**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 March 30, 2019**

☐ **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 000-18548**

# Xilinx, Inc.

***(Exact name of registrant as specified in its charter)***

| **Delaware** | **77-0188631** |
|---|---|
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification No.) |
| **2100 Logic Drive, San Jose, CA** | **95124** |
| (Address of principal executive offices) | (Zip Code) |

(Registrant's telephone number, including area code) **(408) 559-7778**
Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Trading Symbol | Name of each exchange on which registered |
|---|---|---|
| Common stock, $0.01 par value | XLNX | The 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) 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 ☑ | Accelerated filer ☐ | Non-accelerated filer ☐ |
| Smaller reporting company ☐ | Emerging growth company ☐ | |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

The aggregate market value of the voting stock held by non-affiliates of the registrant based upon the closing price of the registrant's common stock on September 29, 2018 as reported on the Nasdaq Global Select Market was approximately $16,875,863,000. Shares of common stock held by each executive officer and director and by each person who owns 5% or more of the outstanding common stock have been excluded in that such persons may be deemed affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of April 26, 2019, the registrant had approximately 253,920,000 shares of Common Stock outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Parts of the Proxy Statement for the Registrant's Annual Meeting of Stockholders to be held on August 8, 2019 are incorporated by reference into Part III of this Annual Report on Form 10-K.

**Xilinx, Inc.**
**Form 10-K**
**For the Fiscal Year Ended March 30, 2019**
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**FORWARD-LOOKING STATEMENTS**

*This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be found throughout this Annual Report, which may include discussions concerning our development efforts, strategy, new product introductions, backlog and litigation. Forward-looking statements involve numerous known and unknown risks and uncertainties and are based on current expectations that could cause actual results to differ materially and adversely from those expressed or implied. Such risks include, but are not limited to, those discussed throughout this document as well as in Item 1A "Risk Factors" and elsewhere in this document. Often, forward-looking statements can be identified by the use of forward-looking words, such as "may," "will," "could," "should," "expect," "believe," "anticipate," "estimate," "continue," "plan," "would," "intend," "project" and other similar terminology, or the negative of such terms. We disclaim any responsibility to update or revise any forward-looking statement provided in this Annual Report or in any of our other communications for any reason.*

## PART I

## ITEM 1. BUSINESS

Xilinx, Inc. (Xilinx, the Registrant, the Company or we) designs and develops programmable devices and associated technologies, including:

- integrated circuits (ICs) in the form of programmable logic devices (PLDs), including programmable System on Chips (SoCs) and three-dimensional ICs (3D ICs);
- Adaptive Compute Acceleration Platform (ACAP): a highly integrated multi-core heterogeneous compute platform;
- software design tools to program the PLDs;
- software development environments and embedded platforms;
- targeted reference designs;
- printed circuit boards; and
- intellectual property (IP), which consists of Xilinx and various third-party verification and IP cores.

In addition to its programmable platforms, Xilinx provides design services, customer training, field engineering and technical support.

Xilinx develops highly flexible and adaptive processing platforms that enable rapid innovation across a variety of technologies - from the endpoint to the edge to the cloud. Xilinx is the inventor of field programmable gate arrays (FPGA), hardware programmable SoCs and the Adaptive Compute Acceleration Platform (ACAP), designed to deliver the most dynamic processor technology in the industry and enable the adaptable, intelligent and connected world of the future. Our product portfolio is designed to provide high integration and quick time-to-market for electronic equipment manufacturers in sub-segments such as data center, wireless, wireline, aerospace and defense, test and measurement, industrial, scientific and medical, automotive, audio, video and broadcast and consumer.

We sell our products and services through independent domestic and foreign distributors and through direct sales to original equipment manufacturers (OEMs) and electronic manufacturing service providers (EMS). Sales are generated by these independent distributors, independent sales representative or our direct sales organization.

Xilinx was founded and incorporated in California in February 1984. In April 1990, the Company was reincorporated in Delaware. Our corporate facilities and executive offices are located at 2100 Logic Drive, San Jose, California 95124, and our website address is www.xilinx.com.

**Industry Overview**

Several silicon architectures including microprocessors, graphics processing units (GPUs), application specific standard products (ASSPs), and custom application specific integrated circuits (ASICs) are used for compute in most digital electronic systems today. Central processing units (CPUs) historically have been the most common platform used by software developers but has limitations when used for modern compute tasks ranging from real-time control to machine learning. Fixed function acceleration and heterogeneous systems ranging from GPUs, ASSPs, and custom ASICs meet some of these compute demands but with a limited range of flexibility.

Xilinx develops adaptable hardware platforms that enable hardware acceleration and rapid innovation across a variety of technologies-from the endpoint to the edge to the cloud. Xilinx is the inventor of the FPGA, hardware programmable SoCs and

the ACAP, all designed to deliver the most dynamic processor technology for adaptable systems. In particularly, the ACAP draws on the strengths of CPUs, FPGAs, and fixed function accelerators to accelerate any workload with ease-of-use for software and hardware developers alike.

Other advantages of Xilinx adaptable platforms include:

- Faster time-to-market and increased design flexibility. Both of these advantages are enabled by Xilinx development tools which allows users to implement and revise their designs quickly. In contrast, ASICs and ASSPs require significant development time and offer limited, if any, flexibility to make design changes.

- Xilinx adaptable platforms are standard components. This means that the same device can be sold to many different users for a myriad of applications. In sharp contrast, ASICs and ASSPs are customized for an individual user or a specific application.

Hardware adaptable platforms are generally disadvantaged in terms of relative device size when compared to devices that are designed to perform a fixed function in a single or small set of applications. ASICs and ASSPs tend to be smaller than FPGAs, hardware programmable SoCs, and ACAPs performing the same fixed function, resulting in a lower unit cost.

However, there is a high fixed cost associated with ASIC and ASSP development that is not applicable to customers of hardware programmable ICs. This fixed cost of ASIC and ASSP development significantly increases for every next generation technology node. From a total cost of development perspective, ASICs and ASSPs have generally been more cost effective when used in high-volume production, and hardware programmable platforms have generally been more cost effective when used in low- to mid-volume production. However, we expect hardware adaptable platforms to be able to address higher volume applications and gain market share from ASIC and ASSP suppliers as the fixed cost of ASIC and ASSP development increases on next generation technology nodes.

An overview of PLD and market applications for our products is shown in the following table:

| End Markets | Sub-Segments | Applications |
| --- | --- | --- |
| Data Center & Test, Measurement & Emulation (TME) | Data Center | • Compute, Storage and Network Acceleration<br>• High-Performance Computing |
| | Test and Measurement | • Semiconductor Test and Measurement Equipment<br>• Semiconductor Emulation and Prototyping |
| Communications | Wireless | • 3G/4G/5G Base Stations/Antennas<br>• Wireless Backhaul |
| | Wireline | • Enterprise Routers and Switches<br>• Metro Optical Networks |
| Industrial, Aerospace & Defense | Industrial, Scientific and Medical | • Factory Automation<br>• Medical Imaging<br>• Machine Vision |
| | Aerospace and Defense | • Secure Communications<br>• Avionics |
| Automotive, Broadcast & Consumer | Automotive | • Driver Assistance Systems<br>• Driver Information Systems<br>• Infotainment Systems |
| | Audio, Video and Broadcast | • Post Production Equipment<br>• "Prosumer" Video Equipment |
| | Consumer | • Digital Projectors<br>• Multifunction printers |

**Strategy and Competition**

Our strategy for growth is to displace ASICs, ASSPs and traditional PLDs in the next generation electronic systems. Additionally, we focus on enabling "building the adaptable intelligent world" with an emphasis on the three major elements described below.

- Data center first: Xilinx is ramping up its efforts with key data center customers, ecosystem partners and software application developers, to further enable innovation and deployments in compute acceleration, computational storage and network acceleration.
- Accelerated growth in core markets: core markets consist of automotive; wireless infrastructure; wired communications; audio, video and broadcast; aerospace and defense; industrial, scientific and medical; test, measurement and emulation; and consumer technologies where the Company has leadership technology and substantial market traction. These core markets and customers are central to Xilinx, and Xilinx continues to drive and enable innovation to these areas.
- Drive adaptive computing with the introduction of ACAP: in March 2018, we announced the ACAP, which we believe is a breakthrough product category. ACAP is a highly integrated multi-core heterogeneous compute platform that can be programmed at the hardware level to adapt to the needs of a wide range of applications and workloads. An ACAP's adaptability, which can be done dynamically in milliseconds during operation, delivers levels of performance and performance per-watt that is unmatched by CPUs or GPUs.

The costs and risks associated with application-specific devices can only be justified for high-volume or highly-specialized commodity products. Programmable platforms, alternatively, are becoming critical for our customers to meet increasingly stringent product requirements - cost, power, performance and density - in a business environment characterized by increased complexity, shrinking market windows, rapidly changing market demands, capped engineering budgets, escalating ASIC and ASSP engineering costs and increased economic and development risk.

With every new generation of our products, our strategy is to increase the performance, density and system-level functionality and integration, while driving down cost and power consumption at each manufacturing process node. This enables us to provide simpler, smarter programmable platforms and design methodologies allowing our customers to focus on innovation and differentiation of their products.

Our products now compete in the several areas of the semiconductor industry that is intensely competitive and characterized by rapid technological change, increasing levels of integration, product obsolescence and continuous price erosion. We expect continued competition from our primary PLD competitors such as Intel Corporation (Intel), Lattice Semiconductor Corporation (Lattice) and Microsemi Corporation (Microsemi, acquired by Microchip), and from ASSP vendors such as Broadcom Corporation (Broadcom), Marvell Technology Group, Ltd. (Marvell) and Texas Instruments Incorporated (Texas Instruments), as well as from companies such as NVIDIA with whom we historically have not competed. In addition, we expect continued competition from the ASIC market, which has been ongoing since the inception of FPGAs. Other competitors include manufacturers of:

- high-density programmable logic products characterized by FPGA-type architectures;
- high-volume and low-cost FPGAs as programmable replacements for ASICs and ASSPs;
- ASICs and ASSPs with incremental amounts of embedded programmable logic;
- high-speed, low-density CPLDs;
- high-performance digital signal processing (DSP) devices;
- products with embedded processors;
- products with embedded multi-gigabit transceivers;
- discrete general-purpose GPUs targeting data center and automotive applications;
- other new or emerging programmable logic products; and
- large enterprises, like hyperscalers, that have the resources to develop proprietary semiconductors.

We believe that important competitive factors in the logic IC industry include:

- product pricing;
- time-to-market;
- product performance, reliability, quality, power consumption and density;
- field upgradability;
- adaptability of products to specific applications;
- ease of use and functionality of software design tools;
- availability and functionality of predefined IP;
- completeness of applicable software solutions;

- adherence to industry standard programming environments;
- inventory and supply chain management;
- access to leading-edge process technology and assembly capacity;
- ability to provide timely customer service and support; and
- access to advanced packaging technology.

**Silicon Product Overview**

A brief overview of the silicon product offerings is listed in the table below. These products comprise the majority of our revenues. Additionally, some of our more mature product families have been excluded from the table, although they continue to generate revenues. We operate and track our results in one operating segment for financial reporting purposes.

**Product Families**

| Boards/PLDs | Date Introduced |
|---|---|
| Alveo | October 2018 |
| Zynq UltraScale+ RFSoCs | February 2017 |
| Spartan-7 | September 2016 |
| Virtex UltraScale+ | January 2016 |
| Kintex UltraScale+ | December 2015 |
| Zynq UltraScale+ | September 2015 |
| Virtex UltraScale | May 2014 |
| Kintex UltraScale | November 2013 |
| Zynq-7000 | March 2011 |
| Virtex-7 | June 2010 |
| Kintex-7 | June 2010 |
| Artix-7 | June 2010 |
| Virtex-6 | February 2009 |
| Spartan-6 | February 2009 |

See information under the caption "Results of Operations - Net Revenues" in Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" for information about our revenues from our product families. See also "Note 15. Segment Information" to our consolidated financial statements included in Item 8. "Financial Information and Supplementary Data" for information regarding segments.

*Alveo Board Products*

The Alveo portfolio of powerful accelerator cards is designed to dramatically increase performance in industry-standard servers across cloud and on-premise data centers. With Alveo, customers can expect breakthrough performance improvement at low latency when running a broad range of data center applications, including machine learning inference, video processing, genomics, and data analytics, among others.

*UltraScale+ Product Families*

The UltraScale+ portfolio consists of three product families and is manufactured using Taiwan Semiconductor Manufacturing Company Limited's (TSMC) 16 nanometer (nm) FinFET+ process. The UltraScale+ portfolio includes FPGAs, 3D IC technology, Multi- Processing System on a Chip (MPSoCs) products, combining new memory, 3D on 3D and multiprocessing SoC technologies, and the industry’s first All Programmable SoC architecture with integrated radio frequency (RF) data converters.

- Zynq UltraScale+ RFSoCs integrate RF data converters into an All Programmable SoC architecture. Complete with an ARM Cortex-A53 processing subsystem, UltraScale+ programmable logic, and the highest signal processing bandwidth in a Zynq UltraScale+ device, the new family provides a comprehensive RF signal chain for wireless, cable access, test & measurement, early warning/radar, and other high-performance RF applications.

- Virtex UltraScale+ devices, which include industry-leading capabilities such as 32G Transceivers, Peripheral Component Interconnect Express (PCIe) Gen 4 integrated cores, and UltraRam on-chip memory technology, provide the required performance and integration needed for next generation data center, 400G and terabit wireline, test and measurement, and aerospace and defense applications.

- Kintex UltraScale+ devices provide a strong price/performance watt balance in a Fin Field Effect Transistor (FinFET) node, delivering a very cost-effective solution for high-end capabilities including transceiver and memory interface line rates, as well as 100G connectivity cores. These devices are ideal for both packet processing and DSP-intensive functions and are well suited for applications ranging from wireless technology to high-speed wired networking and data center.

- The Zynq UltraScale+ product family represents the Company's second generation Programmable SoC family. This new family combines seven user programmable processors cores including a 64-bit quad-core ARM Cortex A53 Application Processing Unit, a 32-bit dual-core ARM Cortex R5 Real Time Processing Unit, and an ARM Mali 400 Graphics Processing Unit. These devices enable the development of next generation embedded vision, automotive, industrial Internet of things (IoT) and communication systems by providing significant increases in system level performance/watt and any-to-any connectivity with the security and safety required for next generation systems.

*UltraScale Product Families*

These devices deliver an ASIC-class advantage, based on the UltraScale architecture and utilizing TSMC's 20nm gate density process. These devices deliver next generation routing, ASIC-like clocking, and enhancements to logic and fabric to eliminate interconnect bottlenecks while supporting consistent device utilization.

- Kintex UltraScale FPGAs represent the Company's second-generation mid-range FPGA family. These devices offer high price-performance at the lowest power. Kintex UltraScale devices are designed to meet the requirements for the growing number of key applications including next generation wireline and wireless communications and ultra-high definition displays and equipment.

- Virtex UltraScale devices provide advanced levels of performance, system integration and bandwidth on a single chip. The largest family member delivers 4.4M logic cells, more than doubling Xilinx's industry's highest capacity device and delivering 50M equivalent ASIC gates. Virtex UltraScale devices are expected to be used in the industry's most challenging applications including: 400G communication applications, high-performance computing, surveillance and reconnaissance systems, and ASIC emulation and prototyping.

*28nm Product Families*

The 28nm product families are fabricated on a high-K metal gate, high-performance and low power 28nm process technology. These product families are based on a scalable and optimized architecture, which enables design, IP portability and re-use across all families as well as provides designers the ability to achieve the appropriate combination of input/output (I/O) support, performance, feature quantities, packaging and power consumption to address a wide range of applications. The 28nm product families include:

- Virtex-7 FPGAs, including 3D ICs, are optimized for applications requiring the highest capacity, performance, DSP and serial connectivity with transceivers operating up to 28G. Target applications include 400G and 100G line cards, high-performance computing and test and measurement applications.

- Kintex-7 FPGAs represent Xilinx's first mid-range FPGA family. These devices maximize price-performance and performance per watt. Target applications include wireless Long Term Evolution (LTE) infrastructure, video display technology and medical imaging.

- Artix-7 FPGAs offer the lowest power and system cost at higher performance than alternative high-volume FPGAs. These devices are targeted to high-volume applications such as handheld portable ultrasound devices, multi-function printers and software defined radios.

- The Zynq-7000 family is the first family of Xilinx programmable SoCs. This class of product combines an industry-standard ARM dual-core Cortex-A9 MPCore processing system with Xilinx 28nm architecture. There are five devices in the Zynq-7000 SoC family that allow designers to target cost sensitive as well as high-performance applications from a single platform using industry-standard tools. These devices are designed to enable incremental market opportunities

in applications such as industrial motor control, driver assistance and smart surveillance systems, and smart heterogeneous wireless networks.

- Spartan-7 FPGAs offer the best performance and power consumption in their class, along with small form factor packaging to meet the most stringent requirements. These devices are ideally suited for industrial, consumer, and automotive applications including any-to-any connectivity, sensor fusion, and embedded vision.

*40nm and 45nm Product Families*

The Virtex-6 FPGA family consists of 13 devices and is the sixth generation in the Virtex series of FPGAs. Virtex-6 FPGAs are fabricated on a high-performance 40nm process technology. There are three Virtex-6 families, and each is optimized to deliver different feature mixes to address a variety of markets.

The Spartan-6 FPGA family, is fabricated on a low-power 45nm process technology. The Spartan-6 family is the PLD industry's only 45nm high-volume FPGA family, consisting of 11 devices in two product families.

*Other Product Families*

Prior generation Virtex families include Virtex-5, Virtex-4, Virtex-II Pro, Virtex-II and the original Virtex family. Spartan family FPGAs include Spartan-3 FPGAs, the Spartan-3E family and the Spartan-3A family. Prior generation Spartan families include Spartan-IIE, Spartan-II, Spartan XL and the original Spartan family.

CPLDs operate on the lowest end of the programmable logic density spectrum. CPLDs are single-chip, nonvolatile solutions characterized by instant-on and universal interconnect. CPLDs combine the advantages of ultra-low power consumption with the benefits of high performance and low cost. Prior generations of CPLDs include the CoolRunner and XC9500 product families.

*EasyPath FPGAs*

EasyPath FPGAs offer customers a fast, simple method of cost-reducing FPGA designs. EasyPath FPGAs use the same production masks and fabrication process as standard FPGAs and are tested to a specific customer application to improve yield and lower costs.

**Design Platforms and Services**

*Adaptable Platforms*

We offer three types of platforms that support our customers' designs and reduce their development efforts: FPGAs, hardware programmable SoCs, and ACAPs. All devices feature adaptable hardware that enable our customers to implement domain-specific architectures on the same physical device. With both hardware-accelerated performance and flexibility beyond what CPUs, GPUs, ASSPs, and ASICs can offer, customers can introduce new innovations to the market quickly.

FPGAs feature reconfigurable hardware as well as integrated memory, digital signal processing, analog mixed signal, high-speed serial transceivers, and networking cores coupled with advanced software for a broad range of applications in all of Xilinx’s end markets.

Our hardware programmable SoCs feature multi-core processors with integrated programmable hardware fabric targeting autonomous embedded systems needing real-time control, analytics, sensor fusion, and adaptable hardware for differentiation and acceleration. Our Zynq UltraScale+ RFSoCs feature integrated high-performance RF data converters targeting wireless, radar, and cable access applications. Enabled by both hardware and software design tools and an extensive operating system, middleware, software stack, and IP ecosystem, Xilinx SoC platforms target software developers as well as traditional hardware designers.

ACAPs are the most recent addition to the silicon portfolio and represent a new device category. Versal (the industry’s first ACAP) combines Scalar Processing Engines, Adaptable Hardware Engines, and Intelligent Engines with leading-edge memory and interfacing technologies to deliver powerful heterogeneous acceleration for any application. ACAPs are ideally suited to accelerate a broad set of applications in the emerging era of big data and artificial intelligence. Versal ACAP's hardware and software can be programmed and optimized by software developers, data scientists, and hardware developers alike, enabled by a host of tools, software, libraries, IP, middleware, and frameworks that enable industry-standard design flows.

*Design Tools*

To accommodate the various design methodologies and design flows employed by the wide range of our customers' user profiles such as system designers, algorithm designers, software coders and logic designers, we provide the appropriate design environment tailored to each user profile for design creation, design implementation and design verification. In April 2012, Xilinx introduced the next-generation Vivado Design Suite designed to improve developer productivity resulting in faster design integration and implementation. The Vivado Design Suite hallmarks include an easy-to-use IP-centric design flow and significant improvement in run times. The standards-based Vivado tools include high-level synthesis to provide a more direct flow in retargeting DSPs and general-purpose processor designs into our FPGAs, IP Integrator to rapidly stitch together cores at higher levels of abstraction, and a new analytical place-and-route engine which significantly improves run times. The Vivado Design Suite supports Xilinx 7 series FPGAs and Zynq-7000, our programmable SoCs, as well as the Ultrascale and Ultrascale+ product generations.

The previous generation tool suite, the ISE Design Suite, supports Xilinx 7 series FPGAs, programmable SoCs and all previous generation FPGAs, enabling customers to transition to the Vivado Design Suite when the timing is right for their design needs. Both the Vivado Design Suite and ISE Design Suite operate with a wide range of third-party Electronic Design Automation software point-tools offerings.

Xilinx's software development environments and embedded platforms offer a comprehensive set of familiar and powerful tools, libraries and methodologies. These environments significantly lower the customer's development time while also allowing the customer to create custom hardware accelerators easily and on demand. In early 2015, Xilinx introduced the SDx development environment, which has significantly expanded the Xilinx user base to include the broad community of systems and software engineers in both existing and new markets. The SDAccel and SDSoC environments offer GPU-like and familiar embedded application development and runtime experiences for C, C++, and/or open computing language (OpenCL) development, while the SDNet environment enables networking engineers to create high performance programmable data plane designs.

*Intellectual Property*

Xilinx and various third parties offer hundreds of no charge and fee-bearing IP core licenses covering Ethernet, memory controllers, Interlaken and peripheral component interconnect express (PCIe) interfaces, as well as an abundance of domain-specific IP in the areas of embedded, DSP and connectivity, and market-specific IP cores. In addition, our products and technology leverage industry standards such as ARM AMBA AXI-4 interconnect technology, IP-XACT and Institute of Electrical and Electronics Engineers (IEEE) P1735 encryption to facilitate plug-and-play FPGA design and take advantage of the large ecosystem of ARM IP developers.

*Development Boards, Kits and Configuration Products*

In addition to the broad selection of legacy development boards presently offered, we have introduced a new unified board strategy that enables the creation of a standardized and coordinated set of base boards available both from Xilinx and our ecosystem vendors, all utilizing the industry-standard extensions that enable customization for market specific applications. Adopting this standard for all of our base boards enables the creation of a scalable and extensible delivery mechanism for all Xilinx programmable platforms.

We also offer comprehensive development kits including hardware, design tools, IP and reference designs that are designed to streamline and accelerate the development of domain-specific and market-specific applications.

Finally, Xilinx offers a range of configuration products including one-time programmable and in-system programmable storage devices to configure Xilinx FPGAs. These programmable read-only memory (PROM) products support all of our FPGA devices.

*Third-Party Alliances*

Xilinx and certain third parties have developed and continue to offer a robust ecosystem of IP, boards, tools, services and support through the Xilinx alliance program. Xilinx also works with these third parties to promote our programmable platforms through third-party tools, IP, software, boards and design services.

In May of 2016, Xilinx led the formation of the very broad Cache Coherent Interconnect Acceleration (CCIX) consortium with the singular goal of bringing a high-performance, open acceleration framework to the data center market. As of March 2019, this consortium had approximately 40 members, ranging from silicon providers to a rich ecosystem of partners including design, foundry, verification, software and system vendors.

*Engineering Services*

Xilinx engineering services provide customers with engineering resources to augment their design teams and to provide expert design-specific advice. Xilinx tailors its engineering services to the needs of its customers, ranging from hands-on training to full design creation and implementation.

**Research and Development**

Our research and development (R&D) activities are primarily directed towards the design of new ICs and the development of both new design automation tools for hardware and embedded software and optimized software tools that expand the reach of our platforms to software developers, the design of logic IP, the adoption of advanced semiconductor manufacturing processes for ongoing cost reductions, performance and signal integrity improvements and lowering PLD power consumption.

As a result of our R&D efforts, we have introduced a number of new products during the past several years including the Virtex, Kintex, Zynq UltraScale+, Zynq UltraScale+ RFSoCs, Virtex & Kintex UltraScale and Alveo board families. We have enhanced our IP core offerings and introduced our next generation software design suite (Vivado), which is optimized for SDAccel and SDSoC application development. Through process technology collaboration with our foundry suppliers along with strategic investment in Electronic Design Automation tools and improved design techniques, we were the first PLD Company to ship 45nm, 28nm, 20nm and 16nm FPGA devices in high volume. Additionally, our investment in R&D has allowed us to ship the industry's first 28nm and 16nm devices with embedded ARM technology, the industry's first All Programmable SoC with integrated RF Data Converters, as well as the industry's first 3D IC devices on the 28nm and 20nm process nodes.

We believe technical leadership and innovation are essential to our future success, and we will continue to invest in our technology.

**Sales and Distribution**

We sell our products to OEMs, EMS and to electronic components distributors who resell these products to OEMs and EMS. We are also developing a network of Value Added Resellers (VARs) and Integrated Solution Vendors (ISVs) for our Alveo products. We characterize distributors, VARs and ISVs as our distribution channel.

We use a dedicated global sales and marketing organization, and to a lesser extent, independent sales representatives, to generate sales. In general, we focus our direct demand creation efforts on key accounts. Our distribution channel and independent sales representatives create demand within the balance of our customer base in defined territories or for markets aligned with their focus. The distributor channel also provides inventory, value-added services and logistics for a wide range of OEM or end customers.

Whether Xilinx, the distributor, or the independent sales representative identifies the sales opportunity, a local distributor will process and fulfill the majority of all customer orders. In such situations, distributors are the sellers of the products and as such they bear most legal and financial risks generally related to the sale of commercial goods, including such risks as credit loss, inventory shrinkage, theft and foreign currency fluctuations, but excluding certain indemnity and warranty liabilities.

In accordance with our distribution agreements and industry practice, we have granted our authorized distributors the contractual right to return certain amounts of unsold product on a periodic basis and also receive price adjustments for unsold product in the case of a change in list prices subsequent to the initial sale. Revenues from sales to our distributors and non-distributors are recognized upon the transfer of control, which typically occurs at shipment. Our revenue recognition policy changed in fiscal 2019, see "Note 2. Summary of Significant Accounting Policies and Concentrations of Risk" to our consolidated financial statements, included in Item 8 "Financial Statements and Supplementary Data."

Avnet, Inc. (Avnet) distributes the substantial majority of our products worldwide. Avnet's revenue accounted for 45%, 43% and 45% of our worldwide net revenues in fiscal 2019, 2018 and 2017, respectively. As of March 30, 2019 and March 31, 2018, Avnet accounted for 37% and 61%, respectively, of our total net accounts receivable. We expect our accounts receivable to fluctuate as we partner with our distributors to manage their inventory requirements. We also use other regional distributors throughout the world. We believe distributors provide a cost-effective means of reaching a broad range of customers while providing efficient logistics services. Since PLDs are standard products, they do not carry many of the inventory risks posed by ASICs. 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. See "Note 2. Summary of Significant Accounting Policies and Concentrations of Risk" to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data," for information about concentrations of credit risk and "Note 15. Segment Information" for information about our revenues from external customers and domestic and international operations.

No other distributor or end customer accounted for more than 10% of our net revenues in fiscal 2019, 2018 or 2017.

**Backlog**

As of March 30, 2019, our backlog from OEM customers and backlog from end customers reported by our distributors scheduled for delivery within the next three months was $644.0 million, compared to $429.0 million as of March 31, 2018. Orders from end customers to our distributors are subject to changes in delivery schedules or to cancellation without significant penalty. As a result, backlog from both OEM customers and end customers reported by our distributors as of any particular period may not be a reliable indicator of revenue for any future period.

**Wafer Fabrication**

As a fabless semiconductor company, we do not manufacture wafers used for our IC products or PROMs. Rather, we purchase our wafers from independent foundries including TSMC, United Microelectronics Corporation (UMC) and Samsung Electronics Co., Ltd. (Samsung). TSMC manufactures the wafers for our Advanced Products.

Precise terms with respect to the volume and timing of wafer production and the pricing of wafers produced by the semiconductor foundries are determined by periodic negotiations with each wafer foundry.

Our strategy is to focus our resources on market development and creating new ICs and software design tools rather than on wafer fabrication. We continuously evaluate opportunities to enhance foundry relationships and/or obtain additional capacity from our main suppliers as well as other suppliers of wafers manufactured with leading-edge process technologies, and we adjust loadings at particular foundries to meet our business needs.

**Sort, Assembly and Test**

Wafers are sorted by the foundry or independent sort subcontractors. Sorted die are assembled by subcontractors. During the assembly process, the wafers are separated into individual die, which are then assembled into various package types. Following assembly, the packaged units are generally tested by independent test subcontractors or by Xilinx personnel. We purchase most of our assembly services from Siliconware Precision Industries Ltd. and most of our test services from King Yuan Electronics Company in Taiwan.

**Quality Certification**

Xilinx has achieved and currently maintains quality management system certification to TL9000/ISO9001 for our facilities in San Jose, California; Longmont, Colorado; Singapore; and Hyderabad, India. In addition, Xilinx achieved and currently maintains ISO 14001 and OHSAS 18001 environmental health and safety management system certifications in the San Jose and Singapore locations.

**Intellectual Property and Licenses**

While our various proprietary intellectual property rights (including patents, copyrights, trade secrets, and trademarks) are important to our success, we believe our business as a whole is not materially dependent on any particular patent or license, or any particular group of patents or licenses. As of March 30, 2019, we held over 4,300 issued patents, which vary in duration, and over 1,100 pending patent applications relating to our proprietary technology in various jurisdictions around the world. We maintain an active program of filing for additional patents in the areas of, but not limited to, circuits, software, applications, system and platform architecture, IP cores, testing methodologies, semiconductor manufacturing and other technologies relating to our products and business. We licensed portions of our patent portfolio to certain external parties and obtained patent licenses from certain third-parties as well.

We have acquired various licenses from third parties to certain technologies that are implemented in IP cores or embedded in our devices, such as processors. These licenses support our continuing ability to make and sell our products. We have also acquired various licenses to certain third-party proprietary software, open-source software, and related technologies, such as compilers, for our design tools. Continued use of such software and technology is important to the operation of the design tools upon which customers depend.

We maintain the Xilinx trade name and trademarks, including the following trademarks that are registered in the U.S. and other countries: Xilinx, the Xilinx logo, Artix, CoolRunner, ISE, Kintex, Spartan, Virtex, Vivado, and Zynq. Maintaining these

trademarks, and the goodwill associated with them, is important to our business. We have also obtained the rights to use certain trademarks owned by consortiums and other trademark owners that are related to our products and business.

We intend to continue to protect our intellectual property vigorously. We believe that failure to enforce our intellectual property rights or failure to protect our trade secrets effectively could have an adverse effect on our financial condition and results of operations. We incurred, and in the future we may continue to incur, litigation expenses to defend against claims of infringement and to enforce our intellectual property rights against third parties. However, any such litigation may or may not be successful.

**Corporate Responsibility**

Xilinx places a high level of importance on corporate responsibility. Through senior-level sponsorship, regular environmental, health and safety assessments and company-wide performance targets, we strive to achieve a culture that emphasizes contribution to local and global communities through a number of key initiatives:

*Company*

We strive to meet or exceed industry and regulatory standards for ethical business practices, product responsibility, and supplier management. All of Xilinx's directors, officers and employees are required to comply not only with the letter of the laws, rules and regulations that govern the conduct of our business, but also with the spirit of those laws.

*Environment*

We continually monitor regulatory requirement and resource trends in order to identify, manage and control activities that have an environmental impact. We focus on the conservations of energy and natural resource, reducing the solid and chemical waste of our operations, avoiding and preventing pollution and minimizing our overall environmental impact with regards to the communities around us and consistent with global climate change efforts.

*Community*

We are committed to growing strategic relationships with a wide range of local organizations and programs that are designed to develop and strengthen communities located around the world. Xilinx develops local community relationships at key sites through funding and involvement that encourages active participation, teamwork, and volunteerism. Xilinx supports opportunities initiated by its employees and that involve participation and empowerment of its employees. We are committed to charitable giving programs that work towards systemic change and measurable results.

*Workplace*

We provide a safe and healthy work environment for all employees. Employee diversity and inclusion are embraced and opportunities for training, growth, and advancement are strongly encouraged. The Xilinx Code of Social Responsibility outlines standards to ensure that working conditions at Xilinx are safe and that workers are treated with respect, fairness and dignity.

**Employees**

As of March 30, 2019, we had 4,433 employees compared to 4,014 as of the end of the prior fiscal year. None of our employees are represented by a labor union. We have not experienced any work stoppages and believe we maintain good employee relations.

**Executive Officers of the Registrant**

Certain information regarding the executive officers and persons chosen to become executive officers of Xilinx as of May 10, 2019 is set forth below:

| Name | Age | Position |
|---|---|---|
| Victor Peng | 59 | President and Chief Executive Officer (CEO) |
| Lorenzo A. Flores | 54 | Executive Vice President and Chief Financial Officer (CFO) |
| Catia Hagopian | 47 | Senior Vice President, General Counsel and Secretary |
| William Christopher Madden | 60 | Executive Vice President and General Manager, Wired and Wireless Group |
| Emre Önder | 52 | Senior Vice President, Marketing |
| Salil Raje | 49 | Executive Vice President and General Manager, Data Center Group |
| Vincent L. Tong | 57 | Executive Vice President, Global Operations and Quality |
| Mark David Wadlington | 57 | Senior Vice President, Global Sales |

There are no family relationships among the executive officers of the Company or the Board of Directors.

**Victor Peng** joined the Company in April 2008 and currently serves as President and Chief Executive Officer, a position he has held since February 2018. From April 2017 to February 2018, Mr. Peng served as Chief Operating Officer. From July 2014 to April 2017, he served as Executive Vice President and General Manager of Products. From May 2013 through July 2014, Mr. Peng served as Senior Vice President and General Manager of the Programmable Platforms Group. From May 2012 through April 2013, he served as Senior Vice President of the Programmable Platforms Group. From November 2008 through April 2012, he served as Senior Vice President of the Programmable Platforms Development Group. Prior to joining the Company, Mr. Peng served as Corporate Vice President, Graphics Products Group at Advanced Micro Devices (AMD), a provider of processing solutions, from November 2005 to April 2008. Prior to joining AMD, Mr. Peng served in a variety of executive engineering positions at companies in the semiconductor and processor industries. Mr. Peng is also a director of KLA Corporation, a global capital equipment company serving the semiconductor industry.

**Lorenzo A. Flores** joined the Company in September 2008 and currently serves as Executive Vice President and Chief Financial Officer, a position he has held since February 2018. From May 2016 to January 2018, Mr. Flores served as Senior Vice President and Chief Financial Officer. From July 2012 to May 2016, Mr. Flores served as Corporate Vice President of Finance and Corporate Controller. From September 2008 to June 2012 he served as Vice President of Finance and Corporate Controller. Prior to joining the Company, Mr. Flores was Assistant Vice President of Financial Planning and Analysis at Cognizant Technology Solutions, served as Chief Financial Officer of a venture funded startup, and spent ten years at Intel Corporation, a semiconductor chip maker, serving in a variety of positions, including Controller, Intel Architecture CPUs and Controller, Telecommunications and Embedded Group.

**Catia Hagopian** joined the Company in February 2007 and currently serves as Senior Vice President, General Counsel and Secretary, a position she has held since March 2018. Ms. Hagopian is responsible for the Company's legal operations globally covering matters such as commercial transactions, corporate activities and policies, corporate governance, employment, export compliance, intellectual property and litigation. From April 2012 to March 2018, Ms. Hagopian served as the Company's Vice President, Legal Affairs, Global Compensation and Benefits. From February 2007 to April 2012, Ms. Hagopian held various senior positions in the Company's Legal Department. Prior to joining the Company, Ms. Hagopian served as a law clerk for the U.S. District Court, Eastern District of California and worked at several law firms, including DLA Piper LLP (US).

**William Christopher Madden** joined the Company in May 2008 and currently serves as Executive Vice President and General Manager, Wired and Wireless Group, a position he has held since April 2019. From June 2018 to March 2019, he served as Executive Vice President, Hardware and Systems Product Development. From July 2017 to May 2018, he served as Senior Vice President, Hardware and Systems Product Development. From October 2010 to June 2017, Mr. Madden served as Corporate Vice President, FPGA Development and Silicon Technology. From May 2008 to September 2010, Mr. Madden served as Vice President of Silicon Technology. Prior to joining the Company, Mr. Madden served as a Senior Fellow at AMD where he drove AMD's next generation chip integration methodology. Mr. Madden is also a Fellow of the Institute of Engineers Ireland and a Board Member of Science Foundation Ireland.

**Emre Önder** joined the Company in August 2017 and currently serves as Senior Vice President, Marketing. From August 2017 to March 2018, Mr. Önder served as Senior Vice President, Product and Vertical Marketing. From July 2015 to June 2017, Mr.

Önder served as the Vice President/General Manager and Vice President, Global Sales, Sensing and IoT at Honeywell International Inc., a diversified technology and manufacturing company that produces a variety of commercial and consumer products. From October 2009 to December 2014, he served as Vice President, Marketing and Core Markets at Analog Devices, Inc. (ADI), a global analog, mixed-signal and digital signal processing technology company. Prior to joining ADI, Mr. Önder worked at EMC Corporation and the Boston Consulting Group.

**Salil Raje** joined the Company in June 2004 and currently serves as Executive Vice President and General Manager, Data Center Group, a position he has held since April 2019. From June 2018 to March 2019, he served as Executive Vice President, Software and IP Products. From April 2017 to May 2018, he served as Senior Vice President, Software and IP Products. From June 2012 to April 2017, Mr. Raje served as Corporate Vice President, Software and IP Products Group. He has also served as Vice President, FPGA Software from January 2009 to June 2012, and as Director, Software Development from June 2004 to January 2009. Prior to joining the Company, Mr. Raje served as Chief Technology Officer and Chief Executive Officer of Hier Design, Inc., a company he co-founded in 2001 until it was acquired by the Company in June 2004.

**Vincent L. Tong** joined the Company in May 1990 and currently serves as Executive Vice President, Global Operations & Quality, a position he has held since May 2016. From January 2015 to May 2016, Mr. Tong served as Senior Vice President, Global Operations and Quality. He also has served as Executive Leader, Asia Pacific since October 2011. Mr. Tong previously served as Senior Vice President, Worldwide Quality and New Product Introductions from June 2008 to January 2015. He has also served as Vice President, Worldwide Quality and Reliability from August 2006 to June 2008 and prior to that as Vice President of Product Technology from May 2001 to July 2006. Prior to joining the Company, Mr. Tong served in a variety of engineering and management positions at Monolithic Memories, a producer of logic devices, and AMD. He holds seven U.S. patents.

**Mark David Wadlington** joined the Company in March 2018 and currently serves as Senior Vice President, Global Sales. Prior to joining the Company, Mr. Wadlington was Senior Vice President, Worldwide Sales at Synaptics Incorporated from April 2017 to March 2018. Prior to joining Synaptics, from February 2013 to March 2017, Mr. Wadlington held executive positions at Lattice Semiconductor, including serving as Corporate Vice President and General Manager, Mobile and Consumer Division at Lattice Semiconductor and Corporate Vice President of Worldwide Sales. Prior to Lattice, Mr. Wadlington was Vice President of Worldwide Sales at Applied Micro Circuits Corporation (AMCC) from March 2011 to November 2012. Prior to AMCC, Mr. Wadlington served as the Vice President of America's Sales at the Company, Vice President of Worldwide MCP (media communications processor) Sales at NVIDIA and held various senior-level positions at LSI Logic during his 21-year tenure there, including serving as LSI Logic's Vice President of Worldwide Semiconductor Sales.

**Additional Information**

We make available, via a link through our investor relations website located at www.investor.xilinx.com, access to our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (Exchange Act) as soon as reasonably practicable after they are electronically filed with or furnished to the Securities and Exchange Commission (SEC). All such filings on our investor relations website are available free of charge. Printed copies of these documents are also available to stockholders without charge, upon written request directed to Xilinx, Inc., Attn: Investor Relations, 2100 Logic Drive, San Jose, CA 95124. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding our filings at http://www.sec.gov. The content on any website referred to in this filing is not incorporated by reference into this filing unless expressly noted otherwise.

This annual report includes trademarks and service marks of Xilinx and other companies that are unregistered and registered in the U.S. and other countries.

## ITEM 1A. RISK FACTORS

The following risk factors and other information included in this Annual Report on Form 10-K should be carefully considered. The risks and uncertainties described below are not the only risks to the Company. Our business operations or financial condition could be impaired by risks and uncertainties not presently known to the Company, or that the Company's management does not currently consider material. If any of the risks described below were to occur, our business, financial condition, operating results and cash flows could be materially adversely affected.

**Our success depends on our ability to develop and introduce new products and our failure to do so would have a material adverse impact on our financial condition and results of operations.**

Our success depends in large part on our ability to develop and introduce new products that address customer requirements and compete effectively on the basis of price, density, functionality, power consumption and performance. Consolidation in our industry may increasingly result in our competitors having greater resources, or other synergies, that provide them with a competitive advantage in those regards. The success of new product introductions is dependent upon several factors, including:

- timely completion of new product designs;
- ability to generate new design opportunities and design wins;
- availability of specialized field application engineering resources supporting demand creation and customer adoption of new products;
- ability to utilize advanced manufacturing process technologies on circuit geometries of 28nm and smaller;
- achieving acceptable yields;
- ability to obtain adequate production capacity from our wafer foundries and assembly and test subcontractors;
- ability to obtain advanced packaging;
- availability and completeness of supporting software design tools;
- utilization of predefined IP logic;
- customer acceptance of advanced features in our new products;
- ability of our customers to complete their product designs and bring them to market; and
- market acceptance of our customers' products.

Our product development efforts may not be successful, our new products may not achieve industry acceptance, or we may not achieve the necessary volume of production that would lead to further per unit cost reductions. Revenues relating to our mature products are expected to decline in the future, which is normal for our product life cycles. As a result, we may be increasingly dependent on revenues derived from design wins for our newer products as well as anticipated cost reductions in the manufacture of our current products. We rely primarily on obtaining yield improvements and corresponding cost reductions in the manufacture of existing products, and on introducing new products that incorporate advanced features and other price/performance factors that enable us to increase revenues while maintaining consistent margins. To the extent that such cost reductions and new product introductions do not occur in a timely manner, or to the extent that our products do not achieve market acceptance at prices with higher margins, our financial condition and results of operations could be materially adversely affected.

**We rely on independent foundries for the manufacture of all of our products and a manufacturing problem or insufficient foundry capacity could adversely affect our operations.**

Most of our wafers are manufactured in Taiwan by TSMC and UMC. We also have wafers manufactured in South Korea by Samsung Electronics Co., Ltd. Terms with respect to the volume and timing of wafer production and the pricing of wafers produced by the semiconductor foundries are determined through periodic negotiations with these wafer foundries, which usually result in short-term agreements that do not provide for long-term supply or allocation commitments. We are dependent on these foundries to supply the substantial majority of our wafers. We rely on TSMC, UMC and our other foundries to produce wafers with competitive performance attributes. Therefore, the foundries, particularly TSMC which manufactures our newest products, must be able to transition to advanced manufacturing process technologies and increased wafer sizes, produce wafers at acceptable yields and deliver them in a timely manner. Furthermore, we cannot guarantee that the foundries that supply our wafers will offer us competitive pricing terms or other commercial terms important to our business.

We cannot guarantee that our foundries will not experience manufacturing problems, including delays in the realization of advanced manufacturing process technologies or difficulties due to limitations of new and existing process technologies. For example, we may experience supply shortages due to the difficulties foundries may encounter if they must rapidly increase their production capacities from low utilization levels to high utilization levels because of an unexpected increase in demand. Furthermore, we cannot guarantee that the foundries will be able to manufacture sufficient quantities of our products or that they will continue to manufacture a given product for the full life of the product. We could also experience supply shortages due to very strong demand for our products, or a surge in demand for semiconductors in general, which may lead to tightening of foundry capacity across the industry. In addition, weak economic conditions may adversely impact the financial health and viability of the foundries and result in their insolvency or their inability to meet their commitments to us. The insolvency of a foundry or any significant manufacturing problem or insufficient foundry capacity would disrupt our operations and negatively impact our financial condition and results of operations.

**Earthquakes or other natural disasters could disrupt our operations and have a material adverse effect on our financial condition and results of operations.**

Our worldwide operations could be disrupted by earthquakes or other natural disasters such as typhoons, tsunamis, volcano eruptions, fires or floods, as well as disruptions in access to adequate supplies of electricity, natural gas or water. The independent foundries, upon which we rely to manufacture our products, as well as our California and Singapore facilities, are located in regions that are subject to earthquakes and other natural disasters. TSMC's and UMC's foundries in Taiwan and our assembly and test partners in other regions as well as many of our operations in California are located in areas that have been seismically active in the past and some of these areas have also been affected by other natural disasters such as typhoons. Disruption of operations at these foundries and our facilities could cause delays in manufacturing and shipments of our products, and could have a material adverse effect on our results of operations. Any catastrophic event in these locations would disrupt our operations, and our insurance may not cover losses resulting from such disruptions of our operations, thereby materially adversely affecting our financial condition and results of operations. For example, as a result of the March 2011 earthquake in Japan, production at the Seiko factory at Sakata was halted temporarily, impacting production of some of our older devices. In addition, suppliers of wafers and substrates were forced to halt production temporarily. Furthermore, natural disasters can also indirectly impact us. For example, our customers' supply of other complimentary products may be disrupted by a natural disaster and may cause them to delay orders of our products. More vertically-integrated competitors may be less exposed to some or all of these and other risks.

**The semiconductor industry is characterized by cyclical market patterns and a significant industry downturn could adversely affect our operating results.**

The semiconductor industry is highly cyclical and our financial performance has been affected by downturns in the industry. Down cycles are generally characterized by price erosion and weaker demand for our products. Weaker demand for our products resulting from economic conditions in the end markets we serve and reduced capital spending by our customers can result, and in the past has resulted, in excess and obsolete inventories and corresponding inventory write-downs. We attempt to identify changes in market conditions as soon as possible; however, the dynamics of the market in which we operate make prediction of and timely reaction to such events difficult. Due to these and other factors, our past results are not reliable predictors of our future results.

**The nature of our business makes our revenues difficult to predict which could have an adverse impact on our business.**

In addition to the challenging market conditions we may face, we have limited visibility into the demand for our products, particularly new products, because demand for our products depends upon our products being designed into our end customers' products and those products achieving market acceptance. Due to the complexity of our customers' designs, the design to volume production process for our customers requires a substantial amount of time, frequently longer than a year. In addition, other factors may affect our end customers' demand for our products, including, but not limited to, end customer program delays and the ability of end customers to secure other complementary products. We also are dependent upon "turns," orders received and turned for shipment in the same quarter. These factors make it difficult for us to forecast future sales and project quarterly revenues. The difficulty in forecasting future sales impairs our ability to project our inventory requirements, which could result, and in the past has resulted, in inventory write-downs or failure to meet customer product demands in a timely manner. In addition, difficulty in forecasting revenues compromises our ability to provide forward-looking revenue and earnings guidance.

**If we are not able to compete successfully in our industry, our financial results and future prospects will be adversely affected.**

Our products now compete in several areas of the semiconductor industry, an industry that is intensely competitive and characterized by rapid technological change, increasing levels of integration, product obsolescence and continual price erosion. We expect continued competition from our primary PLD competitors such as Intel Corporation (Intel), Lattice Semiconductor Corporation (Lattice) and Microsemi Corporation (Microsemi, acquired by Microchip), and from ASSP vendors such as Broadcom Corporation (Broadcom), Marvell Technology Group, Ltd. (Marvell) and Texas Instruments Incorporated (Texas Instruments), as well as from companies such as NVIDIA with whom we historically have not competed. In addition, we expect continued competition from the ASIC market, which has been ongoing since the inception of FPGAs. We believe that important competitive factors in the logic IC industry include:

- product pricing;
- time-to-market;
- product performance, reliability, quality, power consumption and density;
- field upgradeability;
- adaptability of products to specific applications;
- ease of use and functionality of software design tools;
- availability and functionality of predefined IP logic;
- completeness of applicable software solutions;

- adherence to industry-standard programming environments;
- inventory and supply chain management;
- access to leading-edge process technology and assembly capacity;
- ability to provide timely customer service and support; and
- access to advanced packaging technology.

Our strategy for expansion in the logic market includes continued introduction of new product architectures that address high-volume, low-cost and low-power applications as well as high-performance, high-density applications. However, we may not be successful in executing this strategy. In addition, we anticipate continued pressure from our customers to reduce prices, which may outpace our ability to lower the cost for established products.

Other competitors include manufacturers of:

- high-density programmable logic products characterized by FPGA-type architectures;
- high-volume and low-cost FPGAs as programmable replacements for ASICs and ASSPs;
- ASICs and ASSPs with incremental amounts of embedded programmable logic;
- high-speed, low-density complex programmable logic devices;
- high-performance digital signal processing devices;
- products with embedded processors;
- products with embedded multi-gigabit transceivers;
- discrete general-purpose GPUs targeting data center and automotive applications;
- other new or emerging programmable logic products; and
- large enterprises, like hyperscalers, that have the resources to develop proprietary semiconductors.

Several companies have introduced products that compete with ours or have announced their intention to sell PLD products. To the extent that our efforts to compete are not successful, our financial condition and results of operations could be materially adversely affected.

The benefits of programmable logic have attracted a number of competitors to this segment. We recognize that different applications require different programmable technologies, and we are developing architectures, processes and products to meet these varying customer needs. Recognizing the increasing importance of standard software solutions, we have developed common software design tools that support the full range of our IC products. We believe that automation and ease of design are significant competitive factors in this segment.

We could also face competition from our licensees. In the past we have granted limited rights to other companies with respect to certain aspects of our older technology, and we may do so in the future. Granting such rights may enable these companies to manufacture and market products that may be competitive with some of our older products.

**Increased costs of wafers and materials, or shortages in wafers and materials, could adversely impact our gross margins and lead to reduced revenues.**

If greater demand for wafers is not offset by an increase in foundry capacity, market demand for wafers or production and assembly materials increases, or if a supplier of our wafers or other materials ceases or suspends operations, our supply of wafers and other materials could become limited. Such shortages raise the likelihood of potential wafer price increases, wafer shortages or shortages in materials at production and test facilities, resulting in potential inability to address customer product demands in a timely manner. For example, in 2011, when certain suppliers located in Japan were forced to temporarily halt production as the result of a natural disaster, this resulted in a tightening of supply for those materials. Such shortages of wafers and materials as well as increases in wafer or materials prices could adversely affect our gross margins and would adversely affect our ability to meet customer demands and lead to reduced revenue.

**We depend on distributors, primarily Avnet, to generate a significant portion of our sales and complete order fulfillment.**

Resale of product through Avnet accounted for 45% of our worldwide net revenues in fiscal 2019, and, as of March 30, 2019, Avnet accounted for 37% of our total net accounts receivable. Any adverse change to our relationship with Avnet or our other distributors could have a material impact on our business. Furthermore, if a key distributor materially defaulted on a contract or otherwise failed to perform, our business and financial results would suffer. In addition, we are subject to concentrations of credit risk in our trade accounts receivable, which includes accounts of our distributors. A significant reduction of effort by a distributor to sell our products or a material change in our relationship with one or more distributors may reduce our access to certain end customers and adversely affect our ability to sell our products.

In addition, the financial health of our distributors and our continuing relationships with them are important to our success. Unpredictable economic conditions may adversely impact the financial health of some of these distributors, particularly our smaller distributors. This could increase our credit risk exposure relating to the insolvency of certain distributors, the inability of distributors to obtain credit to finance the purchase of our products, or delayed payment for such purchases. Our business could be harmed if the financial health of these distributors impaired their performance and we were unable to secure alternate distributors.

**We are dependent on independent subcontractors for most of our assembly and test services, and unavailability or disruption of these services could negatively impact our financial condition and results of operations.**

We are dependent on subcontractors to provide semiconductor assembly, substrate, test and shipment services. Any (i) prolonged inability to obtain wafers with competitive performance and cost attributes, adequate yields or timely delivery, (ii) disruption in assembly, test or shipment services, (iii) delays in stabilizing manufacturing processes and ramping up volume for new products, (iv) transitions to new service providers, or (v) other circumstance that would require us to seek alternative sources of supply, could delay shipments and have a material adverse effect on our ability to meet customer demands. In addition, unpredictable economic conditions may adversely impact the financial health and viability of these subcontractors and result in their insolvency or their inability to meet their commitments to us. These factors would result in reduced net revenues and could negatively impact our financial condition and results of operations.

**A number of factors, including our inventory strategy, can impact our gross margins.**

A number of factors can cause our gross margins to fluctuate, including yield, wafer pricing, product mix, market acceptance of our new products, competitive pricing dynamics, licensing costs, geographic and/or market segment pricing strategies. In addition, forecasting our gross margins is difficult because a significant portion of our business is based on turns within the same quarter.

While our overall inventory levels fluctuate over time, the inventory of newer product lines may be higher than other products due to a planned increase in safety stock in anticipation of future revenue growth. In the event demand does not materialize, we may be subject to incremental obsolescence costs. In addition, future product cost reductions could have impact on our inventory valuation as well as our operating results.

**Reductions in the average selling prices of our products could have a negative impact on our gross margins.**

The average selling prices of our products generally decline as the products mature. We seek to offset the decrease in selling prices through yield improvement, manufacturing cost reductions and increased unit sales. We also continue to develop higher value products or product features that increase the average selling prices of our products, or slow the decline of such prices. However, there is no guarantee that our ongoing efforts will be successful or that they will keep pace with the decline in selling prices of our products, which could ultimately lead to a decline in our revenues and gross margins.

**General negative economic conditions and any related deterioration in the global business environment could have a material adverse effect on our business, operating results and financial condition.**

If weak economic conditions happen, there may be a number of negative effects on our business, including customers or potential customers reducing or delaying orders, the insolvency of key suppliers, potentially causing production delays, the inability of customers to obtain credit, and the insolvency of one or more customers. Any of these effects could impact our ability to effectively manage inventory levels and collect receivables and ultimately decrease our net revenues and profitability.

**We are subject to the risks associated with conducting business operations outside of the U.S. which could adversely affect our business.**

In addition to international sales and support operations and development activities, we purchase our wafers from foreign foundries, have our commercial products assembled, packaged and tested by subcontractors located outside the U.S. and utilize third party warehouse operators to store and manage inventory levels for certain of our products. All of these activities are subject to the uncertainties associated with international business operations, including global laws and regulations, trade barriers, economic sanctions, tax regulations, import and export regulations, duties and tariffs and other trade restrictions, changes in trade policies, anti-corruption laws, foreign governmental regulations, potential vulnerability of and reduced protection for IP, longer receivable collection periods and disruptions or delays in production or shipments, any of which could have a material adverse effect on our business, financial condition and/or operating results. For example, ZTE Corporation (ZTE) has been subject to trade restrictions under two denial orders issued by the U.S. Department of Commerce in recent years and may become subject to additional denial orders. In 2018, the U.S. and China also began to impose partial tariffs on each other's products, leading to concerns of an escalating

trade war, which, if were to fully materialize, could result in general economic downturn or otherwise have a material adverse effect on our business. In addition, the U.S. government has and may continue to focus on the business practices of specific foreign companies, including large technology companies based in China, which may result in future U.S. government actions impacting our ability to do business with such companies. Additional factors that could adversely affect us due to our international operations include rising oil prices and increased costs, or limited supply of other natural resources. Moreover, our financial condition and results of operations could be adversely affected in the event of political conflicts, economic crises or changes in international relations affecting countries where our main wafer providers, warehouses, end customers and contract manufacturers who provide assembly and test services worldwide, are located. For example, the United Kingdom's pending exit from the European Union, commonly referred to as "Brexit," has led to significant instability and uncertainty in such regions, which could have a material adverse effect on our business.

**Because we have international business and operations, we are vulnerable to the economic conditions of the countries in which we operate and currency fluctuations could have a material adverse effect on our business and negatively impact our financial condition and results of operations.**

In addition to our U.S. operations, we also have significant international operations, including foreign sales offices to support our international customers and distributors, our regional headquarters in Ireland and Singapore and an R&D site in India. Sales and operations outside of the U.S. subject us to the risks associated with conducting business in foreign economic and regulatory environments. Our financial condition and results of operations could be adversely affected by unfavorable economic conditions in countries in which we do significant business or by changes in foreign currency exchange rates affecting those countries. We derive more than half of our revenues from international sales, primarily in the Asia Pacific region, Europe and Japan where economic weaknesses have adversely affected our revenues in the past. Sales to all direct OEMs and distributors are denominated in U.S. dollars. While the recent movements of the Euro and Yen exchange rates against the U.S. dollar had no material impact on our business, increased volatility could impact our European and Japanese customers. Currency instability and volatility and disruptions in the credit and capital markets may increase credit risks for some of our customers and may impair our customers' ability to repay existing obligations. For example, the United Kingdom's 2016 referendum vote to approve "Brexit" has created economic uncertainty and currency volatility in the European Union. Increased currency volatility could also positively or negatively impact our foreign-currency-denominated costs, assets and liabilities. In addition, any devaluation of the U.S. dollar relative to other foreign currencies may increase the operating expenses of our foreign subsidiaries adversely affecting our results of operations. Furthermore, because we are increasingly dependent on the global economy, instability in worldwide economic environments occasioned, for example, directly or indirectly by political instability (such as due to Brexit), terrorist activity, U.S. or other military actions, changes to U.S. domestic and foreign policy and international sanctions or other diplomatic actions (potentially including sanctions adopted or under consideration by the U.S. or European Union with respect to Russia or Russian individuals or businesses), could adversely impact economic activity and lead to a contraction of capital spending by our customers generally or in specific regions. Any or all of these factors could adversely affect our financial condition and results of operations in the future.

**We are exposed to fluctuations in interest rates and changes in credit risk which could have a material adverse impact on our financial condition and results of operations as it relates to the market value of our investment portfolio and interest rate swap contracts.**

Our cash, short-term and long-term investments represent significant assets that may be subject to fluctuating or even negative returns depending upon interest rate movements, changes in credit risk and financial market conditions. Global credit market disruptions and economic slowdown and uncertainty have in the past negatively impacted the values of various types of investment and non-investment grade securities. The global credit and capital markets may again experience significant volatility and disruption due to instability in the global financial system, uncertainty related to global economic conditions and concerns regarding sovereign financial stability.

Therefore, there is a risk that we may incur other-than-temporary impairment charges for certain types of investments should credit market conditions deteriorate or the underlying assets fail to perform as anticipated. Our future investment income may fall short of expectations due to changes in interest rates or if the decline in fair values of our debt securities was judged to be other than temporary. Furthermore, we may suffer losses in principal on our investments including our interest rate swap contracts if we are forced to sell securities that have declined in market value due to changes in interest rates or financial market conditions.

**Our failure to protect and defend our IP could impair our ability to compete effectively.**

We rely upon patent, copyright, trade secret, mask work and trademark laws to protect our IP. We cannot provide assurance that such IP rights can be successfully asserted in the future or will not be invalidated, violated, circumvented or challenged. From time to time, third parties, including our competitors, have asserted against us patent, copyright or other IP rights to technologies

that are important to us. Third parties may attempt to misappropriate our IP through electronic or other means or assert infringement claims against us or parties we have agreed to indemnify. Such assertions by third parties may result in costly litigation, indemnity claims or other legal actions, and we may not prevail in such matters or be able to license any valid and infringed patents from third parties on commercially reasonable terms. This could result in the loss of our ability to import and sell our products or require us to pay costly royalties to third parties in connection with sales of our products. Any infringement claim, indemnification claim, or impairment or loss of use of our IP could materially adversely affect our financial condition and results of operations.

**Our ability to design and introduce new products in a timely manner is dependent upon third-party IP.**

In the design and development of new products and product enhancements, we rely on third-party intellectual property such as software development tools and hardware testing tools. Furthermore, certain product features may rely on intellectual property acquired from third parties, including hardware and software tools and products. The design requirements necessary to meet future consumer demands for more features and greater functionality from semiconductor products may exceed the capabilities of the third-party intellectual property or development tools that are available to us. In addition, hardware and software tools and products procured from third parties may contain design or manufacturing defects, including flaws that could unexpectedly interfere with the operation of our products. If the third-party intellectual property that we use becomes unavailable or fails to produce designs that meet consumer demands, our business could be adversely affected.

**Any failure of our information technology systems to function properly could result in business disruption.**

We rely in part on various information technology (IT) systems to manage our operations, including, but not limited to, financial reporting, and we regularly evaluate these systems and make changes to improve them as necessary. Consequently, we periodically implement new, or upgrade or enhance existing, operational and IT systems, procedures and controls. Any delay in the implementation of, or disruption in the transition to, new or enhanced systems, procedures or controls, could harm our ability to record and report financial, management, or operational information on a timely and accurate basis. In addition, hardware and software tools and products procured from third parties included in our IT systems could contain design or manufacturing defects, including flaws that could unexpectedly interfere with the operation of our IT systems. These systems are also subject to power and telecommunication outages or other general system failures. Failure of our IT systems or difficulties in managing them could result in business disruption.

**Cyber-attacks and data breaches could have an adverse effect on our business and reputation and negatively impact our financial condition and results of operations.**

Security breaches, including cyber-attacks, phishing attacks or attempts to misappropriate or compromise confidential or proprietary information or sabotage enterprise IT systems, are becoming increasingly frequent and more sophisticated. We depend on the uninterrupted operation of our IT systems to manage our operations, store and retrieve business and financial data and facilitate internal communications and communications with customers, subcontractors, suppliers and distribution partners. We experience security incidents of varying degrees on an ongoing basis. We take steps to detect and investigate any security incidents and prevent their recurrence, but, in some cases, we might be unaware of an incident or its magnitude and effects. Because the techniques used to obtain unauthorized access to or sabotage networks and systems change frequently, we may be unable to anticipate these techniques or to implement adequate protections. These security incidents may involve unauthorized access, misuse or disclosure of intellectual property or confidential or proprietary information regarding our business or that of our customers or business partners. We also may be subject to unauthorized access to our IT systems through a security breach or cyber-attack. In the past there have been attempts by third parties to penetrate and/or infect our network and systems with malicious software in an effort to gain access to our network and systems. Recently, several large organizations have been infected by “ransomware,” through which an attacker gains access to the organization’s computer files, renders them temporarily inaccessible and threatens to permanently delete them if a cash ransom is not paid by a specified deadline. Third parties may continue to attempt to fraudulently induce employees, users, or customers to disclose sensitive information in order to gain access to our network and systems. The IT systems of our customers, suppliers, and distribution partners and the links between our IT systems and our customers are subject to the same risks as those of our IT systems. In the event of a security breach, our business and reputation could be harmed and we could be subject to legal and regulatory claims which could negatively impact our financial condition and results of operations.

**Acquisitions and strategic investments present risks, and we may not realize the goals that were contemplated at the time of a transaction.**

We have acquired technology companies whose products complement our products. We also have made a number of strategic investments in other technology companies. We may make similar acquisitions and strategic investments in the future, which present risks, including:

- our ongoing business may be disrupted and our management's attention may be diverted by investment, acquisition, transition or integration activities;
- an acquisition or strategic investment may not further our business strategy as we expected, and we may not integrate an acquired company or technology as successfully as we expected;
- our operating results or financial condition may be adversely impacted by claims or liabilities that we assume from an acquired company or technology or that are otherwise related to an acquisition;
- we may have difficulty incorporating acquired technologies or products with our existing product lines;
- we may have higher than anticipated costs in continuing support and development of acquired products, and in general and administrative functions that support such products;
- our strategic investments may not perform as expected, and we may be required to recognize a loss on any or all of our strategic investments; and
- we may experience unexpected changes in how we are required to account for our acquisitions and strategic investments pursuant to U.S. generally accepted accounting principles (GAAP).

The occurrence of any of these risks could have a material adverse effect on our business, results of operations, financial condition or cash flows, particularly in the case of a larger acquisition or several concurrent acquisitions or strategic investments.

**If we are unable to maintain effective internal controls, our stock price could be adversely affected.**

We are subject to the ongoing internal control provisions of Section 404 of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act). Our controls necessary for continued compliance with the Sarbanes-Oxley Act may not operate effectively at all times and may result in a material weakness disclosure. The identification of material weaknesses in internal control, if any, could indicate a lack of proper controls to generate accurate financial statements and could cause investors to lose confidence and our stock price to drop.

**We compete with others to attract and retain key personnel, and any loss of, or inability to attract, such personnel would harm us.**

We depend on the efforts and abilities of certain key members of management and other technical personnel. Our future success depends, in part, upon our ability to retain, develop and transition such personnel and attract and retain other highly qualified personnel, particularly product engineers. Competition for such personnel is intense and we may not be successful in hiring or retaining new or existing qualified personnel. Changes to the U.S. immigration laws may also impact the availability of qualified personnel. From time to time we have effected restructurings that eliminate a number of positions. Even if such personnel are not directly affected by the restructuring effort, such terminations can have a negative impact on morale and our ability to attract and hire new qualified personnel in the future. If we are unable to retain or develop existing qualified personnel or are unable to hire new qualified personnel, as needed, our business, financial condition and results of operations could be seriously harmed. Further, changes to our qualified personnel, including key members of management, may be disruptive to our business, and any failure to successfully assimilate key new hires, or to successfully retain, develop and transition promoted employees, could adversely affect our business and results of operations.

**Unfavorable results of legal proceedings could adversely affect our financial condition and operating results.**

From time to time we are subject to various legal proceedings and claims that arise out of the ordinary conduct of our business. The amount of damages alleged in certain legal claims may be significant. Certain other claims involving the Company are not yet resolved, including those that are discussed under "Note 16. Litigation Settlement and Contingencies" to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data" of this Form 10-K, and additional claims may arise in the future. Results of legal proceedings cannot be predicted with certainty. Regardless of its merit, litigation may be both time-consuming and disruptive to our operations and cause significant expense and diversion of management attention and we may enter into material settlements to avoid these risks. Entering into settlements may result in payment of significant amounts which may materially and adversely affect our financial condition and operation results. Should we fail to prevail in certain matters, or should several of these matters be resolved against us, we may be faced with significant monetary damages or injunctive relief against us that would materially and adversely affect a portion of our business and might materially and adversely affect our financial condition and operating results.

**Our products could have defects which could result in reduced revenues and claims against us.**

We develop complex and evolving products that include both hardware and software. Despite our testing efforts and those of our subcontractors, defects may be discovered in existing or new products. Such defects may cause us to incur significant warranty,

support and repair or replacement costs, divert the attention of our engineering personnel from our product development efforts and harm our relationships with customers. Subject to certain terms and conditions, we have agreed to compensate certain customers for limited specified costs they actually incur in the event our hardware products experience epidemic failure. As a result, epidemic failure and other performance problems could result in claims against us or the delay or loss of market acceptance of our products and would likely harm our business. Our customers could also seek damages from us for their losses.

In addition, we could be subject to product liability claims. A product liability claim brought against us, even if unsuccessful, would likely be time-consuming and costly to defend. Product liability risks are particularly significant with respect to aerospace, automotive and medical applications because of the risk of serious harm to users of these products. 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 preparing our financial statements, we make good faith estimates and judgments that may change or turn out to be erroneous.**

In preparing our financial statements in conformity with accounting principles generally accepted in the U.S., we must make estimates and judgments in applying our critical accounting policies. Those estimates and judgments have a significant impact on the results we report in our consolidated financial statements. The most difficult estimates and subjective judgments that we make concern valuation of marketable and non-marketable securities, revenue recognition, inventories, long-lived assets including acquisition-related intangibles, goodwill, taxes and stock-based compensation. We base our estimates on historical experience, input from outside experts and various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We also have other key accounting policies that are not as subjective, and therefore, their application would not require us to make estimates or judgments that are as difficult, but which nevertheless could significantly affect our financial reporting. Actual results may differ materially from these estimates. If these estimates or their related assumptions change, our operating results for the periods in which we revise our estimates or assumptions could be adversely and materially affected.

**Our failure to comply with the requirements of the Export Administration Regulations (EAR) and the International Traffic and Arms Regulations (ITAR) could have a material adverse effect on our financial condition and results of operations.**

Our FPGAs and related technologies are subject to EAR, which are administered by the U.S. Department of Commerce. In addition, we may, from time to time, receive technical data from third parties that is subject to the ITAR, which are administered by the U.S. Department of State. EAR and ITAR govern the export and re-export of these FPGAs, the transfer of related technologies, whether in the U.S. or abroad, and the provision of services. We are required to maintain an internal compliance program and security infrastructure to meet EAR and ITAR requirements.

An inability to obtain the required export licenses, or to predict when they will be granted, increases the difficulties of forecasting shipments. In addition, security or compliance program failures that could result in penalties or a loss of export privileges, as well as stringent licensing restrictions that may make our products less attractive to overseas customers, could have a material adverse effect on our business, financial condition and/or operating results.

**Our inability to effectively control the sale of our products on the gray market could have a material adverse effect on our business or results of operations.**

We market and sell our products directly to OEMs and through authorized third-party distributors which helps to ensure that products delivered to our customers are authentic and properly handled. From time to time, customers may purchase products bearing our name from the unauthorized "gray market." These parts may be counterfeit, salvaged or re-marked parts, or parts that have been altered, mishandled, or damaged. Gray market products result in shadow inventory that is not visible to us, thus making it difficult to forecast supply or demand. Also, when gray market products enter the market, we and our authorized distributors may compete with brokers of these discounted products, which can adversely affect demand for our products and negatively impact our margins. In addition, our reputation with customers may be negatively impacted when gray market products bearing our name fail or are found to be substandard.

**The conflict minerals provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act could result in additional costs and liabilities.**

In accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act, the SEC established disclosure and reporting requirements for companies whose products incorporate "conflict" minerals mined from the Democratic Republic of Congo and adjoining countries, regardless of whether such products are manufactured by those companies or by third parties. These

requirements could affect the sourcing and availability of minerals used in the manufacture of our semiconductor products. The costs associated with complying with the disclosure requirements include those for due diligence in regard to the sources of any conflict minerals used in our products, remediation and other changes to products, processes, or sources of supply as a consequence of such verification activities. We may face reputational challenges if we are unable to sufficiently verify the origins for all minerals used in our products through the due diligence process we implement. Moreover, some of our customers may require that all of the components of our products are certified as conflict-free, and we may be unable to verify the origin of the raw materials used in our products to the extent necessary to make this certification.

**Exposure to greater-than-anticipated income tax liabilities, changes in tax rules and regulations, changes in interpretation of tax rules and regulations, or unfavorable assessments from tax audits could affect our effective tax rates, financial condition and results of operations.**

We are a U.S.-based multinational company subject to tax in multiple U.S. and foreign tax jurisdictions. Our income tax obligations could be affected by many factors, including but not limited to changes to our corporate operating structure, intercompany arrangements and tax planning strategies.

Our income tax expense is computed based on tax rates at the time of the respective financial period. Our future effective tax rates, financial condition and results from operations could be unfavorably affected by changes in the tax rates in jurisdictions where our income is earned, by changes in the tax rules and regulations or the interpretation of tax rules and regulations in the jurisdictions in which we do business or by changes in the valuation of our deferred tax assets.

Recently enacted U.S. tax legislation significantly changed the taxation of U.S.-based multinational corporations, by, among other things, reducing the U.S. corporate income tax rate, adopting elements of a territorial tax system, assessing a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred, and imposing new taxes on certain foreign-sourced earnings. The legislation is unclear in some respects and will require interpretations and implementing regulations by the Internal Revenue Service, as well as state tax authorities, and the legislation could be subject to amendments and technical corrections, any of which could lessen or increase certain adverse impacts of the legislation. A significant portion of our earnings are earned by our subsidiaries outside the U.S. Changes to the taxation of certain foreign earnings resulting from the newly enacted U.S. tax legislation, along with the state tax impact of these changes, may have an adverse effect on our effective tax rate. Furthermore, changes to the taxation of undistributed foreign earnings could change our future intentions regarding reinvestment of such earnings. The foregoing items could have a material effect on our business, cash flow, results of operations or financial condition.

In addition, we are subject to examinations of our income tax returns by domestic and foreign tax authorities. We regularly assess the likelihood of outcomes resulting from these examinations to determine the adequacy of our provision for income taxes and have reserved for potential adjustments that may result from the current examinations. There can be no assurance that the final determination of any of these examinations will not have an adverse effect on our effective tax rates, financial condition and results of operations.

**Considerable amounts of shares of our common stock are available for issuance under our equity incentive plans, and significant issuances in the future may adversely impact the market price of our common stock.**

As of March 30, 2019, we had 2.00 billion authorized shares of common stock, of which 253.9 million shares were outstanding. In addition, 30.0 million shares of common stock were reserved for issuance pursuant to our equity incentive plans and Amended and Restated 1990 Employee Qualified Stock Purchase Plan (ESPP). The availability of substantial amounts of our common stock resulting from the exercise or settlement of equity awards outstanding under our equity incentive plans, which would be dilutive to existing stockholders, could adversely affect the prevailing market price of our common stock and could impair our ability to raise additional capital through the sale of equity securities.

**We have indebtedness that could adversely affect our financial condition and prevent us from fulfilling our debt obligations.**

The aggregate amount of our consolidated indebtedness as of March 30, 2019 was $1.25 billion (principal amount), which consists of $500.0 million in aggregate principal amount of our 3.000% Notes due 2021 (2021 Notes) and $750.0 million principal amount of our 2.950% senior notes due 2024 (2024 Notes). We also may incur additional indebtedness in the future. Our indebtedness may:

- make it difficult for us to satisfy our financial obligations, including making scheduled principal and interest payments on the debentures and our other indebtedness;
- limit our ability to borrow additional funds for working capital, capital expenditures, acquisitions or other general corporate purposes;

- limit our ability to use our cash flow or obtain additional financing for future working capital, capital expenditures, acquisitions or other general business purposes;
- require us to use a portion of our cash flow from operations to make debt service payments;
- limit our flexibility to plan for, or react to, changes in our business and industry;
- place us at a competitive disadvantage compared to our less leveraged competitors; and
- increase our vulnerability to the impact of adverse economic and industry conditions.

Our ability to meet our debt service obligations will depend on our future performance, which will be subject to financial, business and other factors affecting our operations, many of which are beyond our control.

**The agreements governing the 2021 Notes and 2024 Notes contain covenants that may adversely affect our ability to operate our business.**

The indentures governing the 2021 Notes and 2024 Notes contain various covenants limiting our and our subsidiaries' ability to, among other things:

- create certain liens on principal property or the capital stock of certain subsidiaries;
- enter into certain sale and leaseback transactions with respect to principal property; and
- consolidate or merge with, or convey, transfer or lease all or substantially all our assets, taken as a whole, to another person.

A failure to comply with these covenants and other provisions in these indentures could result in events of default under the indentures, which could permit acceleration of the 2021 Notes and the 2024 Notes. Any required repayment as a result of such acceleration could have a material adverse effect on our business, results of operations, financial condition or cash flows.

## ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

## ITEM 2. PROPERTIES

Our corporate offices, which include the administrative, sales, customer support, marketing, R&D and manufacturing and testing groups, are located in San Jose, California. This main site consists of adjacent buildings providing 588,000 square feet of space, which we own. We also own one parcel of land totaling approximately 84 acres in South San Jose near our corporate facility. At present, we do not have any plans to develop the land.

We own a 228,000 square foot facility in the metropolitan area of Dublin, Ireland, which serves as our regional headquarters in Europe. The Irish facility is primarily used for service and support for our customers in Europe, R&D, marketing and IT support.

We own a 222,000 square foot facility in Singapore, which serves as our Asia Pacific regional headquarters. We own the building but the land is subject to a 30-year lease expiring in November 2035. The Singapore facility is primarily used for manufacturing support and testing of our products and services for our customers in Asia Pacific/Japan, coordination and management of certain third parties in our supply chain and R&D. Excess space in the facility is leased to tenants under long-term lease agreements.

We own a 130,000 square foot facility in Longmont, Colorado. The Longmont facility serves as a primary location and data center for our software efforts in the areas of R&D, manufacturing and quality control. In addition, we own a 200,000 square foot facility and 40 acres of land adjacent to the Longmont facility for future expansion. The facility is partially leased to tenants under long-term lease agreements and partially used by us.

We lease office facilities for our engineering design centers in Hyderabad, India and smaller offices in other regions.

## ITEM 3. LEGAL PROCEEDINGS

For information regarding our legal proceedings, see "Note 16. Litigation Settlements and Contingencies" to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data", which is incorporated herein by reference.

## 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 trades on the Nasdaq Global Select Market under the symbol XLNX. As of May 3, 2019, there were approximately 480 stockholders of record, which does not include beneficial owner of stock held in street name (i.e., through a brokerage firm, bank, broker-dealer, trust or other similar organization).

On April 18, 2019, our Board of Directors declared a cash dividend of $0.37 per common share for the first quarter of fiscal 2020. The dividend is payable on June 3, 2019 to stockholders of record as of May 16, 2019.

**Securities Authorized for Issuance Under Equity Compensation Plans**

See "Equity Compensation Plan Information," included in Item 12. "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" in Part III of this Form 10-K for information regarding our equity compensation plans.

**Issuer Purchases of Equity Securities**

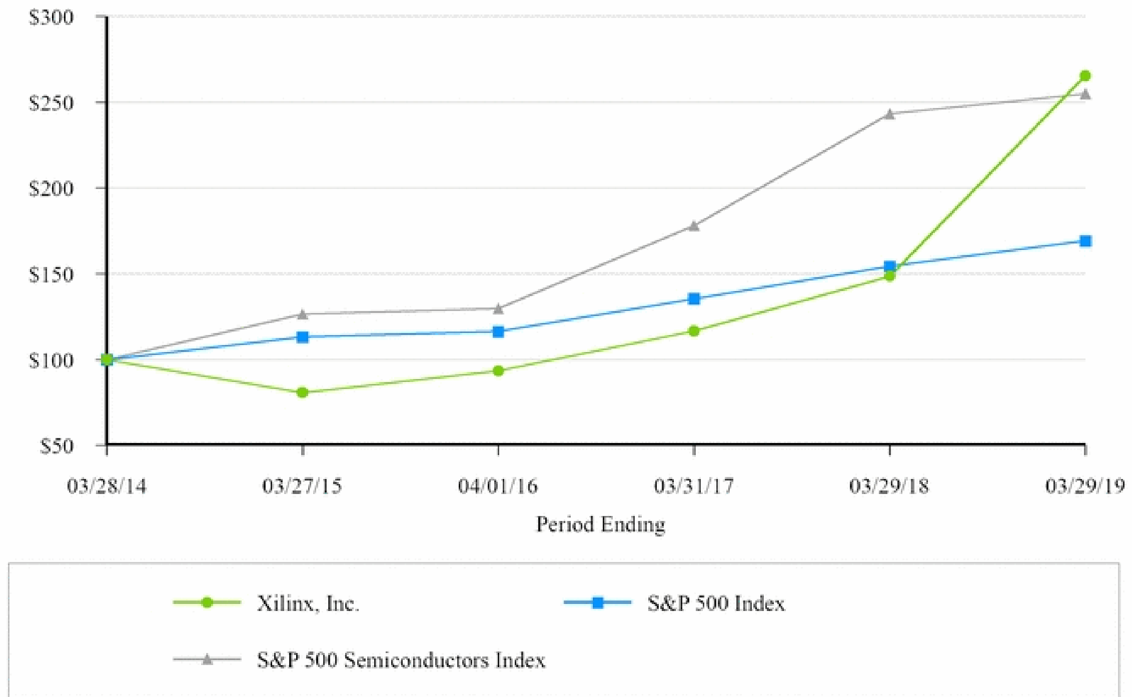
There was no common stock repurchase during the fourth quarter of fiscal 2019.

In May 2016, the Board authorized the repurchase of up to $1.00 billion of the Company's common stock and debentures (2016 Repurchase Program). The 2016 Repurchase Program has no stated expiration date. In May 2018, the Board authorized the repurchase of the Company's common stock and debentures up to $500.0 million (2018 Repurchase Program). Through March 30, 2019, the Company had used $953.7 million of the $1.00 billion authorized under the 2016 Repurchase Program, leaving a balance of $46.3 million available for future repurchases. The Company's current policy is to retire all repurchased shares, and consequently, no treasury shares were held as of March 30, 2019 and March 31, 2018.

See "Note 13. Stockholders' Equity" to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data" for information regarding our stock repurchase plans.

**Company Stock Price Performance**

The following graph shows a comparison of cumulative total return for our common stock, the Standard & Poor's 500 Stock Index (S&P 500 Index), and the Standard & Poor's 500 Semiconductors Index (S&P 500 Semiconductors Index). The graph covers the period from March 28, 2014, the last trading day before our fiscal 2014, to March 29, 2019, the last trading day of our fiscal 2019. The graph and table assume that $100 was invested on March 28, 2014 in our common stock, the S&P 500 Index and the S&P 500 Semiconductors Index and that all dividends were reinvested.




| Company / Index | 03/28/14 | 03/27/15 | 04/01/16 | 03/31/17 | 03/29/18 | 03/29/19 |
|---|---|---|---|---|---|---|
| Xilinx, Inc. | 100.00 | 80.78 | 93.43 | 116.60 | 148.60 | 265.43 |
| S&P 500 Index | 100.00 | 113.23 | 116.39 | 135.52 | 154.48 | 169.15 |
| S&P 500 Semiconductors Index | 100.00 | 126.57 | 129.84 | 178.16 | 243.18 | 254.93 |

*Note:* Stock price performance and indexed returns for our common stock are historical and are not indicators of future price performance or future investment returns.

**ITEM 6. SELECTED FINANCIAL DATA**

**Consolidated Statement of Income Data**
**Five years ended March 30, 2019**
(In thousands, except per share amounts)

| | March 30, 2019 | March 31, 2018 (1) (2) | April 1, 2017 (2) | April 2, 2016 | March 28, 2015 (3) |
|---|---|---|---|---|---|
| Net revenues | $ 3,059,040 | $ 2,467,023 | $ 2,356,742 | $ 2,213,881 | $ 2,377,344 |
| Operating income | 956,799 | 686,022 | 706,390 | 669,881 | 755,078 |
| Income before income taxes | 968,332 | 691,379 | 698,076 | 636,825 | 740,076 |
| Provision for income taxes | 78,582 | 227,398 | 69,943 | 85,958 | 91,860 |
| Net income | 889,750 | 463,981 | 628,133 | 550,867 | 648,216 |
| | | | | | |
| Net income per common share: | | | | | |
| Basic | $ 3.52 | $ 1.86 | $ 2.49 | $ 2.14 | $ 2.44 |
| Diluted | $ 3.47 | $ 1.80 | $ 2.34 | $ 2.05 | $ 2.35 |
| Shares used in per share calculations: | | | | | |
| Basic | 252,762 | 249,595 | 252,301 | 257,184 | 265,480 |
| Diluted | 256,434 | 257,960 | 268,813 | 268,667 | 276,123 |
| Cash dividends per common share | $ 1.44 | $ 1.40 | $ 1.32 | $ 1.24 | $ 1.16 |

(1) Fiscal 2018 consolidated statement of income data included executive transition costs of $33,351 and the impact of the US tax law changes of $190,503.

(2) Fiscal 2018 and Fiscal 2017 balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard. (See "Note 2. Summary of Significant Accounting and Concentrations of Risk" to our consolidated financial statements included in Item 8. "Financial Information and Supplementary Data" for more information.)

(3) Fiscal 2015 consolidated statement of income data included restructuring charges of $24,491.

**Consolidated Balance Sheet Data**
**Five years ended March 30, 2019**
(In thousands)

| | 2019 | 2018 (1) | 2017 (1) | 2016 | 2015 |
|---|---|---|---|---|---|
| Working capital | $ 3,416,942 | $ 3,242,643 | $ 3,077,311 | $ 2,972,261 | $ 2,971,259 |
| Total assets | 5,151,348 | 5,060,547 | 4,777,434 | 4,819,269 | 4,892,146 |
| Long-term debt | 1,234,807 | 1,214,440 | 995,247 | 993,639 | 992,058 |
| Other long-term liabilities | 579,996 | 573,809 | 351,890 | 278,446 | 304,479 |
| Stockholders' equity | 2,861,509 | 2,360,353 | 2,586,151 | 2,589,893 | 2,611,594 |

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(1) Fiscal 2018 and Fiscal 2017 balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard. (See "Note 2. Summary of Significant Accounting and Concentrations of Risk" to our consolidated financial statements included in Item 8. "Financial Information and Supplementary Data" for more information).

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This discussion and analysis of financial condition and results of operations should be read in conjunction with our consolidated financial statements and accompanying notes included in Item 8. "Financial Statements and Supplementary Data."

**Nature of Operations**

We design, develop and market programmable devices and associated technologies, including advanced ICs in the form of PLDs, boards, software design tools and predefined system functions delivered as IP. In addition to our programmable platforms, we provide design services, customer training, field engineering and technical support. Our PLDs include FPGAs, CPLDs and programmable SoCs. These devices are standard products that our customers program to perform desired logic functions. Our products are designed to provide high integration and quick time-to-market for electronic equipment manufacturers in end markets such as Communication & Data Center, Industrial, Aerospace & Defense, and Automotive, Broadcast & Consumer. We sell our products globally through an independent domestic and foreign distributor channel and through direct sales to OEMs by selected independent sales representative firms and by a direct sales management organization.

**Critical Accounting Policies and Estimates**

The methods, estimates and judgments we use in applying our most critical accounting policies have a significant impact on the results we report in our consolidated financial statements. The SEC has defined critical accounting policies as those that are most important to the portrayal of our financial condition and results of operations and require us to make our most difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Based on this definition, our critical accounting policies include: valuation of marketable securities, which impacts losses on debt and equity securities when we record impairments; revenue recognition, which impacts the recording of revenues; and valuation of inventories, which impacts cost of revenues and gross margin. Our critical accounting policies also include: the assessment of impairment of long-lived assets which impacts their valuation; the assessment of the recoverability of goodwill, which impacts goodwill impairment; accounting for income taxes, which impacts the provision or benefit recognized for income taxes, as well as, the valuation of deferred tax assets recorded on our consolidated balance sheet and accounting for business combinations, which impacts the valuation of tangible and intangible assets recognized and liabilities assumed. Below, we discuss these policies further, as well as the estimates and judgments involved. We also have other key accounting policies that are not as subjective, and therefore, their application would not require us to make estimates or judgments that are as difficult, but which nevertheless could significantly affect our financial reporting.

*Valuation of Marketable Securities and Non-marketable Securities*

Our short-term and long-term investments consist of primarily marketable debt, and to a lesser extent, equity securities. As of March 30, 2019, we had marketable debt and equity securities with a fair value of $2.74 billion.

We determine the fair values for marketable debt and equity securities using industry standard pricing services, data providers and other third-party sources and by internally performing valuation testing and analyses. See "Note 3. Fair Value Measurements" to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data," for details of the valuation methodologies. In determining if and when a decline in value below the adjusted cost of marketable debt securities is other than temporary, we evaluate on an ongoing basis the market conditions, trends of earnings, financial condition, credit ratings, any underlying collateral and other key measures for our investments. We did not record any other-than-temporary impairment for marketable debt securities in fiscal 2019, 2018 or 2017. Marketable equity securities are measured and recorded at fair value on a recurring basis with changes in fair value, whether realized or unrealized, recorded through the consolidated statements of income beginning in fiscal 2019 after the adoption of Accounting Standards Update (ASU) 2016-01.

Our investments in non-marketable equity securities of private companies are accounted for under the measurement alternative upon the adoption of ASU 2016-01. The carrying value is measured at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. Determining whether an observed transaction is similar to a security within our portfolio requires judgment based on the rights and obligations of the securities. Our periodic assessment of impairment is made by considering available evidence, including the general market conditions in the investee’s industry, the investee’s product development status and subsequent rounds of financing and the related valuation and/or our participation in such financings. We also assess the investee’s ability to meet business milestones and the financial condition and near-term prospects of the individual investee, including the rate at which the investee is using its cash, the investee’s need for possible additional funding at a lower valuation and any bona fide offer to purchase the investee from a

prospective acquirer. The valuation methodology for determining the fair value of non-marketable equity securities is based on the factors noted above which require management judgment and are Level 3 inputs. See “Note 3. Fair Value Measurements” to our consolidated financial statements, included in Item 8. “Financial Statements and Supplementary Data,” for additional information. When a decline in value is deemed to be other than temporary, we recognize an impairment loss in the current period’s operating results to the extent of the decline. The impairments loss for non-marketable equity securities were not material during all periods presented.

*Revenue Recognition*

Revenue from sales to our distributors is recognized upon the transfer of control, which typically occurs at shipment, and is reduced by estimated allowances for distributor price adjustments and rights of return. The distributor price adjustments are estimated using the expected value method based on an analysis of actual and forecasted ship and debit claims, at the distributor and part level to account for current pricing and business trends. For fiscal 2019, approximately 54% of our net revenues were from products sold to distributors primarily for subsequent resale to OEMs or their subcontract manufacturers.

Revenue from sales to our non-distributor customers is recognized net of sales incentives (if any) upon transfer of control to the customer, which typically occurs at shipment. Sales returns and allowances on product sales are recorded as a reduction of revenue.

Revenue from software license agreements and renewals is recognized at commencement date. Revenue from support services is recognized when the service is performed. Revenue from software licenses and support services were less than 2% of net revenues for all of the periods presented.

*Valuation of Inventories*

Inventories are stated at the lower of actual cost (determined using the first-in, first-out method) or market (estimated net realizable value). The valuation of inventory requires us to estimate excess or obsolete inventory as well as inventory that is not of salable quality. We review and set standard costs quarterly to approximate current actual manufacturing costs. Our manufacturing overhead standards for product costs are calculated assuming full absorption of actual spending over actual volumes. Given the cyclicality of the market, the obsolescence of technology and product lifecycles, we write down inventory based on forecasted demand and technological obsolescence. These forecasts are developed based on inputs from our customers, including bookings and extended but uncommitted demand forecasts, and internal analyses such as customer historical purchasing trends and actual and anticipated design wins, as well as market and economic conditions, technology changes, new product introductions and changes in strategic direction. These factors require estimates that may include uncertain elements. The estimates of future demand that we use in the valuation of inventory are the basis for our published revenue forecasts, which are also consistent with our short-term manufacturing plans. The differences between our demand forecast and the actual demand in the recent past have not resulted in any material write down in our inventory. If our demand forecast for specific products is greater than actual demand and we fail to reduce manufacturing output accordingly, we could be required to write down additional inventory, which would have a negative impact on our gross margin.

*Impairment of Long-Lived Assets*

Long-lived assets to be held and used are reviewed for impairment if indicators of potential impairment exist. Impairment indicators are reviewed on a quarterly basis. When indicators of impairment exist and assets are held for use, we estimate future undiscounted cash flows attributable to the assets. In the event such cash flows are not expected to be sufficient to recover the recorded value of the assets, the assets are written down to their estimated fair values based on the expected discounted future cash flows attributable to the assets or based on appraisals. Factors affecting impairment of assets held for use include the ability of the specific assets to generate separately identifiable positive cash flows.

When assets are removed from operations and held for sale, we estimate impairment losses as the excess of the carrying value of the assets over their fair value. Market conditions are amongst the factors affecting impairment of assets held for sale. Changes in any of these factors could necessitate impairment recognition in future periods for assets held for use or assets held for sale.

Long-lived assets such as property, plant and equipment are considered non-financial assets, and are only measured at fair value when indicators of impairment exist.

*Goodwill*

Goodwill is not amortized but is subject to impairment tests on an annual basis, or more frequently if indicators of potential impairment exist, and goodwill is written down when it is determined to be impaired. We perform an annual impairment review in the fourth quarter of each fiscal year and compare the fair value of the reporting unit in which the goodwill resides to its carrying value. If the carrying value exceeds the fair value, the goodwill of the reporting unit is potentially impaired. For purposes of impairment testing, Xilinx operates as a single reporting unit. We use the quoted market price method to determine the fair value of the reporting unit. Based on the impairment review performed during the fourth quarter of fiscal 2019, there was no impairment of goodwill in fiscal 2019. Unless there are indicators of impairment, our next impairment review for goodwill will be performed and completed in the fourth quarter of fiscal 2020. To date, no impairment indicators have been identified.

*Accounting for Income Taxes*

Xilinx is a multinational corporation operating in multiple tax jurisdictions. We must determine the allocation of income to each of these jurisdictions based on estimates and assumptions and apply the appropriate tax rates for these jurisdictions. We undergo routine audits by taxing authorities regarding the timing and amount of deductions and the allocation of income among various tax jurisdictions. Tax audits often require an extended period of time to resolve and may result in income tax adjustments if changes to the allocation are required between jurisdictions with different tax rates.

In determining income for financial statement purposes, we must make certain estimates and judgments. These estimates and judgments occur in the calculation of certain tax liabilities and in the determination of the recoverability of certain deferred tax assets, which arise from temporary differences between the tax and financial statement recognition of revenue and expense. Additionally, we must estimate the amount and likelihood of potential losses arising from audits or deficiency notices issued by taxing authorities. The taxing authorities' positions and our assessment can change over time resulting in a material effect on the provision for income taxes in periods when these changes occur.

We must also assess the likelihood that we will be able to recover our deferred tax assets. If recovery is not likely, we must increase our provision for taxes by recording a reserve in the form of a valuation allowance for the deferred tax assets that we estimate will not ultimately be recoverable.

We perform a two-step approach to recognize and measure uncertain tax positions relating to accounting for income taxes. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being ultimately realized.

*Business Combination*

We use the acquisition method of accounting and allocate the fair value of purchase consideration to the assets acquired and liabilities assumed from the acquiree based on their respective fair values as of the acquisition date. The excess of the fair value of purchase consideration over the fair value of these assets acquired and liabilities assumed is recorded as goodwill. When determining the fair values of assets acquired and liabilities assumed, we make significant estimates and assumptions, especially with respect to intangible assets. Critical estimates in valuing intangible assets include, but are not limited to, expected future cash flows, which includes consideration of future growth and margins, future changes in technology, expected cost and time to develop in-process research and development, brand awareness and discount rates. Fair value estimates are based on the assumptions that we believe a market participant would use in pricing the asset or liability.

**Results of Operations**

The following table sets forth statement of income data as a percentage of net revenues for the fiscal years indicated. Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard. Please refer to "Note 2. Summary of Significant Accounting Policies and Concentrations of Risk." to our consolidated financial statements, included in Item 8. “Financial Statements and Supplementary Data,” for additional information.

| | 2019 | 2018 | 2017 |
|---|---|---|---|
| **Net revenues** | **100.0%** | **100.0%** | **100.0%** |
| Cost of revenues | 31.2 | 30.1 | 30.1 |
| **Gross margin** | **68.8** | **69.9** | **69.9** |
| **Operating expenses:** | | | |
| Research and development | 24.3 | 25.9 | 25.5 |
| Selling, general and administrative | 13.0 | 14.7 | 14.2 |
| Amortization of acquisition-related intangibles | 0.2 | 0.1 | 0.2 |
| Executive transition costs | — | 1.4 | — |
| Total operating expenses | 37.5 | 42.1 | 39.9 |
| **Operating income** | **31.3** | **27.8** | **30.0** |
| Interest and other income (expense), net | 0.4 | 0.2 | (0.4) |
| **Income before income taxes** | **31.7** | **28.0** | **29.6** |
| Provision for income taxes | 2.6 | 9.2 | 2.9 |
| **Net income** | **29.1%** | **18.8%** | **26.7%** |

**Net Revenues**

| (In millions) | 2019 | Change | 2018 | Change | 2017 |
|---|---|---|---|---|---|
| Net revenues | $ 3,059.0 | 24% | $ 2,467.0 | 5% | $ 2,356.7 |

Net revenues in fiscal 2019 were $3.06 billion, an increase of 24% as compared to fiscal 2018. Revenues from Advanced Products increased 43% in fiscal 2019 while revenues from our Core Products remained relatively stable. The increase in Advanced Products was due to higher Advanced Products sales across all end markets, particularly in Communications. Net revenues in fiscal 2018 were $2.47 billion, an increase of 5% as compared to fiscal 2017. Revenues from Advanced Products increased 20% in fiscal 2018 but were partially offset by declines from our Core Products. The increase in Advanced Products was due to higher sales across all end markets, especially in Data Center & TME. See also "Net Revenues by Product" and "Net Revenues by End Markets" below for more information on our product and end market categories.

Except for Avnet, no other distributor or end customer accounted for more than 10% of net revenues for any of the periods presented.

*Net Revenues by Product*

We sell our products to global manufacturers of electronic products in end markets such as Communication & Data Center, Industrial, Aerospace & Defense, and Automotive, Broadcast & Consumer. The vast majority of our net revenues are generated from sales of our semiconductor products, but we also generate sales from support products. We classify our product offerings into two categories: Advanced Products and Core Products:

- Advanced Products are our most recent product offerings and include the UltraScale+, UltraScale and 7-series product families, and our Alveo boards business.
- Core Products are all other product families.

These product categories are modified on a periodic basis to better reflect the maturity of the products and advances in technology. The most recent modification was made on April 3, 2016, which was the beginning of our fiscal 2017, whereby we reclassified our product categories to be consistent with how these categories are analyzed and reviewed internally. Specifically, we have grouped the products manufactured at the 28nm, 20nm and 16nm nodes into a category named Advanced Products while all other products are included in a category named Core Products.

Net revenues by product categories for the fiscal years indicated were as follows:

| (In millions) | | 2019 | % of Total | % Change | | 2018 | % of Total | % Change | | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| Advanced Products | $ | 1,952.4 | 64 | 43 | $ | 1,362.8 | 55 | 20 | $ | 1,131.3 |
| Core Products | | 1,106.6 | 36 | — | | 1,104.2 | 45 | (10) | | 1,225.4 |
| Total net revenues | $ | 3,059.0 | 100 | 24 | $ | 2,467.0 | 100 | 5 | $ | 2,356.7 |

Net revenues from Advanced Products increased significantly in fiscal 2019 driven by sales growth in 28nm, 20nm and, in particular, 16nm product families. Sales from our 16nm products were over $500.0 million, while sales from our 20nm and 28nm products exceeded $400.0 million and $900.0 million, respectively, during fiscal 2019. In fiscal 2018, growth across all nodes of our Advanced Products families contributed to the strong revenue growth versus the comparable prior year period. Sales from our 28nm products were approximately $900.0 million, while sales from our 20nm and 16nm products exceeded $300.0 million and $100.0 million, respectively, during fiscal 2018. We expect sales of Advanced Products to continue to grow as more customer programs enter into volume production with our 16nm products.

Net revenues from Core Products were flat in fiscal 2019, while they decreased in fiscal 2018 from the comparable prior year periods. In fiscal 2019 the increase in sales from Spartan-6 product was offset by declines in sales from our Virtex-6 and Virtex-5 product families, while the decrease in fiscal 2018 was largely due to the decline in sales from our Virtex-5, Virtex-6 and Spartan-3 product families.

*Net Revenues by End Markets*

Our end market revenue data is derived from our understanding of our end customers' primary markets, which is based on reports provided by distributors and our internal records. To provide additional visibility, starting April 1, 2018, we classify our end markets into businesses with similar market drivers: Data Center & TME; Automotive, Broadcast & Consumer; Communications; and Industrial, Aerospace & Defense. Additionally, we classify revenue recognized from shipments to distributors, but not yet subsequently sold to the end markets, and not identifiable to an end market, as Channel revenue. The Channel revenue represents the difference between the shipments to distributors and what the distributors subsequently sold to the end customers within the given period. The percentage change calculation in the table below represents the year-to-year dollar change in each end market.

Net revenues by end markets for fiscal years indicated were as follows:

| (% of total net revenues) | 2019 | % Change in Dollars | 2018 | % Change in Dollars | 2017 |
|---|---|---|---|---|---|
| Data Center & TME | 20% | 11 | 22 % | 27 | 18% |
| Automotive, Broadcast and Consumer | 15 | 17 | 16 | 3 | 17 |
| Communications | 36 | 34 | 33 | (7) | 37 |
| Industrial, Aerospace & Defense | 28 | 10 | 32 | 19 | 28 |
| Channel | 1 | nm* | (3) | nm* | — |
| Total net revenues | 100% | 24 | 100 % | 5 | 100% |

*not meaningful

Net revenues from Data Center & TME increased, in terms of absolute dollars, in both fiscal 2019 and 2018 from the comparable prior year periods. The increase in fiscal 2019 was primarily due to higher sales from Data Center. The increase in fiscal 2018 from the comparable prior year period was due to higher sales from TME, and to a lesser extent, Data Center.

Net revenues from Automotive, Broadcast & Consumer increased, in terms of absolute dollars, in both fiscal 2019 and 2018 from the comparable prior year periods. The increases in fiscal 2019 and 2018 were primarily due to higher sales from Automotive and Audio, Video and Broadcast.

Net revenues from Communications increased in fiscal 2019 from the comparable prior year period. The increase was primarily due to higher sales from all sub-segments, with particular strength coming from Wireless business driven by both the continued deployment of 4G Long Term Evolution (LTE) networks and the accelerated global deployment ramp of 5G wireless networks. In fiscal 2018, net revenues from Communications decreased, driven by declines in sales from both Wireline and Wireless, from the comparable prior year period.

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Net revenues from Industrial, Aerospace & Defense increased, in terms of absolute dollars, in both fiscal 2019 and 2018 from the comparable prior year periods. The increases in both fiscal 2019 and 2018 were due to higher sales from all sub-segments.

Channel revenue was a positive amount in fiscal 2019, because shipments to distributors exceeded what the distributors subsequently shipped to their customers during such period. In fiscal 2018, Channel revenue was a negative amount because shipments to distributors was lower than what the distributors subsequently shipped to their customers during such period.

*Net Revenues by Geography*

Geographic revenue information reflects the geographic location of the distributors, OEMs or contract manufacturers who purchased our products. This may differ from the geographic location of the end customers. Net revenues by geography for the fiscal years indicated were as follows:

| (In millions) | 2019 | % of Total | % Change | 2018 | % of Total | % Change | 2017 |
|---|---|---|---|---|---|---|---|
| North America | $ 848.7 | 28 | 13 | $ 748.9 | 30 | 1 | $ 738.3 |
| Asia Pacific | 1,385.6 | 45 | 37 | 1,008.5 | 41 | 5 | 958.6 |
| Europe | 586.9 | 19 | 17 | 501.0 | 20 | 9 | 461.1 |
| Japan | 237.8 | 8 | 14 | 208.6 | 9 | 5 | 198.7 |
| Total net revenues | $ 3,059.0 | 100 | 24 | $ 2,467.0 | 100 | 5 | $ 2,356.7 |

Net revenues in North America increased in both fiscal 2019 and 2018 from the comparable prior year periods. The increase in fiscal 2019 was primarily due to higher sales from Data Center and Wireline, and the increase in fiscal 2018 was primarily due to higher sales from Aerospace and Defense.

Net revenues in Asia Pacific increased in both fiscal 2019 and 2018 from the comparable prior year periods. The increase in fiscal 2019 was primarily due to higher sales from Wireless, and to a lesser extent, from Industrial, Scientific and Medical, while the increase in fiscal 2018 was primarily driven by higher sales from Consumer, and to a lesser extent from Industrial, Scientific and Medical.

Net revenues in Europe increased in both fiscal 2019 and 2018 from the comparable prior year periods. In fiscal 2019, the increase was primarily due to higher sales from Automotive, while in fiscal 2018 the increase was driven by revenue growth from TME, partially offset by lower revenues from Wireless Communications.

Net revenues in Japan increased in both fiscal 2019 and 2018 from the comparable prior year periods. In fiscal 2019, the increase was primarily driven by higher sales in TME and Audio, Video and Broadcast, while in fiscal 2018 the increase was primarily driven by higher sales in TME and Industrial, Scientific and Medical.

**Gross Margin**

| (In millions) | 2019 | Change | 2018 | Change | 2017 |
|---|---|---|---|---|---|
| Gross margin | $ 2,103.2 | 22% | $ 1,723.6 | 5% | $ 1,648.1 |
| Percentage of net revenues | 68.8% | | 69.9% | | 69.9% |

Gross margin was lower by 1.1 percentage points in fiscal 2019, while remaining flat in 2018, from the comparable prior year periods. The decrease in gross margin in fiscal 2019 was primarily due to end-market mix, as the percentage of revenue derived from Wireless (which has relatively lower gross margin) has increased significantly.

Gross margin may be affected in the future due to multiple factors, including but not limited to, those set forth above in "Risk Factors," included in Part I of this Form 10-K, shifts in the mix of customers and products, competitive-pricing pressure, manufacturing-yield issues and wafer pricing. While we expect to mitigate any adverse impacts from these factors by continuing to improve yields on our Advanced Products, improve manufacturing efficiencies and improve average selling price management, continuing growth in Wireless driven by both the continued deployment of 4G Long Term Evolution (LTE) networks and the ramp up global deployment of 5G wireless networks would negatively impact gross margin in the future.

In order to compete effectively, we pass manufacturing cost reductions to our customers in the form of reduced prices to the extent that we can maintain acceptable margins. Price erosion is common in the semiconductor industry, as advances in both product architecture and manufacturing process technology permit continual reductions in unit cost. We have historically been able to offset much of this revenue decline in our mature products with increased revenues from newer products.

**Research and Development**

| (In millions) | 2019 | Change | 2018 | Change | 2017 |
|---|---|---|---|---|---|
| Research and development | $ 743.0 | 16% | $ 639.8 | 6% | $ 601.4 |
| Percentage of net revenues | 24% | | 26% | | 26% |

R&D spending increased by $103.2 million or 16% during fiscal 2019, and by $38.4 million or 6% during fiscal 2018, from the comparable prior year periods. The increases were primarily attributable to higher employee compensation (including stock-based compensation), as we increased headcount to support the development of new products. For fiscal 2018, the increase was partially offset by lower mask and wafer spending.

We plan to continue to selectively invest in R&D efforts in areas such as new products and more advanced process development, IP cores and software development environments. We may also consider acquisitions to complement our strategy for technology leadership and engineering resources in critical areas.

**Selling, General and Administrative**

| (In millions) | 2019 | Change | 2018 | Change | 2017 |
|---|---|---|---|---|---|
| Selling, general and administrative | $ 398.4 | 10% | $ 362.3 | 8% | $ 335.2 |
| Percentage of net revenues | 13% | | 15% | | 14% |

SG&A expenses increased by $36.1 million or 10% during fiscal 2019, and by $27.1 million or 8% during fiscal 2018, from the comparable prior year periods. The increase in fiscal 2019 was primarily due to higher variable spending associated with higher revenue and operating margin such as sales commission and incentive compensation expense, as well as expenses related to merger and acquisition activities. In fiscal 2018, the increase was largely due to higher employee compensation (including stock-based compensation) from increased headcount relating to revenue growth.

**Executive Transition Costs**

During the fourth quarter of fiscal 2018, we announced the transition of our President and Chief Executive Officer position, whereby Moshe Gavrielov resigned from those roles and Victor Peng assumed these roles. Additionally, we also implemented restructuring measures to realign resources and drive overall operating efficiencies, which impacted approximately 60 positions in various geographies and functions worldwide. We recorded total transition charges of $33.4 million in the fourth quarter of fiscal 2018, primarily related to severance pay expenses and other benefits. As of the end of fiscal 2019, the remaining accrual for severance and other benefits was immaterial.

**Amortization of Acquisition-Related Intangibles**

| (In millions) | 2019 | Change | 2018 | Change | 2017 |
|---|---|---|---|---|---|
| Amortization of acquisition-related intangibles | $ 4.9 | 129% | $ 2.2 | (58)% | $ 5.1 |
| Percentage of net revenues | —% | | —% | | —% |

Amortization of acquisition-related intangibles expense increased in fiscal 2019 as compared to fiscal 2018, which was primarily due to additional amortization expense from intangible assets acquired through the Deephi Technology., Ltd
(Deephi Tech) acquisition in the second quarter of fiscal 2019 (See "Note 20. Business Combination" to our consolidated financial statements included in Item 8. "Financial Information and Supplementary Data" for more information). The amortization expense decreased in fiscal 2018 as compared to prior year period as certain intangibles were fully amortized in fiscal 2017 and during fiscal 2018.

**Stock-Based Compensation**

| (In millions) | 2019 | Change | 2018 | Change | 2017 |
|---|---|---|---|---|---|
| Stock-based compensation included in: | | | | | |
| Cost of revenues | $ 8.8 | 4 % | $ 8.5 | 6% | $ 8.0 |
| Research and development | 86.4 | 13 % | 76.8 | 15% | 66.8 |
| Selling, general and administrative | 52.7 | 2 % | 51.9 | 8% | 48.0 |
| Executive transition costs | — | (100)% | 16.6 | 100% | — |
| | $ 147.9 | (4)% | $ 153.8 | 25% | $ 122.8 |

Excluding the executive transition costs portion, stock-based compensation increased by $10.7 million and $14.4 million in fiscal 2019 and 2018, respectively, as compared to the prior year periods. The increases were primarily related to higher expenses associated with restricted stock units, as we granted restricted stock units at a higher fair value in the recent years.

**Interest and Other Income (Expense), Net**

| (In millions) | 2019 | Change | 2018 | Change | 2017 |
|---|---|---|---|---|---|
| Interest and other income (expense), net | $ 11.5 | 115% | $ 5.4 | 164% | $ (8.3) |
| Percentage of net revenues | —% | | —% | | — % |

In fiscal 2019 we had net interest and other income of $11.5 million as compared to net interest and other income of $5.4 million in fiscal 2018. The increase was primarily due to higher interest income from the investment portfolio. In fiscal 2018, we had net interest and other income of $5.4 million as compared to net interest and other expense of $8.3 million in fiscal 2017. The increase was primarily due to higher interest income from the investment portfolio, and to a lesser extent, lower interest expenses from the 2024 Notes and its related interest rate swap contracts.

**Provision for Income Taxes**

| (In millions) | 2019 | Change | 2018 | Change | 2017 |
|---|---|---|---|---|---|
| Provision for income taxes | $ 78.6 | (65)% | $ 227.4 | 225% | $ 69.9 |
| Percentage of net revenues | 3% | | 9% | | 3% |
| Effective tax rate | 8% | | 33% | | 10% |

On December 22, 2017, the Tax Cuts and Jobs Act (TCJA) was enacted into law. The TCJA provides for numerous significant tax law changes and modifications including the reduction of the U.S. federal corporate income tax rate from 35% to 21%, the requirement for companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and the creation of a new tax on the global intangible low-taxed income (GILTI) of foreign subsidiaries. Some provisions of the TCJA began to impact us in fiscal 2018, while other provisions impacted us beginning in fiscal 2019.

Staff Accounting Bulletin (SAB) 118 allowed companies to record provisional amounts and recognize the effect of the tax law changes during a measurement period. We recorded provisional income tax expense of $214.7 million in our fiscal 2018 results. During fiscal 2019, we recorded income tax expense of $2.4 million as measurement period adjustments to the provisional amounts recorded in fiscal 2018. The measurement period ended in the third quarter of fiscal 2019. Although the measurement period has closed, further technical guidance related to the TCJA, including final regulations on a broad range of topics, is expected to be issued. In accordance with Accounting Standards Codification (ASC) 740, the Company will recognize any effects of the guidance in the period that such guidance is issued.

The difference between the U.S. federal statutory tax rate of 21% and our effective tax rate in fiscal 2019 was primarily due to the favorable impact of income earned in lower tax rate jurisdictions, which was partially offset by the new tax on GILTI.

The difference between the blended U.S. federal tax rate of 31.5% and our effective tax rate in fiscal 2018 was primarily due to the one-time transition tax net of the reversal of the related deferred tax liabilities and the beneficial impact of income earned in lower tax rate jurisdictions.

The decrease in the effective tax rate for fiscal 2019 from the comparable prior year period was primarily due to the U.S. federal one-time transition tax of $590.2 million recognized in fiscal 2018, partially offset by the reversal of deferred tax liabilities related

to U.S. federal income tax on a portion of unremitted foreign earnings that had been accrued through fiscal 2017 in the amount of $381.7 million.

The increase in the effective tax rate in fiscal 2018 compared with fiscal 2017 was primarily due to the U.S. federal one-time transition tax of $590.2 million recognized in fiscal 2018, partially offset by the reversal of deferred tax liabilities related to U.S. federal income tax on a portion of unremitted foreign earnings that had been accrued through fiscal 2017 in the amount of $381.7 million.

**Financial Condition, Liquidity and Capital Resources**

We have historically used a combination of cash flows from operations and equity and debt financing to support ongoing business activities, acquire or invest in critical or complementary technologies, purchase facilities and capital equipment, repurchase our common stock and debentures under our repurchase program, pay dividends and finance working capital. Additionally, our investments in debt securities are liquid and available for future business needs.

**Fiscal 2019 Compared to Fiscal 2018**

*Cash, Cash Equivalents and Short-term and Long-term Investments*

The combination of cash, cash equivalents and short-term and long-term investments as of March 30, 2019 and March 31, 2018 totaled $3.23 billion and $3.55 billion, respectively. As of March 30, 2019, we had cash, cash equivalents and short-term investments of $3.18 billion and working capital of $3.42 billion. As of March 31, 2018, cash, cash equivalents and short-term investments were $3.45 billion and working capital was $3.24 billion.

As of March 30, 2019, we had $1.80 billion of cash, cash equivalents and short-term investments held by our non-U.S. entities. The recent TCJA that was signed into law on December 22, 2017, subjects U.S. companies to a one-time transition tax on total post-1986 earnings and profits of their foreign subsidiaries. The TCJA also generally allows companies to repatriate these accumulated foreign earnings without incurring additional U.S. federal taxes beginning after December 31, 2017. Accordingly, substantially all $1.80 billion of cash, cash equivalents and short-term investments held by our non-U.S. entities will be available for use in the U.S. without incurring additional U.S. federal income taxes. The one-time transition tax liability is payable in eight annual installments, as outlined in "Contractual Obligations" below. The first installment was paid in the second quarter of fiscal 2019. The second installment is classified as a current income tax payable. See “Note 14. Income Taxes” to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data," for additional information about the one-time transition tax.

During fiscal 2019, our operations generated net positive cash flow of $1.09 billion, which was $271.1 million higher than the $820.0 million generated during fiscal 2018. The positive cash flow from operations generated during fiscal 2019 was primarily from net income as adjusted for non-cash related items and decreases in accounts receivable, increases in accounts payable and accrued liabilities. These items were partially offset by increases in inventories and other assets and a decrease in income taxes payable.

Net cash used in investing activities was $690.5 million during fiscal 2019 as compared to net cash provided by investing activities of $948.2 million in fiscal 2018. Net cash used in investing activities during fiscal 2019 consisted of $312.5 million of net purchases of available-for-sale securities, $234.1 million of net cash paid in connection with the Deephi Tech acquisition, $89.0 million of purchases of property, plant and equipment and other intangibles and $54.8 million of other investing activities.

Net cash used in financing activities was $1.04 billion in fiscal 2019, as compared to $555.6 million in fiscal 2018. Net cash used in financing activities during fiscal 2019 consisted of $500.0 million of payment for settlement of our $500.0 million principal amount of 2.125% Notes issued in March 2014 (2019 Notes), $364.2 million of dividend payments to stockholders and $161.6 million of payment to repurchase common stock, which were partially offset by $48.7 million from issuance of common stock under employee stock plans.

*Accounts Receivable*

Accounts receivable decreased by $47.1 million and days sales outstanding (DSO) decreased to 40 days at March 30, 2019 from 56 days at March 31, 2018. The decrease was primarily due to strong collections during the year as well as timing of customer shipments. Our accounts receivable were primarily current.

*Inventories*

Inventories increased to $315.4 million as of March 30, 2019 from $236.1 million as of March 31, 2018, while inventory days at Xilinx increased to 120 days at March 30, 2019 from 116 days at March 31, 2018. We attempt to maintain sufficient levels of inventory in various product, package and speed configurations in order to keep lead times short and to meet forecasted customer demand as well as address potential supply constraints. Conversely, we also attempt to minimize the handling costs associated with maintaining higher inventory levels and to fully realize the opportunities for cost reductions associated with architecture and manufacturing process advancements. We continually strive to balance these two objectives to provide excellent customer response at a competitive cost.

*Property, Plant and Equipment and Other Intangibles*

During fiscal 2019, we invested $89.0 million in property, plant and equipment and other intangibles, as compared to $49.9 million in fiscal 2018. Primary investments in fiscal 2019 were for machinery and equipment, building improvements, computer equipment and equipment related to the support of our new products development and infrastructures.

*Current Liabilities*

Current liabilities decreased to $475.0 million at the end of fiscal 2019 from $911.9 million at the end of fiscal 2018. The changes were primarily due to a $500.0 million payment of our 2019 Notes, as well as a decrease in our income taxes payable. These decreases were partially offset by increases of $40.9 million in accrued payroll and related liabilities, $21.9 million in other accrued liabilities and $18.5 million in accounts payable.

*Stockholders' Equity*

Stockholders' equity increased $501.2 million to $2.86 billion during fiscal 2019 from $2.36 billion in fiscal 2018. The increase was primarily due to $889.8 million in net income for fiscal 2019 and $147.9 million of stock-based compensation, partially offset by repurchase of common stock of approximately $161.6 million and $364.2 million of payment of dividends to stockholders.

**Fiscal 2018 Compared to Fiscal 2017**

*Cash, Cash Equivalents and Short-term and Long-term Investments*

The combination of cash, cash equivalents and short-term and long-term investments as of March 31, 2018 and April 1, 2017 totaled $3.55 billion and $3.44 billion, respectively. As of March 31, 2018, we had cash, cash equivalents and short-term investments of $3.45 billion and working capital of $3.24 billion. As of April 1, 2017, cash, cash equivalents and short-term investments were $3.32 billion and working capital was $3.08 billion.

As of March 31, 2018, we had $1.45 billion of cash, cash equivalents and short-term investments held by our non-U.S. entities. Substantially all $1.45 billion of cash, cash equivalents and short-term investments held by our non-U.S. entities will be available for use in the U.S. without incurring additional U.S. federal income taxes.

During fiscal 2018, our operations generated net positive cash flow of $820.0 million, which was $114.1 million lower than the $934.1 million generated during fiscal 2017. The positive cash flow from operations generated during fiscal 2018 was primarily from net income as adjusted for non-cash related items and increases in income taxes payable and accrued liabilities. These items were partially offset by increases in accounts receivable and other assets and increase in account payable.

Net cash provided by investing activities was $948.2 million during fiscal 2018, as compared to net cash used by investing activities of $494.0 million in fiscal 2017. Net cash provided by investing activities during fiscal 2018 consisted of $1.02 billion of net proceeds from sales and maturity of available-for-sale securities, which was partially offset by $49.9 million for purchases of property, plant and equipment and other intangibles and $24.6 million of other investing activities.

Net cash used in financing activities was $555.6 million in fiscal 2018, as compared to $965.2 million in fiscal 2017. Net cash used in financing activities during fiscal 2018 consisted of $474.3 million of payment to repurchase of common stock, $353.1 million of dividend payments to stockholders and $457.9 million of payment for settlement of our $600.0 million principal amount of 2.625% convertible notes issued in June 2010 (2017 Convertible Notes), which were partially offset by $745.2 million of proceeds from issuance of long-term debt and $47.5 million of proceeds from issuance of common stock under employee stock plans.

*Accounts Receivable*

Accounts receivable increased by $98.4 million and DSO increased to 56 days at March 31, 2018 from 44 days at April 1, 2017. The increase was primarily due to timing of customer shipments and collections.

*Inventories*

Inventories increased to $236.1 million as of March 31, 2018 from $227.0 million as of April 1, 2017, while inventory days at Xilinx decreased to 116 days a t March 31, 2018 from 117 days at April 1, 2017. We attempt to maintain sufficient levels of inventory in various product, package and speed configurations in order to keep lead times short and to meet forecasted customer demand as well as address potential supply constraints. Conversely, we also attempt to minimize the handling costs associated with maintaining higher inventory levels and to fully realize the opportunities for cost reductions associated with architecture and manufacturing process advancements. We continually strive to balance these two objectives to provide excellent customer response at a competitive cost.

*Property, Plant and Equipment and Other Intangibles*

During fiscal 2018, we invested $49.9 million in property, plant and equipment and other intangibles, as compared to $72.1 million in fiscal 2017. Primary investments in fiscal 2018 were for building improvements, computer equipment and equipment related to the support of our new products development and infrastructures.

*Current Liabilities*

Current liabilities increased to $911.9 million at the end of fiscal 2018 from $842.7 million at the end of fiscal 2017. The changes were primarily due to a net increase in our short-term portion of long-term debt, as we reclassified $499.2 million of our 2019 Notes to short term and paid $457.9 million for conversion of our 2017 Convertible Notes, as well as increases in our income taxes payable and accrued payroll and related liabilities. These increases were partially offset by decrease of $35.5 million in other accrued liabilities.

*Temporary and Stockholders' Equity*

Temporary and stockholders' equity decreased $225.8 million during fiscal 2018 from $2.59 billion in fiscal 2017 to $2.36 billion in fiscal 2018. The decrease was primarily due to repurchase of common stock of approximately $474.3 million and $353.1 million of payment of dividends to stockholders. These decreases were partially offset by $464.0 million in net income for fiscal 2018 and $153.8 million of stock-based compensation.

**Liquidity and Capital Resources**

Cash generated from operations is used as our primary source of liquidity and capital resources. Our investment portfolio is also available for future cash requirements as is our $400.0 million revolving credit facility entered into in December 2016 (expiring in December 2021). We are not aware of any lack of access to the revolving credit facility; however, we can provide no assurance that access to the credit facility will not be impacted by adverse conditions in the financial markets. Our credit facility is not reliant upon a single bank. There have been no borrowings to date under our existing revolving credit facility.

We repurchased 2.4 million shares of our common stock for approximately $161.6 million during fiscal 2019. During fiscal 2018, we repurchased 7.0 million shares of common stock for approximately $474.3 million. During fiscal 2019, we paid $364.2 million in cash dividends to stockholders, representing $1.44 per common share. During fiscal 2018, we paid $353.1 million in cash dividends to stockholders, representing $1.40 per common share. On April 18, 2019, our Board of Directors declared a cash dividend of $0.37 per common share for the first quarter of fiscal 2020. The dividend is payable on June 3, 2019 to stockholders of record as of May 16, 2019. Our common stock and debentures repurchase program and dividend policy could be impacted by, among other items, our views on potential future capital requirements relating to R&D, investments and acquisitions, legal risks, principal and interest payments on our debentures and other strategic investments.

We anticipate that existing sources of liquidity and cash flows from operations will be sufficient to satisfy our cash needs for the foreseeable future. We will continue to evaluate opportunities for investments to obtain additional wafer capacity, to procure additional capital equipment and facilities, to develop new products, and to potentially acquire technologies or businesses that could complement our business. However, certain risks and other factors, including those discussed in Item 1A and below, could affect our cash positions adversely.

**Contractual Obligations**

The following table summarizes our significant contractual obligations as of March 30, 2019 and the effect such obligations are expected to have on our liquidity and cash flows in future periods. This table excludes amounts already recorded on our consolidated balance sheet as accounts payable, income taxes payable, other accrued liabilities and other long-term liabilities as of March 30, 2019.

| | Payments Due by Period | | | | |
|---|---|---|---|---|---|
| (In millions) | Total | Less than 1 year | 1-3 years | 3-5 years | More than 5 years |
| Operating lease obligations (1) | $ 72.4 | $ 12.0 | $ 20.3 | $ 10.8 | $ 29.3 |
| Inventory and manufacturing-related purchase obligations (2) | 230.8 | 230.8 | — | — | — |
| Electronic design automation (3) | 4.4 | 4.4 | — | — | — |
| Other ongoing operations (4) | 38.9 | 24.6 | 12.5 | 0.2 | 1.6 |
| 2021 Notes-principal and interest (5) | 529.4 | 14.4 | 515.0 | — | — |
| 2024 Notes-principal and interest (5) | 853.3 | 14.7 | 44.3 | 33.2 | 761.1 |
| Tax obligations (6) | 477.6 | — | 90.2 | 129.6 | 257.8 |
| Total | $ 2,206.8 | $ 300.9 | $ 682.3 | $ 173.8 | $ 1,049.8 |

(1) We lease some of our facilities, office buildings and land under non-cancelable operating leases that expire at various dates through November 2035. Rent expense, net of rental income, under all operating leases was approximately $4.4 million for fiscal 2019. See "Note 8. Commitments" to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data," for additional information about operating leases.

(2) Due to the nature of our business, we depend entirely upon subcontractors to manufacture our silicon wafers and provide assembly and some test services. The lengthy subcontractor lead times require us to order the materials and services in advance, and we are obligated to pay for the materials and services when completed. We expect to receive and pay for these materials and services in the next three to six months, as the products meet delivery and quality specifications.

(3) As of March 30, 2019, we had $4.4 million of non-cancelable license obligations to providers of electronic design automation software and hardware/software maintenance.

(4) As of March 30, 2019, we had $38.9 million in commitments primarily related to open purchase orders from ordinary operations.

(5) For purposes of this table we have assumed the outstanding principal of our debentures will be paid on maturity dates, March 15, 2021 for the 2021 Notes and June 1, 2024 for the 2024 Notes. See "Note 12. Debt and Credit Facility" to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data," for additional information about our debentures.

(6) Tax obligations represent the future cash payments related to the one-time transition tax that resulted from the enactment of the TCJA as described in “Note 14. Income Taxes” to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data.” The table does not include the current transition tax installment payable of $37.7 million which is due in fiscal 2020 and classified as a current liability on the consolidated balance sheet.

As of March 30, 2019, $515.2 million of liabilities were classified as long-term income taxes payable in the consolidated balance sheets. Of the $515.2 million, $477.6 million was the estimated long-term portion of the one-time transition tax that resulted from the enactment of the TCJA. The remaining $37.6 million of the long-term income taxes payable was for uncertain tax positions and related interest and penalties. Since the Company is unable to reasonably estimate the timing of settlements and any future payments related to uncertain tax positions, these liabilities have been excluded from the contractual obligations table above.

**Off-Balance-Sheet Arrangements**

As of March 30, 2019, we did not have any significant off-balance-sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

**Recent Accounting Pronouncements**

See "Note 2. Summary of Significant Accounting Policies and Concentrations of Risk" to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data," for information about recent accounting pronouncements, including the expected dates of adoption and estimated effects, if any, on our consolidated financial statements.

## ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

### Interest Rate Risk

Our exposure to interest rate risk relates to certain types of investments, which consists of fixed income securities with a fair value of approximately $2.65 billion as of March 30, 2019 and to our interest rate swap contracts in relation to the issuance of the 2024 Notes (as our interest rate swap contracts carry a variable interest rate based on LIBOR plus a spread). These investments include mortgage-backed securities, commercial mortgage-backed securities, financial institution securities, non-financial institution securities, U.S. and foreign government and agency securities, asset-backed securities and debt mutual funds. Our primary aim with our investment portfolio is to invest available cash while preserving principal and meeting liquidity needs. In accordance with our investment policy, we place investments with high credit quality issuers and limit the amount of credit exposure to any one issuer based upon the issuer's credit rating. These securities are subject to interest rate risk and will decrease in value if market interest rates increase. A hypothetical 100 basis-point (one percentage point) increase or decrease in interest rates compared to rates at March 30, 2019 and March 31, 2018 would have affected the fair value of our investment portfolio by approximately $31.0 million and $40.0 million, respectively.

### Credit Market Risk

The global credit markets may experience adverse conditions that negatively impact the values of various types of investment and non-investment grade securities. The global credit and capital markets may experience significant volatility and disruption due to instability in the global financial system, uncertainty related to global economic conditions and concerns regarding sovereign financial stability. Therefore, there is a risk that we may incur other-than-temporary impairment charges for certain types of investments should credit market conditions deteriorate. See "Note 4. Financial Instruments" to our consolidated financial statements, included in Item 8. "Financial Statements and Supplementary Data."

### Foreign Currency Exchange Risk

Sales to all direct OEMs and distributors are denominated in U.S. dollars.

Gains and losses on foreign currency forward contracts that are designated as hedges of anticipated transactions, for which a firm commitment has been attained and the hedged relationship has been effective, are deferred and included in income or expenses in the same period that the underlying transaction is settled. Gains and losses on any instruments not meeting the above criteria are recognized in income or expenses in the consolidated statements of income as they are incurred.

We enter into forward currency exchange contracts to hedge our overseas operating expenses and other liabilities when deemed appropriate. As of March 30, 2019 and March 31, 2018, we had the following outstanding forward currency exchange contracts (in notional amount):

| (In millions and U.S. dollars) | March 30, 2019 | March 31, 2018 |
|---|---|---|
| Singapore Dollar | $ 29.4 | $ 24.9 |
| Euro | 39.4 | 39.0 |
| Indian Rupee | 78.0 | 62.5 |
| British Pound | 10.6 | 8.1 |
| Japanese Yen | 3.8 | 3.8 |
| Chinese Yuan | 34.4 | 8.3 |
| | $ 195.6 | $ 146.6 |

As part of our strategy to reduce volatility of operating expenses due to foreign exchange rate fluctuations, we employ a hedging program with forward outlook of up to two years for major foreign-currency-denominated operating expenses. The outstanding forward currency exchange contracts expire at various dates through February 2021. The net unrealized gains, which approximate the fair market value of the forward currency exchange contracts, are expected to be recognized in the consolidated statements of income within the next two years.

Our investments in several of our wholly-owned subsidiaries are recorded in currencies other than the U.S. dollar. As the financial statements of these subsidiaries are translated at each quarter end during consolidation, fluctuations of exchange rates between the foreign currency and the U.S. dollar increase or decrease the value of those investments. These fluctuations are recorded within

stockholders' equity as a component of accumulated other comprehensive income (loss). Other monetary foreign-denominated assets and liabilities are revalued on a monthly basis with gains and losses on revaluation reflected in net income. A hypothetical 10% favorable or unfavorable change in foreign currency exchange rates at March 30, 2019 and March 31, 2018 would have affected the annualized foreign-currency-denominated operating expenses of our foreign subsidiaries by less than $14.0 million for each year. In addition, a hypothetical 10% favorable or unfavorable change in foreign currency exchange rates compared to rates at March 30, 2019 and March 31, 2018 would have affected the value of foreign-currency-denominated cash and investments by less than $7.0 million as of each date.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

**XILINX, INC.**
**CONSOLIDATED STATEMENTS OF INCOME**

| (In thousands, except per share amounts) | Years Ended | | |
|---|---|---|---|
| | March 30, 2019 | March 31, 2018 [1] | April 1, 2017 [1] |
| Net revenues | $ 3,059,040 | $ 2,467,023 | $ 2,356,742 |
| Cost of revenues | 955,868 | 743,419 | 708,632 |
| Gross margin | 2,103,172 | 1,723,604 | 1,648,110 |
| Operating expenses: | | | |
| Research and development | 743,027 | 639,750 | 601,443 |
| Selling, general and administrative | 398,416 | 362,329 | 335,150 |
| Amortization of acquisition-related intangibles | 4,930 | 2,152 | 5,127 |
| Executive transition costs | — | 33,351 | — |
| Total operating expenses | 1,146,373 | 1,037,582 | 941,720 |
| Operating income | 956,799 | 686,022 | 706,390 |
| Interest and other income (expense), net | 11,533 | 5,357 | (8,314) |
| Income before income taxes | 968,332 | 691,379 | 698,076 |
| Provision for income taxes | 78,582 | 227,398 | 69,943 |
| Net income | $ 889,750 | $ 463,981 | $ 628,133 |
| Net income per common share: | | | |
| Basic | $ 3.52 | $ 1.86 | $ 2.49 |
| Diluted | $ 3.47 | $ 1.80 | $ 2.34 |
| Shares used in per share calculations: | | | |
| Basic | 252,762 | 249,595 | 252,301 |
| Diluted | 256,434 | 257,960 | 268,813 |

[1] Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard. Please refer to "Note 2. Summary of Significant Accounting Policies and Concentrations of Risk."

See notes to consolidated financial statements.

**XILINX, INC.**
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

| (In thousands) | Years Ended | | |
|---|---|---|---|
| | March 30, 2019 | March 31, 2018 [1] | April 1, 2017 [1] |
| Net income | $ 889,750 | $ 463,981 | $ 628,133 |
| Other comprehensive income (loss), net of tax: | | | |
| Net change in unrealized gains (losses) on available-for-sale securities | 8,979 | (8,211) | (12,712) |
| Reclassification adjustment for (gains) losses on available-for-sale securities | (260) | 349 | (3,119) |
| Net change in unrealized (losses) gains on hedging transactions | (7,181) | 5,517 | (1,296) |
| Reclassification adjustment for losses (gains) on hedging transactions | 5,603 | (4,655) | 1,701 |
| Cumulative translation adjustment, net | (4,441) | 2,375 | (2,624) |
| Other comprehensive income (loss) | 2,700 | (4,625) | (18,050) |
| Total comprehensive income | $ 892,450 | $ 459,356 | $ 610,083 |

[1] Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard. Please refer to "Note 2. Summary of Significant Accounting Policies and Concentrations of Risk."

See notes to consolidated financial statements.

**XILINX, INC.**
**CONSOLIDATED BALANCE SHEETS**

| (In thousands, except par value amounts) | March 30, 2019 | March 31, 2018 [1] |
|---|---|---|
| **ASSETS** | | |
| ***Current assets:*** | | |
| Cash and cash equivalents | $ 1,544,490 | $ 2,179,328 |
| Short-term investments | 1,631,194 | 1,268,242 |
| Accounts receivable, net of allowances for doubtful accounts of $3,170 and $3,170 in 2019 and 2018, respectively | 335,165 | 382,246 |
| Inventories | 315,358 | 236,077 |
| Prepaid expenses and other current assets | 65,771 | 88,695 |
| Total current assets | 3,891,978 | 4,154,588 |
| Property, plant and equipment, at cost: | | |
| Land | 65,298 | 65,298 |
| Buildings | 353,914 | 343,373 |
| Machinery and equipment | 438,617 | 395,318 |
| Furniture and fixtures | 45,164 | 51,034 |
| | 902,993 | 855,023 |
| Accumulated depreciation and amortization | (574,064) | (550,906) |
| Net property, plant and equipment | 328,929 | 304,117 |
| Long-term investments | 53,433 | 97,896 |
| Goodwill | 340,718 | 162,421 |
| Acquisition-related intangibles, net | 80,723 | 4,123 |
| Other assets | 455,567 | 337,402 |
| **Total Assets** | $ 5,151,348 | $ 5,060,547 |
| **LIABILITIES AND STOCKHOLDERS' EQUITY** | | |
| ***Current liabilities:*** | | |
| Accounts payable | $ 117,491 | $ 98,999 |
| Accrued payroll and related liabilities | 247,268 | 206,367 |
| Income taxes payable | 28,718 | 47,713 |
| Other accrued liabilities | 81,559 | 59,680 |
| Current portion of long-term debt | — | 499,186 |
| Total current liabilities | 475,036 | 911,945 |
| Long-term debt | 1,234,807 | 1,214,440 |
| Long-term income taxes payable | 515,192 | 523,864 |
| Other long-term liabilities | 64,804 | 49,945 |
| Commitments and contingencies (Note 8 and Note 16) | | |
| ***Stockholders' equity:*** | | |
| Preferred stock, $.01 par value; 2,000 shares authorized; none issued and outstanding | — | — |
| Common stock, $.01 par value; 2,000,000 shares authorized; 253,891 and 253,377 shares issued and outstanding in 2019 and 2018, respectively | 2,539 | 2,534 |
| Additional paid-in capital | 1,005,411 | 878,672 |
| Retained earnings | 1,876,969 | 1,513,656 |
| Accumulated other comprehensive loss | (23,410) | (34,509) |
| Total stockholders' equity | 2,861,509 | 2,360,353 |
| **Total Liabilities and Stockholders' Equity** | $ 5,151,348 | $ 5,060,547 |

[1] Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard. Please refer to "Note 2. Summary of Significant Accounting Policies and Concentrations of Risk."

See notes to consolidated financial statements.

**XILINX, INC.**
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

| (In thousands) | Years Ended March 30, 2019 | March 31, 2018 [1] | April 1, 2017 [1] |
|---|---|---|---|
| ***Cash flows from operating activities:*** | | | |
| Net income | $ 889,750 | $ 463,981 | $ 628,133 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| Depreciation and amortization of software | 70,704 | 50,172 | 45,423 |
| Amortization | 33,656 | 46,582 | 17,203 |
| Stock-based compensation | 147,942 | 153,815 | 122,858 |
| Amortization of debt discount | 1,144 | 2,548 | 11,692 |
| Provision for deferred income taxes | (32,993) | (363,923) | 68,856 |
| Others | 3,901 | 8,189 | (1,834) |
| Changes in assets and liabilities: | | | |
| Accounts receivable, net | 47,081 | (98,396) | 59,245 |
| Inventories | (78,602) | (9,176) | (48,244) |
| Prepaid expenses and other current assets | (4,696) | (9,727) | (1,000) |
| Other assets | (27,484) | (22,243) | (20,556) |
| Accounts payable | 11,137 | (16,691) | 10,983 |
| Accrued liabilities (including executive transition costs) | 46,585 | 48,723 | 33,899 |
| Income taxes payable | (16,910) | 566,173 | 7,473 |
| Net cash provided by operating activities | 1,091,215 | 820,027 | 934,131 |
| ***Cash flows from investing activities:*** | | | |
| Purchases of available-for-sale securities | (1,998,881) | (2,332,140) | (2,817,197) |
| Proceeds from sale of available-for-sale and equity securities | 35,734 | 1,161,410 | 695,030 |
| Proceeds from maturity of available-for-sale securities | 1,650,604 | 2,194,828 | 2,709,547 |
| Purchases of property, plant, equipment and software | (89,045) | (49,918) | (72,051) |
| Acquisition of businesses, net of cash acquired | (234,145) | (1,364) | (3,114) |
| Other investing activities | (54,810) | (24,573) | (18,265) |
| Net cash provided by (used in) investing activities | (690,543) | 948,243 | 493,950 |
| ***Cash flows from financing activities:*** | | | |
| Repurchases of common stock | (161,551) | (474,254) | (522,045) |
| Taxes paid related to net share settlement of restricted stock units | (48,335) | (60,391) | (35,392) |
| Proceeds from issuance of common stock through various stock plans | 48,669 | 47,454 | 68,184 |
| Payment of dividends to stockholders | (364,244) | (353,053) | (332,542) |
| Repayment of debt | (500,000) | (457,918) | (142,082) |
| Proceeds from issuance of long-term debts | — | 745,175 | — |
| Other financing activities | (10,049) | (2,650) | (1,325) |
| Net cash used in financing activities | (1,035,510) | (555,637) | (965,202) |
| Net increase (decrease) in cash and cash equivalents | (634,838) | 1,212,633 | 462,879 |
| Cash and cash equivalents at beginning of period | 2,179,328 | 966,695 | 503,816 |
| Cash and cash equivalents at end of period | $ 1,544,490 | $ 2,179,328 | $ 966,695 |
| **Supplemental disclosure of cash flow information:** | | | |
| Interest paid | $ 70,326 | $ 50,928 | $ 41,375 |
| Income taxes paid (refunded), net | $ 128,377 | $ 25,343 | $ (6,341) |
| Unsettled investment receivables | $ 655 | $ 16,461 | $ 21,558 |
| Unsettled investment payables | $ — | $ 5,860 | $ 62,199 |
| Capital expenditures included in accounts payable and accrued liabilities | $ 66,237 | $ 15,897 | $ 1,461 |

[1] Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard. Please refer to "Note 2. Summary of Significant Accounting Policies and Concentrations of Risk."

See notes to consolidated financial statements.

**XILINX, INC.**
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

| (In thousands, except per share amounts) | Common Stock Outstanding Shares | Common Stock Outstanding Amount | Additional Paid-in Capital | Retained Earnings | Accumulated Other Comprehensive Income (Loss) | Total Stockholders' Equity |
|---|---|---|---|---|---|---|
| **Balance as of April 2, 2016 [1]** | 253,687 | $ 2,537 | $ 726,921 | $ 1,939,963 | $ (6,631) | $ 2,662,790 |
| Components of comprehensive income: | | | | | | |
| Net income [1] | — | — | — | 628,133 | — | 628,133 |
| Other comprehensive loss | — | — | — | — | (18,050) | (18,050) |
| Issuance of common shares under employee stock plans, net | 4,195 | 42 | 32,751 | — | — | 32,793 |
| Repurchase and retirement of common stock | (9,855) | (99) | (91,223) | (430,724) | — | (522,046) |
| Stock-based compensation expense | — | — | 122,858 | — | — | 122,858 |
| Stock-based compensation capitalized in inventory | — | — | 239 | — | — | 239 |
| Temporary equity reclassification | — | — | 11,488 | — | — | 11,488 |
| Convertible debt conversion | — | — | 488 | — | — | 488 |
| Cash dividends declared ($1.32 per common share) | — | — | — | (332,542) | — | (332,542) |
| **Balance as of April 1, 2017 [1]** | 248,027 | 2,480 | 803,522 | 1,804,830 | (24,681) | 2,586,151 |
| Components of comprehensive income: | | | | | | |
| Net income [1] | — | — | — | 463,981 | — | 463,981 |
| Other comprehensive loss | — | — | — | — | (4,625) | (4,625) |
| Reclassification of stranded tax effects | — | — | — | 5,203 | (5,203) | — |
| Issuance of common shares under employee stock plans, net | 3,133 | 32 | (12,969) | — | — | (12,937) |
| Repurchase and retirement of common stock | (6,957) | (70) | (66,879) | (407,305) | — | (474,254) |
| Stock-based compensation expense | — | — | 153,815 | — | — | 153,815 |
| Stock-based compensation capitalized in inventory | — | — | (131) | — | — | (131) |
| Temporary equity reclassification | — | — | 1,406 | — | — | 1,406 |
| Exercise of warrants (Note 12) | 9,174 | 92 | (92) | — | — | — |
| Cash dividends declared ($1.40 per common share) | — | — | — | (353,053) | — | (353,053) |
| **Balance as of March 31, 2018 [1]** | 253,377 | 2,534 | 878,672 | 1,513,656 | (34,509) | 2,360,353 |
| Components of comprehensive income: | | | | | | |
| Net income | — | — | — | 889,750 | — | 889,750 |
| Other comprehensive income | — | — | — | — | 2,700 | 2,700 |
| Cumulative-effect of equity investments adoption (Note 2) | — | — | — | (8,399) | 8,399 | — |
| Issuance of common shares under employee stock plans, net | 2,950 | 29 | 306 | — | — | 335 |
| Repurchase and retirement of common stock | (2,436) | (24) | (21,509) | (140,018) | — | (161,551) |
| Stock-based compensation expense | — | — | 147,942 | — | — | 147,942 |
| Cumulative-effect of deferred tax from intra-entity asset transfer adoption (Note 2) | — | — | — | (13,776) | — | (13,776) |
| Cash dividends declared ($1.44 per common share) | — | — | — | (364,244) | — | (364,244) |
| **Balance as of March 30, 2019** | 253,891 | $ 2,539 | $ 1,005,411 | $ 1,876,969 | $ (23,410) | $ 2,861,509 |

[1] Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard. Please refer to "Note 2. Summary of Significant Accounting Policies and Concentrations of Risk."

See notes to consolidated financial statements.

**XILINX, INC.**
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1. Nature of Operations**

Xilinx, Inc. (Xilinx or the Company) designs, develops and markets programmable devices and associated technologies, including advanced ICs in the form of PLDs, boards, software design tools and predefined system functions delivered as IP. In addition to its programmable platforms, the Company provides design services, customer training, field engineering and technical support. The wafers used to manufacture its products are obtained primarily from independent wafer manufacturers located in Taiwan and Korea. The Company is dependent on these foundries to produce and deliver silicon wafers on a timely basis. The Company is also dependent on subcontractors, primarily located in the Asia Pacific region, to provide semiconductor assembly, test and shipment services. Xilinx is a global company with sales offices throughout the world. The Company derives over one-half of its revenues from international sales, primarily in the Asia Pacific region, Europe and Japan.

**Note 2. Summary of Significant Accounting Policies and Concentrations of Risk**

*Basis of Presentation*

The accompanying consolidated financial statements include the accounts of Xilinx and its wholly-owned subsidiaries after elimination of all intercompany transactions. The Company uses a 52- to 53-week fiscal year ending on the Saturday nearest March 31. Fiscal 2019, 2018 and 2017 were a 52-week year ended on March 30, 2019, March 31, 2018 and April 1, 2017, respectively. Fiscal 2020 will be a 52-week year ending on March 28, 2020.

*Use of Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent liabilities at the date of the financial statements and the reported amounts of net revenues and expenses during the reporting period. Such estimates relate to, among others, the useful lives of assets, assessment of recoverability of property, plant and equipment, long-lived assets and goodwill, inventory write-downs, allowances for doubtful accounts, valuation of intangible assets, customer returns, deferred tax assets, stock-based compensation, potential reserves relating to litigation and tax matters, valuation of certain investments and derivative financial instruments as well as other accruals or reserves. Actual results may differ from those estimates and such differences may be material to the financial statements.

*Cash Equivalents and Investments*

Cash equivalents consist of highly liquid investments with original maturities from the date of purchase of three months or less. These investments consist of money market funds, non-financial institution securities, U.S. and foreign government and agency securities and financial institution securities. Short-term investments consist of mortgage-backed securities, non-financial institution securities, U.S. and foreign government and agency securities, financial institution securities, asset-backed securities, commercial mortgage-backed securities and debt mutual funds with original maturities greater than three months and remaining maturities less than one year from the balance sheet date. Long-term investments consist of debt mutual funds. Long-term investments are investments with remaining maturities greater than one year, unless the investments are specifically identified to fund current operations, in which case they are classified as short-term investments. Equity investments are also classified as long-term investments if they are not intended to fund current operations.

The Company maintains its cash balances with various banks with high quality ratings, and with investment banking and asset management institutions. The Company manages its liquidity risk by investing in a variety of money market funds, high-grade commercial paper, corporate bonds, U.S. and foreign government and agency securities, asset-backed securities, mortgage-backed securities, commercial mortgage-backed securities, bank time deposits and debt mutual funds. This diversification of investments is consistent with its policy to maintain liquidity and ensure the ability to collect principal. The Company maintains an offshore investment portfolio denominated in U.S. dollars. All investments are made pursuant to corporate investment policy guidelines. Investments include Euro commercial paper, Euro dollar bonds, Euro dollar floating rate notes, offshore time deposits, U.S. and foreign government and agency securities, asset-backed securities, commercial mortgage-backed securities, debt mutual funds and mortgage-backed securities issued by U.S. government-sponsored enterprises and agencies.

Management classifies investments as available-for-sale or held-to-maturity at the time of purchase and re-evaluates such designation at each balance sheet date, although classification is not generally changed. Securities are classified as held-to-maturity when the Company has the positive intent and the ability to hold the securities until maturity. Held-to-maturity securities are

carried at cost adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization, as well as any interest on the securities, is included in interest income. No investments were classified as held-to-maturity as of March 30, 2019 or March 31, 2018. Available-for-sale securities are carried at fair value with the unrealized gains or losses, net of tax, included as a component of accumulated other comprehensive income (loss) in stockholders' equity. See "Note 3. Fair Value Measurements" for information relating to the determination of fair value. Realized gains and losses on available-for-sale securities and declines in value judged to be other than temporary are included in interest and other expense, net. In determining if and when a decline in value below the adjusted cost of available for sale securities is other than temporary, we evaluate on an ongoing basis the market conditions, trends of earnings, financial condition, credit ratings, any underlying collateral and other key measures for our investments. The cost of securities matured or sold is based on the specific identification method.

The Company's investments in non-marketable equity securities of private companies are accounted for under the measurement alternative method upon the adoption of ASU 2016-01. The carrying value is measured at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. Determining whether an observed transaction is similar to a security within the Company's portfolio requires judgment based on the rights and obligations of the securities. The Company's periodic assessment of impairment is made by considering available evidence, including the general market conditions in the investee’s industry, the investee’s product development status and subsequent rounds of financing and the related valuation and/or company's participation in such financings. The Company also assesses the investee’s ability to meet business milestones and the financial condition and near-term prospects of the individual investee, including the rate at which the investee is using its cash, the investee’s need for possible additional funding at a lower valuation and any bona fide offer to purchase the investee from a prospective acquirer.

*Accounts Receivable*

The allowance for doubtful accounts reflects the Company's best estimate of probable losses inherent in the accounts receivable balance. The Company determines the allowance based on the aging of Xilinx's accounts receivable, historical experience, known troubled accounts, management judgment and other currently available evidence. Xilinx writes off accounts receivable against the allowance when Xilinx determines a balance is uncollectible and no longer actively pursues collection of the receivable. The amounts of accounts receivable written off were insignificant for all periods presented.

*Inventories*

Inventories are stated at the lower of actual cost (determined using the first-in, first-out method), or market (estimated net realizable value) and are comprised of the following:

| (In thousands) | March 30, 2019 | March 31, 2018 |
|---|---|---|
| Raw materials | $ 39,727 | $ 14,674 |
| Work-in-process | 213,784 | 167,039 |
| Finished goods | 61,847 | 54,364 |
| | $ 315,358 | $ 236,077 |

The Company reviews and sets standard costs quarterly to approximate current actual manufacturing costs. The Company's manufacturing overhead standards for product costs are calculated assuming full absorption of actual spending over actual volumes. Given the cyclicality of the market, the obsolescence of technology and product lifecycles, the Company writes down inventory based on forecasted demand and technological obsolescence. These forecasts are developed based on inputs from the Company's customers, including bookings and extended but uncommitted demand forecasts, and internal analyses such as customer historical purchasing trends and actual and anticipated design wins, as well as market and economic conditions, technology changes, new product introductions and changes in strategic direction. These factors require estimates that may include uncertain elements. The estimates of future demand that the Company uses in the valuation of inventory are the basis for its published revenue forecasts, which are also consistent with our short-term manufacturing plans. The differences between the Company's demand forecast and the actual demand in the recent past have not resulted in any material write down in the Company's inventory. If the Company's demand forecast for specific products is greater than actual demand and the Company fails to reduce manufacturing output accordingly, the Company could be required to write down additional inventory, which would have a negative impact on the Company's gross margin.

*Property, Plant and Equipment*

Property, plant and equipment are recorded at cost, net of accumulated depreciation. Depreciation for financial reporting purposes is computed using the straight-line method over the estimated useful lives of the assets of three to five years for machinery, equipment, furniture and fixtures and 15 to 30 years for buildings. Depreciation expense totaled $53.3 million, $46.4 million and $45.4 million for fiscal 2019, 2018 and 2017, respectively.

*Impairment of Long-Lived Assets*

The Company evaluates the carrying value of long-lived assets to be held and used for impairment if indicators of potential impairment exist. Impairment indicators are reviewed on a quarterly basis. When indicators of impairment exist and assets are held for use, the Company estimates future undiscounted cash flows attributable to the assets. In the event such cash flows are not expected to be sufficient to recover the recorded value of the assets, the assets are written down to their estimated fair values based on the expected discounted future cash flows attributable to the assets or based on appraisals. When assets are removed from operations and held for sale, Xilinx estimates impairment losses as the excess of the carrying value of the assets over their fair value.

*Goodwill*

Goodwill is not amortized but is subject to impairment tests on an annual basis, or more frequently if indicators of potential impairment exist, using a fair-value-based approach. Based on the impairment review performed during the fourth quarter of fiscal 2019, there was no impairment of goodwill in fiscal 2019. Unless there are indicators of impairment, the Company's next impairment review for goodwill will be performed and completed in the fourth quarter of fiscal 2020. To date, no impairment indicators have been identified.

*Revenue Recognition*

Revenue from sales to the Company's distributors is recognized upon the transfer of control, which typically occurs at shipment, and is reduced by estimated allowances for distributor price adjustments and rights of return. The distributor price adjustments are estimated using the expected value method based on an analysis of actual and forecasted ship and debit claims, at the distributor and part level to account for current pricing and business trends. For fiscal 2019, approximately 54% of the Company's net revenues were from products sold to distributors for subsequent resale to OEMs or their subcontract manufacturers.

Revenue from sales to the Company's non-distributors is recognized net of sales incentives (if any) upon transfer of control to the customer, which typically occurs at shipment. Sales returns and allowances on product sales are recorded as a reduction of revenue.

Revenue from software license agreements and renewals is recognized at point of sales. Revenue from support services is recognized when the service is performed. Revenue from software licenses and support services sales were less than 2% of net revenues for all of the periods presented.

*Foreign Currency Translation*

The U.S. dollar is the functional currency for the Company's Ireland and Singapore subsidiaries. Monetary assets and liabilities that are not denominated in the functional currency are remeasured into U.S. dollars, and the resulting gains or losses are included in the consolidated statements of income under interest and other expense, net. The remeasurement gains or losses were immaterial for all fiscal periods presented.

The local currency is the functional currency for each of the Company's other wholly-owned foreign subsidiaries. Assets and liabilities are translated from foreign currencies into U.S. dollars at month-end exchange rates and statements of income are translated at the average monthly exchange rates. Exchange gains or losses arising from translation of foreign currency denominated assets and liabilities (i.e., cumulative translation adjustment) are included as a component of accumulated other comprehensive income (loss) in stockholders' equity.

*Derivative Financial Instruments*

To reduce financial risk, the Company periodically enters into financial arrangements as part of the Company's ongoing asset and liability management activities. Xilinx uses derivative financial instruments to hedge fair values of underlying assets and liabilities or future cash flows which are exposed to interest rate, foreign currency or commodity price fluctuations. The Company does not

enter into derivative financial instruments for trading or speculative purposes. See "Note 5. Derivative Financial Instruments" for detailed information about the Company's derivative financial instruments.

*Research and Development Expenses*

Research and development costs are current period expenses and charged to expense as incurred.

*Stock-Based Compensation*

The Company has equity incentive plans that are more fully discussed in "Note 6. Stock-Based Compensation Plans." The authoritative guidance of accounting for share-based payment requires the Company to measure the cost of all employee equity awards (that are expected to be exercised or vested) based on the grant-date fair value of those awards, and to record that cost as compensation expense over the period during which the employee is required to perform service in exchange for the award (over the vesting period of the award). Additionally, the Company's ESPP is deemed to be a compensatory plan under the authoritative guidance of accounting for share-based payments. Accordingly, the ESPP is included in the computation of stock-based compensation expense.

The Company uses the straight-line attribution method to recognize stock-based compensation costs over the requisite service period of the award. Upon exercise, cancellation or expiration of stock options, deferred tax assets for options with multiple vesting dates are eliminated for each vesting period on a first-in, first-out basis as if each award had a separate vesting period.

*Income Taxes*

All income tax amounts reflect the use of the liability method under the accounting for income taxes, as interpreted by Financial Accounting Standards Board (FASB) authoritative guidance for measuring uncertain tax positions. Under this method, deferred tax assets and liabilities are determined based on the expected future tax consequences of temporary differences between the carrying amounts of assets and liabilities for financial and income tax reporting purposes.

The TCJA introduced GILTI, which subjects a U.S. shareholder to current tax on income earned by certain foreign subsidiaries. The FASB allows companies to either (1) recognize deferred taxes for temporary differences that are expected to reverse as GILTI in future years (deferred method) or (2) account for taxes on GILTI as period costs in the year the tax is incurred (period method). The Company elected the deferred method.

*Business Combination*

We use the acquisition method of accounting and allocate the fair value of purchase consideration to the assets acquired and liabilities assumed from the acquiree based on their respective fair values as of the acquisition date. The excess of the fair value of purchase consideration over the fair value of these assets acquired and liabilities assumed is recorded as goodwill. When determining the fair values of assets acquired and liabilities assumed, management makes significant estimates and assumptions, especially with respect to intangible assets. Critical estimates in valuing intangible assets include, but are not limited to, expected future cash flows, which includes consideration of future growth and margins, future changes in technology, expected cost and time to develop in-process research and development, brand awareness and discount rates. Fair value estimates are based on the assumptions that management believes a market participant would use in pricing the asset or liability.

*Product Warranty and Indemnification*

The Company generally sells products with a limited warranty for product quality. The Company provides an accrual for known product issues if a loss is probable and can be reasonably estimated. As of the end of both fiscal 2019 and 2018, the accrual balance of the product warranty liability was immaterial.

The Company offers, subject to certain terms and conditions, to indemnify customers and distributors for costs and damages awarded against these parties in the event the Company's hardware products are found to infringe third-party intellectual property rights, including patents, copyrights or trademarks, and to compensate certain customers for limited specified costs they actually incur in the event our hardware products experience epidemic failure. To a lesser extent, the Company may from time-to-time offer limited indemnification with respect to its software products. The terms and conditions of these indemnity obligations are limited by contract, which obligations are typically perpetual from the effective date of the agreement. The Company has historically received only a limited number of requests for indemnification under these provisions and has not made any significant payments pursuant to these provisions. The Company cannot estimate the maximum amount of potential future payments, if any, that the Company may be required to make as a result of these obligations due to the limited history of indemnification claims and the

unique facts and circumstances that are likely to be involved in each particular claim and indemnification provision. However, there can be no assurances that the Company will not incur any material financial liabilities in the future as a result of these obligations.

*Concentrations of Credit Risk*

Avnet, one of the Company's distributors, distributes the Company's products worldwide. As of March 30, 2019 and March 31, 2018, Avnet accounted for 37% and 61% of the Company's total net accounts receivable, respectively. We expect our accounts receivable to fluctuate as we partner with our distributors to manage their inventory requirements. Avnet 's revenue accounted for 45%, 43% and 45% of the Company's worldwide net revenues in fiscal 2019, 2018 and 2017, respectively. The percentage of worldwide net revenues from Avnet is consistent with historical patterns.

Xilinx is subject to concentrations of credit risk primarily in its trade accounts receivable and investments in debt securities to the extent of the amounts recorded on the consolidated balance sheet. The Company attempts to mitigate the concentration of credit risk in its trade receivables through its credit evaluation process, collection terms and distributor sales to diverse end customers and through geographical dispersion of sales. Xilinx generally does not require collateral for receivables from its end customers or from distributors.

No other distributor or end customer accounted for more than 10% of the Company's worldwide net revenues for any of the periods presented.

The Company mitigates concentrations of credit risk in its investments in debt securities by currently investing more than 90% of its portfolio in AA (or its equivalent) or higher-grade securities as rated by Standard & Poor's or Moody's Investors Service equivalent. The Company's methods to arrive at investment decisions are not solely based on the rating agencies' credit ratings. Xilinx also performs additional credit due diligence and conducts regular portfolio credit reviews, including a review of counterparty credit risk related to the Company's forward currency exchange contracts. Additionally, Xilinx limits its investments in the debt securities of a single issuer based upon the issuer's credit rating and attempts to further mitigate credit risk by diversifying risk across geographies and type of issuer.

As of March 30, 2019, approximately 21% of the portfolio consisted of mortgage-backed securities. All of the mortgage-backed securities in the investment portfolio were issued by U.S. government-sponsored enterprises and agencies and are rated AA+ by Standard & Poor's and Aaa by Moody's Investors Service.

The global credit markets may experience adverse conditions that negatively impact the values of various types of investment and non-investment grade securities. The global credit and capital markets may experience significant volatility and disruption due to instability in the global financial system, uncertainty related to global economic conditions and concerns regarding sovereign financial stability. Therefore, there is a risk that we may incur other-than-temporary impairment charges for certain types of investments should credit market conditions deteriorate. See "Note 4. Financial Instruments" for a table of the Company's available-for-sale securities.

*Recent Accounting Pronouncements Adopted*

Revenue Recognition

In April 2014, the Financial Accounting Standards Board (FASB) issued the authoritative guidance, as amended, that outlines a new revenue recognition standard that replaces virtually all existing U.S. GAAP guidance on contracts with customers and the related other assets and deferred costs. The authoritative guidance provides a five-step process for recognizing revenue that depicts the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled, in exchange for those goods or services. The new guidance also requires expanded qualitative and quantitative disclosures relating to the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The new guidance is required to be applied retrospectively to each prior reporting period presented (Full Retrospective), or retrospectively with the cumulative effect of initially applying it recognized at the date of initial application. The Company adopted the new guidance on April 1, 2018, using the Full Retrospective method and restated the comparative prior periods. The Company implemented internal controls and certain system functionality to enable the preparation of financial information on adoption. These changes do not materially affect the Company's internal control over financial reporting.

As a result of the adoption of the authoritative guidance, the Company changed its accounting policy for revenue recognition and the details of the significant changes and quantitative impact of the changes are disclosed below:

Revenue from sales to the Company's distributors is recognized upon the transfer of control, which typically occurs at shipment (sell-in) and is reduced by estimated allowances for distributor price adjustments and rights of return. Previously, revenue was recognized upon reported resale of the product by the distributors to their customers (sell-through) as reduced by actual allowances for distributor price adjustments. Revenue from software license agreements and renewals is recognized at point of sales, whereas previously these were deferred and recognized over the contractual term before the implementation of the authoritative guidance. Revenue recognition related to the Company's other revenue streams, such as direct customers, remains unchanged.

The adoption of this authoritative guidance has an impact on the Company's consolidated statements of income and balance sheets, but had no impact on net cash provided by or used in operating, financing, or investing activities on the consolidated statements of cash flows.

The impact on the Company's previously reported consolidated statements of income resulting from the adoption of the authoritative guidance is as follows:

| | March 31, 2018 | | April 1, 2017 | |
|---|---|---|---|---|
| (In thousands, except per share amounts) | As Reported | As Adjusted | As Reported | As Adjusted |
| **Consolidated Statements of Income:** | | | | |
| Net revenues | $ 2,539,004 | $ 2,467,023 | $ 2,349,330 | $ 2,356,742 |
| Cost of revenues | 756,368 | 743,419 | 708,216 | 708,632 |
| Gross margin | 1,782,636 | 1,723,604 | 1,641,114 | 1,648,110 |
| Operating expenses: | | | | |
| Research and development | 639,750 | 639,750 | 601,443 | 601,443 |
| Selling, general and administrative | 362,329 | 362,329 | 335,150 | 335,150 |
| Amortization of acquisition-related intangibles | 2,152 | 2,152 | 5,127 | 5,127 |
| Executive transition costs | 33,351 | 33,351 | — | — |
| Total operating expenses | 1,037,582 | 1,037,582 | 941,720 | 941,720 |
| Operating income | 745,054 | 686,022 | 699,394 | 706,390 |
| Interest and other income (expense), net | 5,357 | 5,357 | (8,314) | (8,314) |
| Income before income taxes | 750,411 | 691,379 | 691,080 | 698,076 |
| Provision for income taxes | 238,030 | 227,398 | 68,568 | 69,943 |
| Net income | $ 512,381 | $ 463,981 | $ 622,512 | $ 628,133 |
| Net income per common share: | | | | |
| Basic | $ 2.05 | $ 1.86 | $ 2.47 | $ 2.49 |
| Diluted | $ 1.99 | $ 1.80 | $ 2.32 | $ 2.34 |
| Shares used in per share calculations | | | | |
| Basic | 249,595 | 249,595 | 252,301 | 252,301 |
| Diluted | 257,960 | 257,960 | 268,813 | 268,813 |
| | | | | |
| **Consolidated Balance Sheets:** | | | | |
| Accounts receivable | $ 372,144 | $ 382,246 | $ 243,915 | $ 283,850 |
| Other assets | 342,644 | 337,402 | 275,440 | 272,407 |
| Deferred income on shipments to distributors | 25,166 | — | 54,567 | — |
| Other accrued liabilities | 59,772 | 59,680 | 95,098 | 95,209 |
| Deferred tax liabilities | 75 | 75 | 317,639 | 330,479 |
| Retained earnings | $ 1,483,538 | $ 1,513,656 | $ 1,726,312 | $ 1,804,830 |

Equity Investments

In January 2016, the FASB issued final authoritative guidance regarding how companies measure equity investments that do not result in consolidation and are not accounted for under the equity method and how they present changes in the fair value of financial

liabilities measured under the fair value option that are attributable to their own credit. The authoritative guidance also changes certain disclosure requirements and other aspects of current U.S. GAAP on this matter. The authoritative guidance does not change the guidance for classifying and measuring investments in debt securities and loans. The Company adopted this authoritative guidance on April 1, 2018 and recorded the balance of the unrealized losses of $11.0 million as of the end of fiscal 2018 from its investment in debt mutual funds and equity securities to retained earnings, less the related deferred taxes of $2.6 million. Subsequent changes in fair value from such investments are recorded in the consolidated statements of income.

Income Taxes

In October 2016, the FASB issued authoritative guidance on income taxes which eliminates the deferred tax effects of intra-entity asset transfers other than inventory. As a result, a reporting entity would recognize the tax expense from the sale of an asset in the seller's tax jurisdiction when the transfer occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. The authoritative guidance is effective for public business entities in fiscal years beginning after December 15, 2017 and requires the adoption be applied on a modified retrospective basis through a cumulative-effect adjustment to retained earnings. The Company adopted this authoritative guidance on April 1, 2018. Accordingly, $13.8 million of prepaid taxes associated with prior period intra-entity asset transfers was reclassified to retained earnings.

*Recent Accounting Pronouncements Not Yet Adopted*

Leases

In February 2016, the FASB issued authoritative guidance on leases. The new authoritative guidance requires the recognition of assets and liabilities arising from lease transactions on the balance sheet and will also require significant additional disclosures about the amount, timing and uncertainty of cash flows from leases. Accordingly, a lessee will recognize a lease asset for its right to use the underlying asset and a lease liability for the corresponding lease obligation. The new authoritative guidance is effective for public business entities for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years, which for Xilinx would be the first quarter of fiscal 2020. Even though early adoption is permitted, Xilinx has decided not to early adopt such authoritative guidance. This authoritative guidance must be adopted using a modified retrospective transition with application of the new authoritative guidance for leases that existed at or are entered into after the beginning of the earliest comparative period presented. To help with the transition to the new guidance, certain practical expedients are provided.

On July 30, 2018, the FASB provided entities with an additional (and optional) transition method to adopt the new lease requirements by allowing entities to initially apply the requirements by recognizing a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. Consequently, an entity's reporting for the comparative periods presented in the financial statements in which the entity adopts the new lease requirements would continue to be in accordance with historical GAAP. An entity electing this additional (and optional) transition method must provide the required disclosures for all periods that continue to be in accordance with historical GAAP. The amendments do not change the existing disclosure requirements in historical GAAP. The amendments have the same effective date as the new leases standard, which for Xilinx would be the first quarter of fiscal 2020.

The Company plans to adopt the new standard using the optional transition method and apply the guidance to leases existing at, or entered into after, the beginning of the period of adoption, as well as certain practical expedients permitted under the transition guidance. The Company believes the impact upon adoption of the new lease guidance will be the recognition of right-of-use assets and lease liabilities on the Company's consolidated balance sheets and the impact is immaterial.

Derivatives and Hedging

In August 2017, the FASB issued authoritative guidance that amended the accounting for hedging activities. The guidance permits more hedging strategies to be eligible for hedge accounting and simplifies the application of hedge accounting guidance in areas where practice issues exist. The new authoritative guidance will be effective for public business entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2018, which for Xilinx would be the first quarter of fiscal 2020. Early adoption is permitted, including adoption in any interim periods after issuance of the authoritative guidance. The Company does not expect a material impact on its consolidated statements of income upon adoption of this authoritative guidance.

Cloud Computing Arrangements

On August 29, 2018, the FASB issued new guidance requiring a customer in a cloud computing arrangement (i.e., hosting arrangement) that is a service contract to follow the internal-use software guidance to determine which implementation costs to capitalize as assets or expense as incurred. Capitalized implementation costs related to a hosting arrangement that is a service contract will be amortized over the term of the hosting arrangement, beginning when the module or component of the hosting arrangement is ready for its intended use. Entities will need to maintain appropriate records to capture the portion of their costs that qualify for capitalization. For public entities, the guidance is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years, which for Xilinx would be the first quarter of fiscal 2021. Early adoption is permitted, including adoption in any interim period. Entities have the option to apply the guidance prospectively to all implementation costs incurred after the date of adoption or retrospectively. The Company is currently evaluating the impact of this new authoritative guidance on its consolidated financial statements.

**Note 3. Fair Value Measurements**

The guidance for fair value measurements established by the FASB defines fair value as the exchange price that would be received from selling an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, the Company considers the principal or most advantageous market in which Xilinx would transact and also considers assumptions that market participants would use when pricing the asset or liability, such as inherent risk, transfer restrictions and risk of nonperformance.

The Company determines the fair value for marketable debt and equity securities using industry standard pricing services, data providers and other third-party sources and by internally performing valuation testing and analysis. The Company primarily uses a consensus price or weighted-average price for its fair value assessment. The Company determines the consensus price using market prices from a variety of industry standard pricing services, data providers, security master files from large financial institutions and other third party sources and uses those multiple prices as inputs into a distribution-curve-based algorithm to determine the daily market value. The pricing services use multiple inputs to determine market prices, including reportable trades, benchmark yield curves, credit spreads and broker/dealer quotes as well as other industry and economic events. For certain securities with short maturities, such as discount commercial paper and certificates of deposit, the security is accreted from purchase price to face value at maturity. If a subsequent transaction on the same security is observed in the marketplace, the price on the subsequent transaction is used as the current daily market price and the security will be accreted to face value based on the revised price.

The Company validates the consensus prices by taking random samples from each asset type and corroborating those prices using reported trade activity, benchmark yield curves, binding broker/dealer quotes or other relevant price information. There have not been any changes to the Company's fair value methodology during fiscal 2019 and the Company did not adjust or override any fair value measurements as of March 30, 2019.

*Fair Value Hierarchy*

The fair value framework requires the categorization of assets and liabilities into three levels based upon the assumptions (inputs) used to price the assets or liabilities. The guidance for fair value measurements requires that assets and liabilities carried at fair value be classified and disclosed in one of the following categories:

Level 1 — Quoted (unadjusted) prices in active markets for identical assets or liabilities.

The Company's Level 1 assets consist of U.S. government securities, money market funds and marketable equity securities.

Level 2 — Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the asset or liability.

The Company's Level 2 assets consist of financial institution securities, non-financial institution securities, U.S. agency securities, foreign government and agency securities, mortgage-backed securities, debt mutual funds, asset-backed securities and commercial mortgage-backed securities. The Company's Level 2 assets and liabilities also include foreign currency forward contracts and interest rate swap contracts.

Level 3 — Unobservable inputs to the valuation methodology that are supported by little or no market activity and that are significant to the measurement of the fair value of the assets or liabilities. Level 3 assets and liabilities include those whose fair value measurements are determined using pricing models, discounted cash flow methodologies or similar valuation techniques, as well as significant management judgment or estimation.

The Company has no Level 3 assets and liabilities measured at fair value on a recurring basis.

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

In instances where the inputs used to measure fair value fall into different levels of the fair value hierarchy, the fair value measurement has been determined based on the lowest level input that is significant to the fair value measurement in its entirety. The Company's assessment of the significance of a particular item to the fair value measurement in its entirety requires judgment, including the consideration of inputs specific to the asset or liability. The following tables present information about the Company's assets and liabilities measured at fair value on a recurring basis as of March 30, 2019 and March 31, 2018:

| | March 30, 2019 | | | |
|---|---|---|---|---|
| (In thousands) | Quoted Prices in Active Markets for Identical Instruments (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) | Total Fair Value |
| **Assets** | | | | |
| Cash equivalents: | | | | |
| Money market funds | $ 428,150 | $ — | $ — | $ 428,150 |
| Financial institution securities | — | 287,945 | — | 287,945 |
| Non-financial institution securities | — | 461,884 | — | 461,884 |
| U.S. government and agency securities | 149,578 | 53,520 | — | 203,098 |
| Foreign government and agency securities | — | 99,750 | — | 99,750 |
| Short-term investments: | | | | |
| Financial institution securities | — | 249,850 | — | 249,850 |
| Non-financial institution securities | — | 240,040 | — | 240,040 |
| U.S. government and agency securities | 93,149 | 37,838 | — | 130,987 |
| Foreign government and agency securities | — | 114,705 | — | 114,705 |
| Mortgage-backed securities | — | 670,770 | — | 670,770 |
| Debt mutual fund | — | 31,934 | — | 31,934 |
| Asset-backed securities | — | 76,369 | — | 76,369 |
| Commercial mortgage-backed securities | — | 116,539 | — | 116,539 |
| Long-term investments: | | | | |
| Debt mutual fund | — | 53,433 | — | 53,433 |
| Total assets measured at fair value | $ 670,877 | $ 2,494,577 | $ — | $ 3,165,454 |
| **Liabilities** | | | | |
| Derivative financial instruments, net | $ — | $ 9,009 | $ — | $ 9,009 |
| Total liabilities measured at fair value | $ — | $ 9,009 | $ — | $ 9,009 |
| **Net assets measured at fair value** | $ 670,877 | $ 2,485,568 | $ — | $ 3,156,445 |

| (In thousands) | March 31, 2018<br>Quoted Prices in Active Markets for Identical Instruments (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) | Total Fair Value |
|---|---|---|---|---|
| **Assets** | | | | |
| Cash equivalents: | | | | |
| Money market funds | $ 1,291,891 | $ — | $ — | $ 1,291,891 |
| Financial institution securities | — | 359,901 | — | 359,901 |
| Non-financial institution securities | — | 242,904 | — | 242,904 |
| U.S. government and agency securities | 996 | 34,999 | — | 35,995 |
| Foreign government and agency securities | — | 179,957 | — | 179,957 |
| Short-term investments: | | | | |
| Financial institution securities | — | 75,000 | — | 75,000 |
| Non-financial institution securities | — | 81,939 | — | 81,939 |
| U.S. government and agency securities | 3,639 | 19,008 | — | 22,647 |
| Mortgage-backed securities | — | 844,397 | — | 844,397 |
| Asset-backed securities | — | 91,389 | — | 91,389 |
| Commercial mortgage-backed securities | — | 152,870 | — | 152,870 |
| Long-term investments: | | | | |
| Debt mutual funds | — | 89,670 | — | 89,670 |
| Marketable equity securities | 8,226 | — | — | 8,226 |
| Total assets measured at fair value | $ 1,304,752 | $ 2,172,034 | $ — | $ 3,476,786 |
| **Liabilities** | | | | |
| Derivative financial instruments, net | $ — | $ 26,091 | $ — | $ 26,091 |
| Total liabilities measured at fair value | $ — | $ 26,091 | $ — | $ 26,091 |
| **Net assets measured at fair value** | $ 1,304,752 | $ 2,145,943 | $ — | $ 3,450,695 |

For certain of the Company’s financial instruments, including cash held in banks, accounts receivable and accounts payable, the carrying amounts approximate fair value due to their short maturities, and are therefore excluded from the fair value tables above.

*Financial Instruments Not Recorded at Fair Value on a Recurring Basis*

The Company's $500.0 million principal amount of 3.000% notes due March 15, 2021 (2021 Notes) and $750.0 million principal amount of 2.950% senior notes due June 1, 2024 (2024 Notes) are measured at fair value on a quarterly basis for disclosure purposes. The fair values of the 2021 Notes and 2024 Notes as of March 30, 2019 were approximately, $501.8 million and $743.6 million, respectively, based on the last trading price of the respective debentures for the period (classified as Level 2 in fair value hierarchy due to relatively low trading volume).

*Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis*

As of March 30, 2019, the Company had non-marketable equity securities in private companies of $74.6 million, which were classified as Level 3 assets. The Company’s investments in non-marketable securities of private companies are also recorded at fair value if the Company recognizes an observable price adjustment or an impairment. Such impairment losses or observable price adjustments were not material during all periods presented. The Company’s investments in non-financial assets such as property, plant and equipment, goodwill and acquisition-related intangibles, are recorded at cost (net of accumulated depreciation or amortization, where applicable). These non-financial assets are only measured at fair value when indicators of impairment exist.

**Note 4. Financial Instruments**

The following is a summary of cash equivalents and available-for-sale securities as of the end of the periods presented:

| | March 30, 2019 | | | | March 31, 2018 | | | |
|---|---|---|---|---|---|---|---|---|
| (In thousands) | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Estimated Fair Value | Amortized Cost | Gross Unrealized Gains | Gross Unrealized Losses | Estimated Fair Value |
| Money market funds | $ 428,150 | $ — | $ — | $ 428,150 | $ 1,291,891 | $ — | $ — | $ 1,291,891 |
| Financial institution securities | 537,795 | — | — | 537,795 | 434,901 | — | — | 434,901 |
| Non-financial institution securities | 702,483 | 3 | (562) | 701,924 | 326,219 | — | (1,376) | 324,843 |
| U.S. government and agency securities | 334,185 | 39 | (139) | 334,085 | 58,913 | 1 | (272) | 58,642 |
| Foreign government and agency securities | 214,455 | — | — | 214,455 | 179,957 | — | — | 179,957 |
| Mortgage-backed securities | 684,596 | 809 | (14,635) | 670,770 | 866,048 | 660 | (22,311) | 844,397 |
| Asset-backed securities | 76,852 | — | (483) | 76,369 | 92,751 | 16 | (1,378) | 91,389 |
| Commercial mortgage-backed securities | 118,115 | 42 | (1,618) | 116,539 | 156,296 | 1 | (3,427) | 152,870 |
| | $ 3,096,631 | $ 893 | $ (17,437) | $ 3,080,087 | $ 3,406,976 | $ 678 | $ (28,764) | $ 3,378,890 |

Financial institution securities include securities issued or managed by financial institutions in various forms, such as commercial paper and time deposits. Substantially all time deposits were issued by institutions outside the U.S. as of March 30, 2019 and March 31, 2018.

The following tables show the fair values and gross unrealized losses of the Company's investments, aggregated by investment category, for individual securities that have been in a continuous unrealized loss position for the length of time specified, as of March 30, 2019 and March 31, 2018:

| | March 30, 2019 | | | | | |
|---|---|---|---|---|---|---|
| | Less Than 12 Months | | 12 Months or Greater | | Total | |
| (In thousands) | Fair Value | Gross Unrealized Losses | Fair Value | Gross Unrealized Losses | Fair Value | Gross Unrealized Losses |
| Non-financial institution securities | $ 4,767 | $ (4) | $ 51,044 | $ (558) | $ 55,811 | $ (562) |
| U.S. government and agency securities | — | — | 13,542 | (139) | 13,542 | (139) |
| Mortgage-backed securities | 34,595 | (480) | 597,394 | (14,155) | 631,989 | (14,635) |
| Asset-backed securities | — | — | 76,103 | (483) | 76,103 | (483) |
| Commercial mortgage-backed securities | 1,354 | (3) | 112,294 | (1,615) | 113,648 | (1,618) |
| | $ 40,716 | $ (487) | $ 850,377 | $ (16,950) | $ 891,093 | $ (17,437) |

| (In thousands) | March 31, 2018 Less Than 12 Months Fair Value | Less Than 12 Months Gross Unrealized Losses | 12 Months or Greater Fair Value | 12 Months or Greater Gross Unrealized Losses | Total Fair Value | Total Gross Unrealized Losses |
|---|---|---|---|---|---|---|
| Non-financial institution securities | $ 69,780 | $ (1,146) | $ 8,344 | $ (230) | $ 78,124 | $ (1,376) |
| U.S. government and agency securities | 13,471 | (176) | 9,176 | (96) | 22,647 | (272) |
| Mortgage-backed securities | 510,988 | (11,048) | 299,663 | (11,263) | 810,651 | (22,311) |
| Asset-backed securities | 57,128 | (876) | 32,696 | (502) | 89,824 | (1,378) |
| Debt mutual funds | — | — | 89,670 | (11,680) | 89,670 | (11,680) |
| Commercial mortgage-backed securities | 95,435 | (1,760) | 56,051 | (1,667) | 151,486 | (3,427) |
| | $ 746,802 | $ (15,006) | $ 495,600 | $ (25,438) | $ 1,242,402 | $ (40,444) |

As of March 30, 2019, the gross unrealized losses that had been outstanding for both less than twelve months and more than twelve months were primarily related to mortgage-backed securities due to the general rising of the interest-rate environment, although the percentage of such losses to the total estimated fair value of the mortgage-backed securities was relatively insignificant.

The Company reviewed the investment portfolio and determined that the gross unrealized losses on these investments as of March 30, 2019 and March 31, 2018 were temporary in nature as evidenced by the fluctuations in the gross unrealized losses within the investment categories. The marketable debt securities (financial institution securities, non-financial institution securities, U.S. and foreign government and agency securities, asset-back securities, mortgage-backed securities and commercial mortgage-backed securities) are highly rated by the credit rating agencies, there have been no defaults on any of these securities and the Company has received interest payments as they become due. Therefore, the Company believes that it will be able to collect both principal and interest amounts due to the Company. Additionally, in the past several years a portion of the Company's investment in mortgage-backed securities was redeemed or prepaid by the debtors at par. Furthermore, the aggregate of individual unrealized losses that had been outstanding for twelve months or more was not significant as of March 30, 2019 and March 31, 2018. The Company neither intends to sell these marketable debt securities nor concludes that it is more-likely-than-not that it will have to sell them until recovery of their carrying values.

The amortized cost and estimated fair value of marketable debt securities, by contractual maturity, are shown in the table below. Actual maturities may differ from contractual maturities because issuers may have the right to call or prepay obligations without call or prepayment penalties.

| (In thousands) | March 30, 2019 Amortized Cost | Estimated Fair Value |
|---|---|---|
| Due in one year or less | $ 1,756,125 | $ 1,756,001 |
| Due after one year through five years | 133,780 | 132,476 |
| Due after five years through ten years | 135,971 | 134,020 |
| Due after ten years | 642,605 | 629,440 |
| | $ 2,668,481 | $ 2,651,937 |

As of March 30, 2019, $895.9 million of marketable debt securities with contractual maturities of greater than one year were classified as short-term investments. Additionally, the above table does not include investments in money market and debt mutual funds because these investments do not have specific contractual maturities.

Certain information related to available-for-sale securities is as follows:

| (In thousands) | Years Ended March 30, 2019 | March 31, 2018 | April 1, 2017 |
|---|---|---|---|
| Proceeds from sale of available-for-sale and equity securities | $ 35,734 | $ 1,161,410 | $ 695,030 |
| Gross realized gains on sale of available-for-sale securities | $ 372 | $ 7,258 | $ 6,989 |
| Gross realized losses on sale of available-for-sale securities | (51) | (7,947) | (3,457) |
| Net realized (losses) gains on sale of available-for-sale securities | $ 321 | $ (689) | $ 3,532 |
| Amortization of premiums on available-for-sale securities | $ 8,118 | $ 24,569 | $ 29,360 |

The cost of securities matured or sold is based on the specific identification method.

Starting April 1, 2018, the Company records the change in the fair value of its investment in debt mutual funds and marketable equity securities as part of its interest and other income (expense), net. This change in fair value was a net decrease of $5.0 million for the twelve months ended March 30, 2019 and the Company recorded it within interest and other income (expense), net for the period in the consolidated statements of income.

**Note 5. Derivative Financial Instruments**

The Company's primary objective for holding derivative financial instruments is to manage foreign currency exchange rate risk and interest rate risk. As a result of the use of derivative financial instruments, the Company is exposed to the risk that counterparties to derivative contracts may fail to meet their contractual obligations. The Company manages counterparty credit risk in derivative contracts by reviewing counterparty creditworthiness on a regular basis, establishing collateral requirement and limiting exposure to any single counterparty. The right of set-off that exists with certain transactions enables the Company to net amounts due to and from the counterparty, reducing the maximum loss from credit risk in the event of counterparty default.

The Company entered into interest rate swap contracts with certain independent financial institutions to manage interest rate risks related to fixed interest rate expenses from its 2024 Notes and floating interest rate income from its investments in marketable debt securities. See “Note 10. Debt and Credit Facility” for more discussion related to interest rate swap contracts. The interest rate swap contracts were designated and qualified as fair value hedges of the 2024 Notes, and were separately accounted for as a derivative. The interest rate swap contracts and the 2024 Notes were initially measured at fair value. Any subsequent changes in fair values of the interest rate swap contracts and the 2024 Notes will be recorded in the Company’s consolidated balance sheets. During the twelve months ended March 30, 2019, the net change in fair values of the interest rate swap contracts and the underlying 2024 Notes was $18.9 million, which was recorded as a derivative liability for the interest rate swap contacts (as a component of other long-term liabilities on the consolidated balance sheets) and also a reduction from the carrying amount of 2024 Notes. There was no ineffectiveness during all periods presented.

As of March 30, 2019 and March 31, 2018, the Company had the following outstanding forward currency exchange contracts (in notional amount), which were derivative financial instruments:

| (In thousands and U.S. dollars) | March 30, 2019 | March 31, 2018 |
|---|---|---|
| Singapore Dollar | $ 29,420 | $ 24,914 |
| Euro | 39,408 | 38,987 |
| Indian Rupee | 77,973 | 62,472 |
| British Pound | 10,575 | 8,155 |
| Japanese Yen | 3,840 | 3,859 |
| Chinese Yuan | 34,386 | 8,260 |
| | $ 195,602 | $ 146,647 |

As part of the Company's strategy to reduce volatility of operating expenses due to foreign exchange rate fluctuations, the Company employs a hedging program with a forward outlook of up to two years for major foreign-currency-denominated operating expenses. The outstanding forward currency exchange contracts expire at various dates through February 2021. The net unrealized gains, which approximate the fair market value of the outstanding forward currency exchange contracts, are expected to be recognized in the consolidated statements of income within the next two years.

As of March 30, 2019, all of the forward foreign currency exchange contracts were designated and qualified as cash flow hedges and the effective portion of the gain or loss on the forward contracts was reported as a component of other comprehensive income (loss) and reclassified into net income in the same period during which the hedged transaction affects earnings. The estimated amount of such gains or losses as of March 30, 2019 that is expected to be reclassified into earnings was not material. The ineffective portion of the gains or losses on the forward contracts was included in the net income for all periods presented.

The Company may enter into forward foreign currency exchange contracts to hedge firm commitments such as acquisitions and capital expenditures. Gains and losses on foreign currency forward contracts that are designated as hedges of anticipated transactions, for which a firm commitment has been attained and the hedged relationship has been effective, are deferred and included in income or expenses in the same period that the underlying transaction is settled. Gains and losses on any instruments not meeting the above criteria are recognized in income or expenses in the consolidated statements of income as they are incurred.

The Company had the following derivative instruments as of March 30, 2019 and March 31, 2018, located on the consolidated balance sheet, utilized for risk management purposes detailed above:

| | Foreign Exchange Contracts | | | |
|---|---|---|---|---|
| | Asset Derivatives | | Liability Derivatives | |
| (In thousands) | Balance Sheet Location | Fair Value | Balance Sheet Location | Fair Value |
| March 30, 2019 | Prepaid expenses and other current assets | $ 2,802 | Other accrued liabilities | $ 1,722 |
| March 31, 2018 | Prepaid expenses and other current assets | 2,922 | Other accrued liabilities | 12 |

The Company does not offset or net the fair value amounts of derivative financial instruments in its consolidated balance sheets. The potential effect of rights of set-off associated with the derivative financial instruments was not material to the Company's consolidated balance sheet for all periods presented.

The following table summarizes the effect of derivative instruments on the consolidated statements of income for fiscal 2019 and 2018:

| | Foreign Exchange Contracts | |
|---|---|---|
| | Years Ended | |
| (In thousands) | March 30, 2019 | March 31, 2018 |
| Amount of (losses)/gains recognized in other comprehensive income on derivative (effective portion of cash flow hedging) | $ (1,427) | $ 862 |
| Amount of (losses)/gains reclassified from accumulated other comprehensive income into income (effective portion) * | (5,603) | 4,655 |
| Amount of losses recorded (ineffective portion) * | (4) | (14) |

*Recorded in interest and other expense, net within the consolidated statements of income.

**Note 6. Stock-Based Compensation Plans**

The Company's equity incentive plans are broad-based, long-term retention programs that cover employees, consultants and non-employee directors of the Company. These plans are intended to attract and retain talented employees, consultants and non-employee directors and to provide such persons with a proprietary interest in the Company.

*Stock-Based Compensation*

The following table summarizes stock-based compensation expense related to stock awards granted under the Company's equity incentive plans and rights to acquire stock granted under the Company's Amended and Restated 1990 Employee Qualified Stock Purchase Plan (ESPP):

| (In thousands) | Years Ended March 30, 2019 | March 31, 2018 | April 1, 2017 |
|---|---|---|---|
| Stock-based compensation included in: | | | |
| Cost of revenues | $ 8,820 | $ 8,492 | $ 8,014 |
| Research and development | 86,428 | 76,790 | 66,822 |
| Selling, general and administrative | 52,694 | 51,912 | 48,022 |
| Executive transition costs | — | 16,621 | — |
| Stock-based compensation effect on income before taxes | 147,942 | 153,815 | 122,858 |
| Income tax effect | (29,361) | (40,188) | (37,752) |
| Net stock-based compensation effect on net income | $ 118,581 | $ 113,627 | $ 85,106 |

The Company adjusts stock-based compensation on a quarterly basis for changes to the estimate of expected equity award forfeitures based on actual forfeiture experience. The effect of adjusting the forfeiture rate for all expense amortization was recognized in the period the forfeiture estimate was changed, and was not material for all periods presented.

During fiscal 2019, 2018 and 2017, there were no options granted and therefore the Company's stock-based compensation expense related to options, and the number of options outstanding as of March 30, 2019, were not material.

As of March 30, 2019 and March 31, 2018, the ending inventory balances included $2.1 million of capitalized stock-based compensation. During fiscal 2019, 2018 and 2017, the tax benefit realized for the tax deduction from restricted stock units (RSUs) and other awards totaled $44.4 million, $60.6 million and $53.3 million, respectively. The tax deduction includes amounts credited to income tax expense.

The fair values of ESPP were estimated as of the grant date using the Black-Scholes option pricing model. The Company's expected stock price volatility assumption is estimated using implied volatility of the Company's traded options. The expected life of options granted is based on the historical exercise activity as well as the expected disposition of all options outstanding. The expected life of options granted also considers the actual contractual term.

The weighted-average fair value per share of stock purchase rights granted under the ESPP during fiscal 2019, 2018 and 2017 were $26.57, $17.95 and $13.00, respectively. These fair values per share were estimated at the date of grant using the following weighted-average assumptions:

| | Employee Stock Purchase Plan Fiscal 2019 | Fiscal 2018 | Fiscal 2017 |
|---|---|---|---|
| Expected life of options (years) | 1.3 | 1.3 | 1.3 |
| Expected stock price volatility | 0.33 | 0.29 | 0.24 |
| Risk-free interest rate | 2.5% | 1.6% | 0.7% |
| Dividend yield | 1.7% | 2.1% | 2.4% |

The estimated fair values of RSU awards were calculated based on the market price of Xilinx common stock on the date of grant, reduced by the present value of dividends expected to be paid on Xilinx common stock prior to vesting. The per share weighted-average fair value of RSUs granted during fiscal 2019, 2018 and 2017 were $66.94, $60.18 and $44.38, respectively. The weighted average fair value of RSUs granted in fiscal 2019, 2018 and 2017 were calculated based on estimates at the date of grant using the following weighted-average assumptions:

| | Fiscal 2019 | Fiscal 2018 | Fiscal 2017 |
|---|---|---|---|
| Risk-free interest rate | 2.7% | 1.8% | 0.9% |
| Dividend yield | 2.1% | 2.2% | 2.8% |

As of March 30, 2019, total unrecognized stock-based compensation costs related to ESPP was $26.0 million. The total unrecognized stock-based compensation cost for ESPP is expected to be recognized over a weighted-average period of 1.1 years.

*Equity Incentive Plans*

As of March 30, 2019, 11.3 million shares are available for future grants under the 2007 Equity Incentive Plan (2007 Equity Plan). The contractual term for stock awards granted under the 2007 Equity Plan is seven years from the grant date. Stock awards granted to existing and newly hired employees generally vest over a four-year period from the date of grant.

A summary of shares available for grant under the 2007 Equity Plan is as follows:

| (Shares in thousands) | Shares Available for Grant |
|---|---|
| **April 2, 2016** | 12,946 |
| Additional shares reserved | 2,500 |
| Stock options cancelled | 1 |
| RSUs granted | (3,398) |
| RSUs cancelled | 410 |
| **April 1, 2017** | 12,459 |
| Additional shares reserved | 1,900 |
| RSUs granted | (3,718) |
| RSUs cancelled | 701 |
| **March 31, 2018** | 11,342 |
| Additional shares reserved | 3,000 |
| RSUs granted | (3,559) |
| RSUs cancelled | 536 |
| **March 30, 2019** | 11,319 |

The types of awards allowed under the 2007 Equity Plan include incentive stock options, non-qualified stock options, RSUs, restricted stock and stock appreciation rights. To date, the Company has issued a mix of non-qualified stock options and RSUs under the 2007 Equity Plan.

The total pre-tax intrinsic value of options exercised during fiscal 2019 and 2018 was $475 thousand and $4.1 million, respectively. This intrinsic value represents the difference between the exercise price and the fair market value of the Company's common stock on the date of exercise.

Since the Company adopted the policy of retiring all repurchased shares of its common stock, new shares are issued upon employees' exercise of their stock options.

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*RSU Awards*

A summary of the Company's RSU activity and related information is as follows:

| (Shares and intrinsic value in thousands) | RSUs Outstanding Number of Shares | Weighted-Average Grant-Date Fair Value Per Share | Weighted Average Remaining Contractual Term (Years) | Aggregate Intrinsic Value (1) |
|---|---|---|---|---|
| **April 2, 2016** | 6,619 | $40.74 | | |
| Granted | 3,398 | $44.38 | | |
| Vested (2) | (2,619) | $39.49 | | |
| Cancelled | (410) | $41.63 | | |
| **April 1, 2017** | 6,988 | $42.93 | | |
| Granted | 3,718 | $60.18 | | |
| Vested (2) | (3,016) | $43.30 | | |
| Cancelled | (701) | $48.16 | | |
| **March 31, 2018** | 6,989 | $51.39 | | |
| Granted | 3,559 | $66.94 | | |
| Vested (2) | (2,681) | $49.05 | | |
| Cancelled | (536) | $55.09 | | |
| **March 30, 2019** | 7,331 | $59.54 | 2.42 | $ 929,644 |
| | | | | |
| **Expected to vest as of March 30, 2019** | 5,733 | $59.62 | 2.42 | $ 726,876 |

(1) Aggregate intrinsic value for RSUs represents the closing price per share of Xilinx's stock on March 30, 2019 of $126.79, multiplied by the number of RSUs outstanding or expected to vest as of March 30, 2019.

(2) The number of RSUs vested includes shares that the Company withheld on behalf of employees to satisfy the statutory tax withholding requirements.

RSUs with a fair value of $131.5 million vested during fiscal 2019. As of March 30, 2019, total unrecognized stock-based compensation costs related to non-vested RSUs was $287.2 million. The total unrecognized stock-based compensation cost for RSUs is expected to be recognized over a weighted-average period of 2.7 years.

*Employee Stock Purchase Plan*

Under the Company's ESPP, qualified employees can obtain a 24-month purchase right to purchase the Company's common stock at the end of each six-month exercise period. Participation is limited to 15% of the employee's annual earnings up to a maximum of $21 thousand in a calendar year. Approximately 84% of all eligible employees participated in the ESPP. The purchase price of the stock is 85% of the lower of the fair market value at the beginning of the 24-month offering period or at the end of each six-month exercise period. Employees purchased 1.0 million shares for $48.3 million in fiscal 2019, 918 thousand shares for $44.3 million in fiscal 2018, and 1.2 million shares for $39.5 million in fiscal 2017. The next scheduled purchase under the ESPP is in the second quarter of fiscal 2020. As of March 30, 2019, 11.4 million shares were available for future issuance.

**Note 7. Supplemental Financial Information**

The following tables disclose the current liabilities and other assets that individually exceed 5% of the respective consolidated balance sheet amounts in each fiscal year. Individual balances that are less than 5% of the respective consolidated balance sheet amounts are aggregated and disclosed as "other."

| (In thousands) | March 30, 2019 | March 31, 2018 |
|---|---|---|
| Accrued payroll and related liabilities: | | |
| Accrued compensation | $ 120,658 | $ 95,316 |
| Deferred compensation plan liability | 118,560 | 103,434 |
| Others | 8,050 | 7,617 |
| | $ 247,268 | $ 206,367 |

| (In thousands) | March 30, 2019 | March 31, 2018* |
|---|---|---|
| Other accrued liabilities: | | |
| Interest payable | $ 16,583 | $ 14,169 |
| Accruals related to software licenses | 18,660 | 2,400 |
| Others | 46,316 | 43,111 |
| | $ 81,559 | $ 59,680 |

* Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard.

| (In thousands) | March 30, 2019 | March 31, 2018* |
|---|---|---|
| Other assets: | | |
| Deferred tax asset | $ 126,702 | $ 96,848 |
| Trust asset (deferred compensation plan) | 109,271 | 95,310 |
| Others | 219,594 | 145,244 |
| | $ 455,567 | $ 337,402 |

* Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard.

**Note 8. Commitments**

Xilinx leases some of its facilities and office buildings under non-cancelable operating leases that expire at various dates through April 2029. Additionally, Xilinx entered into a land lease in conjunction with the Company's building in Singapore, which will expire in November 2035 and the lease cost was settled in an up-front payment in June 2006. Some of the operating leases for facilities and office buildings require payment of operating costs, including property taxes, repairs, maintenance and insurance. Most of the Company's leases contain renewal options for varying terms. Xilinx also leases cars under non-cancelable operating leases that expire at various dates through May 2023. Approximate future minimum lease payments under non-cancelable operating leases are as follows:

| Fiscal | (In thousands) |
|---|---|
| 2020 | $ 11,991 |
| 2021 | 10,747 |
| 2022 | 9,580 |
| 2023 | 5,444 |
| 2024 | 5,338 |
| Thereafter | 29,293 |
| Total | $ 72,393 |

Aggregate future rental income to be received, which includes rents from both owned and leased property, totaled $9.2 million as of March 30, 2019. Rent expense, net of rental income, under all operating leases was $4.4 million for fiscal 2019, $3.9 million for fiscal 2018, and $5.0 million for fiscal 2017. Rental income was not material for fiscal 2019, 2018 or 2017.

Other commitments as of March 30, 2019 totaled $230.8 million and consisted of purchases of inventory and other non-cancelable purchase obligations related to subcontractors that manufacture silicon wafers and provide assembly and test services. The Company expects to receive and pay for these materials and services in the next three to six months, as the products meet delivery

and quality specifications. Additionally, as of March 30, 2019, the Company had $4.4 million of non-cancelable license obligations to providers of electronic design automation software and hardware/software maintenance, $18.3 million related to renovation of two of its properties and $38.9 million in commitments primarily related to open purchase orders from ordinary operations. These commitments expire at various dates through December 2022.

**Note 9. Net Income Per Common Share**

The computation of basic net income per common share for all periods presented is derived from the information on the consolidated statements of income, and there are no reconciling items in the numerator used to compute diluted net income per common share. The following table summarizes the computation of basic and diluted net income per common share:

| | Years Ended | | |
|---|---|---|---|
| (In thousands, except per share amounts) | March 30, 2019 | March 31, 2018 | April 1, 2017 |
| Net income available to common stockholders | $ 889,750 | $ 463,981 | $ 628,133 |
| Weighted average common shares outstanding-basic | 252,762 | 249,595 | 252,301 |
| Dilutive effect of employee equity incentive plans | 3,672 | 2,754 | 2,284 |
| Dilutive effect of 2017 Convertible Notes and warrants | — | 5,611 | 14,228 |
| Weighted average common shares outstanding-diluted | 256,434 | 257,960 | 268,813 |
| Basic earnings per common share | $ 3.52 | $ 1.86 | $ 2.49 |
| Diluted earnings per common share | $ 3.47 | $ 1.80 | $ 2.34 |

The total shares used in the denominator of the diluted net income per common share calculation include potentially dilutive common equivalent shares outstanding that are not included in basic net income per common share calculation. The diluted shares were calculated by applying the treasury stock method to the impact of the equity incentive plans, the incremental shares issuable assuming conversion of the Company's $600.0 million principal amount of 2.625% convertible notes issued in June 2010 (2017 Convertible Notes), before its maturity on June 15, 2017, and exercise of warrants on a weighted-average outstanding basis, before the final settlements during the third quarter of fiscal 2018. The 2017 Convertible Notes matured during the first quarter of fiscal 2018, and the Company exercised its call options to neutralize the dilutive effect of the incremental shares from the 2017 Convertible Notes. Because the number of diluted shares in the above table for the 12 months ended March 31, 2018 was calculated based on a weighted-average outstanding basis, it included approximately 1.5 million shares of dilutive impact from the 2017 Convertible Notes through the maturity date and 4.1 million shares of dilutive impact from warrants before the settlement.

Certain shares of outstanding stock options and RSUs were excluded from diluted net income per common share calculation by applying the treasury stock method, as their inclusion would have been antidilutive. These options and RSUs were immaterial for fiscal 2019, 2018 and 2017. but could be dilutive in the future if the Company's average share price increases and is greater than the combined exercise prices and the unamortized fair values of these options and RSUs.

**Note 10. Interest and Other Income (Expense), Net**

The components of interest and other income (expense), net are as follows:

| | Years Ended | | |
|---|---|---|---|
| (In thousands) | March 30, 2019 | March 31, 2018 | April 1, 2017 |
| Interest income | $ 77,295 | $ 58,604 | $ 51,121 |
| Interest expense | (52,883) | (45,837) | (53,953) |
| Other expense, net | (12,879) | (7,410) | (5,482) |
| | $ 11,533 | $ 5,357 | $ (8,314) |

**Note 11. Accumulated Other Comprehensive Loss**

Comprehensive loss is defined as the change in equity of a company during a period from transactions and other events and circumstances from non-owner sources. The components of accumulated other comprehensive loss are as follows:

| (In thousands) | March 30, 2019 | March 31, 2018 |
|---|---|---|
| Accumulated unrealized losses on available-for-sale securities, net of tax | $ (12,725) | $ (29,844) |
| Accumulated unrealized gains on hedging transactions, net of tax | 95 | 1,674 |
| Accumulated cumulative translation adjustment, net of tax | (10,780) | (6,339) |
| Accumulated other comprehensive loss | $ (23,410) | $ (34,509) |

The related tax effects of other comprehensive loss were not material for all periods presented.

**Note 12. Debt and Credit Facility**

*2019 and 2021 Notes*

On March 12, 2014, the Company issued the 2019 Notes and 2021 Notes at a discounted price of 99.477% and 99.281% of par, respectively. Interest on the 2019 Notes and 2021 Notes is payable semi-annually on March 15 and September 15.

The Company received net proceeds of $990.1 million from issuance of the 2019 Notes and 2021 Notes, after the debt discounts and deduction of debt issuance costs. The debt discounts and issuance costs are amortized to interest expense over the terms of the 2019 and 2021 Notes. On March 15, 2019, the 2019 Notes matured and the Company paid the aggregate outstanding principal of $500.0 million, plus accrued interest. As of March 30, 2019, the remaining term of the 2021 Notes is 2.0 years.

The following table summarizes the carrying value of the 2019 Notes and 2021 Notes in the Company's consolidated balance sheets:

| (In thousands) | March 30, 2019 | March 31, 2018 |
|---|---|---|
| Principal amount of the 2019 Notes | $ — | $ 500,000 |
| Unamortized discount of the 2019 Notes | — | (501) |
| Unamortized debt issuance costs associated with the 2019 Notes | — | (313) |
| Carrying value of the 2019 Notes | — | 499,186 |
| Principal amount of the 2021 Notes | 500,000 | 500,000 |
| Unamortized discount of the 2021 Notes | (1,063) | (1,593) |
| Unamortized debt issuance costs associated with the 2021 Notes | (467) | (711) |
| Carrying value of the 2021 Notes | $ 498,470 | $ 497,696 |
| Total carrying value | $ 498,470 | $ 996,882 |

Interest expense related to the 2019 Notes and 2021 Notes was included in interest and other income (expense), net on the consolidated statements of income as follows:

| | Years Ended | | |
|---|---|---|---|
| (In thousands) | March 30, 2019 | March 31, 2018 | April 1, 2017 |
| Contractual coupon interest | $ 24,740 | $ 25,625 | $ 25,625 |
| Amortization of debt issuance costs | 557 | 586 | 586 |
| Amortization of debt discount, net | 1,030 | 1,049 | 1,022 |
| Total interest expense related to the 2019 and 2021 Notes | $ 26,327 | $ 27,260 | $ 27,233 |

*2024 Notes*

On May 30, 2017, the Company issued the 2024 Notes at a discounted price of 99.887% of par. Interest on the 2024 Notes is payable semi-annually on June 1 and December 1.

The Company received net proceeds of $745.2 million from the issuance of the 2024 Notes, after the debt discount and deduction of debt issuance costs. The debt discounts and issuance costs are amortized to interest expense over the term of the 2024 Notes. As of March 30, 2019, the remaining term of the 2024 Notes is approximately 5.2 years.

In relation to the issuance of the 2024 Notes, the Company entered into interest rate swap contracts with certain independent financial institutions, whereby the Company pays on a semi-annual basis, a variable interest rate equal to the three-month London Interbank Offered Rate (LIBOR) plus 91.43 bps, and receives on a semi-annual basis, interest income at a fixed interest rate of 2.950%. The Company incurred a net interest expense of $3.8 million during the twelve months ended March 30, 2019 and earned a net interest income of $4.4 million during the twelve months ended March 31, 2018, respectively, from the interest rate swap contracts, which was included in interest and other income (expense), net on the consolidated statements of income. As of March 30, 2019, the fair value of the interest rate swap contracts was $10.1 million, which was recorded in other long-term liabilities on the consolidated balance sheets.

The following table summarizes the carrying value of the 2024 Notes in the Company's consolidated balance sheets:

| (In thousands) | March 30, 2019 | March 31, 2018 |
|---|---|---|
| Principal amount of the 2024 Notes | $ 750,000 | $ 750,000 |
| Unamortized discount of the 2024 Notes | (642) | (755) |
| Unamortized debt issuance costs associated with the 2024 Notes | (2,932) | (3,500) |
| Carrying value of the 2024 Notes | 746,426 | 745,745 |
| Fair value hedge adjustment - interest rate swap contracts | (10,089) | (29,001) |
| Net carrying value of the 2024 Notes | $ 736,337 | $ 716,744 |

Interest expense related to the 2024 Notes was included in interest and other income (expense), net on the consolidated statements of income as follows:

| | Years Ended | | |
|---|---|---|---|
| (In thousands) | March 30, 2019 | March 31, 2018 | April 1, 2017 |
| Contractual coupon interest (net of interest rate swap) | $ 25,875 | $ 14,122 | $ — |
| Amortization of debt issuance costs | 568 | 473 | — |
| Amortization of debt discount | 113 | 92 | — |
| Total interest expense related to the 2024 Notes | $ 26,556 | $ 14,687 | $ — |

*Revolving Credit Facility*

On December 7, 2016, the Company entered into a $400.0 million senior unsecured revolving credit facility that, upon certain conditions, may be extended by an additional $150.0 million, with a syndicate of banks (expiring in December 2021). Borrowings under the credit facility will bear interest at a benchmark rate plus an applicable margin based upon the Company's credit rating. In connection with the credit facility, the Company is required to maintain certain financial and non-financial covenants. As of March 30, 2019, the Company had made no borrowings under this credit facility and was not in violation of any of the covenants.

**Note 13. Stockholders' Equity**

*Preferred Stock*

The Company's Certificate of Incorporation authorized 2.0 million shares of undesignated preferred stock. The preferred stock may be issued in one or more series. The Board of Directors is authorized to determine or alter the rights, preferences, privileges and restrictions granted to, or imposed upon, any wholly unissued series of preferred stock. As of March 30, 2019 and March 31, 2018, no preferred shares were issued or outstanding.

*Common Stock and Debentures Repurchase Programs*

The Board of Directors has approved stock repurchase programs enabling the Company to repurchase its common stock in the open market or through negotiated transactions with independent financial institutions. In May 2016, the Board authorized the repurchase of up to $1.00 billion of the Company's common stock and debentures (2016 Repurchase Program). The 2016 Repurchase Program has no stated expiration date. In May 2018, the Board also authorized the repurchase of the Company's common stock and debentures up to $500.0 million (2018 Repurchase Program).

Through March 30, 2019, the Company has used $953.7 million of the $1.00 billion authorized under the 2016 Repurchase Program, leaving $46.3 million available for future repurchases. The Company's current policy is to retire all repurchased shares, and consequently, no treasury shares were held as of March 30, 2019 and March 31, 2018.

During fiscal 2019, the Company repurchased 2.4 million in the open market with independent financial institutions for a total of $161.6 million. During fiscal 2018, the Company repurchased 7.0 million shares of common stock in the open market and through accelerated share repurchase agreements with multiple independent financial institutions for a total of approximately $474.3 million.

**Note 14. Income Taxes**

The provision for income taxes consists of the following:

| | Years Ended | | |
|---|---|---|---|
| (In thousands) | March 30, 2019 | March 31, 2018 * | April 1, 2017 * |
| Federal: | | | |
| Current | $ 90,674 | $ 565,765 | $ (19,097) |
| Deferred | (30,746) | (370,893) | 65,049 |
| | 59,928 | 194,872 | 45,952 |
| State: | | | |
| Current | 4,623 | 2,520 | (938) |
| Deferred | 2,545 | 7,813 | 3,170 |
| | 7,168 | 10,333 | 2,232 |
| Foreign: | | | |
| Current | 16,282 | 23,483 | 21,121 |
| Deferred | (4,796) | (1,290) | 638 |
| | 11,486 | 22,193 | 21,759 |
| Total | $ 78,582 | $ 227,398 | $ 69,943 |

* Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard.

The domestic and foreign components of income before income taxes were as follows:

| (In thousands) | March 30, 2019 | March 31, 2018 * | April 1, 2017 * |
|---|---|---|---|
| Domestic | $ 173,082 | $ 21,198 | $ 43,662 |
| Foreign | 795,250 | 670,181 | 654,414 |
| Income before income taxes | $ 968,332 | $ 691,379 | $ 698,076 |

* Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard.

On December 22, 2017, the TCJA was enacted into law. The TCJA provides for numerous significant tax law changes and modifications including the reduction of the U.S. federal corporate income tax rate from 35% to 21%, the requirement for companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and the creation of new taxes on certain foreign-sourced earnings. Some provisions of the TCJA began to impact the Company in fiscal 2018, while other provisions impacted the Company beginning in fiscal 2019.

SAB 118 allows companies to record provisional amounts and recognize the effect of the tax law changes during a measurement period. The Company recorded provisional income tax expense of $214.7 million in its fiscal 2018 results. During fiscal 2019, the Company recorded income tax expense of $2.4 million as measurement period adjustments to the provisional amounts recorded in fiscal 2018. The measurement period adjustments include the impact of the Company's accounting policy election to recognize deferred taxes for temporary basis differences that are expected to reverse as GILTI income in future years. The measurement period ended in the third quarter of fiscal 2019. Although the measurement period has closed, further technical guidance related

to the TCJA, including final regulations on a broad range of topics, is expected to be issued. In accordance with ASC 740, the Company will recognize any effects of the guidance in the period that such guidance is issued.

The Company recorded excess tax benefits associated with stock-based compensation of $14.2 million, $21.5 million, and $15.4 million in the provision for income taxes during fiscal 2019, 2018, and 2017 respectively.

As of March 30, 2019, the Company had state research tax credit carryforwards of approximately $195.9 million. The credits have no expiration date. Some of the state credit carryforwards are subject to change of ownership limitations provided by state provisions similar to that of the Internal Revenue Code. The state credit carryforwards include $148.0 million that is not likely to be recovered and has been reduced by a valuation allowance.

The provision for income taxes reconciles to the amount derived by applying the federal statutory income tax rate to income before provision for taxes as follows:

| | Years Ended | | |
|---|---|---|---|
| (In thousands) | March 30, 2019 | March 31, 2018 * | April 1, 2017 * |
| Income before provision for taxes | $ 968,332 | $ 691,379 | $ 698,076 |
| Federal statutory tax rate | 21.0% | 31.5% | 35.0% |
| Computed expected tax | 203,350 | 217,784 | 244,327 |
| State taxes, net of federal benefit | 6,379 | 9,785 | 1,791 |
| Foreign earnings at lower tax rates | (98,387) | (188,174) | (120,737) |
| Tax credits | (31,679) | (19,708) | (34,146) |
| Transition tax | 21,063 | 208,523 | — |
| Deferred tax remeasurement | — | 21,834 | — |
| Excess benefits from stock-based compensation | (14,196) | (21,520) | (15,396) |
| Other | (7,948) | (1,126) | (5,896) |
| Provision for income taxes | $ 78,582 | $ 227,398 | $ 69,943 |

* Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard.

The Company has manufacturing operations in Singapore where the Company has been granted "Pioneer Status" that is effective through fiscal 2021. The Pioneer Status reduces the Company's tax on the majority of Singapore income from 17% to zero percent. The benefits of Pioneer Status in Singapore for fiscal 2019, fiscal 2018 and fiscal 2017 were approximately $48.0 million ($0.19 per diluted share), $61.5 million ($0.24 per diluted share), and $56.2 million ($0.21 per diluted share), respectively. The tax effect of operations in low tax jurisdictions on the Company's overall tax rate is reflected in the table above.

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The major components of deferred tax assets and liabilities consisted of the following:

| (In thousands) | March 30, 2019 | March 31,2018* |
|---|---|---|
| Deferred tax assets: | | |
| Stock-based compensation | $ 18,514 | $ 17,213 |
| Accrued expenses | 7,744 | 7,340 |
| Tax credit carryforwards | 155,036 | 140,406 |
| Deferred compensation plan | 27,186 | 24,121 |
| Low income housing and other investments | 6,366 | 5,836 |
| GILTI deferred taxes | 38,410 | — |
| Other | 22,997 | 15,338 |
| Subtotal | 276,253 | 210,254 |
| Valuation allowance | (118,773) | (101,383) |
| Total deferred tax assets | 157,480 | 108,871 |
| Deferred tax liabilities: | | |
| Unremitted foreign earnings | (5,142) | (6,185) |
| Intangible assets | (20,775) | (762) |
| Distributor price adjustments | (11,464) | (168) |
| Other | (4,975) | (5,028) |
| Total deferred tax liabilities | (42,356) | (12,143) |
| Total net deferred tax assets | $ 115,124 | $ 96,728 |

* Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard.

Long-term deferred tax assets of $126.7 million and $96.8 million as of March 30, 2019 and March 31, 2018, respectively, were included in other assets on the consolidated balance sheet.

As of March 30, 2019 and March 31, 2018, gross deferred tax assets were offset by valuation allowances of $118.8 million and $101.4 million, respectively, which were primarily associated with state tax credit carryforwards.

The aggregate changes in the balance of gross unrecognized tax benefits were as follows:

| (In thousands) | March 30, 2019 | March 31, 2018 |
|---|---|---|
| Balance as of beginning of fiscal year | $ 125,148 | $ 30,437 |
| Increases in tax positions for prior years | 18,156 | 90,716 |
| Decreases in tax positions for prior years | (666) | (1,063) |
| Increases in tax positions for current year | 5,132 | 5,158 |
| Settlements | — | — |
| Lapses in statutes of limitation | (154) | (100) |
| Balance as of end of fiscal year | $ 147,616 | $ 125,148 |

The Company’s total gross unrecognized tax benefits increased by $22.5 million during fiscal 2019. If the remaining balance of $147.6 million and $125.1 million of unrecognized tax benefits as of March 30, 2019 and March 31, 2018, respectively, were realized in a future period, it would result in a tax benefit of $35.3 million and $15.1 million, respectively, thereby reducing the effective tax rate. Another $85.5 million would increase additional paid-in capital. The $85.5 million relates to an additional deduction claimed on federal and state amended tax returns for fiscal 2014 for repurchase premium paid in that year in connection with the early redemption of the Company’s 3.125% Junior Convertible debenture due March 15, 2037.

The Company's policy is to include interest and penalties related to income tax liabilities within the provision for income taxes on the consolidated statements of income. The balances of accrued interest and penalties recorded in the consolidated balance

sheets and the amounts of interest and penalties included in the Company's provisions for income taxes were not material for any period presented.

The statutes of limitations have closed for U.S. federal income tax purposes for years through fiscal 2014, for U.S. state income tax purposes for years through fiscal 2010, and for Ireland income tax purposes for years through fiscal 2014.

The Company believes its provision for unrecognized tax benefits is adequate for adjustments that may result from tax audits. However, the outcome of tax audits cannot be predicted with certainty. If any issues addressed in the Company's tax audits are resolved in a manner not consistent with management's expectations, the Company could be required to adjust its provision for income taxes in the period such resolution occurs. It is reasonably possible that changes to the Company's unrecognized tax benefits could be significant in the next twelve months due to tax audit settlements and lapses of statutes of limitation. As a result of uncertainties regarding tax audits and their possible outcomes, an estimate of the range of increase or decrease that could occur in the next twelve months cannot be made at this time.

**Note 15. Segment Information**

Xilinx designs, develops and markets programmable logic semiconductor devices and the related software design tools. The Company operates and tracks its results in one operating segment. Xilinx sells its products to OEMs and to electronic components distributors who resell these products to OEMs or subcontract manufacturers.

Geographic revenue information for fiscal 2019, 2018 and 2017 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. Long-lived assets include property, plant and equipment, which were based on the physical location of the asset as of the end of each fiscal year.

Net revenues by geographic region were as follows:

| | Years Ended | | |
|---|---|---|---|
| (In thousands) | March 30, 2019 | March 31, 2018 * | April 1, 2017 * |
| North America: | | | |
| United States | $ 748,245 | $ 652,222 | $ 605,999 |
| Other (individual countries less than 10%) | 100,478 | 96,694 | 132,300 |
| Total North America | 848,723 | 748,916 | 738,299 |
| | | | |
| Asia Pacific: | | | |
| China | 850,595 | 638,180 | 599,812 |
| Other (individual countries less than 10%) | 534,987 | 370,307 | 358,844 |
| Total Asia Pacific | 1,385,582 | 1,008,487 | 958,656 |
| | | | |
| Europe | 586,893 | 501,049 | 461,116 |
| Japan | 237,842 | 208,571 | 198,671 |
| Total Foreign | 2,210,317 | 1,718,107 | 1,618,443 |
| Worldwide Total | $ 3,059,040 | $ 2,467,023 | $ 2,356,742 |

* Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard.

Net long-lived assets by country at fiscal year-ends were as follows:

| (In thousands) | Years Ended March 30, 2019 | March 31, 2018 | April 1, 2017 |
|---|---|---|---|
| United States | $ 212,385 | $ 206,406 | $ 211,995 |
| Foreign: | | | |
| Ireland | 36,984 | 38,257 | 40,626 |
| Singapore | 62,257 | 45,013 | 39,345 |
| Other (individual countries less than 10%) | 17,303 | 14,441 | 11,859 |
| Total foreign | 116,544 | 97,711 | 91,830 |
| Worldwide total | $ 328,929 | $ 304,117 | $ 303,825 |

**Note 16. Litigation Settlements and Contingencies**

*Patent Litigation*

On February 1, 2017, a patent infringement lawsuit was filed by Godo Kaisha IP Bridge 1 (IP Bridge) against the Company in the U.S. District Court for the Eastern District of Texas (Godo Kaisha IP Bridge 1 v. Xilinx, Inc., Case. No. 2:17-cv-00100). The lawsuit pertains to two patents and IP Bridge seeks unspecified damages, interest, attorneys' fees, costs, and a permanent injunction or an on-going royalty. On September 14, 2017, the court granted the Company's motion to transfer venue to the U.S. District Court for the Northern District of California. On December 21, 2018, the parties reached an agreement to settle the lawsuit, pursuant to which the parties entered into a patent license agreement dated as of the same date. The patent license agreement does not have a material impact on the Company's financial position or results of operations.

On March 17, 2017, a patent infringement lawsuit was filed by Anza Technology, Inc. (Anza) against the Company in the U.S. District Court for the District of Colorado (Anza Technology, Inc. v. Xilinx, Inc., Case No. 1:17-cv-00687). The lawsuit pertains to three patents and Anza seeks unspecified damages, attorney fees, interest, costs, and expenses. On October 27, 2017, the court granted the Company's motion to transfer venue to the U.S. District Court for the Northern District of California. The parties reached an agreement to settle the lawsuit and it was dismissed with prejudice on July 23, 2018. The amount of the settlement did not have a material impact on the Company's financial position or results of operations.

The Company intends to continue to protect and defend our IP vigorously.

*Other Matters*

On June 11, 2015, John P. Neblett, as Chapter 7 Trustee of Valley Forge Composite Technologies, Inc., filed a complaint against Xilinx and others in the U.S. Bankruptcy Court for the Middle District of Pennsylvania (Bankruptcy No. 1:13-bk-05253-JJT). The complaint alleges causes of actions against Xilinx for negligence and civil conspiracy relating to alleged violations of U.S. export laws. It seeks at least $50.0 million in damages, together with punitive damages, from the defendants. On September 21, 2015, the action was withdrawn from the U.S. Bankruptcy Court for the Middle District of Pennsylvania and transferred to the U.S. District Court for the Eastern District of Kentucky. On November 2, 2015, Xilinx, along with other defendants, filed a motion to dismiss the complaint. On November 3, 2015, Xilinx filed a motion for sanctions pursuant to Federal Rule of Civil Procedure 11. On June 27, 2016, the Court denied both motions. On September 11, 2017, Xilinx, along with other defendants, filed motions for summary judgment seeking to dispose of all claims against them. On July 3, 2018, the Court granted both of Xilinx's Motions for Summary Judgment, disposing of all claims asserted against Xilinx. On August 1, 2018, the Trustee filed a Notice of Appeal. On August 9, 2018, the Court of Appeals for the Sixth Circuit issued an Order to Show Cause requesting that the appellant address a possible jurisdictional defect. On August 29, 2018, the appellant responded to the Order to Show Cause. On September 10, 2018, appellees, including Xilinx, filed a joint reply. On January 7, 2019, the Court of Appeals issued an order dismissing the appeal for lack of jurisdiction. On February 19, 2019, the District Court issued an order permitting any party seeking to certify the case for appeal to file a motion. On March 11, 2019, defendant Avnet filed a motion to certify the case for appeal. The Court has not yet ruled on Avnet's motion.

From time to time, the Company is involved in various disputes and litigation matters that arise in the ordinary course of its business. These include disputes and lawsuits related to intellectual property, mergers and acquisitions, licensing, contract law, tax, regulatory, distribution arrangements, employee relations and other matters. Periodically, the Company reviews the status of each matter and assesses its potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and a range of possible losses can be estimated, the Company accrues a liability for the estimated loss. Legal proceedings

are subject to uncertainties, and the outcomes are difficult to predict. Because of such uncertainties, accruals are based only on the best information available at the time. As additional information becomes available, the Company continues to reassess the potential liability related to pending claims and litigation and may revise estimates.

**Note 17. Goodwill and Acquisition-Related Intangibles**

The gross and net amounts of goodwill and of acquisition-related intangibles for all acquisitions were as follows:

| (In thousands) | March 30, 2019 | March 31, 2018 | Weighted-Average Amortization Life |
|---|---|---|---|
| Goodwill | $ 340,718 | $ 162,421 | |
| Core technology, gross | 107,250 | 82,480 | |
| Less accumulated amortization | (82,611) | (78,562) | |
| Core technology, net | 24,639 | 3,918 | 4.3 years |
| Other intangibles, gross | 51,016 | 46,966 | |
| Less accumulated amortization | (47,642) | (46,761) | |
| Other intangibles, net | 3,374 | 205 | 2.5 years |
| In-process research and development (not subject to amortization) | 52,710 | — | |
| Total acquisition-related intangibles, gross | 210,976 | 129,446 | |
| Less accumulated amortization | (130,253) | (125,323) | |
| Total acquisition-related intangibles, net | $ 80,723 | $ 4,123 | |

Amortization expense for acquisition-related intangibles for fiscal 2019, 2018 and 2017 were $4.9 million, $2.2 million and $5.1 million, respectively.

During the second quarter of fiscal 2019, the Company recorded $178.3 million of goodwill and $81.5 million of intangibles attributable to the acquisition of Deephi Technology. Ltd (Deephi Tech). See "Note 20. Business Combination" to the Company's consolidated financial statements.

Based on the carrying value of acquisition-related intangibles recorded as of March 30, 2019, and assuming no subsequent impairment of the underlying assets, the annual amortization expense for acquisition-related intangibles is expected to be as follows:

| Fiscal | (In thousands) |
|---|---|
| 2020 | $ 7,464 |
| 2021 | 7,442 |
| 2022 | 6,089 |
| 2023 | 4,954 |
| Thereafter | 2,064 |
| Total | $ 28,013 |

In-process research and development is not subject to amortization prior to the completion of the projects and therefore the balance is excluded from the above annual amortization expense schedule.

**Note 18. Employee Benefit Plans**

Xilinx offers various retirement benefit plans for U.S. and non-U.S. employees. Total contributions to these plans were $15.1 million, $14.7 million and $12.9 million in fiscal 2019, 2018 and 2017, respectively. For employees in the U.S., Xilinx instituted a Company matching program pursuant to which the Company will match contributions to Xilinx's 401(k) Plan (the 401(k) Plan) based on the amount of salary deferral contributions the participant makes to the 401(k) Plan. Xilinx will match up to 50% of the first 8% of an employee's compensation that the employee contributed to their 401(k) accounts. The maximum Company contribution per year is $4,500 per employee. As permitted under Section 401(k) of the Internal Revenue Code, the 401(k) Plan allows tax deferred salary deductions for eligible employees. The Compensation Committee of the Board of Directors administers the 401(k) Plan. Participants in the 401(k) Plan may make salary deferrals of up to 75% of the eligible annual salary, limited by the maximum dollar amount allowed by the Internal Revenue Code. Participants who have reached the age of 50 before the close of the plan year may be eligible to make catch-up salary deferral contributions, up to 75% of eligible annual salary, limited by the maximum dollar amount allowed by the Internal Revenue Code.

The Company allows its U.S.-based officers, director-level employees and its board members to defer a portion of their compensation under the Deferred Compensation Plan (the Plan). The Compensation Committee administers the Plan. As of March 30, 2019, there were 230 participants in the Plan who self-direct their contributions into a menu of hypothetical investment options offered by the Plan that tracks a portfolio of various deemed investment funds. The Plan does not allow Plan participants to invest directly in Xilinx's stock. In the event Xilinx becomes insolvent, Plan assets are subject to the claims of the Company's general creditors. There are no Plan provisions that provide for any guarantees or minimum return on investments. As of March 30, 2019, Plan assets of $109.3 million were included in other assets within the consolidated balance sheet and obligations of $118.6 million were included in accrued payroll and related liabilities. As of March 31, 2018, Plan assets were $95.3 million and obligations were $103.4 million.

**Note 19. Executive Transition Costs**

During the fourth quarter of fiscal 2018, the Company announced the transition of its President and Chief Executive Officer position, whereby Moshe Gavrielov resigned from those roles and Victor Peng assumed these roles. Additionally, the Company also implemented restructuring measures to realign resources and drive overall operating efficiencies, which impacted approximately 60 positions in various geographies and functions worldwide. The Company recorded total transition charges of $33.4 million in the fourth quarter of fiscal 2018, primarily related to severance pay expenses and other benefits. As of the end of fiscal 2019, the remaining accrual for severance and other benefits was immaterial.

**Note 20. Business Combination**

During the second quarter of fiscal 2019, the Company completed the acquisition of Deephi Tech by acquiring all its outstanding ordinary shares. Deephi Tech was a privately held start-up with industry-leading capabilities in machine learning and focusing on system-level neural network optimization. This acquisition strengthens the Company's capabilities in artificial intelligence applications.

Total purchase consideration to acquire Deephi Tech was $251.9 million, including $11.5 million of fair value from the Company's preexisting investment in Deephi Tech and $6.3 million of cash acquired. The Company incurred $3.4 million of acquisition related costs, which was recorded in the operating expenses of consolidated statements of income. Additionally, the Company was required to assess the fair value of its preexisting investment in Deephi Tech and recorded $6.5 million gain in its consolidated statements of income as part of interest and other income, net.

Subsequent to the acquisition, the financial results for Deephi Tech are included in the Company's consolidated financial statements. Prior to the acquisition, the financial results for Deephi Tech were not significant for pro forma financial information.

The Company allocated the purchase price to tangible and identified intangible assets acquired and liabilities assumed based on estimated fair values. As additional information becomes available, the Company may further update the preliminary purchase price allocation during the remainder of the measurement period (up to one year from the acquisition date). The preliminary fair values of the assets acquired and liabilities assumed in the acquisition of Deephi Tech, by major class, were recognized as follows:

| | Amount |
|---|---|
| | (In thousands) |
| Cash and cash equivalents | $ 6,263 |
| Tangible assets | 2,076 |
| Identifiable intangible assets | 81,530 |
| Goodwill | 178,297 |
| Deferred tax liabilities | (13,702) |
| Other liabilities | (2,554) |
| Total | $ 251,910 |

The goodwill of $178.3 million arising from the acquisition is attributed to the expected synergies and other benefits that will be generated from the combination of the Company and Deephi Tech. The goodwill recognized is expected to be deductible for tax purposes.

The identified intangible assets assumed in the acquisition of Deephi Tech were recognized as follows based upon the preliminary fair values as of the closing date of the acquisition.

| | Amount | Amortization Life |
|---|---|---|
| | (In thousands) | |
| Trade Names & Trademarks | $ 1,020 | 3.0 years |
| Developed Technology | 24,770 | 5.0 years |
| Customer Relationships | 3,030 | 3.0 years |
| In-Process Research and Development | 52,710 | N/A |
| Total identifiable intangible assets | $ 81,530 | |

**Note 21. Subsequent Event**

On April 18, 2019, the Company's Board of Directors declared a cash dividend of $0.37 per common share for the first quarter of fiscal 2020. The dividend is payable on June 3, 2019 to stockholders of record as of May 16, 2019.

In April 2019, the Company entered into a definitive agreement to acquire Solarflare Communications, Inc., a leading provider of high-performance and low latency networking solutions for customers. The total consideration is approximately $400.0 million, subject to certain closing adjustments.

# REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Xilinx, Inc.

**Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Xilinx, Inc. (the Company) as of March 30, 2019 and March 31, 2018, the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended March 30, 2019, and the related notes and financial statement schedule listed in the Index at Part IV, 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 March 30, 2019 and March 31, 2018, and the results of its operations and its cash flows for each of the three years in the period ended March 30, 2019, 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 March 30, 2019, 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 May 10, 2019 expressed an unqualified opinion thereon.

**Adoption of New Accounting Standard**

As discussed in Note 2 to the consolidated financial statements, the Company changed its method for recognizing revenue as a result of the adoption of Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606), and the amendments effective April 1, 2018 under the full retrospective method.

**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.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1984.

San Jose, California

May 10, 2019

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Xilinx, Inc.

**Opinion on Internal Control over Financial Reporting**

We have audited Xilinx, Inc.'s internal control over financial reporting as of March 30, 2019, 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, Xilinx, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of March 30, 2019, 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 the Company as of March 30, 2019 and March 31, 2018, the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended March 30, 2019, and the related notes and financial statement schedule listed in the Index at Part IV, Item 15(a)(2) and our report dated May 10, 2019 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

San Jose, California
May 10, 2019

**XILINX, INC.**
**SCHEDULE II**
**VALUATION AND QUALIFYING ACCOUNTS**

(In thousands)

| Description | Beginning of Year | Additions | Deductions | End of Year |
|---|---|---|---|---|
| For the year ended April 1, 2017: | | | | |
| Allowance for doubtful accounts | $ 3,341 | $ — | $ 141 | $ 3,200 |
| Valuation allowance for deferred tax assets | $ 62,179 | $ 10,341 | $ — | $ 72,520 |
| For the year ended March 31, 2018: | | | | |
| Allowance for doubtful accounts | $ 3,200 | $ — | $ 30 | $ 3,170 |
| Valuation allowance for deferred tax assets | $ 72,520 | $ 28,863 | $ — | $ 101,383 |
| For the year ended March 30, 2019: | | | | |
| Allowance for doubtful accounts | $ 3,170 | $ — | $ — | $ 3,170 |
| Valuation allowance for deferred tax assets | $ 101,383 | $ 17,390 | $ — | $ 118,773 |

**Supplementary Financial Data**
**Quarterly Data (Unaudited)**

(In thousands, except per share amounts)

| Year ended March 30, 2019 (1) | First Quarter | Second Quarter | Third Quarter | Fourth Quarter |
|---|---|---|---|---|
| Net revenues | $ 684,370 | $ 746,252 | $ 800,057 | $ 828,361 |
| Gross margin | 477,482 | 514,632 | 552,154 | 558,904 |
| Income before income taxes | 212,917 | 239,144 | 256,590 | 259,680 |
| Net income | 190,038 | 215,712 | 239,360 | 244,640 |
| Net income per common share: (2) | | | | |
| Basic | $ 0.75 | $ 0.85 | $ 0.95 | $ 0.96 |
| Diluted | $ 0.74 | $ 0.84 | $ 0.93 | $ 0.95 |
| Shares used in per share calculations: | | | | |
| Basic | 252,682 | 252,988 | 253,060 | 253,855 |
| Diluted | 255,935 | 255,522 | 256,374 | 258,177 |
| Cash dividends declared per common share | $ 0.36 | $ 0.36 | $ 0.36 | $ 0.36 |

(1) Xilinx uses a 52- to 53-week fiscal year ending on the Saturday nearest March 31. Fiscal 2019 was a 52-week year and each quarter was a 13-week quarter.

(2) Net income per common share is computed independently for each of the quarters presented. Therefore, the sum of the quarterly per common share information may not equal the annual net income per common share.

(In thousands, except per share amounts)

| Year ended March 31, 2018 [1] | First Quarter [3] | Second Quarter [3] | Third Quarter [3] | Fourth Quarter [3] |
|---|---|---|---|---|
| Net revenues | $ 602,810 | $ 627,419 | $ 598,603 | $ 638,191 |
| Gross margin | 411,986 | 441,734 | 420,634 | 449,250 |
| Income before income taxes | 170,894 | 194,017 | 166,766 | 159,703 |
| Net income (loss) | 157,244 | 173,751 | (12,485) | 145,471 |
| Net income (loss) per common share: [2] | | | | |
| Basic | $ 0.63 | $ 0.70 | $ (0.05) | $ 0.57 |
| Diluted | $ 0.59 | $ 0.67 | $ (0.05) | $ 0.56 |
| Shares used in per share calculations: | | | | |
| Basic | 247,911 | 248,094 | 254,089 | 254,559 |
| Diluted | 265,797 | 258,217 | 254,089 | 257,916 |
| Cash dividends declared per common share | $ 0.35 | $ 0.35 | $ 0.35 | $ 0.35 |

(1) Xilinx uses a 52- to 53-week fiscal year ending on the Saturday nearest March 31. Fiscal 2018 was a 53-week year and each quarter was a 13-week quarter except the third quarter, which was a 14-week quarter.

(2) Net income per common share is computed independently for each of the quarters presented. Therefore, the sum of the quarterly per common share information may not equal the annual net income per common share.

(3) Prior year balances have been restated to reflect the retrospective application of the new revenue recognition accounting standard.

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

Not applicable.

## ITEM 9A. CONTROLS AND PROCEDURES

### Evaluation of Disclosure Controls and Procedures

An evaluation was carried out, under the supervision of and with the participation of the Company's management, including our CEO and CFO, of the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this report. Based upon this evaluation, our CEO and CFO have concluded that, as of the end of the period covered by this Form 10-K, the Company's disclosure controls and procedures are effective to provide reasonable assurance that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms, and is accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

### Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the fiscal quarter ended March 30, 2019 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

### Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. This system of internal control is designed to provide reasonable assurance that assets are safeguarded and transactions are properly recorded and executed in accordance with management's authorization. The design, monitoring and revision of the system of internal control over financial reporting involve, among other things, management's judgments with respect to the relative cost and expected benefits of specific control measures. The effectiveness of the system of internal control over financial reporting is supported by the selection, retention and training of qualified personnel and an organizational structure that provides an appropriate division of responsibility and formalized procedures. The system of internal control is periodically reviewed and modified in response to changing conditions.

Because of its inherent limitations, no matter how well designed, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect all misstatements or all fraud. Further, because of changes in conditions, the effectiveness of internal control over financial reporting may vary over time. Our system contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

Management has used the criteria established in the Report "*Internal Control — Integrated Framework*" issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2013 Framework) to evaluate the effectiveness of our internal control over financial reporting. Based on this evaluation, management has concluded that the Company's internal control over financial reporting was effective as of March 30, 2019.

The effectiveness of the Company's internal control over financial reporting as of March 30, 2019 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included in Part II, Item 8 of this Form 10-K.

## ITEM 9B. OTHER INFORMATION

None.

## PART III

Certain information required by Part III is omitted from this Report in that the Registrant will file a definitive proxy statement pursuant to Regulation 14A under the Exchange Act (the Proxy Statement) not later than 120 days after the end of the fiscal year covered by this Report, and certain information included therein is incorporated herein by reference. Only those sections of the Proxy Statement that specifically address the items set forth herein are incorporated by reference.

### ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item pursuant to Item 401(b), (d), (e) and (f) of Regulation S-K concerning the Company's executive officers is incorporated herein by reference to Item 1. "Business — Executive Officers of the Registrant" within this Form 10-K.

The information required by this item pursuant to Item 401(a), (d), (e), and (f) and Items 406 and 407 of Regulation S-K concerning the Company's directors, the code of ethics and corporate governance matters is incorporated herein by reference to the sections entitled "Proposal One-Election of Directors" "Board Independence" and "Corporate Governance Principles" in our Proxy Statement.

### ITEM 11. EXECUTIVE COMPENSATION

The information required by this item pursuant to Item 402 of Regulation S-K concerning executive compensation is incorporated herein by reference to the sections entitled "Compensation of Directors" and "Executive Compensation" in our Proxy Statement.

The information required by this item pursuant to Item 407(e)(4) of Regulation S-K is incorporated herein by reference to the section entitled "Compensation Committee Interlocks and Insider Participation" in our Proxy Statement.

The information required by this item pursuant to Item 407(e)(5) of Regulation S-K is incorporated herein by reference to the section entitled "Compensation Committee Report" in our Proxy Statement.

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

The information required by this item pursuant to Item 403 of Regulation S-K is incorporated herein by reference to the section entitled "Security Ownership of Certain Beneficial Owners and Management" in our Proxy Statement. The information required by Item 201(d) of Regulation S-K is set forth below.

#### Equity Compensation Plan Information

The table below sets forth certain information as of fiscal year ended March 30, 2019 about the Company's common stock that may be issued upon the exercise of options, RSUs, warrants and rights under all of our existing equity compensation plans including the ESPP:

| (Shares in thousands) | A | B | C |
|---|---|---|---|
| Plan Category | Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights | Weighted-average Exercise Price of Outstanding Options, Warrants and Rights | Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (excluding securities reflected in Column A) |
| Equity Compensation Plans Approved by Security Holders | | | |
| 2007 Equity Plan | 7,340 (1) | $ 35.42 (2) | 11,319 (3) |
| Employee Stock Purchase Plan | N/A | N/A | 11,363 |
| Total-Approved Plans | 7,340 | $ 35.42 | 22,682 |
| Equity Compensation Plans Not Approved by Security Holders | — | $ — | — |
| Total-All Plans | 7,340 | $ 35.42 | 22,682 |

(1) Includes approximately 7.3 million shares issuable upon vesting of RSUs that the Company granted under the 2007 Equity Plan.

(2) The weighted-average exercise price does not take into account shares issuable upon vesting of outstanding RSUs, which have no exercise price.

(3) On July 26, 2006, the stockholders approved the adoption of the 2007 Equity Plan and authorized 10.0 million shares to be reserved for issuance thereunder. The 2007 Equity Plan, which became effective on January 1, 2007, replaced both the Company's 1997 Stock Plan (which expired on May 8, 2007) and the Supplemental Stock Option Plan. On August 9, 2007, August 14, 2008, August 12, 2009, August 11, 2010, August 10, 2011, August 8, 2012, August 14, 2013, August 13, 2014, August 10, 2016, August 9, 2017, and August 1, 2018 our stockholders authorized the reserve of an additional 5.0 million shares, 4.0 million shares, 5.0 million shares, 4.5 million shares, 4.5 million shares, 3.5 million shares, 2.0 million shares, 3.0 million shares, 2.5 million shares, 1.9 million shares and 3.0 million shares respectively. All of the shares reserved for issuance under the 2007 Equity Plan may be granted as stock options, stock appreciation rights, restricted stock or RSUs.

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

The information required by this item concerning related party transactions pursuant to Item 404 of Regulation S-K is incorporated herein by reference to the section entitled "Related Transactions" in our Proxy Statement.

The information required by this item concerning director independence pursuant to Item 407(a) of Regulation S-K is incorporated herein by reference to the section entitled "Board Independence" in our Proxy Statement.

## ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is incorporated herein by reference to the sections entitled "Proposal Five - Ratification of Appointment of External Auditors" and "Fees Paid to Ernst & Young LLP" in our Proxy Statement.

## PART IV

## ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) (1) The financial statements required by Item 15(a) are included in Item 8 of this Annual Report on Form 10-K.

(2) The financial statement schedule required by Item 15(a) (Schedule II, Valuation and Qualifying Accounts) is included in Item 8 of this Annual Report on Form 10-K.

Schedules not filed have been omitted because they are not applicable, are not required or the information required to be set forth therein is included in the financial statements or notes thereto.

(3) The exhibits listed below in (b) are filed or incorporated by reference as part of this Annual Report on Form 10-K.

(b) Exhibits

### EXHIBIT LIST

| Exhibit No | | Exhibit Title | Incorporated by Reference | | | | Filed Herewith |
|---|---|---|---|---|---|---|---|
| | | | Form | File No. | Exhibit | Filing Date | |
| 3.1 | | Restated Certificate of Incorporation, as amended to date | 10-K | 000-18548 | 3.1 | 5/30/2007 | |
| 3.2 | | Bylaws of the Company, as amended effective as of December 5, 2018 | 8-K | 000-18548 | 3.2 | 12/7/2018 | |
| 4.1 | | Indenture, dated as of March 5, 2007, between the Company as Issuer and The Bank of New York Trust Company, N. A. as Trustee | 10-K | 000-18548 | 4.1 | 5/30/2007 | |
| 4.2 | | Indenture, dated as of June 9, 2010, between the Company as Issuer and The Bank of New York Mellon Trust Company, N.A. as Trustee | 10-Q | 000-18548 | 4.2 | 8/9/2010 | |
| 4.3 | | Indenture, dated as of June 14, 2007, between the Company as Issuer and The Bank of New Mellon Trust Company, N.A. as Trustee | S-3 | 333-143769 | 4.4 | 6/15/2007 | |
| 4.4 | | Supplemental Indenture, dated as of March 12, 2014, between the Company as Issuer and The Bank of New York Mellon Trust Company, N.A. as Trustee | 8-K | 000-18548 | 4.01 | 3/13/2014 | |
| 4.5 | | Supplemental Indenture, dated as of May 30, 2017, between the Company and U.S. Bank National Association, as trustee for the 2024 Notes | 8-K | 000-18548 | 4.01 | 5/30/2017 | |
| 4.6 | | Third Supplemental Indenture, dated as of August 31, 2017, between the Company and U.S. Bank National Association, as trustee | 8-K | 000-18548 | 99.1 | 9/1/2017 | |
| 10.1 | * | Amended and Restated 1990 Employee Qualified Stock Purchase Plan | DEF 14A | 000-18548 | Appendix A | 6/20/2018 | |
| 10.2P | * | Form of Indemnification Agreement between the Company and its officers and directors | S-1 | 333-34568 | 10.17 | 4/27/1990 | |
| 10.3 | * | 2007 Equity Incentive Plan | DEF 14A | 000-18548 | Appendix B | 6/20/2018 | |
| 10.4 | * | Form of Stock Option Agreement under 2007 Equity Incentive Plan | 10-K | 000-18548 | 10.24 | 5/30/2007 | |

| Exhibit No | | Exhibit Title | Incorporated by Reference Form | File No. | Exhibit | Filing Date | Filed Herewith |
|---|---|---|---|---|---|---|---|
| 10.5 | * | Form of Restricted Stock Unit Agreement under 2007 Equity Incentive Plan | 10-K | 000-18548 | 10.25 | 5/30/2007 | |
| 10.6 | * | Form of Performance-Based Restricted Stock Unit Agreement under 2007 Equity Incentive Plan | 8-K | 000-18548 | 99.1 | 7/5/2007 | |
| 10.7 | * | Restricted Stock Issuance Agreement | 10-Q | 000-18548 | 10.15 | 8/9/2011 | |
| 10.8 | * | Performance Based Restricted Stock Issuance Agreement | 10-Q | 000-18548 | 10.16 | 8/9/2011 | |
| 10.9 | + | Master Distributor Agreement, dated as of March 12, 2014, between the Company and Avnet, Inc. | 10-K | 000-18548 | 10.18 | 5/16/2014 | |
| 10.10 | * | Summary of Fiscal Year 2018 Executive Incentive Plan | 8-K | 000-18548 | N/A | 5/12/2017 | |
| 10.11 | * | Form of Change in Control Agreement | 8-K | 000-18548 | 10.2 | 1/20/2016 | |
| 10.12 | * | Amendment and Restatement of Employment Agreement with Moshe Gavrielov | 8-K | 000-18548 | 10.1 | 4/12/2017 | |
| 10.13 | | Amendment, dated as of February 20, 2015, to Master Distributor Agreement between the Company and Avnet, Inc. | 10-K | 000-18548 | 10.15 | 5/15/2017 | |
| 10.14 | + | Amendment, dated as of March 28, 2016, to Master Distributor Agreement between the Company and Avnet, Inc. | 10-K | 000-18548 | 10.16 | 5/15/2017 | |
| 10.15 | + | Addendum, dated as of March 1, 2017, to Master Distributor Agreement between the Company and Avnet, Inc. | 10-K | 000-18548 | 10.17 | 5/15/2017 | |
| 10.16 | | Amendment, dated as of March 1, 2017, to Master Distributor Agreement between the Company and Avnet, Inc. | 10-K | 000-18548 | 10.18 | 5/15/2017 | |
| 10.17 | + | Amendment, dated as of April 20, 2017, to Master Distributor Agreement between the Company and Avnet, Inc. | 10-Q | 000-18548 | 10.1 | 7/28/2017 | |
| 10.18 | | Employment Agreement, dated as of January 4, 2018, by and between Xilinx, Inc. and Victor Peng | 8-K | 000-18548 | 10.1 | 1/5/2018 | |
| 10.19 | + | Sales Exhibit, dated July 9, 2018 entered into pursuant to the Addendum to Master Distribution Agreement, dated April 20, 2017, by and between the Company and Avnet, Inc. | 10-Q | 000-18548 | 10.1 | 10/25/2018 | |
| 10.20 | * | Separation Agreement between the Company and Steven Glaser dated January 5, 2018 | 10-Q | 000-18548 | 10.1 | 7/27/2018 | |
| 21.1 | | Subsidiaries of the Company | | | | | X |
| 23.1 | | Consent of Independent Registered Public Accounting Firm | | | | | X |
| 24.1 | | Power of Attorney (included in the signature page) | | | | | X |
| 31.1 | | Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 | | | | | X |

| Exhibit No | Exhibit Title | Incorporated by Reference | | | | Filed Herewith |
|---|---|---|---|---|---|---|
| | | Form | File No. | Exhibit | Filing Date | |
| 31.2 | Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 | | | | | X |
| 32.1 | Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | | | | | X |
| 32.2 | Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | | | | | X |
| 101.INS | XBRL Instance Document | | | | | X |
| 101.SCH | XBRL Taxonomy Extension Schema Document | | | | | X |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document | | | | | X |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase Document | | | | | X |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document | | | | | X |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document | | | | | X |

+ Portions of this Exhibit have been omitted pursuant to a request for confidential treatment.

* Management contract or compensatory plan or arrangement.

P Filed on Paper

**SIGNATURES**

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

Date: May 10, 2019

XILINX, INC.

By: /s/ Victor Peng

Victor Peng
President and Chief Executive Officer

**POWER OF ATTORNEY**

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Victor Peng and Lorenzo A. Flores, jointly and severally, his/her attorneys-in-fact, each with the power of substitution, for him/her in any and all capacities, to sign any amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his/her substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

| Signature | Title | Date |
|---|---|---|
| /s/ Victor Peng<br>(Victor Peng) | President and Chief Executive Officer<br>(Principal Executive Officer) and Director | May 10, 2019 |
| /s/ Lorenzo A. Flores<br>(Lorenzo A. Flores) | Executive Vice President and Chief Financial Officer<br>(Principal Accounting and Financial Officer) | May 10, 2019 |
| /s/ Dennis Segers<br>(Dennis Segers) | Chairman of the Board of Directors | May 10, 2019 |
| /s/ Raman K. Chitkara<br>(Raman K. Chitkara) | Director | May 10, 2019 |
| /s/ Saar Gillai<br>(Saar Gillai) | Director | May 10, 2019 |
| /s/ Ronald S. Jankov<br>(Ronald S. Jankov) | Director | May 10, 2019 |
| /s/ Mary Louise Krakauer<br>(Mary Louise Krakauer) | Director | May 10, 2019 |
| /s/ Thomas H. Lee<br>(Thomas H. Lee) | Director | May 10, 2019 |
| /s/ J. Michael Patterson<br>(J. Michael Patterson) | Director | May 10, 2019 |
| /s/ Albert A. Pimentel<br>(Albert A. Pimentel) | Director | May 10, 2019 |
| /s/ Marshall C. Turner<br>(Marshall C. Turner) | Director | May 10, 2019 |
| /s/ Elizabeth W. Vanderslice<br>(Elizabeth W. Vanderslice) | Director | May 10, 2019 |

**Exhibit 21.1**

**XILINX, INC.**
**SUBSIDIARIES OF REGISTRANT**

| NAME | PLACE OF INCORPORATION OR ORGANIZATION |
|---|---|
| Xilinx Armenia LLC | Armenia |
| Xilinx Benelux B.V.B.A. | Belgium |
| Xilinx Development Corporation | California, U.S.A. |
| Auviz Systems Inc | California, U.S.A. |
| Xilinx Canada Co. | Canada |
| Xilinx Holding Six Limited | Cayman Islands |
| Xilinx Holding Three Ltd. | Cayman Islands |
| Xilinx DeePhi Technology Co. Ltd. | Cayman Islands |
| Xilinx Technology Beijing Limited | China |
| Xilinx Technology Shanghai Limited | China |
| Beijing DeePhi Intelligent Technology Co. Ltd. | China |
| Shanghai DeePhi Intelligent Technology Co. Ltd. | China |
| DeePhi Beijing Technology Co. Ltd. | China |
| Midgard Acquisition LLC | Delaware, U.S.A. |
| Xilinx SARL | France |
| Xilinx GmbH | Germany |
| Xilinx Hong Kong Limited | Hong Kong SAR, China |
| DeePhi Intelligent Technology Limited | Hong Kong SAR, China |
| Auviz Systems India Private Limited | India |
| Xilinx India Technology Services Private Limited | India |
| Xilinx Finance Ireland Limited | Ireland |
| Xilinx Ireland Unlimited Company | Ireland |

| | |
|---|---|
| Xilinx Israel Limited | Israel |
| Xilinx K.K. | Japan |
| Xilinx Holding Two Limited | Luxembourg |
| Xilinx NL B.V. | Netherlands |
| Xilinx Asia Pacific Pte. Ltd. | Singapore |
| Xilinx Sales International Pte. Ltd. | Singapore |
| Xilinx Singapore Holding Pte. Ltd. | Singapore |
| Xilinx AB | Sweden |
| MemoBit Technologies AB | Sweden |
| Xilinx Limited | United Kingdom |
| Xilinx NI Limited | United Kingdom |

**Exhibit 23.1**

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

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

(1) Registration Statements (Form S-3 Nos. 333-194052, 333-00054, 333-143769, 333-51514 and 333-216131) of Xilinx, Inc., and
(2) Registration Statements (Form S-8 Nos. 333-215789, 333-201805, 333-193664, 333-186442, 333-179463, 333-172102, 333-162948, 333-157473, 333-151219, 333-140573, 333-127318, 333-62897, 333-44233, 333-12339, 33-40562, 33-36706, 33-80075, 33-83036, 33-52184, 33-67808, 333-51510, 333-222729 and 333-229375) of Xilinx, Inc.;

of our reports dated May 10, 2019, with respect to the consolidated financial statements and schedule of Xilinx, Inc. and the effectiveness of internal control over financial reporting of Xilinx, Inc. included in this Annual Report (Form 10-K) of Xilinx, Inc. for the year ended March 30, 2019.

/s/ Ernst & Young LLP

San Jose, California
May 10, 2019

**Exhibit 31.1**

**XILINX, INC.**
**CERTIFICATION PURSUANT TO**
**SECURITIES EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),**
**AS ADOPTED PURSUANT TO**
**SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Victor Peng, certify that:

1. I have reviewed this annual report on Form 10-K of Xilinx, 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.

Date: May 10, 2019

/s/ Victor Peng

Victor Peng
President and Chief Executive Officer

**Exhibit 31.2**

**XILINX, INC.**
**CERTIFICATION PURSUANT TO**
**SECURITIES EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),**
**AS ADOPTED PURSUANT TO**
**SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Lorenzo A. Flores, certify that:

1. I have reviewed this annual report on Form 10-K of Xilinx, 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.

Date: May 10, 2019

/s/ Lorenzo A. Flores

Lorenzo A. Flores
Executive Vice President
and Chief Financial Officer

**Exhibit 32.1**

**XILINX, INC.**
**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 of Xilinx, Inc. (the “Company”) on Form 10-K for the period ended March 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Victor Peng, President and Chief Executive Officer of the Company, certify, pursuant to Title 18, Chapter 63, Section 1350 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(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.

Date: May 10, 2019

/s/ Victor Peng

Victor Peng
President and Chief Executive Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Xilinx, Inc. and will be retained by Xilinx, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

This certification accompanies the Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Company for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

**Exhibit 32.2**

**XILINX, INC.**
**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 of Xilinx, Inc. (the "Company") on Form 10-K for the period ended March 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Lorenzo A. Flores, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to Title 18, Chapter 63, Section 1350 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(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.

Date: May 10, 2019

/s/ Lorenzo A. Flores

Lorenzo A. Flores
Executive Vice President
and Chief Financial Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Xilinx, Inc. and will be retained by Xilinx, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

This certification accompanies the Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Company for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended.