the ASR. As of October 30, 2021, the Company recorded the remaining 20%, or \$500.0 million, within Prepaid expenses and other current assets on the Consolidated Balance Sheet, which was utilized during the first quarter of fiscal 2022. During the first quarter of fiscal 2022, the ASR was completed and an additional 2.1 million shares of common stock were received as final settlement of the ASR. In total, the Company repurchased 14.4 million shares of common stock under the ASR at an average price per share of \$173.77.

The Company's share repurchase program has been in place since August 2004. In the aggregate, the Board of Directors has authorized the Company to repurchase \$16.7 billion of the Company's common stock under the program, which includes the \$8.5 billion authorization approved by the Board of Directors on August 25, 2021. The Company may repurchase outstanding shares of its common stock from time to time in the open market and through privately negotiated transactions. Unless terminated earlier by resolution of the Company's Board of Directors, the repurchase program will expire when the Company has repurchased all shares authorized under the program. As of October 29, 2022, the Company had repurchased a total of approximately 189.6 million shares of its common stock for approximately \$11.7 billion under this program. An additional \$4.9 billion remains available for repurchase of shares under the current authorized program. The repurchased shares are held as authorized but unissued shares of common stock. Future repurchases of common stock will be dependent upon the Company's financial position, results of operations, outlook, liquidity, and other factors deemed relevant by the Company.

The Company also, from time to time, repurchases shares in settlement of employee tax withholding obligations due upon the vesting of restricted stock units/awards or the exercise of stock options. The withholding amount is based on the employee's minimum statutory withholding requirement. Any future common stock repurchases will be dependent upon several factors, including the Company's financial performance, outlook, liquidity and the amount of cash the Company has available in the United States.

Analog Devices Foundation

During the first quarter of fiscal 2020, the Company contributed 335,654 shares of its common stock to the Analog Devices Foundation. As of the date of the charitable contribution, the shares had a fair value of approximately \$40.0 million. This expense was recorded in Selling, marketing, general and administrative expense in the Consolidated Statement of Income.

Preferred Stock

The Company has 471,934 authorized shares of \$1.00 par value preferred stock, none of which is issued or outstanding. The Board of Directors is authorized to fix designations, relative rights, preferences and limitations on the preferred stock at the time of issuance.

4. Industry, Segment and Geographic Information

The Company operates and tracks its results in one reportable segment based on the aggregation of its operating segments. The Company designs, develops, manufactures and markets a broad range of integrated circuits (ICs). The Chief

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Executive Officer has been identified as the Company's Chief Operating Decision Maker. The Company has determined that all of the Company's operating segments share the following similar economic characteristics, and therefore meet the criteria established for operating segments to be aggregated into one reportable segment, namely:

- The primary source of revenue for each operating segment is the sale of ICs.
- The ICs sold by each of the Company's operating segments are manufactured using similar semiconductor manufacturing processes and raw materials in either the Company's own production facilities or by third-party wafer fabricators using proprietary processes.
- The Company sells its products to tens of thousands of customers worldwide. Many of these customers use products spanning all operating segments in a wide range of applications.
- The ICs marketed by each of the Company's operating segments are sold globally through a direct sales force, third-party distributors, independent sales representatives and via the Company's website to the same types of customers.

All of the Company's operating segments share a similar long-term financial model as they have similar economic characteristics. The causes for variation in operating and financial performance are the same among the Company's operating segments and include factors such as (i) life cycle and price and cost fluctuations, (ii) number of competitors, (iii) product differentiation and (iv) size of market opportunity. Additionally, each operating segment is subject to the overall cyclical nature of the semiconductor industry. Lastly, the number and composition of employees and the amounts and types of tools and materials required for production of products are proportionally similar for each operating segment.

Revenue Trends by End Market

The following table summarizes revenue by end market. The categorization of revenue by end market is determined using a variety of data points including the technical characteristics of the product, the "sold to" customer information, the "ship to" customer information and the end customer product or application into which the Company's product will be incorporated. As data systems for capturing and tracking this data and the Company's methodology evolves and improves, the categorization of products by end market can vary over time. When this occurs, the Company reclassifies revenue by end market for prior periods. Such reclassifications typically do not materially change the sizing of, or the underlying trends of results within each end market.

	2022		2021		2020	
	Revenue	% of Total Revenue (1)	Revenue	% of Total Revenue (1)	Revenue	% of Total Revenue (1)
Industrial	\$ 6,069,332	51 %	\$ 4,026,909	55 %	\$ 3,005,585	54 %
Automotive	2,515,513	21 %	1,248,169	17 %	778,714	14 %
Communications	1,880,697	16 %	1,206,867	16 %	1,193,809	21 %
Consumer	1,548,411	13 %	836,341	11 %	624,948	11 %
Total revenue	<u>\$ 12,013,953</u>	<u>100 %</u>	<u>\$ 7,318,286</u>	<u>100 %</u>	<u>\$ 5,603,056</u>	<u>100 %</u>

(1) The sum of the individual percentages may not equal the total due to rounding.

Revenue by Sales Channel

The following tables summarize revenue by sales channel. The Company sells its products globally through a direct sales force, third party distributors, independent sales representatives and via its website. Distributors are customers that buy products with the intention of reselling them. Direct customers are non-distributor customers and consist primarily of original equipment manufacturers (OEMs). Other customers include the U.S. government, government prime contractors and certain commercial customers for which revenue is recorded over time.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	2022		2021		2020	
	Revenue	% of Total Revenue (1)	Revenue	% of Total Revenue (1)	Revenue	% of Total Revenue (1)
Distributors	\$ 7,458,478	62 %	\$ 4,589,944	63 %	\$ 3,216,302	57 %
Direct customers	4,423,883	37 %	2,600,353	36 %	2,300,493	41 %
Other	131,592	1 %	127,989	2 %	86,261	2 %
Total revenue	\$ 12,013,953	100 %	\$ 7,318,286	100 %	\$ 5,603,056	100 %

(1) The sum of the individual percentages may not equal the total due to rounding.

Geographic Information

Geographic revenue information for fiscal 2022, fiscal 2021 and fiscal 2020 reflects the geographic location of the distributors or OEMs who purchased the Company's products. This may differ from the geographic location of the end customers. In all periods presented, the predominant countries comprising "Rest of North and South America" are Canada and Mexico; the predominant countries comprising "Europe" are Germany, Sweden, and the Netherlands; and the predominant countries comprising "Rest of Asia" are Taiwan, Malaysia, South Korea and Singapore.

	2022	2021	2020
Revenue			
United States	\$ 4,025,398	\$ 2,389,439	\$ 1,887,443
Rest of North and South America	72,497	42,830	41,250
Europe	2,534,423	1,592,989	1,245,695
Japan	1,221,549	787,966	521,720
China	2,563,536	1,614,396	1,348,011
Rest of Asia	1,596,550	890,666	558,937
Subtotal all foreign countries	7,988,555	4,928,847	3,715,613
Total revenue	\$ 12,013,953	\$ 7,318,286	\$ 5,603,056
Property, plant and equipment			
United States	\$ 1,117,404	\$ 956,624	\$ 579,755
Ireland	343,728	206,353	169,968
Philippines	608,474	524,128	256,470
Thailand	143,558	126,040	—
Singapore (1)	—	—	18,518
Malaysia	119,670	84,971	53,616
All other countries	68,470	80,935	42,234
Subtotal all foreign countries	1,283,900	1,022,427	540,806
Total property, plant and equipment	\$ 2,401,304	\$ 1,979,051	\$ 1,120,561

(1) As further discussed in Note 5, *Special Charges, Net*, of the Notes to Consolidated Financial Statements, the Company sold this facility in fiscal 2021.

5. Special Charges, Net

The Company monitors global macroeconomic conditions on an ongoing basis and continues to assess opportunities for improved operational effectiveness and efficiency, as well as a better alignment of expenses with revenues. As a result of these assessments, the Company has undertaken various actions resulting in special charges over the past several years.

Liabilities related to special charges, net are presented in Accrued Liabilities in the Consolidated Balance Sheets. The activity is detailed below:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Accrued Special Charges	Closure of Manufacturing Facilities	Global Repositioning Actions
Balance at November 2, 2019	\$ 50,401	\$ 58,895
Employee severance and benefit costs	—	47,326
Facility closure costs	2,918	—
Severance and benefit payments	(5,098)	(85,301)
Facility closure cost payments	(2,969)	—
Effect of foreign currency on accrual	(76)	(146)
Balance at October 31, 2020	\$ 45,176	\$ 20,774
Employee severance and benefit costs	200	28,731
Facility closure costs	11,880	—
Severance and benefit payments	(19,602)	(28,604)
Facility closure cost payments	(11,880)	—
Effect of foreign currency on accrual	—	164
Balance at October 30, 2021	\$ 25,774	\$ 21,065
Employee severance and benefit costs	75	149,853
Facility closure costs	12,076	—
Severance and benefit payments	(22,805)	(118,567)
Facility closure cost payments	(12,491)	—
Effect of foreign currency on accrual	—	(281)
Balance at October 29, 2022	\$ 2,629	\$ 52,070

Closure of Manufacturing Facilities

The Company recorded special charges of \$63.8 million on a cumulative basis through October 29, 2022 as a result of its decision to consolidate certain wafer and test facility operations acquired as part of the acquisition of Linear.

During the third quarter of fiscal 2022, the Company completed the sale of its Hillview wafer fabrication facility and certain equipment located in Milpitas, California, which were previously classified as held for sale, for proceeds of approximately \$31.8 million, which resulted in a gain of \$4.4 million. During fiscal 2021, the Company completed the sale of its facility and certain equipment in Singapore, which were previously classified as held for sale, for approximately \$35.7 million, which resulted in a gain of \$13.6 million.

Global Repositioning Actions

The Company recorded net special charges of \$487.6 million on a cumulative basis through October 29, 2022, as part of the integration of the Acquisition and continued organizational initiatives to consolidate its global footprint related to certain manufacturing, engineering, sales, marketing and administrative offices and to better align its global workforce with the Company's long-term strategic plan. The special charges include severance and fringe benefit costs, in accordance with the Company's ongoing benefit plan or statutory requirements at foreign locations, and the write-off of acquired intellectual property due to the Company's decision to discontinue certain product development strategies.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In connection with the Company's decision during the third quarter of fiscal 2022 to transition its engineering, sales, marketing and administrative activities from its leased property in Santa Clara, California to its owned property in San Jose, California, the Company entered into a sublease agreement for a portion of the leased property and intends to sublease the remainder of this property. As a result of the sublease transaction, the Company recorded an impairment charge of \$91.9 million in net special charges which represented the excess carrying value of the associated asset group over its estimated fair value. The Company estimated fair value using cash flows from the estimated net sublease rental income discounted at a market rate. The Company allocated \$60.6 million, \$28.1 million and \$3.2 million of the impairment charge to right of use assets, leasehold improvements and office equipment, respectively.

The Company also recorded special charges of \$174.8 million in fiscal 2022 primarily consisting of \$180.4 million of severance and benefit costs, as well as charges recorded from the acceleration of equity awards in connection with the termination of certain employees in manufacturing, engineering and selling, marketing, general and administrative roles at sites assumed related to the Acquisition and various locations throughout the world, partially offset by a gain of \$8.3 million recognized upon the sale of a business.

6. Acquisitions

Maxim Integrated Products, Inc.

On the Acquisition Date, the Company completed its acquisition of all of the voting interests of Maxim, an independent manufacturer of innovative analog and mixed-signal products and technologies. Under the terms of the agreement pursuant to which the Company acquired Maxim (Merger Agreement), Maxim stockholders received, for each outstanding share of Maxim common stock, 0.6300 of a share of the Company's common stock at the closing. The Company believes the combination creates an expanded suite of top-performing mixed-signal and power management technology offerings and complements the Company's legacy offerings. The results of operations of Maxim from the Acquisition Date are included in the Company's Consolidated Statement of Income, Consolidated Balance Sheet, Consolidated Statement of Cash Flows and Consolidated Statement of Shareholders' Equity for fiscal 2021. The amount of revenue attributable to Maxim included in the Company's Consolidated Statement of Income for fiscal 2021 was \$558.8 million. The amount of Maxim's earnings included in the Consolidated Statement of Income for fiscal 2021 is impracticable to calculate.

The Acquisition Date fair value of the consideration transferred in the Acquisition consisted of the following:

Cash consideration (a)	\$	47
Issuance of common stock (b)		27,754,161
Fair value of partially vested restricted stock and restricted stock unit replacement awards (c)		194,890
Total purchase consideration	\$	<u>27,949,098</u>

- (a) This reflects the cash paid for fractional shares of the Company's common stock in respect of shares of Maxim common stock outstanding.
- (b) The fair value is based on the issuance of approximately 169.2 million shares of the Company's common stock with a per share value of \$164.00 on the Acquisition Date.
- (c) In connection with the Acquisition, the Company issued equity awards, consisting of restricted stock and restricted stock units, to certain Maxim employees in replacement of Maxim equity awards that were cancelled at closing. The replacement awards consist of restricted stock and restricted stock unit awards for approximately 3.7 million shares of the Company's common stock with a weighted average grant date fair value of \$161.63. This amount represents the portion of the fair value of the replacement equity awards associated with services rendered through the Acquisition Date and has been included as a component of the total purchase consideration.

During fiscal 2022, the Company completed the acquisition accounting for the Acquisition. The following is a summary of the amounts recognized in accounting for the Acquisition:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Cash and cash equivalents	\$	2,450,597
Accounts receivable		609,245
Inventories		858,300
Prepaid expenses and other current assets		59,310
Property, plant and equipment		759,544
Intangible assets (Note 2f)		12,429,100
Goodwill (Note 2f)		14,660,343
Other long-term assets		80,373
Total assets	\$	31,906,812
Accounts payable		112,828
Income taxes payable		156,592
Accrued liabilities		592,432
Long-term debt		1,072,150
Deferred income taxes		1,661,907
Other non-current liabilities		361,805
Total liabilities	\$	3,957,714
Total purchase consideration	\$	27,949,098

The acquired intangible assets consisted of the following, which are being amortized on a straight-line basis over their estimated useful lives or on an accelerated method of amortization that is expected to reflect the estimated pattern of economic use.

	Fair Value (in thousands)	Weighted Average Useful Life (in Years)
Customer relationships	\$ 5,642,100	14
Developed technology	6,425,800	8
Backlog	361,200	2
Total amortizable intangible assets	\$ 12,429,100	10

The goodwill recognized is attributable to synergies which are expected to enhance and expand the Company's overall product portfolio and opportunities in new and existing markets, future technologies that have yet to be determined and Maxim's assembled workforce. Future technologies do not meet the criteria for recognition separately from goodwill because they are part of future development and growth of the business.

There were no significant contingencies assumed as part of the Acquisition.

In aggregate, the Company recognized \$166.9 million of transaction-related costs, including legal, accounting and other related fees that were expensed in fiscal 2022, fiscal 2021 and fiscal 2020. These costs are included in the Consolidated Statements of Income in operating expenses within Selling, marketing, general and administrative expenses (SMG&A).

The following unaudited pro forma consolidated financial information for the twelve months ended October 30, 2021 combines the results of the Company for fiscal 2021 and the unaudited results of Maxim for the corresponding period through the Acquisition Date. The following unaudited pro forma consolidated financial information for the twelve months ended October 31, 2020 combines the results of the Company for fiscal 2020 and the unaudited results of Maxim for the corresponding period. The unaudited pro forma consolidated financial information assumes that the Acquisition, which closed on August 26, 2021, was completed on November 3, 2019 (the first day of fiscal 2020). The pro forma consolidated financial information has been calculated after applying the Company's accounting policies and includes adjustments for amortization expense of acquired intangible assets, fair value adjustments for acquired inventory, property, plant and equipment and long-term debt and compensation expense for ongoing share-based compensation arrangements that were replaced in conjunction with the Acquisition, together with the consequential tax effects. For fiscal 2020, non-recurring pro forma adjustments directly attributable to the Acquisition included pre-tax amounts of \$602.5 million related to the acquisition accounting effect of inventories acquired and \$54.2 million of accelerated stock-based compensation expense, together with the consequential tax effects. Additionally, \$309.0 million of pre-tax transaction costs, together with the consequential tax effects, that were incurred

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

related to the Acquisition are reflected in the pro forma results for fiscal 2020. These pro forma results have been prepared for comparative purposes only and do not purport to be indicative of the operating results of the Company that would have been achieved had the Acquisition actually taken place on November 3, 2019. In addition, these results are not intended to be a projection of future results and do not reflect events that may occur after the Acquisition, including but not limited to revenue enhancements, cost savings or operating synergies that the combined Company may achieve as a result of the Acquisition.

	Pro Forma Twelve Months Ended (unaudited)	
	October 30, 2021	October 31, 2020
Revenue	\$ 9,541,488	\$ 7,897,855
Net income (loss)	\$ 1,578,274	\$ (144,198)
Basic net income (loss) per common share	\$ 2.94	\$ (0.27)
Diluted net income (loss) per common share	\$ 2.91	\$ (0.27)

Other Acquisitions

The Company has not provided pro forma results of operations for any other acquisitions completed in fiscal 2022, fiscal 2021 or fiscal 2020 herein as they were not material to the Company on either an individual or an aggregate basis. The Company included the results of operations of each acquisition in its Consolidated Statements of Income from the closing date of each acquisition.

7. Other Investments

Other investments consist of interests in venture capital funds and other long-term investments. Investments are accounted for using the equity method of accounting or cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer. For equity method investments, realized gains and losses are reflected in Other, net based upon the Company's ownership share of the investee's financial results.

8. Accrued Liabilities

Accrued liabilities at October 29, 2022 and October 30, 2021 consisted of the following:

	2022	2021
Distributor price adjustments and other revenue reserves	\$ 749,402	\$ 664,198
Accrued compensation and benefits	465,536	381,678
Accrued special charges	54,699	46,839
Lease liabilities	53,628	52,576
Accrued interest	33,298	29,361
Accrued withholdings related to ESPP	28,131	—
Accrued taxes	22,815	29,321
Accrued professional fees	7,955	152,689
Other	179,186	120,868
Total accrued liabilities	<u>\$ 1,594,650</u>	<u>\$ 1,477,530</u>

9. Leases

The Company enters into operating leases which primarily relate to certain facilities and, to a lesser extent, finance leases. Finance leases were not a material component of the Company's lease portfolio in the periods presented. The Company determines whether an arrangement is or contains a lease based on the unique facts and circumstances present at the inception of an arrangement. Lease assets represent the Company's right to use underlying assets for the lease term, and lease liabilities represent the obligation to make lease payments over the lease term. At lease commencement, leases are evaluated for classification, and assets and liabilities are recognized based on the present value of lease payments over the lease term. The interest rate implicit in lease contracts is typically not readily determinable. As such, the Company utilizes the appropriate incremental borrowing rate, which is the rate incurred to borrow on a collateralized basis over a similar term at an amount equal to the lease payments in a similar economic environment. Certain adjustments to the right-of-use asset may be required for items such as initial direct costs paid or incentives received, such as construction allowances from landlords and/or rent abatements subsequent to taking possession of the leased property. The Company has agreements with lease and non-lease

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

components, which are accounted for as a single lease component. Non-lease components may include real estate taxes, insurance, maintenance, parking and other operating costs. If these costs are variable costs they are not included in the measurement of the right-of-use assets and lease liabilities, but are expensed when the event determining the amount of variable consideration to be paid occurs. The Company's leases have remaining lease terms of less than one year to approximately twenty-three years, some of which may include options to extend the initial term of the lease. These options are included in determining the initial lease term at lease commencement only if the Company is reasonably certain to exercise the option. Lease costs are recognized on a straight-line basis as lease expense over the lease term. For leases with terms of twelve months or less the Company recognizes the related lease payments as expense either on a straight-line basis over the lease term or as incurred depending on whether the lease payments are fixed or variable. The Company subleases certain properties that are not used in its core business operations (See Note 5, *Special Charges, Net*, of the Notes to Consolidated Financial Statements). Sublease income was not significant for the periods presented.

The following table presents supplemental balance sheet information related to the Company's operating leases:

	October 29, 2022	October 30, 2021
Assets		
Operating lease right-of-use assets in Other assets	\$ 262,997	\$ 279,542
Liabilities		
Operating lease liabilities in Accrued liabilities	\$ 53,628	\$ 52,576
Operating lease liabilities in Other non-current liabilities	\$ 337,279	\$ 295,782

Details of the Company's operating leases are as follows:

	October 29, 2022	October 30, 2021
Lease expense	\$ 60,660	\$ 50,799
Cash paid for amounts included in the measurement of operating lease liabilities		
Operating cash flows from operating leases	\$ 61,915	\$ 53,724
Lease assets obtained in exchange for new lease liabilities	\$ 107,631	\$ 25,946
Weighted average remaining lease term	7.6 years	7.9 years
Weighted average discount rate	3.3%	2.9%

The following table presents the maturities of the Company's operating lease liabilities as of October 29, 2022:

Fiscal year	
2023	\$ 31,199
2024	68,433
2025	63,065
2026	59,156
2027	54,027
Thereafter	178,663
Total future minimum operating lease payments	454,543
Less: imputed interest	(63,636)
Present value of operating lease liabilities	\$ 390,907

The following table presents the future minimum cash receipts as a result of subleases as of October 29, 2022:

Fiscal year	
2023	\$ 1,928
2024	12,664
2025	13,843
2026	14,259
2027	14,687
Thereafter	42,734
Total future minimum cash receipts	\$ 100,115

10. Commitments and Contingencies

From time to time, in the ordinary course of the Company's business, various claims, charges and litigation are asserted or commenced against the Company arising from, or related to, among other things, contractual matters, acquisitions, patents, trademarks, personal injury, environmental matters, product liability, insurance coverage, employment or employment benefits. As to such claims and litigation, the Company can give no assurance that it will prevail.

On March 17, 2022, Walter E. Ryan and Ryan Asset Management, LLC, purported stockholders of Maxim, filed a putative class action in the Court of Chancery of the State of Delaware (C.A. No. 2022—0255) against the Company and the former directors of Maxim. The complaint alleges breach of fiduciary duties by the individual defendants in connection with Maxim's agreement, as part of the merger negotiations with the Company, to suspend Maxim dividends for up to four quarters prior to the closing of the Acquisition. The complaint further alleges that the Company aided and abetted that alleged breach of fiduciary duties. The plaintiffs seek damages in an amount to be determined at trial, plaintiffs' costs and disbursements, including reasonable attorneys' and experts' fees, costs and other expenses. The Company believes that it and the other defendants have meritorious defenses to these allegations; however, the Company is currently unable to determine the ultimate outcome of this matter or determine an estimate, or a range of estimates, of potential losses, if any.

The Company has a supplier commitment of approximately \$428.4 million for the purchase of materials and supplies in advance or with minimum purchase quantities through 2031.

11. Retirement Plans

The Company and its subsidiaries have various savings and retirement plans covering substantially all employees.

Defined Contribution Plans

The Company maintains a defined contribution plan for the benefit of its eligible U.S. employees. This plan provides for Company contributions of up to 5% of each participant's total eligible compensation. In addition, the Company contributes an amount equal to each participant's pre-tax contribution, if any, up to a maximum of 3% of each participant's total eligible compensation. The total expense related to the defined contribution plans for all eligible U.S. employees was \$65.2 million in fiscal 2022, \$52.1 million in fiscal 2021 and \$48.7 million in fiscal 2020.

Non-Qualified Deferred Compensation Plan

The Deferred Compensation Plan (DCP) allows certain members of management and other highly-compensated employees and non-employee directors to defer receipt of all or any portion of their compensation. The DCP was established to provide participants with the opportunity to defer receiving all or a portion of their compensation, which includes salary, bonus, commissions and director fees. Under the DCP, the Company provides all participants (other than non-employee directors) with Company contributions equal to 8% of eligible deferred contributions. The DCP is a non-qualified plan that is maintained in a rabbi trust. The fair value of the investments held in the rabbi trust are included within other investments, with the current portion of the investment included in prepaid expenses and other current assets in the Consolidated Balance Sheets. See Note 2j, *Fair Value*, of the Notes to Consolidated Financial Statements for further information on these investments. The deferred compensation obligation represents DCP participant accumulated deferrals and earnings thereon since the inception of the DCP net of withdrawals. The deferred compensation obligation is included within other non-current liabilities, with the current portion of the obligation in accrued liabilities in the Consolidated Balance Sheets. The Company's liability under the DCP is an unsecured general obligation of the Company.

Defined Benefit Pension and Post Retirement Benefit Plans

The Company also has various defined benefit pension and other retirement plans for certain non-U.S. employees that are consistent with local statutory requirements and practices. The total expense related to the various defined benefit pension, contribution and other retirement plans for certain non-U.S. employees was \$51.4 million in fiscal 2022, \$45.9 million in fiscal 2021 and \$37.6 million in fiscal 2020.

The Company's funding policy for its foreign defined benefit pension plans is consistent with the local requirements of each country. The plans' assets consist primarily of U.S. and non-U.S. equity securities, bonds, property and cash. The Company has elected to measure defined benefit plan assets and obligations as of October 31, which is the month-end that is closest to its fiscal year-ends, which were October 29, 2022 for fiscal 2022 and October 30, 2021 for fiscal 2021.

As a result of the Acquisition, the Company acquired a postretirement plan that provides postretirement medical expenses to certain former employees of a Maxim acquired company and certain former Maxim executives in the U.S.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Components of Net Periodic Benefit Cost

Net annual periodic benefit cost of the Company's pension and postretirement benefit plans for fiscal 2022, fiscal 2021 and fiscal 2020 is presented in the following table:

	2022	2021	2020
Service cost	\$ 10,914	\$ 9,207	\$ 8,587
Interest cost	6,148	4,071	3,917
Expected return on plan assets	(4,540)	(3,759)	(5,296)
Recognized actuarial loss	2,299	2,973	2,583
Subtotal	\$ 14,821	\$ 12,492	\$ 9,791
Curtailement impact	—	—	(203)
Settlement impact	\$ (35)	\$ (6)	\$ —
Net periodic benefit cost	\$ 14,786	\$ 12,486	\$ 9,588

The service cost component of net periodic benefit cost above is recorded in Cost of sales, Research and development, Selling, marketing, general and administrative expenses within the Consolidated Statements of Income, while the remaining components are recorded to Other, net.

Benefit Obligations and Plan Assets

Obligation and asset data of the Company's pension and postretirement benefit plans at October 29, 2022 and October 30, 2021 is presented in the following table:

	2022	2021
Change in Benefit Obligation		
Benefit obligation at beginning of year	\$ 242,593	\$ 186,735
Service cost	10,914	9,207
Interest cost	6,148	4,071
Acquisition of Maxim benefit obligation	—	49,807
Settlement	(1,052)	(885)
Actuarial gain	(68,806)	(4,005)
Benefits paid	(3,596)	(3,983)
Exchange rate adjustment	(28,471)	1,646
Benefit obligation at end of year	\$ 157,730	\$ 242,593
Change in Plan Assets		
Fair value of plan assets at beginning of year	\$ 128,283	\$ 107,505
Actual return on plan assets	(34,231)	10,637
Employer contributions	11,344	11,035
Settlements	(1,052)	(885)
Benefits paid	(3,596)	(3,983)
Acquisitions	—	1,728
Exchange rate adjustment	(16,719)	2,246
Fair value of plan assets at end of year	\$ 84,029	\$ 128,283
Reconciliation of Funded Status		
Funded status	\$ (73,701)	\$ (114,310)
Amounts Recognized in the Balance Sheet		
Non-current assets	\$ 1,185	\$ 1,709
Current liabilities	\$ (2,638)	\$ (2,730)
Non-current liabilities	(72,248)	(113,289)
Net amount recognized	\$ (73,701)	\$ (114,310)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	2022	2021
Reconciliation of Amounts Recognized in the Statement of Financial Position		
Prior service credit	(29)	(38)
Net loss	(5,302)	(43,662)
Accumulated other comprehensive loss	(5,331)	(43,700)
Accumulated contributions less than net periodic benefit cost	(68,370)	(70,610)
Net amount recognized	<u>\$ (73,701)</u>	<u>\$ (114,310)</u>
Changes Recognized in Other Comprehensive Income (Loss)		
<i>Changes in plan assets and benefit obligations recognized in other comprehensive income (loss)</i>		
Net gain/loss arising during the year	\$ (31,223)	\$ (10,884)
Effect of exchange rates on amounts included in AOCI	(4,882)	1,565
<i>Amounts recognized as a component of net periodic benefit cost</i>		
Amortization or settlement recognition of net loss	(2,264)	(2,967)
Total recognized in other comprehensive gain/loss	\$ (38,369)	\$ (12,286)
Total recognized in net periodic cost and other comprehensive loss	<u>\$ (23,583)</u>	<u>\$ 200</u>
Estimated amounts that will be amortized from AOCI over the next fiscal year		
Net loss	<u>\$ (1,067)</u>	<u>\$ (2,413)</u>

The accumulated benefit obligation for the Company's pension and postretirement benefit plans was \$111.3 million and \$178.2 million at October 29, 2022 and October 30, 2021, respectively.

Information relating to the Company's pension and postretirement benefit plans with projected benefit obligations in excess of plan assets and accumulated benefit obligations in excess of plan assets at October 29, 2022 and October 30, 2021 is presented in the following table:

	2022	2021
Plans with projected benefit obligations in excess of plan assets:		
Projected benefit obligation	\$ 120,763	\$ 161,803
Fair value of plan assets	\$ 45,879	\$ 45,784
Plans with accumulated benefit obligations in excess of plan assets:		
Projected benefit obligation	\$ 62,980	\$ 94,038
Accumulated benefit obligation	\$ 49,429	\$ 77,337
Fair value of plan assets	\$ 2,573	\$ 3,544

Assumptions

The range of assumptions used for the Company's pension and postretirement benefit plans reflects the different economic environments within the various countries as well as the differences in the attributes of the participants.

The projected benefit obligation was determined using the following weighted-average assumptions:

	2022	2021
Discount rate	5.44 %	2.77 %
Rate of increase in compensation levels	4.08 %	3.70 %

Net annual periodic benefit cost was determined using the following weighted average assumptions:

	2022	2021
Discount rate	2.77 %	2.15 %
Expected long-term return on plan assets	3.73 %	3.32 %
Rate of increase in compensation levels	3.70 %	3.19 %

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The expected long-term rate of return on assets is a weighted-average of the long-term rates of return selected for the various countries where the Company has funded pension plans. The expected long-term rate of return on assets assumption is selected based on the facts and circumstances that exist as of the measurement date and the specific portfolio mix of plan assets. Management, in conjunction with its actuaries, reviewed anticipated future long-term performance of individual asset categories and considered the asset allocation strategy adopted by the Company and/or the trustees of the plans. While the review considered recent fund performance and historical returns, the assumption is primarily a long-term prospective rate.

The Company's investment strategy is based on an expectation that equity securities will outperform debt securities over the long term. Investments within each asset class are diversified to reduce the impact of losses in single investments. The use of derivative instruments is permitted where appropriate and necessary to achieve overall investment policy objectives and asset class targets. The Company establishes strategic asset allocation percentage targets and appropriate benchmarks for each significant asset class to obtain a prudent balance between return and risk. The interaction between plan assets and benefit obligations is periodically studied by the Company and its actuaries to assist in the establishment of strategic asset allocation targets.

Fair value of plan assets

The following table presents plan assets measured at fair value on a recurring basis by investment categories as of October 29, 2022 and October 30, 2021 using the same three-level hierarchy described in Note 2j, *Fair Value*, of the Notes to Consolidated Financial Statements:

	October 29, 2022			October 30, 2021		
	Fair Value Measurement at Reporting Date			Fair Value Measurement at Reporting Date		
	Using:			Using:		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total
Unit trust funds(1)	\$ —	\$ 3,625	\$ 3,625	\$ —	\$ 5,874	\$ 5,874
Equities(1)	6,700	7,767	14,467	8,010	24,613	32,623
Fixed income securities(2)	—	28,214	28,214	—	29,957	29,957
Property (3)	—	4,773	4,773	—	5,431	5,431
Investment Funds (4)	—	29,760	29,760	—	52,380	52,380
Cash and cash equivalents	3,190	—	3,190	2,018	—	2,018
Total assets measured at fair value	\$ 9,890	\$ 74,139	\$ 84,029	\$ 10,028	\$ 118,255	\$ 128,283

- (1) The majority of the assets in these categories are invested in a mix of equities, including those from North America, Europe and Asia. The funds are valued using the net asset value method in which an average of the market prices for underlying investments is used to value the fund. Due to the nature of the underlying assets of these funds, changes in market conditions and the economic environment may significantly impact the net asset value of these investments and, consequently, the fair value of the investments. These investments are redeemable at net asset value to the extent provided in the documentation governing the investments. However, these redemption rights may be restricted in accordance with governing documents. Publicly traded securities are valued at the last trade or closing price reported in the active market in which the individual securities are traded.
- (2) Consists of funds primarily concentrated in non-U.S. debt instruments. The funds are valued using the net asset value method in which an average of the market prices for underlying investments is used to value the fund.
- (3) Consists of funds that primarily invest in global real estate and infrastructure funds. The funds are valued using the net asset value method in which an average of the market prices for underlying investments is used to value the fund.
- (4) Consists of liability driven investment funds that may hold a range of low-risk hedging instruments including but not limited to government bonds, interest rate and inflation swaps, physical inflation-linked and nominal gilts, synthetic gilts, cash and money market instruments. The investment funds are valued at the closing price reported if traded on an active market or at yields currently available on comparable securities of issuers with similar credit ratings.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Estimated future cash flows

Expected fiscal 2023 Company contributions and estimated future benefit payments are as follows:

Expected Company Contributions		
2023	\$	10,579
Expected Benefit Payments		
2024	\$	6,575
2025	\$	5,506
2026	\$	5,789
2027	\$	6,524
2028	\$	7,060
2029 through 2033	\$	48,355

12. Income Taxes

The Company's effective tax rate reflects the applicable tax rate in effect in the various tax jurisdictions around the world where the Company's income is earned. The reconciliation of income tax computed at the U.S. federal statutory rates to income tax expense for fiscal 2022, fiscal 2021 and fiscal 2020 is as follows:

	2022	2021	2020
U.S. federal statutory tax rate	21.0 %	21.0 %	21.0 %
Income tax provision reconciliation:			
Tax at statutory rate	\$ 650,737	\$ 279,030	\$ 275,439
Net foreign income subject to lower tax rate	(358,725)	(227,470)	(225,937)
State income taxes, net of federal benefit	(15,615)	(28,052)	(23,537)
Valuation allowance	29,737	13,263	13,655
Federal research and development tax credits	(58,625)	(37,902)	(31,055)
Change in uncertain tax positions	19,394	(1,061)	(13,304)
Amortization of purchased intangibles	142,375	146,094	101,906
Acquisition and integration costs	—	11,367	1,714
U.S. effects of international operations	(47,665)	(24,624)	11,903
Windfalls (under ASU 2016-09)	(16,717)	(26,365)	(16,240)
Intra-entity transfer of intangible assets	—	(188,804)	—
Other, net	5,292	22,816	(3,688)
Total income tax provision (benefit)	<u>\$ 350,188</u>	<u>\$ (61,708)</u>	<u>\$ 90,856</u>

Income before income taxes for fiscal 2022, fiscal 2021 and fiscal 2020 includes the following components:

Income before income taxes (1)	2022	2021	2020
Domestic	\$ 958,465	\$ 508,100	\$ 355,442
Foreign	2,140,284	820,614	956,175
Income before income taxes	<u>\$ 3,098,749</u>	<u>\$ 1,328,714</u>	<u>\$ 1,311,617</u>

(1) Income before income taxes reflects deemed intercompany royalties in all periods presented.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The components of the provision for (benefit from) income taxes for fiscal 2022, fiscal 2021 and fiscal 2020 are as follows:

	2022	2021	2020
Current:			
Federal tax	\$ 304,556	\$ 134,652	\$ 64,876
State	13,214	7,772	4,882
Foreign	359,173	202,790	135,046
Total current	<u>\$ 676,943</u>	<u>\$ 345,214</u>	<u>\$ 204,804</u>
Deferred:			
Federal	\$ (341,777)	\$ 515,541	\$ (159,229)
State	(612)	(12,444)	(12,684)
Foreign	15,634	(910,019)	57,965
Total deferred	<u>\$ (326,755)</u>	<u>\$ (406,922)</u>	<u>\$ (113,948)</u>
Provision for (benefit from) income tax	<u>\$ 350,188</u>	<u>\$ (61,708)</u>	<u>\$ 90,856</u>

U.S. tax legislation subjects a U.S. shareholder to tax on global intangible low-taxed income (GILTI). Under U.S. GAAP, an accounting policy election can be made to either treat taxes due on the GILTI inclusion as a current period expense or to recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years. The Company elected the deferral method and recorded the corresponding GILTI deferred tax assets and liabilities on its Consolidated Balance Sheets.

The Company carries other outside basis differences in its subsidiaries, primarily arising from acquisition accounting adjustments and certain undistributed earnings that are considered indefinitely reinvested. As of October 29, 2022, the Company has not recognized deferred income tax on \$33.6 billion of outside basis differences because of its intent and ability to indefinitely reinvest these basis differences. These basis differences could be reversed through a sale of the subsidiaries or the receipt of dividends from the subsidiaries, as well as various other events, none of which are considered probable at this time. Determination of the amount of unrecognized deferred income tax liability related to these outside basis differences is not practicable.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The significant components of the Company's deferred tax assets and liabilities for fiscal 2022 and fiscal 2021 are as follows:

	2022	2021
Deferred tax assets:		
Inventory reserves	\$ 16,584	\$ —
Reserves for compensation and benefits	60,871	64,274
Tax credit carryovers	327,671	295,345
Stock-based compensation	25,059	26,541
Net operating losses	43,696	62,876
Intangible assets	1,975,096	2,002,041
Lease liability	76,709	60,954
Other	248,796	248,075
Total gross deferred tax assets	2,774,482	2,760,106
Valuation allowance	(339,105)	(315,434)
Total deferred tax assets	2,435,377	2,444,672
Deferred tax liabilities:		
Inventory reserves	—	(18,570)
Depreciation	(96,660)	(91,846)
Deferred GILTI tax liabilities	(2,824,332)	(3,059,919)
Right of use asset	(55,858)	(53,686)
Acquisition-related intangibles	(816,177)	(892,212)
Total gross deferred tax liabilities	(3,793,027)	(4,116,233)
Net deferred tax liabilities	\$ (1,357,650)	\$ (1,671,561)

The valuation allowances of \$339.1 million and \$315.4 million as of October 29, 2022 and October 30, 2021, respectively, are primarily for the Company's state R&D credit carryforwards, foreign net operating loss and international credit carryforwards. The Company believes that it is more-likely-than-not that these credit carryovers will not be realized and as a result has recorded a partial valuation allowance.

The federal and state net operating losses of \$142.4 million will begin to expire in fiscal 2023 while foreign net operating loss carryovers of \$144.8 million have no expiration date. There are also \$312.7 million of state credit carryovers and \$15.0 million of foreign investment tax credit carryovers that begin to expire in the fiscal year ending November 1, 2025.

As of October 29, 2022 and October 30, 2021, the Company had unrealized tax benefits, net of indirect tax benefits, of \$165.3 million and \$132.5 million, respectively, which if settled in the Company's favor, would lower the Company's effective tax rate in the period recorded. Liabilities for unrealized tax benefits are primarily classified as non-current because the Company believes that the ultimate payment or settlement of these liabilities will not occur within the next twelve months. As of October 29, 2022 and October 30, 2021, the Company had liabilities of approximately \$45.5 million and \$38.0 million, respectively, for interest and penalties, which is included within the provision for (benefit from) income taxes in the Consolidated Statements of Income.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table summarizes the changes in the total amounts of unrealized tax benefits for fiscal 2020 through fiscal 2022:

	Unrealized Tax Benefits
Balance, November 2, 2019	\$ 34,343
Additions for tax positions related to current year	3,270
Reductions for tax positions related to prior years	(16,152)
Reductions due to lapse of applicable statute of limitations	(170)
Balance, October 31, 2020	\$ 21,291
Additions for tax positions related to current year	4,713
Additions for tax positions related to prior years	19,790
Additions for tax positions related to the Acquisition	91,179
Reductions due to lapse of applicable statute of limitations	(4,452)
Balance, October 30, 2021	\$ 132,521
Additions for tax positions related to the Acquisition	15,267
Additions for tax positions related to current year	11,800
Additions for tax positions related to prior years	9,704
Reductions due to lapse of applicable statute of limitations	(3,965)
Balance, October 29, 2022	\$ 165,327

In fiscal 2020, the Company released reserves of \$18.6 million, which included accrued interest as a result of the resolution of the amended tax return that was previously under review by the Joint Committee on Taxation, combined with other tax positions resolved by the closing of the Internal Revenue Service audit of Linear's pre-acquisition federal income tax returns for fiscal 2015 through fiscal 2017.

In fiscal 2021, the Company acquired \$125.5 million in reserves as part of the Acquisition consisting of \$91.2 million in tax and \$34.3 million in accrued interest.

In fiscal 2022, the Company continued to engage in discussions and negotiations with tax authorities regarding tax matters in various jurisdictions. It is reasonably possible that the balance of unrealized tax benefits, including accrued interest and penalties, could decrease by up to \$127.0 million within the next twelve months due to the completion of federal tax audits, including any administrative appeals. The \$127.0 million primarily relates to matters involving federal taxation of international income and cross-border transactions.

The Company has numerous audits ongoing at any time throughout the world including: an IRS income tax audit for fiscal 2019 and fiscal 2018, a pre-Acquisition IRS income tax audit for Maxim's fiscal years ended June 27, 2015 through August 26, 2021, and various U.S. state and local tax audits and international audits. The Company's U.S. federal tax returns prior to fiscal 2018 are no longer subject to examination, except for the applicable Maxim pre-Acquisition fiscal years noted above.

13. Revolving Credit Facility

On June 23, 2021, the Company entered into a Third Amended and Restated Credit Agreement (Revolving Credit Agreement) with Bank of America, N.A. as administrative agent and the other banks identified therein as lenders. The Revolving Credit Agreement provides for a five year, unsecured, revolving credit facility in an aggregate principal amount not to exceed \$2.5 billion (subject to certain terms and conditions). In June 2022, the Company borrowed \$400.0 million under this revolving credit facility and utilized the proceeds for the repayment of existing indebtedness and working capital requirements. The Company repaid the \$400.0 million plus interest in July 2022. As of October 29, 2022, the Company had no outstanding borrowings under this revolving credit facility but may borrow in the future and use the proceeds for repayment of existing indebtedness, stock repurchases, acquisitions, capital expenditures, working capital and other lawful corporate purposes.

Revolving loans under the Revolving Credit Agreement can be Eurocurrency Rate Loans or Base Rate Loans (each as defined in the Revolving Credit Agreement) at the Company's option. Each Eurocurrency Rate Loan will bear interest at a rate per annum equal to the applicable Eurocurrency Rate plus a margin based on the Company's Debt Ratings (as defined in the Revolving Credit Agreement) from time to time of between 0.690% and 1.175%. Each Base Rate Loan will bear interest at a rate per annum equal to the Base Rate plus a margin based on the Company's debt ratings from time to time of between 0.00% and 0.175%. In addition, the Company has agreed to pay a facility fee based on the Company's Debt Ratings from time to time of between 0.060% and 0.200% multiplied by the actual daily amount of the Commitments (as defined in the Revolving Credit

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Agreement) in effect. The Revolving Credit Agreement also contains a sustainability-linked pricing component which provides for interest rate and facility fee reductions or increases based on the Company meeting or missing targets related to environmental sustainability, specifically greenhouse gas emissions and renewable energy usage. For calendar year 2021, the Company did not achieve its greenhouse gas emissions reduction threshold goal related to this sustainability-linked pricing component due in part to increased demand for product, which did not have a material impact on the Company's business, net income or financing costs. The Revolving Credit Agreement includes a multicurrency borrowing feature for certain specified foreign currencies. The Company will guarantee the obligations of each subsidiary that is named a Designated Borrower under the Revolving Credit Agreement.

The Revolving Credit Agreement contains customary representations and warranties, and affirmative and negative covenants and events of default applicable to the Company and its subsidiaries. As of October 29, 2022, the Company was in compliance with these covenants.

14. Debt

On December 14, 2015, the Company issued \$850.0 million aggregate principal amount of 3.9% senior unsecured notes due December 15, 2025 (the December 2025 Notes) and \$400.0 million aggregate principal amount of 5.3% senior unsecured notes due December 15, 2045 (the 2045 Notes) with semi-annual fixed interest payments due on June 15 and December 15 of each year, commencing June 15, 2016. The net proceeds of the offering were \$1.2 billion, after discounts and issuance costs. On October 5, 2021 and October 7, 2021, \$325.5 million, or 38.3%, of the \$850.0 million aggregate principal amount of the December 2025 Notes at a price of \$1,112.13 for each \$1,000 principal amount of December 2025 Notes, and \$67.4 million, or 16.85%, of the \$400.0 million aggregate principal amount of the 2045 Notes at a price of \$1,400.67 for each \$1,000 principal amount of 2045 Notes, were tendered for repurchase and canceled. On October 20, 2021, the remaining December 2025 Notes were redeemed for cash at a redemption price equal to \$1,103.81 for each \$1,000 principal amount of the December 2025 Notes. Debt discounts and issuance costs will be amortized through interest expense over the term of the 2045 Notes. The 2045 Notes are subordinated to any future secured debt and to the other liabilities of the Company's subsidiaries. The 2045 Notes were issued pursuant to a base indenture (the ADI Base Indenture) between the Company and The Bank of New York Mellon Trust Company as trustee, as supplemented by a supplemental indenture, which contain certain covenants, events of default and other customary provisions. The covenants applicable to the 2045 Notes limit the Company's ability to incur, create, assume or guarantee any debt secured by a lien upon a principal property; enter into sale and lease-back transactions with respect to a principal property; and consolidate with or merge into, or transfer or lease all or substantially all of its assets to, any other party. As of October 29, 2022, the Company was in compliance with these covenants.

On December 5, 2016, the Company issued \$400.0 million aggregate principal amount of 2.5% senior unsecured notes due December 5, 2021 (the 2021 Notes), \$550.0 million aggregate principal amount of 3.125% senior unsecured notes due December 5, 2023 (the December 2023 Notes), \$900.0 million aggregate principal amount of 3.5% senior unsecured notes due December 5, 2026 (the 2026 Notes) and \$250.0 million aggregate principal amount of 4.5% senior unsecured notes due December 5, 2036 (the 2036 Notes) with semi-annual fixed interest payments due on June 5 and December 5 of each year, commencing June 5, 2017. The net proceeds of the offering were \$2.1 billion, after discounts and issuance costs. On October 5, 2021, (i) \$71.2 million, or 17.80%, of the \$400.0 million aggregate principal amount of the 2021 Notes at a price of \$1,001.77 for each \$1,000 principal amount of 2021 Notes, (ii) \$282.7 million, or 51.41%, of the \$550.0 million aggregate principal amount of the December 2023 Notes at a price of \$1,053.78 for each \$1,000 principal amount of December 2023 Notes and (iii) \$105.7 million, or 42.29%, of the \$250.0 million aggregate principal amount of the 2036 Notes at a price of \$1,239.96 for each \$1,000 principal amount of 2036 Notes were tendered for redemption. On October 20, 2021, the remaining 2021 Notes and December 2023 Notes were redeemed for cash at a redemption price equal to \$1,000.98 for each \$1,000 principal amount of 2021 Notes and \$1,050.17 for each \$1,000 principal amount of December 2023 Notes. Debt discounts and issuance costs will be amortized through interest expense over the term of the respective notes. The 2026 Notes and 2036 Notes rank without preference or priority among themselves and equally in right of payment with all other existing and future senior unsecured debt and senior in right of payment to all of the Company's future subordinated debt. The 2026 Notes and 2036 Notes were issued pursuant to the ADI Base Indenture, as supplemented by a supplemental indenture, which contain covenants similar to those applicable to the 2045 Notes, events of default and other customary provisions. As of October 29, 2022, the Company was in compliance with these covenants.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

On April 8, 2020, in an underwritten public offering of green bonds, the Company issued \$400.0 million aggregate principal amount of 2.95% senior unsecured notes due April 1, 2025 (the April 2025 Notes), with semi-annual fixed interest payments due on April 1 and October 1 of each year, commencing on October 1, 2020. The Company used the net proceeds of \$395.6 million from the green bond offering to finance or refinance new and existing eligible projects involving renewable energy, green buildings, and eco-efficient products, production technologies and processes. Debt discounts and underwriting fees will be amortized through interest expense over the term of the April 2025 Notes. At any time prior to March 1, 2025, the Company may, at its option, redeem some or all of the April 2025 Notes at a redemption price equal to the greater of 100% of the principal amount of the April 2025 Notes being redeemed and the make-whole premium, plus accrued and unpaid interest on the April 2025 Notes being redeemed, if any, to but excluding the date of redemption. The April 2025 Notes are unsecured and rank equally in right of payment with all of the Company's other existing and future unsecured senior indebtedness. The April 2025 Notes were issued pursuant to the ADI Base Indenture, as supplemented by a supplemental indenture, which contain covenants similar to those applicable to the 2045 Notes, events of default and other customary provisions. As of October 29, 2022, the Company was in compliance with these covenants.

In conjunction with the Acquisition, the Company recognized \$500.0 million aggregate principal amount of Maxim's 3.375% senior unsecured and unsubordinated notes due March 15, 2023 (the Maxim 2023 Notes) and \$500.0 million aggregate principal amount of Maxim's 3.45% senior unsecured and unsubordinated notes due June 15, 2027 (the Maxim 2027 Notes), which were recognized at fair value as of the Acquisition Date. On October 5, 2021, Maxim gave notice that it would redeem the Maxim 2023 Notes, and in November 2021 (fiscal 2022), the Maxim 2023 Notes were redeemed for cash.

On October 7, 2022, the Company completed an offer to exchange any and all outstanding Maxim 2027 Notes, for new 3.450% Senior Notes due June 15, 2027 (the ADI 2027 Notes) to be issued by the Company and cash. Pursuant to the exchange offer, \$440.2 million aggregate principal amount of the Maxim 2027 Notes were tendered and subsequently accepted for exchange, and the Company retired and canceled all Maxim 2027 Notes accepted for exchange. In exchange for the tendered Maxim 2027 Notes, the Company issued approximately \$440.2 million aggregate principal amount of ADI 2027 Notes pursuant to a private exchange offer exempt from, or not subject to, registration under the Securities Act of 1933, as amended and \$0.5 million in cash. The ADI 2027 Notes were issued pursuant to the ADI Base Indenture, as supplemented by a supplemental indenture, which contain certain covenants similar to those applicable to the 2045 Notes, events of default and other customary provisions. The ADI 2027 Notes bear interest at a rate of 3.450% per annum, with semi-annual fixed interest payments due on June 15 and December 15 of each year, commencing on December 15, 2022 and will mature on June 15, 2027. As of October 29, 2022, the Company was in compliance with the covenants in the ADI 2027 Notes and the outstanding Maxim 2027 Notes. The indenture and supplemental indentures with respect to the outstanding Maxim 2027 Notes have been modified to, among other things, eliminate (i) substantially all of the restrictive covenants, (ii) certain of the events of default (other than for the failure to pay principal, premium or interest), (iii) the obligation to offer to repurchase the Maxim 2027 Notes upon certain change of control transactions and (iv) any restrictions on consolidating with or merging into any other person or conveying, transferring or leasing all or any of its properties and assets to any person. Following settlement of the exchange offer, \$59.8 million aggregate principal amount of the Maxim 2027 Notes remain outstanding.

On October 5, 2021, in an underwritten public offering, the Company issued \$500.0 million aggregate principal amount of floating rate senior notes due October 1, 2024 (the Floating Rate Notes), \$750.0 million aggregate principal amount of 1.7% sustainability-linked senior notes due October 1, 2028 (the Sustainability-Linked Senior Notes), \$1.0 billion aggregate principal amount of 2.1% senior notes due October 1, 2031 (the 2031 Notes), \$750.0 million aggregate principal amount of 2.8% senior notes due October 1, 2041 (the 2041 Notes), and \$1.0 billion aggregate principal amount of 2.95% senior notes due October 1, 2051 (the 2051 Notes, and, together with the Floating Rate Notes, the Sustainability-Linked Senior Notes, the 2031 Notes and the 2041 Notes, the Notes). The Floating Rate Notes bear interest at a floating annual rate equal to a benchmark rate, which initially is Compounded SOFR (as defined in the Supplemental Indenture) plus 25 basis points. As of October 29, 2022, the interest rate on the Floating Rate Notes was 0.3% per annum. Interest payments on the Floating Rate Notes are due on January 1, April 1, July 1 and October 1 of each year, beginning on January 1, 2022. The Sustainability-Linked Senior Notes initially bear interest at a rate of 1.7% per annum and are subject to an increase of an additional 30 basis points from April 1, 2026 to the maturity date unless the Sustainability Performance Target (as defined in the Sustainability-Linked Senior Notes) has been satisfied. Semi-annual fixed interest payments on the Sustainability-Linked Senior Notes, the 2031 Notes, the 2041 Notes and the 2051 Notes are due on April 1 and October 1 of each year, beginning on April 1, 2022.

At any time prior to August 1, 2028 in the case of the Sustainability-Linked Senior Notes, July 1, 2031 in the case of the 2031 Notes, April 1, 2041 in the case of the 2041 Notes and April 1, 2051 in the case of the 2051 Notes (each, a Par Call Date), the Company may, at its option, redeem some or all of the applicable series of Notes at a redemption price equal to the greater of (i) 100% of the principal amount of such series of Notes being redeemed and (ii) the make-whole redemption price (as described in the Supplemental Indenture). On and after the applicable Par Call Date, the Company may, at its option, redeem some or all of the applicable series of Notes at a redemption price equal to 100% of the principal amount of the Notes being redeemed. In each case, the Company will also pay the accrued and unpaid interest on the Notes being redeemed to, but

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

excluding, the date of redemption. The Company may not redeem the Floating Rate Notes prior to their maturity. The Notes are unsecured and rank equally in right of payment with all of the Company's other existing and future unsecured senior indebtedness. Debt discounts and issuance costs will be amortized through interest expense over the term of the respective Notes. The Notes were issued pursuant to an indenture, as supplemented by a supplemental indenture, and the indenture and supplemental indenture contain certain covenants, events of default and other customary provisions. As of October 29, 2022, the Company was in compliance with these covenants.

On September 15, 2022, in an underwritten public offering, the Company issued \$300.0 million aggregate principal amount of 4.250% senior notes due October 1, 2032 (the 2032 Notes) with semi-annual fixed interest payments due on April 1 and October 1 of each year, commencing April 1, 2023. The net proceeds of the offering were \$296.1 million, after discounts and issuance costs. Prior to July 1, 2032 (three months prior to the maturity date), the Company may, at its option, redeem the 2032 Notes, in whole or in part, at any time and from time to time, at a redemption price equal to the greater of: (1) (a) the sum of the present values of the remaining scheduled payments of principal and interest thereon discounted to the redemption date (assuming the notes matured on July 1, 2032) on a semi-annual basis at the Treasury Rate plus 20 basis points less (b) interest accrued to the date of redemption, and (2) 100% of the principal amount of the notes to be redeemed, plus, in either case, accrued and unpaid interest thereon to the redemption date. On or after July 1, 2032, the Company may, at its option, redeem the 2032 Notes, in whole or in part, at any time and from time to time, at a redemption price equal to 100% of the principal amount of the 2032 Notes being redeemed plus accrued and unpaid interest thereon to the redemption date. The 2032 Notes are unsecured and rank equally in right of payment with all of the Company's other existing and future unsecured senior indebtedness. The 2032 Notes were issued pursuant to the ADI Base Indenture, as supplemented by a supplemental indenture, which contain covenants similar to those applicable to the 2045 Notes, events of default and other customary provisions. As of October 29, 2022, the Company was in compliance with these covenants.

The Company's debt consisted of the following as of October 29, 2022 and October 30, 2021:

	October 29, 2022		October 30, 2021	
	Principal	Unamortized discounts, debt issuance costs and fair value adjustments	Principal	Unamortized discount and debt issuance costs
2024 Notes, due October 2024	\$ 500,000	\$ 1,973	\$ 500,000	\$ 3,091
2025 Notes, due April 2025	400,000	2,145	400,000	3,029
2026 Notes, due December 2026	900,000	5,258	900,000	6,534
Maxim 2027 Notes, due June 2027	59,788	(5,311)	500,000	(51,646)
2027 Notes, due June 2027	440,212	(37,182)	—	—
2028 Notes, due October 2028	750,000	8,795	750,000	10,419
2031 Notes, due October 2031	1,000,000	12,381	1,000,000	13,956
2032 Notes, due October 2032	300,000	3,822	—	—
2036 Notes, due December 2036	144,278	1,696	144,278	1,814
2041 Notes, due October 2041	750,000	12,868	750,000	13,690
2045 Notes, due December 2045	332,587	3,787	332,587	3,952
2051 Notes, due October 2051	1,000,000	18,008	1,000,000	18,814
Total Long-Term Debt	\$ 6,576,865	\$ 28,240	\$ 6,276,865	\$ 23,653
Maxim 2023 Notes, due March 2023	—	—	500,000	(16,663)
Total Current Debt	\$ —	\$ —	\$ 500,000	\$ (16,663)
Total Debt	\$ 6,576,865	\$ 28,240	\$ 6,776,865	\$ 6,990

15. Subsequent Events

On November 21, 2022, the Board of Directors of the Company declared a cash dividend of \$0.76 per outstanding share of common stock. The dividend will be paid on December 15, 2022 to all shareholders of record at the close of business on December 5, 2022 and is expected to total approximately \$387.1 million.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

(a) *Evaluation of Disclosure Controls and Procedures.* Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of Analog's disclosure controls and procedures as of October 29, 2022. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of October 29, 2022, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

(b) *Management's Report on Internal Control Over Financial Reporting.*

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) or 15d-15(f) promulgated under the Securities Exchange Act of 1934 as a process designed by, or under the supervision of, the company's principal executive and principal financial officers and effected by the company's board of directors, management and other personnel, 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 and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company;
- 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
- 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. 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.

Our management assessed the effectiveness of our internal control over financial reporting as of October 29, 2022. In making this assessment, the company's management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated 2013 Framework.

Based on this assessment, our management concluded that, as of October 29, 2022, our internal control over financial reporting is effective based on those criteria.

Our independent registered public accounting firm that audited the financial statements included in this annual report has issued an attestation report on our internal control over financial reporting. This report appears below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Analog Devices, Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Analog Devices, Inc.'s internal control over financial reporting as of October 29, 2022, 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, Analog Devices, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of October 29, 2022, 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 consolidated balance sheets of Analog Devices, Inc. as of October 29, 2022 and October 30, 2021, the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended October 29, 2022, and the related notes and financial statement schedule listed in the Index at Item 15(a)(2) and our report dated November 22, 2022 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's 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 U.S. 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

Boston, Massachusetts
November 22, 2022

(d) *Changes in Internal Controls over Financial Reporting.* No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act) occurred during the fiscal quarter ended October 29, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

Not applicable.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this item is contained in our 2023 proxy statement to be filed with the U.S. Securities and Exchange Commission (the SEC) within 120 days after October 29, 2022 and is incorporated herein by reference.

We have adopted a written code of business conduct and ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and have posted it in the Corporate Governance section of our website which is located at www.analog.com. To the extent permitted by Nasdaq and SEC regulations, we intend to satisfy any disclosure requirement under Item 5.05 of Form 8-K regarding any amendments to, or waivers from, our code of business conduct and ethics by posting such information on our website which is located at www.analog.com.

During fiscal 2022, we made no material change to the procedures by which shareholders may recommend nominees to our Board of Directors, as described in our 2022 proxy statement.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item is contained in our 2023 proxy statement to be filed with the SEC within 120 days after October 29, 2022 and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this item is contained in our 2023 proxy statement to be filed with the SEC within 120 days after October 29, 2022 and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this item is contained in our 2023 proxy statement to be filed with the SEC within 120 days after October 29, 2022 and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Our independent registered accounting firm is Ernst & Young, Boston, Massachusetts (PCAOB ID: 42).

Information required by this item is contained in our 2023 proxy statement to be filed with the SEC within 120 days after October 29, 2022 and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following are filed as part of this Annual Report on Form 10-K:

1. Financial Statements

The following consolidated financial statements are included in Item 8 of this Annual Report on Form 10-K:

- Consolidated Statements of Income for the years ended October 29, 2022, October 30, 2021 and October 31, 2020
- Consolidated Statements of Comprehensive Income for the years ended October 29, 2022, October 30, 2021 and October 31, 2020
- Consolidated Balance Sheets as of October 29, 2022 and October 30, 2021
- Consolidated Statements of Shareholders' Equity for the years ended October 29, 2022, October 30, 2021 and October 31, 2020
- Consolidated Statements of Cash Flows for the years ended October 29, 2022, October 30, 2021 and October 31, 2020

2. Financial Statement Schedules

Schedule II — Valuation and Qualifying Accounts

All other schedules have been omitted since the required information is not present, or not present in amounts sufficient to require submission of the schedule or because the information required is included in the Consolidated Financial Statements or the Notes thereto.

3. Exhibits

Exhibit No.	Description
2.1	Agreement and Plan of Merger, dated as of July 26, 2016, by and among Analog Devices, Inc., Linear Technology Corporation and Agreement and Plan of Merger, dated as of July 26, 2016, by and among Analog Devices, Inc., Linear Technology Corporation and Tahoe Acquisition Corp. , filed as exhibit 2.1 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on July 29, 2016 and incorporated herein by reference.
2.2	Agreement and Plan of Merger, dated as of July 12, 2020, by and among Analog Devices, Inc., Maxim Integrated Products, Inc. and Magneto Corp. , filed as exhibit 2.1 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on July 15, 2020 and incorporated herein by reference.
3.1	Restated Articles of Organization of Analog Devices, Inc., as amended , filed as exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended May 3, 2008 (File No. 1-7819) as filed with the Commission on May 20, 2008 and incorporated herein by reference.
3.2	Amendment to Restated Articles of Organization of Analog Devices, Inc. , filed as exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on December 8, 2008 and incorporated herein by reference.
3.3	Amended and Restated By-Laws of Analog Devices, Inc. , filed as exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on December 17, 2018 and incorporated herein by reference.
4.1	Indenture, dated as of June 10, 2010, between Maxim Integrated Products, Inc. and Wells Fargo Bank, National Association, as trustee , filed as exhibit 4.4 to Maxim Integrated Products, Inc.'s Registration Statement on Form S-3 (File No. 1-34192) as filed with the Commission on June 10, 2010 and incorporated herein by reference.
4.2	Second Supplemental Indenture, dated as of March 18, 2013, between Maxim Integrated Products, Inc. and Wells Fargo Bank, National Association, as trustee (including the form of note contained therein), filed as exhibit 4.1 to Maxim Integrated Products, Inc.'s Current Report on Form 8-K (File No. 1-34192) as filed with the Commission on March 21, 2013 and incorporated herein by reference.
4.3	Indenture, dated as of June 3, 2013, by and between Analog Devices, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee , filed as exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on June 3, 2013 and incorporated herein by reference.
4.4	Supplemental Indenture, dated as of June 3, 2013, by and between Analog Devices, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee (including the form of note contained therein), filed as exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on June 3, 2013 and incorporated herein by reference.

Exhibit No.	Description
4.5	Supplemental Indenture, dated December 14, 2015, between Analog Devices, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee (including the forms of note contained therein), filed as exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on December 14, 2015 and incorporated herein by reference.
4.6	Supplemental Indenture, dated December 5, 2016, between Analog Devices, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee (including the forms of note contained therein), filed as exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on December 5, 2016 and incorporated herein by reference.
4.7	Fourth Supplemental Indenture, dated as of June 15, 2017, between Maxim Integrated Products, Inc. and Wells Fargo Bank, National Association, as trustee (including the form of note contained therein), filed as exhibit 4.1 to Maxim Integrated Products, Inc.'s Current Report on Form 8-K (File No. 1-34192) as filed with the Commission on June 20, 2017 and incorporated herein by reference.
4.8	Supplemental Indenture, dated March 12, 2018, between Analog Devices, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee (including the forms of note contained therein), filed as exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on March 12, 2018 and incorporated herein by reference.
4.9	Supplemental Indenture, dated April 8, 2020, between Analog Devices, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee (including the form of note contained therein), filed as exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on April 8, 2020 and incorporated herein by reference.
4.10	Supplemental Indenture, dated October 5, 2021, between Analog Devices, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee (including the forms of note contained therein), filed as exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on October 5, 2021 and incorporated herein by reference.
4.11	Supplemental Indenture, dated September 15, 2022, between Analog Devices, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee (including the form of note contained therein), filed as exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on September 15, 2022 and incorporated herein by reference.
4.12	Supplemental Indenture, dated as of October 7, 2022, between Analog Devices, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee (including the form of note contained therein), filed as exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on October 7, 2022 and incorporated herein by reference.
4.13	Fifth Supplemental Indenture, dated as of October 7, 2022, between Maxim Integrated Products, Inc. and Computershare Trust Company, N.A., as successor to Wells Fargo Bank, National Association, as trustee , filed as exhibit 4.4 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on October 7, 2022 and incorporated herein by reference.
4.14	Registration Rights Agreement, dated as of October 7, 2022, between Analog Devices, Inc. and TD Securities (USA) LLC , filed as exhibit 4.5 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on October 7, 2022, and incorporated herein by reference.
4.15	Description of the Registrant's Securities , filed as exhibit 4.6 to the Company's Annual Report on Form 10-K for the fiscal year ended November 2, 2019 (File No. 1-7819) as filed with the Commission on November 26, 2019 and incorporated herein by reference.
*10.1	Analog Devices, Inc. Amended and Restated Deferred Compensation Plan , filed as exhibit 10.1 to the Company's Current Report on Form 8-K as filed with the Commission on December 8, 2008 (File No. 1-7819) and incorporated herein by reference.
*10.2	First Amendment to the Analog Devices, Inc. Amended and Restated Deferred Compensation Plan , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended July 30, 2011 (File No. 1-7819) as filed with the Commission on August 16, 2011 and incorporated herein by reference.
*10.3	Second Amendment to the Analog Devices, Inc. Amended and Restated Deferred Compensation Plan , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended August 1, 2015 (File No. 1-7819) as filed with the Commission on August 18, 2015 and incorporated herein by reference.
*10.4	Third Amendment to the Analog Devices, Inc. Amended and Restated Deferred Compensation Plan , filed as exhibit 10.6 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended July 29, 2017 (File No. 1-7819) as filed with the Commission on August 30, 2017 and incorporated herein by reference.
*10.5	Fourth Amendment to the Analog Devices, Inc. Amended and Restated Deferred Compensation Plan , filed as exhibit 10.5 to the Company's Annual Report on Form 10-K for the fiscal year ended November 2, 2019 (File No. 1-7819) as filed with the Commission on November 26, 2019 and incorporated herein by reference.
*10.6	Fifth Amendment to the Analog Devices, Inc. Amended and Restate Deferred Compensation Plan , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended July 31, 2021 (File No. 1-7819) as filed with the Commission on August 18, 2021 and incorporated herein by reference.

Exhibit No.	Description
*10.7	Trust Agreement for Deferred Compensation Plan dated as of October 1, 2003 between Analog Devices, Inc. and Fidelity Management Trust Company , filed as exhibit 10.28 to the Company's Annual Report on Form 10-K for the fiscal year ended November 1, 2003 (File No. 1-7819) as filed with the Commission on December 23, 2003 and incorporated herein by reference.
*10.8	First Amendment to Trust Agreement for Deferred Compensation Plan between Analog Devices, Inc. and Fidelity Management Trust Company dated as of January 1, 2005 , filed as exhibit 10.3 to the Company's Annual Report on Form 10-K for the fiscal year ended October 28, 2006 (File No. 1-7819) as filed with the Commission on November 20, 2006 and incorporated herein by reference.
*10.9	Second Amendment to Trust Agreement for Deferred Compensation Plan between Analog Devices, Inc. and Fidelity Management Trust Company dated as of December 10, 2007 , filed as exhibit 10.41 to the Company's Annual Report on Form 10-K for the fiscal year ended November 1, 2008 (File No. 1-7819) as filed with the Commission on November 25, 2008 and incorporated herein by reference.
*10.10	Amended and Restated 2006 Stock Incentive Plan of Analog Devices, Inc. , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 1, 2014 (File No. 1-7819) as filed with the Commission on February 18, 2014 and incorporated herein by reference.
*10.11	Analog Devices, Inc. Amended and Restated 2010 Equity Incentive Plan , filed as Exhibit 4.2 to the Post-Effective Amendment No. 1 on Form S-8 to the Company's Registration Statement on Form S-4 (File No. 333-213454) as filed with the Commission on March 15, 2017 and incorporated herein by reference.
*10.12	Form of Global Non-Qualified Stock Option Agreement for Employees for usage under the Company's Amended and Restated 2006 Stock Incentive Plan , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 2, 2019 (File No. 1-7819) as filed with the Commission on February 20, 2019 and incorporated herein by reference.
*10.13	Form of Non-Qualified Stock Option Agreement for Directors for usage under the Company's Amended and Restated 2006 Stock Incentive Plan , filed as exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 28, 2017 (File No. 1-7819) as filed with the Commission on February 15, 2017 and incorporated herein by reference.
*10.14	Form of Global Restricted Stock Unit Agreement for Employees for usage under the Company's Amended and Restated 2006 Stock Incentive Plan , filed as exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 2, 2019 (File No. 1-7819) as filed with the Commission on February 20, 2019 and incorporated herein by reference.
*10.15	Form of Performance Restricted Stock Unit Agreement for Employees for usage under the Company's Amended and Restated 2006 Stock Incentive Plan , filed as exhibit 10.7 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 3, 2018 (File No. 1-7819) as filed with the Commission on February 28, 2018 and incorporated herein by reference.
*10.16	Form of Relative TSR Performance Restricted Stock Unit Agreement for Employees for usage under the Company's Amended and Restated 2006 Stock Incentive Plan , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended May 4, 2019 (File No. 1-7819) as filed with the Commission on May 22, 2019 and incorporated herein by reference.
*10.17	Form of Financial Key Metric Performance Restricted Stock Unit Agreement for Employees for usage under the Company's Amended and Restated 2006 Stock Incentive Plan , filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended May 4, 2019 (File No. 1-7819) as filed with the Commission on May 22, 2019 and incorporated herein by reference.
*10.18	Form of Restricted Stock Unit Agreement for Directors for usage under the Company's Amended and Restated 2006 Stock Incentive Plan , filed as exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 2, 2019 (File No. 1-7819) as filed with the Commission on February 20, 2019 and incorporated herein by reference.
*10.19	Form of Linear Integration Performance Restricted Stock Unit Agreement for Employees for usage under the Analog Devices, Inc. Amended and Restated 2006 Stock Incentive Plan , filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on July 11, 2017 and incorporated by herein reference.
*10.20	Analog Devices, Inc. 2020 Equity Incentive Plan , filed as Appendix B to the Company's Definitive Proxy Statement on Schedule 14A (File No. 1-7819), as filed with the Commission on January 24, 2020 and incorporated herein by reference.
*10.21	Form of Financial Metric Performance Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 1, 2020 (File No. 1-7819) as filed with the Commission on February 19, 2020 and incorporated herein by reference.
*10.22	Form of Global Non-Qualified Stock Option Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan , filed as exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 1, 2020 (File No. 1-7819) as filed with the Commission on February 19, 2020 and incorporated herein by reference.

Exhibit No.	Description
*10.23	Form of Global Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan , filed as exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 1, 2020 (File No. 1-7819) as filed with the Commission on February 19, 2020 and incorporated herein by reference.
*10.24	Form of Restricted Stock Unit Agreement for Directors for usage under the Company's 2020 Equity Incentive Plan , filed as exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 1, 2020 (File No. 1-7819) as filed with the Commission on February 19, 2020 and incorporated herein by reference.
*10.25	Form of Relative Total Shareholder Return Performance Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan , filed as exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended February 1, 2020 (File No. 1-7819) as filed with the Commission on February 19, 2020 and incorporated herein by reference.
*10.26	Non-Qualified Performance Stock Option Agreement – CEO Performance Stock Option Award , filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-07819) as filed with the Commission on December 17, 2020 and incorporated herein by reference.
*10.27	Form of Performance Restricted Stock Unit Agreement – Integration Award , filed as Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 001-07819) as filed with the Commission on December 17, 2020 and incorporated herein by reference.
*10.28	Form of Restricted Stock Unit Agreement for Non-Employee Directors for usage under the Company's 2020 Equity Incentive Plan adopted December 8, 2020 , filed as exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 30, 2021 (File No. 1-7819) as filed with the Commission on February 17, 2021 and incorporated herein by reference.
*10.29	Form of Global Non-Qualified Stock Option Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted December 8, 2020 , filed as exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 30, 2021 (File No. 1-7819) as filed with the Commission on February 17, 2021 and incorporated herein by reference.
*10.30	Form of Global Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted December 8, 2020 , filed as exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 30, 2021 (File No. 1-7819) as filed with the Commission on February 17, 2021 and incorporated herein by reference.
*10.31	Form of Relative Total Shareholder Return Performance Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted December 8, 2020 , filed as exhibit 10.6 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 30, 2021 (File No. 1-7819) as filed with the Commission on February 17, 2021 and incorporated herein by reference.
*10.32	Form of Financial Metric Performance Restricted Stock Unit Agreement for Employees for usage under the 2020 Equity Incentive Plan adopted December 8, 2020 , filed as exhibit 10.7 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 30, 2021 (File No. 1-7819) as filed with the Commission on February 17, 2021 and incorporated herein by reference.
*10.33	Form of Financial Metric Performance Restricted Stock Unit Agreement for China Employees for usage under the 2020 Equity Stock Incentive Plan adopted December 8, 2020 , filed as exhibit 10.8 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 30, 2021 (File No. 1-7819) as filed with the Commission on February 17, 2021 and incorporated herein by reference.
*10.34	Form of Restricted Stock Unit Agreement for Non-Employee Directors for usage under the Company's 2020 Equity Incentive Plan adopted December 7, 2021 , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 29, 2022 (File No. 1-7819) as filed with the Commission on February 16, 2022 and incorporated herein by reference.
*10.35	Form of Global Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted December 7, 2021 , filed as exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 29, 2022 (File No. 1-7819) as filed with the Commission on February 16, 2022 and incorporated herein by reference.
*10.36	Form of Relative Total Shareholder Return Performance Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted December 7, 2021 , filed as exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 29, 2022 (File No. 1-7819) as filed with the Commission on February 16, 2022 and incorporated herein by reference.
*10.37	Form of Financial Metric Performance Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted December 7, 2021 , filed as exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 29, 2022 (File No. 1-7819) as filed with the Commission on February 16, 2022 and incorporated herein by reference.

Exhibit No.	Description
*10.38	Form of EVP Global Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted March 7, 2022 , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2022 (File No. 1-7819) as filed with the Commission on May 18, 2022 and incorporated herein by reference.
*10.39	Form of EVP Performance Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted March 7, 2022 , filed as exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2022 (File No. 1-7819) as filed with the Commission on May 18, 2022 and incorporated herein by reference.
*10.40	Form of Relative Total Shareholder Return Performance Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted April 4, 2022 , filed as exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2022 (File No. 1-7819) as filed with the Commission on May 18, 2022 and incorporated herein by reference.
*10.41	ADI Executive Performance Incentive Plan , filed as exhibit 10.6 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2022 (File No. 1-7819) as filed with the Commission on May 18, 2022 and incorporated herein by reference.
*10.42	Form of Executive Relative Total Shareholder Return Performance Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted June 6, 2022 , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended July 30, 2022 (File No. 1-7819) as filed with the Commission on August 17, 2022 and incorporated herein by reference.
*10.43	Form of Executive Financial Performance Restricted Stock Unit Agreement for Employees for usage under the Company's 2020 Equity Incentive Plan adopted June 6, 2022 , filed as exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended July 30, 2022 (File No. 1-7819) as filed with the Commission on August 17, 2022 and incorporated herein by reference.
*10.44	Amended and Restated 1996 Stock Incentive Plan , filed as exhibit 10.36 to the Company's Annual Report on Form 10-K for the fiscal year ended October 30, 2021 (File No. 1-7819) as filed with the Commission on December 3, 2021 and incorporated herein by reference.
*10.45	Form of Global Restricted Stock Unit Agreement for usage under the Amended and Restated 1996 Stock Incentive Plan , filed as exhibit 10.37 to the Company's Annual Report on Form 10-K for the fiscal year ended October 30, 2021 (File No. 1-7819) as filed with the Commission on December 3, 2021 and incorporated herein by reference.
*10.46	Form of Global Non-Qualified Stock Option Agreement for usage under the Amended and Restated 1996 Stock Incentive Plan , filed as exhibit 10.38 to the Company's Annual Report on Form 10-K for the fiscal year ended October 30, 2021 (File No. 1-7819) as filed with the Commission on December 3, 2021 and incorporated herein by reference.
*10.47	Form of Global Restricted Stock Unit Agreement for Employees for usage under the Company's 1996 Stock Incentive Plan adopted December 7, 2021 , filed as exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended January 29, 2022 (File No. 1-7819) as filed with the Commission on February 16, 2022 and incorporated herein by reference.
*10.48	Form of Employee Retention Agreement , filed as exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended May 5, 2012 (File No. 1-7819) as filed with the Commission on May 22, 2012 and incorporated herein by reference.
*10.49	Employee Change in Control Severance Policy of Analog Devices, Inc., as amended , filed as exhibit 10.20 to the Company's Annual Report on Form 10-K for the fiscal year ended October 30, 1999 (File No. 1-7819) as filed with the Commission on January 28, 2000 and incorporated herein by reference.
*10.50	Senior Management Change in Control Severance Policy of Analog Devices, Inc., as amended , filed as exhibit 10.21 to the Company's Annual Report on Form 10-K for the fiscal year ended October 30, 1999 (File No. 1-7819) as filed with the Commission on January 28, 2000 and incorporated herein by reference.
*10.51	Offer Letter for Prashanth Mahendra-Rajah, dated August 4, 2017 , filed as exhibit 10.28 to the Company's Annual Report on Form 10-K for the fiscal year ended October 28, 2017 (File No. 1-7819) as filed with the Commission on November 22, 2017 and incorporated herein by reference.
*10.52	Maxim Integrated Products, Inc. Amended and Restated Change in Control Employee Severance Plan for U.S. Based Employees , filed as exhibit 10.1 to Maxim Integrated Products, Inc.'s Quarterly Report on Form 10-Q for the fiscal quarter ended December 26, 2020 (File No. 1-34192) as filed with the Commission on January 27, 2021 and incorporated herein by reference.
*10.53	Form of Indemnification Agreement for Directors and Officers , filed as exhibit 10.30 to the Company's Annual Report on Form 10-K for the fiscal year ended November 1, 2008 (File No. 1-7819) as filed with the Commission on November 25, 2008 and incorporated herein by reference.

Exhibit No.	Description
*10.54	Credit Agreement, dated as of June 28, 2019, among Analog Devices, Inc., as Borrower, JPMorgan Chase Bank, N.A. as Administrative Agent and each lender from time to time party thereto , filed as exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on July 1, 2019 and incorporated herein by reference.
*10.55	Third Amended and Restated Credit Agreement, dated as of June 23, 2021, among Analog Devices, Inc., as Borrower, Bank of America, N.A. as Administrative Agent, Swing Line Lender and L/C Issuer, and each lender from time to time party thereto , filed as exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 1-7819) as filed with the Commission on June 23, 2021 and incorporated herein by reference.
*10.56	Analog Devices, Inc. 2022 Employee Stock Purchase Plan, included as Appendix B to the Company's definitive proxy statement on Schedule 14A (File No. 001-07819) as filed with the Securities and Exchange Commission on January 21, 2022 and incorporated herein by reference.
*10.57	Offer Letter for Gregory Bryant dated December 14, 2021 filed as exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2022 (File No. 1-7819) as filed with the Commission on May 18, 2022 and incorporated herein by reference.
*10.58	2022 First and Second Fiscal Quarters Executive Performance Incentive Plan filed as exhibit 10.40 to the Company's Annual Report on Form 10-K for the fiscal year ended October 30, 2021 (File No. 1-7819) as filed with the Commission on December 3, 2021 and incorporated herein by reference.
†21	Subsidiaries of the Company .
†23	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm .
†31.1	Certification Pursuant to Rule 13a-14(a) and 15d-14(a) of the Exchange Act, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Chief Executive Officer) .
†31.2	Certification Pursuant to Rule 13a-14(a) and 15d-14(a) of the Exchange Act, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Chief Financial Officer) .
†32.1	Certification Pursuant to 18 U.S.C. Section 1350 (Chief Executive Officer) .
†32.2	Certification Pursuant to 18 U.S.C. Section 1350 (Chief Financial Officer) .
101. INS	The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the inline XBRL document.**
101. SCH	Inline XBRL Schema Document.**
101. CAL	Inline XBRL Calculation Linkbase Document.**
101. LAB	Inline XBRL Labels Linkbase Document.**
101. PRE	Inline XBRL Presentation Linkbase Document.**
101. DEF	Inline XBRL Definition Linkbase Document**
104	Cover page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101).

† Filed herewith.

* Management contracts and compensatory plan or arrangements required to be filed as an Exhibit pursuant to Item 15(b) of Form 10-K.

** Submitted electronically herewith.

Attached as Exhibit 101 to this report are the following formatted in iXBRL (Inline Extensible Business Reporting Language): (i) Consolidated Statements of Income for the years ended October 29, 2022, October 30, 2021 and October 31, 2020, (ii) Consolidated Balance Sheets as of October 29, 2022 and October 30, 2021, (iii) Consolidated Statements of Shareholders' Equity for the years ended October 29, 2022, October 30, 2021 and October 31, 2020, (iv) Consolidated Statements of Comprehensive Income for the years ended October 29, 2022, October 30, 2021 and October 31, 2020, (v) Consolidated Statements of Cash Flows for the years ended October 29, 2022, October 30, 2021 and October 31, 2020 and (vi) Notes to Consolidated Financial Statements for the years ended October 29, 2022, October 30, 2021 and October 31, 2020.

**ANALOG DEVICES, INC.
ANNUAL REPORT ON FORM 10-K
YEAR ENDED OCTOBER 29, 2022
FINANCIAL STATEMENT SCHEDULE**

ANALOG DEVICES, INC.

SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS

Years ended October 29, 2022, October 30, 2021 and October 31, 2020

(dollar amounts in thousands)

Description	Balance at Beginning of Period	Additions (Reductions) Charged to Income Statement	Other	Deductions	Balance at End of Period
Valuation Allowance for Deferred Tax Asset:					
Year ended October 31, 2020	\$ 116,349	\$ 37,622	\$ 159	\$ —	\$ 154,130
Year ended October 30, 2021	\$ 154,130	\$ 13,714	\$ 147,590	(1) \$ —	\$ 315,434
Year ended October 29, 2022	\$ 315,434	\$ 29,738	\$ (6,067)	\$ —	\$ 339,105

(1) Represents balances assumed as part of the Acquisition.

ITEM 16. FORM 10-K SUMMARY

None.

Name	Title	Date
<hr/> <i>/s/ Mercedes Johnson</i> <hr/> Mercedes Johnson	Director	November 22, 2022
<hr/> <i>/s/ Kenton J. Sicchitano</i> <hr/> Kenton J. Sicchitano	Director	November 22, 2022
<hr/> <i>/s/ Ray Stata</i> <hr/> Ray Stata	Director	November 22, 2022
<hr/> <i>/s/ Susie Wee</i> <hr/> Susie Wee	Director	November 22, 2022

SUBSIDIARIES OF ANALOG DEVICES, INC.
As of October 29, 2022

<u>Name of Subsidiary</u>	<u>State or Other Jurisdiction of Incorporation or Organization</u>
9164-4187 Quebec Inc (dba "Amadis")	Canada
Acuitas Silicon Limited	Ireland
Ad Cooperative LLC	DE
Analog Devices (China) Co. Ltd.	China
Analog Devices (China) Holdings Co., Ltd.	China
Analog Devices (Finland) OY	Finland
Analog Devices (Hangzhou) Co., Ltd.	China
Analog Devices (Phils.) Inc.	Philippines
Analog Devices A.B.	Sweden
Analog Devices A/S	Denmark
Analog Devices Atlantic Unlimited Company	Ireland
Analog Devices Australia Pty. Ltd.	Australia
Analog Devices Canada, Ltd.	Canada
Analog Devices Cooperatief U.A.	Netherlands
Analog Devices Federal LLC	DE
Analog Devices Gen. Trias, Inc.	Philippines
Analog Devices Holdings, B.V.	Netherlands
Analog Devices India Private Limited	India
Analog Devices International Unlimited Company	Ireland
Analog Devices International, LLC	MA
Analog Devices Israel, Ltd.	Israel
Analog Devices Korea, Ltd.	Korea, Republic Of
ANALOG DEVICES LIMERICK UNLIMITED COMPANYY	Ireland
Analog Devices Limited	United Kingdom
Analog Devices Limited Egypt LLC	Egypt
Analog Devices LLC	DE
Analog Devices Mexico , S. de R.L. de C.V.	Mexico
Analog Devices Microelectronics	Egypt
Analog Devices Mikroelektronik Sanayi Ve Ticaret Ltd.	Turkey
Analog Devices Nederland, B.V.	Netherlands
Analog Devices Norway AS	Norway
Analog Devices Pty. Ltd.	Australia
Analog Devices Realty Holdings, Inc.	Philippines
Analog Devices Romania S.R.L.	Romania
Analog Devices S.L.U.	Spain

<u>Name of Subsidiary</u>	<u>State or Other Jurisdiction of Incorporation or Organization</u>
Analog Devices Sdn Bhd	Malaysia
Analog Devices SP. Z o.o.	Poland
Analog Devices Srl	Italy
Analog Devices Taiwan Ltd	Taiwan, Province Of China
Analog Devices, GmbH	Austria
Analog Devices, GmbH	Germany
Analog Devices, Inc.	MA
Analog Devices, K.K.	Japan
Analog Devices, SAS	France
Bedrock Automation Platforms, Inc.	DE
Calvatec Limited	United Kingdom
Cambridge Analog Technologies, Inc.	DE
Electric Motors Test, S.L.	Spain
Hittite Microwave Holding LLC	DE
Hittite Microwave LLC	DE
Hittite Microwave SARL	France
HMC Netherlands, C.V.	Netherlands
Icron Technologies Corporation	Canada
Innova Card	France
Innovasic, Inc.	DE
L&L Engineering, LLC	NH
Linear Technology (Israel) Ltd.	Israel
Linear Technology Corporation Limited	Hong Kong
Linear Technology GK	Japan
Linear Technology Holding LLC	DE
Linear Technology KK	Japan
Linear Technology PTE Ltd	Singapore
Linear Technology S.A.R.L.	France
Linear Technology Semiconductor India Private Limited	India
Linear Technology Taiwan Corporation	Taiwan, Province Of China
Maxim (I.P.) Enterprise Solutions Corporation	Philippines
Maxim Dallas (Shanghai) Semiconductor Trading Co. Ltd.	China
Maxim France SARL	France
Maxim Gesellschaft fur elektronische integrierte Bausteine GmbH	Germany
Maxim India Integrated Circuit Design Private Limited	India
Maxim Integrated Acquisition GmbH	Germany
Maxim Integrated GmbH	Austria
Maxim Integrated Products (Thailand) Co., Ltd.	Thailand

Name of Subsidiary**State or Other Jurisdiction of Incorporation or Organization**

Maxim Integrated Products Asia Limited	Hong Kong
Maxim Integrated Products GmbH (Austria)	Austria
Maxim Integrated Products GmbH (Germany)	Germany
Maxim Integrated Products India Sales Private Limited	India
Maxim Integrated Products International Limited	Ireland
Maxim Integrated Products International Sales Ireland Ltd, Filial Sweden	Sweden
Maxim Integrated Products International Sales Japan GK	Japan
Maxim Integrated Products International Sales Limited	Ireland
Maxim Integrated Products International Sales Limited T✓rkiye Istanbul rtibat B✓rosu	Turkey
Maxim Integrated Products Korea Inc.	Korea, Republic Of
Maxim Integrated Products UK Limited	United Kingdom
Maxim Integrated Products, Inc.	DE
Maxim International Holding Inc.	DE
Maxim Island Holdings Corporation	Canada
Maxim Japan Co., Ltd	Japan
Maxim Mikroelektronik Tasarim ve Gelistirme Ltd. Sti	Turkey
Maxim Phil. Holding Corporation	Philippines
Maxim Phil. Land, Corporation	Philippines
Maxim Phil. Operating Corporation	Philippines
Maxim Semiconductor Corporation (Taiwan)	DE
Mobilygen Corporation	CA
Multigig, Inc.	DE
MXIM Circuits Design Shanghai Limited	China
OneTree MicroDevices, Inc.	DE
Otosense Inc.	DE
Phyworks Limited	United Kingdom
Scintera Networks LLC	DE
Security Bank Corp. (trustee of Maxim EE Retirement Plan)	Philippines
Semiconductor Topco Corp.	DE
TagArray, Inc.	DE
Teridian Semiconductor Corporation	CA
Teridian Semiconductor Intermediate Holding Corp.	DE
Trinamic Motion Control GmbH & Co. KG	Germany
Trinamic OÜ	Estonia
Trinamic Verwaltungsgesellschaft mbH ("Trinamic GmbH")	Germany
Volterra Asia Pte. Ltd.	Singapore
Volterra Semiconductor LLC	DE

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statements on Form S-8 (Nos. 2-63561, 2-90023, 33-4067, 33-22604, 33-22605, 33-29484, 33-39851, 33-39852, 33-46521, 33-60642, 33-60696, 33-61427, 33-64849, 333-04771, 333-04819, 333-04821, 333-47787, 333-47789, 333-48243, 333-69359, 333-79551, 333-87055, 333-40224, 333-40222, 333-50092, 333-53314, 333-53828, 333-57444, 333-75170, 333-113510, 333-132409, 333-156309, 333-163653, 333-181951, 333-194556, 333-216696, 333-237083, 333-259081, and 333-265057) of Analog Devices, Inc.,
- (2) Registration Statements on Form S-3 (Nos. 333-08505, 333-08509, 333-17651, 333-87053, 333-48928, 333-51530, 333-53660, 333-235864, and 333-259782) of Analog Devices, Inc., and
- (3) Registration Statement on Form S-4 (No. 333-213454) of Analog Devices, Inc., including Post-Effective Amendment No. 1 on Form S-8 to Form S-4, and Registration Statement on Form S-4 (No. 333-248092) of Analog Devices, Inc.;

of our reports dated November 22, 2022, with respect to the consolidated financial statements and schedule of Analog Devices, Inc. and the effectiveness of internal control over financial reporting of Analog Devices, Inc. included in this Annual Report (Form 10-K) of Analog Devices, Inc. for the year ended October 29, 2022.

/s/ Ernst & Young LLP

Boston, Massachusetts

November 22, 2022

CERTIFICATION

I, Vincent Roche, certify that:

1. I have reviewed this annual report on Form 10-K of Analog Devices, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Vincent Roche

Vincent Roche
Chief Executive Officer and Chair of the Board of
Directors
(Principal Executive Officer)

Dated: November 22, 2022

CERTIFICATION

I, Prashanth Mahendra-Rajah, certify that:

1. I have reviewed this annual report on Form 10-K of Analog Devices, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Prashanth Mahendra-Rajah

Prashanth Mahendra-Rajah
Executive Vice President, Finance
and Chief Financial Officer
(Principal Financial Officer)

Dated: November 22, 2022

**Certification Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report on Form 10-K of Analog Devices, Inc. (the "Company") for the period ended October 29, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Vincent Roche, Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Vincent Roche

Vincent Roche
Chief Executive Officer

Dated: November 22, 2022

**Certification Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report on Form 10-K of Analog Devices, Inc. (the "Company") for the period ended October 29, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Prashanth Mahendra-Rajah, Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Prashanth Mahendra-Rajah

Prashanth Mahendra-Rajah
Chief Financial Officer

Dated: November 22, 2022