

MARVELL TECHNOLOGY GROUP LTD  
Form 10-K  
March 28, 2017

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 January 28, 2017

or

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 0-30877

Marvell Technology Group Ltd.

(Exact name of registrant as specified in its charter)

Bermuda 77-0481679

(State or other jurisdiction of (I.R.S. Employer  
incorporation or organization) Identification No.)

Canon's Court, 22 Victoria Street, Hamilton HM 12, Bermuda

(Address of principal executive offices)

(441) 296-6395

(Registrant's telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
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Common shares, \$0.002 par value per share	The NASDAQ Stock Market LLC
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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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

(Do not check if a smaller  
reporting company)

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

The aggregate market value of the registrant's common shares held by non-affiliates of the registrant was \$3,844,207,456 based upon the closing price of \$11.75 per share on the NASDAQ Global Select Market on July 29, 2016 (the last business day of the registrant's most recently completed second quarter). Common shares held by each director and executive officer of the registrant, as well as shares held by each holder of more than 5% of the common shares known to the registrant (based on Schedule 13G filings), have been excluded for purposes of the foregoing calculation.

As of March 22, 2017, there were 502.4 million common shares of the registrant outstanding.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of Part III of this Form 10-K are incorporated by reference from the registrant's definitive proxy statement for its 2017 annual general meeting of shareholders, which proxy statement will be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year covered by this Form 10-K.

#### TRADEMARKS

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Marvell®, Alaska®, ARMADA® Avanta®, Avastar®, Kirkwood®, Link Street®, Prester®, Xelerated® and Yukon® are registered trademarks of Marvell International Ltd. and/or its affiliates. Any other trademarks or trade names mentioned are the property of their respective owners.

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MARVELL TECHNOLOGY GROUP LTD.

Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which are subject to the “safe harbor” created by those sections. These statements involve known and unknown risks, uncertainties and other factors, which may cause our actual results to differ materially from those implied by the forward-looking statements. Words such as “anticipates,” “expects,” “intends,” “plans,” “projects,” “believes,” “seeks,” “estimates,” “may,” “can,” “will,” “would” and similar expressions identify such forward-looking statements. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those indicated in the forward-looking statements. Factors that could cause actual results to differ materially from those predicted include, but are not limited to:

- our ability to successfully restructure our operations within our anticipated timeframe announced in November 2016 and with our anticipated amounts of costs and savings;
- our dependence upon the hard disk drive market, which is highly cyclical and intensely competitive;
- the outcome of pending or future litigation and legal proceedings;
- our dependence on a small number of customers;
- severe financial hardship or bankruptcy of one or more of our major customers;
- our ability and the ability of our customers to successfully compete in the markets in which we serve;
- our reliance on independent foundries and subcontractors for the manufacture, assembly and testing of our products;
- our ability and our customers’ ability to develop new and enhanced products and the adoption of those products in the market;
- decreases in our gross margin and results of operations in the future due to a number of factors;
- our ability to estimate customer demand and future sales accurately;
- our ability to scale our operations in response to changes in demand for existing or new products and services;
- the impact of international conflict and continued economic volatility in either domestic or foreign markets;
- the effects of transitioning to smaller geometry process technologies;
- the risks associated with manufacturing and selling a majority of our products and our customers’ products outside of the United States;
- risks associated with acquisition and consolidation activity in the semiconductor industry;
- the impact of any change in our application of the United States federal income tax laws and the loss of any beneficial tax treatment that we currently enjoy;
- the effects of any potential acquisitions or investments;
- our ability to protect our intellectual property;
- the impact and costs associated with changes in international financial and regulatory conditions; and
- our maintenance of an effective system of internal controls.

Additional factors that could cause actual results to differ materially include the risks discussed in Part I, Item 1A, “Risk Factors” and Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” These forward-looking statements speak only as of the date hereof. Unless required by law, we undertake no obligation to update publicly any forward-looking statements.

## PART I

### Item 1. Business

#### Overview

We are a fabless semiconductor provider of high-performance application-specific standard products. Our core strength of expertise is the development of complex System-on-a-Chip (“SoC”) devices, leveraging our technology portfolio of intellectual property in the areas of analog, mixed-signal, digital signal processing, and embedded and standalone integrated circuits. We also develop integrated hardware platforms along with software that incorporates digital computing technologies designed and configured to provide an optimized computing solution. Our broad product portfolio includes devices for storage, networking and connectivity. We were incorporated in Bermuda in January 1995.

Our registered and mailing address is Canon’s Court, 22 Victoria Street, Hamilton HM 12, Bermuda, and our telephone number there is (441) 296-6395. The address of our U.S. operating subsidiary is Marvell Semiconductor, Inc., 5488 Marvell Lane, Santa Clara, California 95054, and our telephone number there is (408) 222-2500. We also have operations in many countries, including China, India, Israel, Japan, Singapore, South Korea, Taiwan and Vietnam. Our fiscal year ends on the Saturday nearest January 31.

#### Available Information

Our website address is located at [www.marvell.com](http://www.marvell.com). The information contained on our website does not form any part of this Annual Report on Form 10-K and is not incorporated by reference herein. We make available free of charge through our website our annual reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as soon as reasonably practicable after we electronically file this material with, or furnish it to, the U.S. Securities and Exchange Commission (“SEC”).

#### Our Markets and Products

Over the last several years, we have transitioned from a supplier of stand-alone semiconductor components to a supplier of fully integrated platform solutions. Our platform solutions contain multiple intellectual property components in integrated hardware, along with software that incorporates digital, analog and mixed-signal computing and communication technologies, designed and configured to provide an optimized solution. Our solutions have become increasingly integrated, with more and more components resulting in an all-in-one solution for a given customer’s end product. The demand for such highly integrated platform solutions is generally driven by technological changes and anticipation of the future needs of device manufacturers and end users, including enterprises, campus and service provider networks and, to an increasing extent, data center providers.

A device manufacturer may require technologies leveraged from one end market product into products for other end markets, integrating components and technologies traditionally associated with one end market with components and technologies from another end market. The integration of these various technologies onto a single piece of silicon is referred to as SoC.

In addition, software has become increasingly important to our business over the last several years and we believe software will become even more relevant as the market expects hardware and software to be delivered as an integrated solution offering. On-chip software, which acts as the “driver” for the functionality of the chip, has always been a critical part of our business. However, the software and application-level software that we deliver with our products has become significantly more complex as the range of uses and the needs has increased. For example, a solution that we develop for storage or networking can contain software that has a range of functionalities built in. Alternatively, our solution can allow our customers to deploy their operative systems on top of our chip, as well as deploy their application software on top of our SoC.

Our current product offerings are primarily in three broad product groups: storage, networking and connectivity. In storage, we are a market leader in data storage controller solutions spanning consumer, mobile, desktop and enterprise markets. Our storage solutions enable customers to engineer high-volume products for hard disk drives and solid state drives. Our networking products address end markets in cloud, enterprise, small and medium business and service provider networks. Our connectivity products address end markets in consumer, enterprise, desktop, service provider networks and automotive. Our storage, networking and connectivity products power cutting-edge networks and data centers around the world. The networking & connectivity product groups were previously referred to as smart networked devices and solutions.

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In connection with the November 2016 announcement of our plan to restructure our operations to refocus our research and development, increase operational efficiency and improve profitability, we also plan to divest certain businesses and we began an active program to locate buyers for several businesses. As of January 28, 2017, two of these businesses were classified as discontinued operations. As required, we retrospectively recast our consolidated statements of operations and balance sheets for all periods presented to reflect these businesses as discontinued operations. Unless noted otherwise, the following discussion refers to our continuing operations. Our net revenue by product group for the last three fiscal years is as follows:

	Year Ended					
	January		January		January	
	28,	30,	31,	31,	31,	31,
	2017	2016	2015	2016	2015	2015
	(in millions, except for percentages)					
Storage	\$1,158	50%	\$1,201	45%	\$1,745	48%
Networking	590	25%	532	20%	661	18%
Connectivity	318	14%	441	17%	530	15%
Other	252	11%	475	18%	701	19%
Total	\$2,318		\$2,649		\$3,637	

#### Storage

##### Hard Disk Drive Controllers

Hard disk drive ("HDD") controllers provide high-performance input/output (I/O) interface control between the HDD and the host system. We support a variety of host system interfaces, including SATA (Serial Advanced Technology Attachment) and SAS (Serial Attached SCSI), which support the complete range of enterprise, desktop and mobile HDDs.

• We are a leading HDD controller supplier and currently supply products to all of the major hard drive manufacturers. Our HDD controllers with advanced technology for HDDs provide a technological advantage that enable a higher level of data storage on smaller form factors and higher volumetric densities.

• Our advanced HDD controller SoCs are designed incorporating the latest Marvell IPs using leading advanced semiconductor process nodes.

##### Solid-State Drive Controllers

Our solid-state- drive ("SSD") controller SoCs are targeted at the fast growing market for flash-based storage systems, for the cloud, enterprise, consumer and mobile computing markets. We support a variety of host system interfaces, including SAS, SATA, peripheral component interconnect express ("PCIe"), and non-volatile memory express ("NVMe").

• We are a leading supplier of SSD controllers across a range of customers and market segments.

• Our advanced SSD controller SoCs incorporate the latest Marvell technology using leading advanced process nodes.

• Our SSD controllers are complemented by our fully featured SDK (software development kit) and FTK (Full Turnkey software solutions.)

##### HDD Components

In fiscal 2017, Marvell re-entered the HDD preamps business. We are working with a number of customers in developing and qualifying our components.

##### Enterprise Storage Solutions

We develop software-enabled silicon solutions for enterprise, data centers and cloud computing businesses. The solutions include SATA port multipliers, bridges, SATA, SAS and NVMe redundant array of independent disk controllers and converged storage processors.

##### Networking

##### Ethernet Solutions



Ethernet connectivity is pervasive throughout networking infrastructures built for enterprise, small and medium business, home office, service provider and data centers. Our Ethernet solutions address a wide variety of end-customer products for those market spaces, from small, cost-effective appliances to large, high-performance modular solutions.

Our Ethernet products include:

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A broad selection of Ethernet switches with market-optimized innovative features, such as advanced tunneling and routing, high throughput forwarding and packet processing that make networks more effective at delivering content.

Our Ethernet switch product portfolio ranges from low-power, five-port switches to highly integrated, multi-terabit Ethernet SoC devices that can be interconnected to form massive network solutions;

A broad selection of Ethernet physical-layer transceivers for both fiber and copper interconnect with advanced power management, link security and time synchronization features that complement our Ethernet switch and embedded communication processors; and

A family of single-chip network interface devices offered in ultra-small form factor with low-power consumption and targeted for client-server network interface cards.

#### Embedded Communication Processors

Our range of SoC-embedded communication processors provide multi-core ARM processor architecture optimized to consume low power while simultaneously delivering high-performance per watt. They provide a combination of I/O peripherals, including Ethernet, SATA, SAS, PCIe and universal serial bus and are ideally suited for a range of end-customer networking applications, such as home gateways, networked storage, control plane applications, routers, switches and wireless access points and base stations.

#### Connectivity

We offer a broad portfolio of connectivity solutions, including Wi-Fi, and Wi-Fi/Bluetooth integrated SOCs. These products are integrated into a wide variety of end devices, such as enterprise access points, home gateways, multimedia devices, gaming, printers, automotive infotainment and telematics units, and smart industrial devices. Our products are well-positioned to deliver low-power and high-performance functionality with cutting-edge technologies, and to lead the fast-paced developments of Wi-Fi 802.11 and Bluetooth standards. Our connectivity product portfolio includes a single stream 1x1, as well as multi-stream 2x2 and 4x4 multiple input multiple output devices. We deliver both the radio control and processing as well as the RF components for a complete customer solution.

#### Other Products

##### Printing Solutions & Custom ASIC

Our printer SoC products power many of today's laser and ink printers and multi-function peripherals. These SoCs include a family of printer-specific standard products as well as full-custom application-specific integrated circuits.

##### Communications and Application Processors

While we exited the mobile market in September 2015, several customers continue to ship our LTE communications processors. Our separate line of application processors is targeted for non-mobile applications and deliver leading-edge performance for today's embedded and Internet of Things solutions.

##### Financial Information about Segments and Geographic Areas

We have determined that we operate in one reportable segment: the design, development and sale of integrated circuits. For information regarding our revenue by geographic area, and property and equipment by geographic area, please see "Note 13 — Segment and Geographic Information" in our Notes to the Consolidated Financial Statements set forth in Part II, Item 8 of this Annual Report on Form 10-K. See "Risk Factors" under Item 1A of this Annual Report on Form 10-K for a discussion of the risks associated with our international operations.

##### Customers, Sales and Marketing

Our target customers are original equipment manufacturers and original design manufacturers, both of which design and manufacture end market devices. Our sales force is strategically aligned along key customer lines in order to offer fully integrated platforms to our customers. In this way, we believe we can more effectively offer a broader set of content into our key customers' end products, without having multiple product groups separately engage the same customer. We complement and support our direct sales force with manufacturers' representatives for our products in North America, Europe and Asia. In addition, we have distributors who support our sales and marketing activities in the United States, Europe and Asia. We also use third-party logistics providers who maintain warehouses in close proximity to our customers' facilities. We expect that a significant percentage of our sales will continue to come from direct sales to key customers.

We use field application engineers to provide technical support and assistance to existing and potential customers in designing, testing and qualifying systems designs that incorporate our products. Our marketing team works in conjunction with our field sales and application engineering force, and is organized around our product groups.

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Historically, a relatively small number of customers have accounted for a significant portion of our net revenue. Net revenue attributable to significant customers whose revenues as a percentage of net revenue was 10% or greater of total net revenues is presented in the following table:

Customer:	Year Ended		Year Ended	
	January 31, 2017	January 31, 2016	January 31, 2015	January 31, 2014
Western Digital*	21%	19%	20%	19%
Toshiba	13%	**%	**%	**%
Seagate	9%	14%	13%	13%
Wintech	10%	**%	11%	11%

\* The percentage of net revenues reported for Western Digital for fiscal year 2017 includes net revenue of HGST and SanDisk that became subsidiaries of Western Digital in late fiscal 2016.

\*\* Less than 10% of net revenue

A significant number of our products are being incorporated into consumer electronics products, including gaming devices and personal computers, which are subject to significant seasonality and fluctuations in demand. Seasonality, including holiday and back to school buying trends, may at times negatively impact our results in the first and fourth quarter, and positively impact our results in the second and third quarter of our fiscal years. In addition, the timing of new product introductions by our customers may cause variations in our quarterly revenues, which may not be indicative of future trends.

#### Inventory and Working Capital

We place firm orders for products with our suppliers generally up to 16 weeks prior to the anticipated delivery date and typically prior to an order for the product. These lead times typically change based on the current capacity at the foundries. We often maintain substantial inventories of our products because the semiconductor industry is characterized by short lead time orders and quick delivery schedules. In addition, increased use of “hubs” managed by third-party logistics providers has resulted in a higher number of inventory locations and higher overall inventory levels.

#### Backlog

We do not believe that backlog is a meaningful or reliable indicator for future demand, due to the following:

- an industry practice that allows customers to cancel or change orders prior to the scheduled shipment dates;
- an increasing portion of our revenue comes from products shipped to customers using third-party logistics providers, or “hubs” wherein the product can be pulled at any time by the customer and is therefore never reflected in backlog; and
- scheduled future shipments include shipments to distributors for which we do not recognize revenue until the products are sold to end customers.

#### Research and Development

We believe that our future success depends on our ability to introduce improvements to our existing products and to develop new products that deliver cost-effective solutions for both existing and new markets. Our research and development efforts are directed largely to the development of high-performance analog, mixed-signal, digital signal processing and embedded microprocessor integrated circuits with the smallest die size and lowest power. We devote a significant portion of our resources to expanding our product portfolio based on a broad intellectual property portfolio with designs that enable high-performance, reliable communications over a variety of physical transmission media. We are also focused on incorporating functions currently provided by stand-alone integrated circuits into our integrated platform solutions to reduce our customers’ overall system costs.

We have assembled a core team of engineers who have experience in the areas of mixed-signal circuit design, digital signal processing, embedded microprocessors, complementary metal oxide semiconductor (“CMOS”) technology and system-level architectures. We have invested and will continue to invest a significant amount of funds for research and development. Our research and development expense was \$0.8 billion, \$1.0 billion and \$1.1 billion in fiscal 2017, 2016 and 2015, respectively. See our discussion of research and development expenses in Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations, of this Annual Report on Form 10-K for further information.

Manufacturing

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#### Integrated Circuit Fabrication

The vast majority of our integrated circuits are fabricated using widely available CMOS processes, which provide greater flexibility to engage independent foundries to manufacture integrated circuits at lower costs. By outsourcing manufacturing, we are able to avoid the cost associated with owning and operating our own manufacturing facility. This allows us to focus our efforts on the design and marketing of our products. We currently outsource a large percentage of our integrated circuit manufacturing to Taiwan Semiconductor Manufacturing Company. We also utilize United Microelectronics Corporation, with the remaining manufacturing outsourced to other foundries located primarily in Asia. We work closely with our foundry partners to forecast on a monthly basis our manufacturing capacity requirements. We closely monitor foundry production to ensure consistent overall quality, reliability and yield levels. Our integrated circuits are currently fabricated in several advanced manufacturing processes. Because finer manufacturing processes lead to enhanced performance, smaller silicon chip size and lower power requirements, we continually evaluate the benefits and feasibility of migrating to smaller geometry process technology in order to reduce cost and improve performance.

#### Assembly and Test

We outsource all product packaging and testing requirements for our products in production to several assembly and test subcontractors primarily located in China, Korea, Singapore and Taiwan.

#### Environmental Management

We believe that our products comply with the current Restriction of Hazardous Substances Directive, the European legislation that restricts the use of a number of substances, including lead, and the Regulation, Evaluation and Authorization of Chemicals SVHC Substances Directive. In addition, each of our manufacturing subcontractors complies with ISO 14001:2004, the international standard related to environmental management. We are also working to establish a “conflict-free” supply chain, including ethical sourcing of certain minerals for our products.

#### Intellectual Property

Our future revenue growth and overall success depend in large part on our ability to protect our intellectual property. We rely on a combination of patents, copyrights, trademarks, trade secret laws, contractual provisions, confidentiality agreements and licenses to protect our intellectual property. As of January 28, 2017, we have approximately 8,700 U.S. and foreign patents issued and approximately 2,000 U.S. and foreign patent applications pending on various aspects of our technology. While we believe the duration of our patents generally covers the expected lives of our products, our patents may not collectively or individually cover every feature on innovation in our product. In addition, our efforts may not be sufficient to protect our intellectual property from misappropriation or infringement. See “Risk Factors” under Item 1A of this Annual Report on Form 10-K for a discussion of the risks associated with our patents and intellectual property.

We have expended and will continue to expend considerable resources in establishing a patent position designed to protect our intellectual property. While our ability to compete is enhanced by our ability to protect our intellectual property, we believe that in view of the rapid pace of technological change, the combination of the technical experience and innovative skills of our employees may be as important to our business as the legal protection of our patents and other proprietary information.

From time to time, we may desire or be required to renew or to obtain licenses from third parties in order to further develop and effectively market commercially viable products or in connection with a pending or future claim or action asserted against us. We cannot be sure that any necessary licenses will be available or will be available on commercially reasonable terms.

The integrated circuit industry is characterized by vigorous pursuit and protection of intellectual property rights, which has resulted in significant and often time consuming and expensive litigation. From time to time, we receive, and may continue to receive in the future, notices that claim we have infringed upon, misappropriated or misused the proprietary rights of other parties.

In addition, we have in the past and may in the future be sued by other parties who claim that we have infringed their patents or misappropriated or misused their trade secrets, or who may seek to invalidate one or more of our patents. Although we defend these claims vigorously, it is possible that we will not prevail in pending or future lawsuits. See

“Risk Factors” under Item 1A of this Annual Report on Form 10-K and “Note 10 — Commitments and Contingencies” in our Notes to the Consolidated Financial Statements set forth in Part II, Item 8, of this Annual Report on Form 10-K for further discussion of the risks associated with patent litigation matters.

Competition

The markets for our products, particularly in networking and connectivity, are intensely competitive, and are characterized by rapid technological change, evolving industry standards, frequent new product introductions and pricing

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pressures. Competition has intensified as a result of the increasing demand for higher levels of performance and integration and smaller process geometries. We expect competition to intensify as current competitors continue to strengthen the depth and breadth of their product offerings, either through in-house development or by acquiring existing technology. We believe that our ability to compete successfully in the rapidly evolving markets for our products depends on a number of factors, including, but not limited to:

- The performance, features, quality and price of our products;
- The timing and success of new product introductions by us, our customers and our competitors;
- Emergence, rate of adoption and acceptance of new industry standards;
- Our ability to obtain adequate foundry capacity with the appropriate technological capability; and
- The number and nature of our competitors in a given market.

Our major competitors for our products include Broadcom Limited, Cavium, Inc., MediaTek, Inc., QUALCOMM, Inc., Quantenna Communications Inc. and Silicon Motion Technology Corporation. We expect increased competition in the future from emerging or established companies, or alliances among competitors, customers or other third parties, any of which could acquire significant market share. See “Risk Factors” under Item 1A of this Annual Report on Form 10-K for a discussion of competitive risks associated with our business.

Historically, average unit selling prices in the integrated circuit industry in general, and for our products in particular, have decreased over the life of a particular product. We expect that the average unit selling prices of our products will continue to be subject to significant pricing pressures. In order to offset expected declines in the selling prices of our products, we will need to continue to introduce innovative new products and reduce the cost of our products. To accomplish this, we intend to continue to implement design changes that lower the cost of manufacturing, assembly and testing of our products. See “Risk Factors” under Item 1A of this Annual Report on Form 10-K for a discussion of pricing risks.

#### Employees

As of January 28, 2017, we had a total of 4,617 employees.

#### Item 1A. Risk Factors

Investing in our common shares involves a high degree of risk. You should carefully consider the risks and uncertainties described below and all information contained in this report before you decide to purchase our common shares. Many of these risks and uncertainties are beyond our control, including business cycles and seasonal trends of the computing, semiconductor and related industries and end markets. If any of the possible adverse events described below actually occurs, we may be unable to conduct our business as currently planned and our financial condition and operating results could be harmed. In addition, the trading price of our common shares could decline due to the occurrence of any of these risks, and you could lose all or part of your investment.

#### Factors That May Affect Future Results

Our financial condition and results of operations may vary from quarter to quarter, which may cause the price of our common shares to decline.

Our quarterly results of operations have fluctuated in the past and could do so in the future. Because our results of operations are difficult to predict, you should not rely on quarterly comparisons of our results of operations as an indication of our future performance.

Fluctuations in our results of operations may be due to a number of factors, including, but not limited to, those listed below and those identified throughout this “Risk Factors” section:

- changes in general economic and political conditions and specific conditions in the end markets we address, including the continuing volatility in the technology sector and semiconductor industry;
- the highly competitive nature of the end markets we serve, particularly within the semiconductor industry;
- our dependence on a few customers for a significant portion of our revenue;
- severe financial hardship or bankruptcy of one or more of our major customers;
- our ability to maintain a competitive cost structure for our manufacturing and assembly and test processes and our reliance on third parties to produce our products;
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our ability to successfully restructure our operations within our anticipated timeframe announced in November 2016 and with our anticipated savings;

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- the effects of any potential acquisitions, divestitures or significant investments;
- any current and future litigation that could result in substantial costs and a diversion of management's attention and resources that are needed to successfully maintain and grow our business;
- cancellations, rescheduling or deferrals of significant customer orders or shipments, as well as the ability of our customers to manage inventory;
- gain or loss of a design win or key customer;
- seasonality in sales of consumer devices in which our products are incorporated;
- failure to qualify our products or our suppliers' manufacturing lines;
- our ability to develop and introduce new and enhanced products in a timely and effective manner, as well as our ability to anticipate and adapt to changes in technology;
- failure to protect our intellectual property;
- impact of a significant natural disaster, including earthquakes, floods and tsunamis, particularly in certain regions in which we operate or own buildings, such as Santa Clara, California and where our third party suppliers operate, such as Taiwan and elsewhere in the Pacific Rim; and
- our ability to attract and retain a highly skilled workforce, especially managerial, engineering, sales and marketing personnel.

Due to fluctuations in our quarterly results of operations and other factors, the price at which our common shares will trade is likely to continue to be highly volatile. During fiscal 2017, our common shares traded as low as \$8.32 and as high as \$15.45 per share. Accordingly, you may not be able to resell your common shares at or above the price you paid. In future periods, our stock price could decline if, amongst other factors, our revenues or operating results are below our estimates or the estimates or expectations of securities analysts and investors. As a result of stock price volatility, we may be subject to securities class action litigation. Any litigation could result in substantial costs and a diversion of management's attention and resources that are needed to successfully maintain and grow our business.

If we fail to appropriately scale our operations in response to changes in demand for our existing products or to the demand for new products requested by our customers, including efforts such as our restructuring announced in November 2016, our business and profitability could be materially and adversely affected.

To achieve our business objectives, it may be necessary from time to time for us to expand or contract our operations. For example, in November 2016, we announced a plan to restructure our operations to refocus our research and development, increase operational efficiency and improve profitability. We expect that the restructuring actions, which include discontinuing investment in specific research and development programs, streamlining engineering processes, and consolidating research and development sites, will eliminate approximately 900 positions worldwide. In addition, we are in the process of divesting certain businesses. These actions are expected to be fully executed by the end of October 2017.

Our ability to scale our workforce and operations in a sufficiently timely manner to respond effectively to changes in demand for our existing products, or to the demand for new products requested by our customers, is critical to our future success. While we expect to realize efficiencies from these actions, these activities might not produce the full efficiency and cost reduction benefits we expect. Further, such benefits might be realized later than expected, and the ongoing costs of implementing these measures might be greater than anticipated. If these measures are not successful or sustainable, we might undertake additional realignment and cost reduction efforts, which could result in future charges. In the event that we are unable to execute on our restructuring plan to the extent currently anticipated, our ability to meet competitive challenges or exploit key market opportunities could be materially and adversely affected.

Any potential future acquisitions, strategic investments, divestitures, mergers or joint ventures may subject us to significant risks, any of which could harm our business.

Our long-term strategy may include identifying and acquiring, investing in or merging with suitable candidates on acceptable terms, or divesting of certain business lines or activities. In particular, over time, we may acquire, make

investments in, or merge with providers of product offerings that complement our business or may terminate such activities. Mergers, acquisitions and divestitures include a number of risks and present financial, managerial and operational challenges, including but not limited to:

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• diversion of management attention from running our existing business;

• increased expenses, including but not limited to legal, administrative and compensation expenses related to newly hired or terminated employees;

• increased costs to integrate or, in the case of a divestiture, separate the technology, personnel, customer base and business practices of the acquired or divested business or assets;

• potential exposure to material liabilities not discovered in the due diligence process;

• potential adverse effects on reported operating results due to possible write-down of goodwill and other intangible assets associated with acquisitions;

• potential damage to customer relationships or loss of synergies in the case of divestitures; and

• unavailability of acquisition financing on reasonable terms or at all.

Any acquired business, technology, service or product could significantly under-perform relative to our expectations and may not achieve the benefits we expect from possible acquisitions. Given that our resources are limited, our decision to pursue a transaction has opportunity costs; accordingly, if we pursue a particular transaction, we may need to forgo the prospect of entering into other transactions that could help us achieve our strategic objectives.

When we decide to sell assets or a business, we may have difficulty selling on acceptable terms in a timely manner. These circumstances could delay the achievement of our strategic objectives or cause us to incur additional expense, or we may sell a business at a price or on terms that are less favorable than we had anticipated, resulting in a loss on the transaction.

If we do enter into agreements with respect to acquisitions, divestitures, or other transactions, we may fail to complete them due to factors such as:

• failure to obtain regulatory or other approvals;

• IP disputes or other litigation; or

• difficulties obtaining financing for the transaction.

For all these reasons, our pursuit of an acquisition, investment, divestiture, merger or joint venture could cause our actual results to differ materially from those anticipated.

We operate in intensely competitive markets, and our failure to compete effectively would harm our results of operations.

The semiconductor industry, and specifically the storage, networking and connectivity markets, are extremely competitive. We currently compete with a number of large domestic and international companies in the business of designing integrated circuits and related applications, some of which have greater financial, technical and management resources than us. Our efforts to introduce new products into markets with entrenched competitors will expose us to additional competitive pressures. For example, we are facing, and expect we will continue to face, significant competition in the networking market. Additionally, customer expectations and requirements have been evolving

rapidly. For example, customers now expect us to provide turnkey solutions and commit to future roadmaps that have technical risks. Some of our competitors may be better situated to meet changing customer needs and secure design wins. Increasing competition in the markets in which we operate may negatively impact our revenues and gross margins. For example, competitors with greater financial resources may be able to offer lower prices than us, or they may offer additional products, services or other incentives that we may not be able to match. In addition, many of our competitors operate and maintain their own fabrication facilities and have longer operating histories, greater name recognition, larger customer bases, and greater sales, marketing and distribution resources than we do. Furthermore, our current and potential competitors in the data communication and wireless markets have established or may establish financial and strategic relationships among themselves or with existing or potential customers or other third parties to increase the ability of their products to address the needs of customers. Accordingly, new competitors or alliances among these competitors may acquire significant market share, which would harm our business. While we continue to pursue similar strategic relationships, and currently have significant financial and technical resources, we cannot assure you that we will be able to continue to

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compete successfully against existing or new competitors, which would harm our results of operations. As the technology inflections happen, our competitors may get ahead of us and negatively impact our market share.

In addition, the semiconductor industry has experienced increased consolidation over the past several years. For example, Avago Technologies Limited (now Broadcom Limited (“Broadcom”)) acquired Broadcom Corporation in February 2016 and LSI Corporation in May 2014; Intel acquired Altera Corporation in December 2015; and NXP Semiconductors acquired Freescale Semiconductor, Ltd. in December 2015. Consolidation among our competitors could lead to a changing competitive landscape, capabilities and market share, which could put us at a competitive disadvantage and harm our results of operations.

A significant portion of our business is dependent on the HDD industry, which is highly cyclical, experiences rapid technological change, is subject to industry consolidation and is facing increased competition from alternative technologies.

The HDD industry is intensely competitive and technology inflections are happening rapidly. This industry has historically been cyclical, with periods of increased demand and rapid growth followed by periods of oversupply and subsequent contraction. These cycles may affect us because some of our largest customers participate in this industry.

HDD manufacturers tend to order more components than they may need during growth periods, and sharply reduce orders for components during periods of contraction. Rapid technological changes in the HDD industry often result in shifts in market share among the industry’s participants. If the HDD manufacturers using our products do not retain or increase their market share, our sales may decrease.

In addition, the HDD industry has experienced significant consolidation. Consolidation among our customers could lead to changing demand for our products, replacement of our products by the merged entity with those of our competitors and cancellation of orders, each of which could harm our results of operations. If we are unable to leverage our technology and customer relationships, we may not capitalize on the increased opportunities for our products within the combined company.

Furthermore, future changes in the nature of information storage products and personal computing devices could reduce demand for traditional HDDs. For example, products using alternative technologies, such as SSD and other storage technologies are a source of competition to manufacturers of HDDs. Although we offer SSD controllers, leveraging our technology in hard drives, we cannot ensure that our overall business will not be adversely affected if demand for traditional HDDs decreases. Additionally, we depend on a few customers for our SSD controllers and as such, the loss of any SSD controller customer or a significant reduction in sales we make to them may harm our financial condition and results of operations. Unlike in the HDD industry, SSD customers may develop their own controllers, which could pose a challenge to our market share in the SSD space.

Our sales are concentrated in a few large customers. If we lose or experience a significant reduction in sales to any of these key customers, if any of these key customers experience a significant decline in market share, or if any of these customers experience significant financial difficulties, our revenues may decrease substantially and our results of operations and financial condition may be harmed.

We receive a significant amount of our revenues from a limited number of customers. Net revenue from our two largest customers represented 34% and 33% of our net revenue for fiscal 2017 and fiscal 2016, respectively. Sales to our largest customers have fluctuated significantly from period to period and year to year and will likely continue to fluctuate in the future, primarily due to the timing and number of design wins with each customer, the continued diversification of our customer base as we expand into new markets, and natural disasters or other issues that may divert a customer’s operations. The loss of any of our large customers or a significant reduction in sales we make to them would likely harm our financial condition and results of operations. To the extent one or more of our large

customers experience significant financial difficulty, bankruptcy or insolvency, this could have a material adverse effect on our sales and our ability to collect on receivables, which could harm our financial condition and results of operations. For example, Toshiba Corporation has recently announced significant financial difficulties not directly related to their semiconductor business but which may have an adverse effect on its overall financial condition or result in a divestiture of the semiconductor portion of its business that purchases our products.

Our operating results in the foreseeable future will continue to depend on sales to a relatively small number of customers, as well as the ability of these customers to sell products that incorporate our products. In the future, these customers may decide not to purchase our products at all, purchase fewer products than they did in the past, or alter their purchasing patterns in some other way, particularly because:

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a significant portion of our sales are made on a purchase order basis, which allows our customers to cancel, change or delay product purchase commitments with relatively short notice to us;

customers may purchase integrated circuits from our competitors;

customers may discontinue sales or lose market share in the markets for which they purchase our products;

customers may develop their own solutions or acquire fully developed solutions from third-parties;

customers may be subject to severe business disruptions, including, but not limited to, those driven by financial instability; or

customers may consolidate (for example, Western Digital acquired SanDisk in 2017, and Toshiba Corporation has announced an intent to sell a portion of its semiconductor business), which could lead to changing demand for our products, replacement of our products by the merged entity with those of our competitors and cancellation of orders.

In addition, if regulatory activity, such as enforcement of U.S. export control and sanctions laws, were to materially limit our ability to make sales to any of our significant customers, it could harm our results of operations, reputation and financial condition.

If we are unable to develop and introduce new and enhanced products that achieve market acceptance in a timely and cost-effective manner, our results of operations and competitive position will be harmed.

Our future success will depend on our ability to develop and introduce new products and enhancements to our existing products in a timely and cost-effective manner. We sell products in markets that are characterized by rapid technological change, evolving industry standards, frequent new product introductions, short product life cycles and increasing demand for higher levels of integration and smaller process geometries. In addition, the development of new silicon devices is highly complex, and due to supply chain cross-dependencies and other issues, we may experience delays in completing the development, production and introduction of our new products. See also, "We may be unable to protect our intellectual property, which would negatively affect our ability to compete."

Our ability to adapt to changes and to anticipate future standards, and the rate of adoption and acceptance of those standards, will be a significant factor in maintaining or improving our competitive position and prospects for growth. We may also have to incur substantial unanticipated costs to comply with these new standards. Our success will also depend on the ability of our customers to develop new products and enhance existing products for the markets they serve and to introduce and promote those products successfully and in a timely manner. Even if we and our customers introduce new and enhanced products to the market, those products may not achieve market acceptance.

Our gross margin and results of operations may be adversely affected in the future by a number of factors, including decreases in average selling prices of products over time and shifts in our product mix.

The products we develop and sell are primarily used for high-volume applications. As a result, the prices of those products have historically decreased rapidly. In addition, our more recently introduced products tend to have higher associated costs because of initial overall development and production expenses. Therefore, over time, we may not be able to maintain or improve our gross margins. Our financial results could suffer if we are unable to offset any reductions in our average selling prices by other cost reductions through efficiencies, introduction of higher margin products and other means.



To attract new customers or retain existing customers, we may offer certain price concessions to certain customers, which could cause our average selling prices and gross margins to decline. In the past, we have reduced the average selling prices of our products in anticipation of future competitive pricing pressures, new product introductions by us or by our competitors and other factors. We expect that we will continue to have to reduce prices of existing products in the future. Moreover, because of the wide price differences across the markets we serve, the mix and types of performance capabilities of our products sold may affect the average selling prices of our products and have a substantial impact on our revenue and gross margin. We may enter new markets in which a significant amount of competition exists, and this may require us to sell our products with lower gross margins than we earn in our established businesses. If we are successful in growing revenue in these markets, our overall gross margin may decline. Fluctuations in the mix and types of our products may also affect the extent to which we are able to recover the fixed costs and investments associated with a particular product, and as a result may harm our financial results.

Additionally, because we do not operate our own manufacturing, assembly or testing facilities, we may not be able to reduce our costs as rapidly as companies that operate their own facilities and our costs may even increase, which could also reduce our gross margins.

We rely on independent foundries and subcontractors for the manufacture, assembly and testing of our integrated circuit products, and the failure of any of these third-party vendors to deliver products or otherwise perform as requested could damage our relationships with our customers, decrease our sales and limit our ability to grow our business.

We do not have our own manufacturing or assembly facilities and have very limited in-house testing facilities. Therefore, we currently rely on several third-party foundries to produce our integrated circuit products. We also currently rely on several third-party assembly and test subcontractors to assemble, package and test our products. This exposes us to a variety of risks, including the following:

#### Regional Concentration

Substantially all of our products are manufactured by third-party foundries located in Taiwan, and other sources are located in China and Singapore. In addition, substantially all of our third-party assembly and testing facilities are located in China, Singapore and Taiwan. Because of the geographic concentration of these third-party foundries, as well as our assembly and test subcontractors, we are exposed to the risk that their operations may be disrupted by regional disasters including, for example, earthquakes (particularly in Taiwan and elsewhere in the Pacific Rim close to fault lines), tsunamis or typhoons, or by political, social or economic instability. In the case of such an event, our revenues, cost of goods sold and results of operations would be negatively impacted. In addition, there are limited numbers of alternative foundries and identifying and implementing alternative manufacturing facilities would be time consuming. As a result, if we needed to implement alternate manufacturing facilities, we could experience significant expenses and delays in product shipments, which could harm our results of operations.

#### No Guarantee of Capacity or Supply

The ability of each foundry to provide us with semiconductor devices is limited by its available capacity and existing obligations. When demand is strong, availability of foundry capacity may be constrained or not available, and with limited exceptions, our vendors are not obligated to perform services or supply products to us for any specific period, in any specific quantities, or at any specific price, except as may be provided in a particular purchase order. We place our orders on the basis of our customers' purchase orders or our forecast of customer demand, and the foundries can allocate capacity to the production of other companies' products and reduce deliveries to us on short notice. It is possible that foundry customers that are larger and better financed than we are or that have long-term agreements with our main foundries may induce our foundries to reallocate capacity to those customers. This reallocation could impair our ability to secure the supply of components that we need. In particular, as we and others in our industry transition to smaller geometries, our manufacturing partners may be supply constrained or may charge premiums for these advanced technologies, which may harm our business or results of operations. See also, "We may experience difficulties in transitioning to smaller geometry process technologies or in achieving higher levels of design integration, which may result in reduced manufacturing yields, delays in product deliveries and increased expenses." Moreover, if any of our third-party foundry suppliers are unable to secure necessary raw materials from their suppliers, lose benefits under material agreements, experience power outages, lack sufficient capacity to manufacture our products, encounter financial difficulties or suffer any other disruption or reduction in efficiency, we may encounter supply delays or disruptions, which could harm our business or results of operations.

While we attempt to create multiple sources for our products, most of our products are not manufactured at more than one foundry at any given time, and our products typically are designed to be manufactured in a specific process at only one of these foundries. Accordingly, if one of our foundries is unable to provide us with components as needed, it would be difficult for us to transition the manufacture of our products to other foundries, and we could experience significant delays in securing sufficient supplies of those components. This could result in a material decline in our revenues, net income and cash flow.

In order to secure sufficient foundry capacity when demand is high and to mitigate the risks described in the foregoing paragraph, we may enter into various arrangements with suppliers that could be costly and harm our results of operations, such as nonrefundable deposits with or loans to foundries in exchange for capacity commitments, or contracts that commit us to purchase specified quantities of integrated circuits over extended periods. We may not be able to make any such arrangement in a timely fashion or at all, and any arrangements may be costly, reduce our financial flexibility, and not be on terms favorable to

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us. Moreover, if we are able to secure foundry capacity, we may be obligated to use all of that capacity or incur penalties. These penalties may be expensive and could harm our financial results.

#### Uncertain Yields and Quality

The fabrication of integrated circuits is a complex and technically demanding process. Our technology is transitioning from planar to FINFET transistors which is a new technology. This transition may result in longer qualification cycles and lower yields. Our foundries have from time to time experienced manufacturing defects and lower manufacturing yields, which are difficult to detect at an early stage of the manufacturing process and may be time consuming and expensive to correct. Changes in manufacturing processes or the inadvertent use of defective or contaminated materials by our foundries could result in lower than anticipated manufacturing yields or unacceptable performance. In addition, we may face lower manufacturing yields and reduced quality in the process of ramping up and diversifying our manufacturing partners. Poor yields from our foundries, or defects, integration issues or other performance problems with our products could cause us significant customer relations and business reputation problems, harm our financial performance and result in financial or other damages to our customers. Our customers could also seek damages in connection with product liability claims, which would likely be time consuming and costly to defend. In addition, defects could result in significant costs. See also, "Costs related to defective products could have a material adverse effect on us."

To the extent that we rely on outside suppliers to manufacture or assemble and test our products, we may have a reduced ability to directly control product delivery schedules and quality assurance, which could result in product shortages or quality assurance problems that could delay shipments or increase costs.

#### Commodity Prices

We are also subject to risk from fluctuating market prices of certain commodity raw materials, including gold and copper, which are incorporated into our end products or used by our suppliers to manufacture our end products. Supplies for such commodities may from time to time become restricted, or general market factors and conditions may affect pricing of such commodities.

We may experience difficulties in transitioning to smaller geometry process technologies or in achieving higher levels of design integration, which may result in reduced manufacturing yields, delays in product deliveries and increased expenses.

In order to remain competitive, we expect to continue to transition our semiconductor products to increasingly smaller line width geometries. This transition requires us to modify the manufacturing processes for our products and to redesign some products. We periodically evaluate the benefits, on a product-by-product basis, of migrating to smaller geometry process technologies to reduce our costs. In the past, we have experienced some difficulties in shifting to smaller geometry process technologies or new manufacturing processes, which resulted in reduced manufacturing yields, delays in product deliveries and increased expenses. We may face similar difficulties, delays and expenses as we continue to transition our products to smaller geometry processes.

We are dependent on our relationships with our foundry subcontractors to transition to smaller geometry processes successfully. We cannot ensure that the foundries we use will be able to effectively manage the transition or that we will be able to maintain our existing foundry relationships or develop new ones. If we or any of our foundry subcontractors experience significant delays in this transition or fail to efficiently implement this transition, we could experience reduced manufacturing yields, delays in product deliveries and increased expenses, all of which could harm our relationships with our customers and our results of operations.

As smaller geometry processes become more prevalent, we expect to continue to integrate greater levels of functionality, as well as customer and third-party intellectual property, into our products. However, we may not be able to achieve higher levels of design integration or deliver new integrated products on a timely basis, if at all. Moreover, even if we are able to achieve higher levels of design integration, such integration may have a short-term adverse impact on our results of operations, as we may reduce our revenue by integrating the functionality of multiple chips into a single chip.

Costs related to defective products could have a material adverse effect on us.

From time to time, we have experienced hardware and software defects and bugs associated with the introduction of our highly complex products. Despite our testing procedures, we cannot ensure that errors will not be found in new products or releases after commencement of commercial shipments in the future. Such errors could result in:

- loss of or delay in market acceptance of our products;
- material recall and replacement costs;
- delay in revenue recognition or loss of revenues;
- writing down the inventory of defective products;
- the diversion of the attention of our engineering personnel from product development efforts;
- our having to defend against litigation related to defective products or related property damage or personal injury; and
- damage to our reputation in the industry that could adversely affect our relationships with our customers.

In addition, the process of identifying a recalled product in devices that have been widely distributed may be lengthy and require significant resources. We may have difficulty identifying the end customers of the defective products in the field, which may cause us to incur significant replacement costs, contract damage claims from our customers and further reputational harm. Any of these problems could materially and adversely affect our results of operations.

We have recently experienced a significant transition at the executive management level. If our new executive team is unable to engage and align mid-management or attract and retain the key talent needed for us to timely achieve our business objectives, our business and results of operations could be harmed.

In April 2016, our co-founders, Dr. Sehat Sutardja and Ms. Weili Dai, left the company. Shortly thereafter, our board of directors was reconstituted in connection with our agreement with Starboard Value LLC and the company's executive management team subsequently went through a significant transition, including the hiring of a new President and CEO, Chief Financial Officer, Chief Accounting Officer and Controller, Chief Operations Officer, Chief Legal Officer, Chief Human Resources Officer, Executive Vice President of Worldwide Sales and Marketing and appointment of new leaders for our storage, and networking and connectivity groups, and our corporate development organization. At the time of the filing of this Annual Report on Form 10-K, the longest tenured member of our executive team has been employed by the company for approximately ten months. While the individual members of our executive management team each have significant industry-related experience, they previously have not worked together as a group and it will take time for them to become an integrated management team. Delays in the integration of our management team could affect our ability to implement our business strategy, which could have a material adverse effect on our business and results of operations.

In addition, the marketplace for senior executive management candidates is very competitive and limited, particularly in the Silicon Valley where our U.S. operations are based. Our growth may be adversely impacted if we are unable to attract and retain such key employees. Turnover of senior management can adversely impact our stock price, our results of operations and our client relationships, and has made recruiting for future management positions more difficult. Competition for senior leadership may increase our compensation expenses, which may negatively affect our profitability.

We depend on highly skilled engineering and sales and marketing personnel to support our business operations. If we are unable to retain our current personnel or attract additional qualified personnel, our ability to develop and successfully market our products could be harmed.

We believe our future success will depend in large part upon our ability to attract and retain highly skilled managerial, engineering, sales and marketing personnel. The competition for qualified technical personnel with significant

experience in the design, development, manufacturing, marketing and sales of integrated circuits is intense, both in the Silicon Valley where our U.S. operations are based and in global markets in which we operate. Our inability to attract qualified personnel, including hardware and software engineers and sales and marketing personnel, could delay the development and introduction of, and harm our ability to sell, our products. We typically do not enter into employment agreements with any of our key technical personnel and the loss of such personnel could harm our business, as their knowledge of our business and industry would be extremely difficult to replace. In addition, the impact on employee morale experienced in connection with our recent restructuring efforts, which eliminated approximately 900 jobs worldwide, could make it more difficult for us to add to our workforce when needed due to speculation regarding our future restructuring activities.

In addition, if recently introduced federal legislation relating to proposed changes to the H-1B and other visa programs is approved, such changes could negatively impact our ability to recruit and retain certain highly skilled technical personnel to support our product development teams, which could potentially increase our costs and harm our business and results of operations.

We rely upon the performance of our information technology systems to process, transmit, store and protect electronic information, and the failure of or security breaches of any critical information technology system may result in serious harm to our reputation, business, results of operations and/or financial condition.

We depend heavily on our technology infrastructure and maintain and rely upon certain critical information systems for the effective operation of our business. We routinely collect and store sensitive data in our information systems, including intellectual property and other proprietary information about our business and that of our customers, suppliers and business partners. These information technology systems are subject to damage or interruption from a number of potential sources, including but not limited to natural disasters, viruses, destructive or inadequate code, malware, power failures, cyber-attacks, internal malfeasance or other events. We have implemented processes for systems under our control intended to mitigate risks; however, we can provide no guarantee that those risk mitigation measures will be effective. Given the frequency of cyber-attacks and resulting breaches reported by other businesses and governments, it is likely we will experience one or more breaches of some extent in the future. We may incur significant costs in order to implement, maintain and/or update security systems we feel are necessary to protect our information systems, or we may miscalculate the level of investment necessary to protect our systems adequately. To the extent that any system failure, accident or security breach results in material disruptions or interruptions to our operations or the theft, loss or disclosure of, or damage to our data or confidential information, including our intellectual property, our reputation, business, results of operations and/or financial condition could be materially adversely affected.

We may be unable to protect our intellectual property, which would negatively affect our ability to compete.

We believe one of our key competitive advantages results from the collection of proprietary technologies we have developed and acquired since our inception, and the protection of our intellectual property rights is, and will continue to be, important to the success of our business. If we fail to protect these intellectual property rights, competitors could sell products based on technology that we have developed, which could harm our competitive position and decrease our revenues.

We rely on a combination of patents, copyrights, trademarks, trade secret laws, contractual provisions, confidentiality agreements, licenses and other methods, to protect our proprietary technologies. We also enter into confidentiality or license agreements with our employees, consultants and business partners, and control access to and distribution of our documentation and other proprietary information. Notwithstanding these agreements, we have experienced disputes with employees regarding ownership of intellectual property in the past. For instance, we have had a dispute with Dr. Sehat Sutardja, our former Chief Executive Officer and a former member of our board of directors, related to his stated belief of ownership of certain patent rights related to the Final-Level Cache invention and his later assignment of associated patent rights to Marvell. Our Audit Committee investigated this claim and concluded that the FLC invention was owned by the Company. To the extent that any third party has a claim to ownership of any relevant technologies used in our products, we may not be able to recognize the full revenue stream from such relevant technologies.

We have been issued a significant number of U.S. and foreign patents and have a significant number of pending U.S. and foreign patent applications. However, a patent may not be issued as a result of any applications or, if issued, claims allowed may not be sufficiently broad to protect our technology. In addition, it is possible that existing or



future patents may be challenged, invalidated or circumvented. We may also be required to license some of our patents to others including competitors as a result of our participation in and contribution to development of industry standards. Despite our efforts, unauthorized parties may attempt to copy or otherwise obtain and use our products or proprietary technology. Monitoring unauthorized use of our technology is difficult, and the steps that we have taken may not prevent unauthorized use of our technology, particularly in jurisdictions where the laws may not protect our proprietary rights as fully as in the United States or other developed countries. If our patents do not adequately protect our technology, our competitors may be able to offer products similar to ours, which would adversely impact our business and results of operations.

Certain of our software, as well as that of our customers, may be derived from so-called “open source” software that is generally made available to the public by its authors and/or other third parties. Open source software is made available under licenses that impose certain obligations on us in the event we were to distribute derivative works of the open source software. These obligations may require us to make source code for the derivative works available to the public and/or license such

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derivative works under a particular type of license, rather than the forms of license we customarily use to protect our intellectual property. While we believe we have complied with our obligations under the various applicable licenses for open source software, in the event that the copyright holder of any open source software were to successfully establish in court that we had not complied with the terms of a license for a particular work, we could be required to release the source code of that work to the public and/or stop distribution of that work if the license is terminated which could adversely impact our business and results of operations.

We are subject to order and shipment uncertainties. If we are unable to accurately predict customer demand, we may hold excess or obsolete inventory, which would reduce our gross margin. Conversely, we may have insufficient inventory, which would result in lost revenue opportunities and potential loss of market share as well as damaged customer relationships.

We typically sell products pursuant to purchase orders rather than long-term purchase commitments. Customers can generally cancel or defer purchase orders on short notice without incurring a significant penalty. Due to their inability to predict demand or other reasons, some of our customers may accumulate excess inventories and, as a consequence, defer purchase of our products. We cannot accurately predict what or how many products our customers will need in the future. Anticipating demand is difficult because our customers face unpredictable demand for their own products and are increasingly focused more on cash preservation and tighter inventory management. In addition, as an increasing number of our chips are being incorporated into consumer products, we anticipate greater fluctuations in demand for our products, which makes it more difficult to forecast customer demand.

We place orders with our suppliers based on forecasts of customer demand and, in some instances, may establish buffer inventories to accommodate anticipated demand. Our forecasts are based on multiple assumptions, each of which may introduce error into our estimates. For example, our ability to accurately forecast customer demand may be impaired by the delays inherent in our customer's product development processes, which may include extensive qualification and testing of components included in their products, including ours. In many cases, they design their products to use components from multiple suppliers. This creates the risk that our customers may decide to cancel or change product plans for products incorporating our integrated circuits prior to completion, which makes it even more difficult to forecast customer demand.

Our products are incorporated into complex devices and systems, which may create supply chain cross-dependencies. For example, in fiscal 2012, many areas of Thailand sustained massive damage from flooding, which disrupted the global supply chain for HDDs. Due to cross dependencies, any supply chain disruptions could negatively impact the demand for our products in the short term. We have a limited ability to predict the timing of a supply chain correction. In addition, the market share of our customers could be adversely impacted on a long-term basis due to any continued supply chain disruption, which could negatively affect our results of operations.

If we overestimate customer demand, our excess or obsolete inventory may increase significantly, which would reduce our gross margin and adversely affect our financial results. The risk of obsolescence and/or excess inventory is heightened for devices designed for consumer electronics due to the rapidly changing market for these types of products. Conversely, if we underestimate customer demand or if insufficient manufacturing capacity is available, we would miss revenue opportunities and potentially lose market share and damage our customer relationships. In addition, any future significant cancellations or deferrals of product orders or the return of previously sold products could materially and adversely affect our profit margins, increase product obsolescence and restrict our ability to fund our operations.

We rely on third-party distributors and manufacturers' representatives and the failure of these distributors and manufacturers' representatives to perform as expected could reduce our future sales.

From time to time, we enter into relationships with distributors and manufacturers' representatives to sell our products, and we are unable to predict the extent to which these partners will be successful in marketing and selling our products. Moreover, many of our distributors and manufacturers' representatives also market and sell competing products, and may terminate their relationships with us at any time. Our future performance will also depend, in part, on our ability to attract additional distributors or manufacturers' representatives that will be able to market and support our products effectively, especially in markets in which we have not previously distributed our products. If we cannot retain or attract quality distributors or manufacturers' representatives, our sales and results of operations will be harmed.

We face additional risks due to the extent of our global operations since a majority of our products, and those of our customers, are manufactured and sold outside of the United States. The occurrence of any or a combination of the additional risks described below would significantly and negatively impact our business and results of operations.

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A substantial portion of our business is conducted outside of the United States and, as a result, we are subject to foreign business, political and economic risks. All of our products are manufactured outside of the United States. Our current qualified integrated circuit foundries are located in the same region within Taiwan, and our primary assembly and test subcontractors are located in the Pacific Rim region. In addition, many of our customers are located outside of the United States, primarily in Asia, which further exposes us to foreign risks. Sales shipped to customers with operations in Asia represented approximately 94% of our net revenue in fiscal 2017 and 96% of our net revenue in each of fiscal 2015 and 2016.

We also have substantial operations outside of the United States. These operations are directly influenced by the political and economic conditions of the region in which they are located and, with respect to Israel, possible military hostilities periodically affecting the region that could affect our operations there. We anticipate that our manufacturing, assembly, testing and sales outside of the United States will continue to account for a substantial portion of our operations and revenue in future periods.

Accordingly, we are subject to risks associated with international operations, including:

- political, social and economic instability, including wars, terrorism, political unrest, boycotts, curtailment of trade and other business restrictions;

- volatile global economic conditions, including downturns in which some competitors may become more aggressive in their pricing practices, which would adversely impact our gross margin;

- compliance with domestic and foreign export and import regulations, including pending changes thereto, and difficulties in obtaining and complying with domestic and foreign export, import and other governmental approvals, permits and licenses;

- local laws and practices that favor local companies, including business practices in which we are prohibited from engaging by the Foreign Corrupt Practices Act and other anti-corruption laws and regulations;

- difficulties in staffing and managing foreign operations;

- natural disasters, including earthquakes, tsunamis and floods;

- trade restrictions, higher tariffs, or changes in cross border taxation, particularly in light of the prospect of changes in U.S. international trade policies following the recent U.S. presidential election;

- transportation delays;

- difficulties of managing distributors;

- less effective protection of intellectual property than is afforded to us in the United States or other developed countries;

- inadequate local infrastructure; and

- exposure to local banking, currency control and other financial-related risks.

As a result of having global operations, the sudden disruption of the supply chain and/or disruption of the manufacture of our customer's products caused by events outside of our control could impact our results of operations by impairing our ability to timely and efficiently deliver our products. For example, during fiscal 2012, the earthquake and tsunami that affected Japan disrupted the global supply chain for certain components important to our products, and the flooding in Thailand affected the supply chain and manufacturing of the products for a number of our customers.

Moreover, the international nature of our business subjects us to risk associated with the fluctuation of the U.S. dollar versus foreign currencies. Decreases in the value of the U.S. dollar versus currencies in jurisdictions where we have large fixed costs, or where our third-party manufacturers have significant costs, will increase the cost of such operations which could harm our results of operations.

We must comply with a variety of existing and future laws and regulations that could impose substantial costs on us and may adversely affect our business.

We are subject to various state, federal and international laws and regulations governing the environment, including restricting the presence of certain substances in electronic products and making producers of those products financially responsible for the collection, treatment, recycling and disposal of those products. In addition, we are also subject to various industry requirements restricting the presence of certain substances in electronic products. Although our management systems are designed to maintain compliance, we cannot assure you that we have been or will be at all times in complete compliance with such laws and regulations. If we violate or fail to comply with any of them, a range of consequences could result, including fines, import/export restrictions, sales limitations, criminal and civil liabilities or other sanctions.

We and our customers are also subject to various import and export laws and regulations. Government export regulations apply to the encryption or other features contained in some of our products. If we fail to continue to receive licenses or otherwise comply with these regulations, we may be unable to manufacture the affected products at foreign foundries or ship these products to certain customers, or we may incur penalties or fines.

We are also subject to the “conflict mineral rules” promulgated by the SEC, which impose disclosure requirements on us regarding the use of conflict minerals mined from the Democratic Republic of Congo and adjoining countries in our products and the procedures our manufacturer’s use to prevent the sourcing of such conflict minerals. The ongoing implementation of these requirements could affect the sourcing, availability and pricing of minerals used in the manufacture of semiconductor devices, including our products. As a result, there may only be a limited pool of suppliers who provide conflict-free metals, and we cannot assure you that we will be able to obtain products in sufficient quantities or at competitive prices, which could adversely affect our operations and product margins. Additionally, if we are unable to sufficiently source conflict-free metals, we may face difficulties in satisfying customers who may require that the products they purchase from us are conflict-free, which may harm our sales and operating results.

The costs of complying (including the costs of any investigations, auditing and monitoring) with these laws could adversely affect our current or future business. In addition, future regulations may become more stringent or costly and our compliance costs and potential liabilities could increase, which may harm our current or future business.

Changes in existing taxation benefits, rules or practices may adversely affect our financial results.

Changes in existing taxation benefits, rules or practices may also have a significant effect on our reported results. For example, both the U.S. Congress and the G-20 (Group of Twenty Finance Ministers and Central Bank Governors) may consider legislation affecting the taxation of foreign corporations and such legislation if enacted might adversely affect our future tax liabilities and have a material impact on our results of operations. Furthermore, in prior years, we have entered into agreements in certain foreign jurisdictions that if certain criteria are met, the foreign jurisdiction will provide a more favorable tax rate than their current statutory rate. For example, we have obtained an undertaking from the Minister of Finance of Bermuda that in the event Bermuda enacts legislation imposing tax computed on profits, income, or capital asset, gain or appreciation, then the imposition of any such taxes will not apply to us until March 31, 2035. Additionally, our Singapore subsidiary qualified for Pioneer status until it expired in June 2014. However, we re-negotiated with the Singapore government and in fiscal 2015, they extended the Development and Expansion Incentive until June 2019. Furthermore, under the Israeli Encouragement law of “approved or benefited enterprise,” two branches of our subsidiary in Israel, Marvell Israel (M.I.S.L) Ltd., are entitled to, and have certain existing programs that qualify as, approved and benefited tax programs that include reduced tax rates and exemption

of certain income through fiscal 2027. Moreover, receipt of past and future benefits under tax agreements may depend on our ability to fulfill commitments regarding employment of personnel or performance of specified activities in the applicable jurisdiction. Changes in our business plans, including divestitures, could result in termination of an agreement or loss of benefits thereunder. If any of our tax agreements in any of these foreign jurisdictions were terminated, our results of operations would be harmed.

The Organization for Economic Cooperation and Development has been working on a Base Erosion and Profit Sharing Project, and issued in 2015, and is expected to continue to issue, guidelines and proposals that may change various aspects of the existing framework under which our tax obligations are determined in some of the countries in which we do business. The European Commission has also conducted investigations in multiple countries focusing on whether local country tax rulings or tax legislation provides preferential tax treatment that violates European Union state aid rules and concluded that certain countries, including Ireland and Belgium, have provided illegal state aid in certain cases. We can provide no assurance that

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additional investigations would not have an adverse impact on some of our operations in countries in which future investigations may be conducted.

In addition, the current U.S. administration and key members of Congress have made public statements indicating that tax reform is a priority. Certain changes to U.S. tax laws, including reduction of the U.S. corporate tax rate, expansion of the U.S. tax base by eliminating certain deductions, implementation of a territorial tax system, and addition of a border adjustment mechanism, could have material consequences on the amount of tax we pay in the U.S. and thereby on our financial position and results of operations.

During fiscal 2016 and continuing into fiscal 2017, we identified material weaknesses in our internal controls over financial reporting. If we are unable to develop, implement and maintain effective internal controls in future periods, our consolidated financial statements could contain material misstatements which would cause us to issue a restatement thereof. A restatement of our consolidated financial statements could cause our investors to lose confidence in our reported financial information and lead to a decline in our stock price.

The Sarbanes-Oxley Act of 2002 and SEC rules require that management report annually on the effectiveness of our internal control over financial reporting and our disclosure controls and procedures. Among other things, management must conduct an assessment of internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Based on management's assessment, we concluded that our internal controls over financial reporting were not effective as of January 28, 2017. The specific material weaknesses are described in Item 9A of this Annual Report on Form 10-K. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim consolidated financial statements would not be prevented or detected. As with any material weakness, if our remedial measures are insufficient to address the material weaknesses, or if additional material weaknesses or significant deficiencies in our internal control over financial reporting are discovered or occur in the future, our consolidated financial statements may contain material misstatements. Any material misstatements could result in a restatement of our consolidated financial statements, cause us to fail to meet our reporting obligations or cause investors to lose confidence in our reported financial information, leading to a decline in our stock price.

Even when we have remediated our material weaknesses, any control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of its inherent limitations, internal control over financial reporting will not necessarily prevent all error and all fraud. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. In addition, we may modify the design and operating effectiveness of our internal controls, which could affect the overall effectiveness or evaluation of the control system in the future by us or our independent registered public accounting firm. We cannot ensure that any design will succeed in achieving its stated goals under all potential future conditions, as controls may become inadequate due to changes in conditions or deterioration in the degree of compliance. Any failure to maintain an effective system of internal control over financial reporting could limit our ability to provide reliable financial reports, or to detect and prevent fraud, which would harm our business.

Matters relating to or arising from our Audit Committee investigation, including regulatory proceedings, litigation matters and potential additional expenses, may adversely affect our business and results of operations.

As previously disclosed in our public filings, the Audit Committee of our Board of Directors completed an investigation that generally included a review of certain revenue recognized in the first and second quarters of fiscal 2016 and the fourth quarter of fiscal 2015, including transactions that would have, in the normal course of events and



but for action by certain Marvell employees, been completed and recognized in a subsequent quarter (referred to internally as “pull-ins”), the accrual of a litigation reserve in the second quarter of fiscal 2016, and the stated belief by Marvell’s former Chairman and Chief Executive Officer of ownership of certain patent rights related to the Final-Level Cache invention and his later assignment of associated patent rights to Marvell. In addition, we are also the subject of investigations by the Securities and Exchange Commission and the U.S. Attorney related to these matters. We are fully cooperating with the SEC and the U.S. Attorney with respect to those investigations.

To date, we have incurred significant expenses related to legal, accounting, and other professional services in connection with the investigations and related matters, and may continue to incur significant additional expenses with regard to these matters and related remediation efforts. The expenses incurred, and expected to be incurred, on the investigations, the impact of our delay in fiscal 2016 and the beginning of fiscal 2017 in meeting our periodic reports on the confidence of investors,

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employees and customers, and the diversion of the attention of the management team that has occurred, and is expected to continue, has adversely affected, and could continue to adversely affect, our business, financial condition and results of operations or cash flows. As a result of the delay in filing of our periodic reports, we are not eligible to use a registration statement on Form S-3, and will not be eligible to use that form until we have timely filed all periodic reports required by the SEC for the twelve months preceding the filing of such registration statements, which may make it more difficult, costly or time consuming for us to raise capital if we should choose to do so.

As a result of the matter reported above, we are exposed to greater risks associated with litigation, regulatory proceedings and government enforcement actions. In addition, securities class actions or other lawsuits have been filed against us, our directors and officers. Any future such investigations or additional lawsuits may adversely affect our business, financial condition, results of operations and cash flows.

We have been named as a party to several legal proceedings and may be named in additional ones in the future, including litigation involving our patents and other intellectual property, which could subject us to liability, require us to indemnify our customers, require us to obtain or renew licenses, require us to stop selling our products or force us to redesign our products.

We have been named as a party to several lawsuits, government inquiries or investigations and other legal proceedings (referred to as "litigation"), and we may be named in additional ones in the future. Please see "Note 10 - Commitments and Contingencies" of our Notes to the Consolidated Financial Statements set forth in Part II, Item 8 of this Annual Report on Form 10-K for a more detailed description of a number of the litigation matters in which we are currently engaged. In particular, litigation involving patents and other intellectual property is widespread in the high-technology industry and is particularly prevalent in the semiconductor industry, where a number of companies and other entities aggressively bring numerous infringement claims to assert their patent portfolios. The amount of damages alleged in intellectual property infringement claims can often be very significant. See also, "We may be unable to protect our intellectual property, which would negatively affect our ability to compete."

From time to time, our subsidiaries and customers receive, and may continue to receive in the future, standards-based infringement claims, as well as claims against us and our subsidiaries' proprietary technologies. Our subsidiaries and customers could face claims of infringement for certain patent licenses that have not been renewed. These claims could result in litigation and/or claims for indemnification, which, in turn, could subject us to significant liability for damages, attorneys' fees and costs. Any potential intellectual property litigation also could force us to do one or more of the following:

- stop selling, offering for sale, making, having made or exporting products or using technology that contains the allegedly infringing intellectual property;

- limit or restrict the type of work that employees involved in such litigation may perform for us;

- pay substantial damages and/or license fees and/or royalties to the party claiming infringement or other license violations that could adversely impact our liquidity or operating results;

- attempt to obtain or renew licenses to the relevant intellectual property, which licenses may not be available on reasonable terms or at all; and

- attempt to redesign those products that contain the allegedly infringing intellectual property.

Under certain circumstances, we have contractual and other legal obligations to indemnify and to incur legal expenses for current and former directors and officers. Additionally, from time to time, we have agreed to indemnify select customers for claims alleging infringement of third-party intellectual property rights, including, but not limited to, patents, registered trademarks and/or copyrights. If we are required to make a significant payment under any of our indemnification obligations, our results of operations may be harmed.

Several securities class action lawsuits were filed against us following our September 11, 2015 announcement of an independent audit committee investigation of certain accounting and internal control matters in the second quarter of fiscal 2016 and our subsequent delinquency in filing our periodic financial reports.

The ultimate outcome of litigation could have a material adverse effect on our business and the trading price for our securities. Litigation may be time consuming, expensive, and disruptive to normal business operations, and the outcome of litigation is difficult to predict. Litigation, regardless of the outcome, may result in significant expenditures, diversion of our management's time and attention from the operation of our business and damage to our reputation or relationship with third parties, which could materially and adversely affect our business, financial condition, results of operations, cash flows and stock price.

Our indemnification obligations and limitations of our director and officer liability insurance may have a material adverse effect on our financial condition, results of operations and cash flows.

Under Bermuda law, our articles of association and bye-laws and certain indemnification agreements to which we are a party, we have an obligation to indemnify, or we have otherwise agreed to indemnify, certain of our current and former directors and officers with respect to current and future investigations and litigation, including the matters discussed in Part I-Item 3, "Legal Proceedings" of this Annual Report on Form 10-K. In connection with some of these pending matters, we are required to, or we have otherwise agreed to, advance, and have advanced, legal fees and related expenses to certain of our current and former directors and officers and expect to continue to do so while these matters are pending. Certain of these obligations may not be "covered matters" under our directors' and officers' liability insurance, or there may be insufficient coverage available. Further, in the event the directors and officers are ultimately determined not to be entitled to indemnification, we may not be able to recover the amounts we previously advanced to them.

In addition, we have incurred significant expenses in connection with the Audit Committee's independent investigation, the pending government investigations, and shareholder litigation. We cannot provide any assurances that pending claims, or claims yet to arise, including the cost of fees, penalties or other expenses, will not exceed the limits of our insurance policies, that such claims are covered by the terms of our insurance policies or that our insurance carrier will be able to cover our claims. Additionally, to the extent there is coverage of these claims, the insurers also may seek to deny or limit coverage in some or all of these matters. Furthermore, the insurers could become insolvent and unable to fulfill their obligation to defend, pay or reimburse us for insured claims. Accordingly, we cannot be sure that claims will not arise that are in excess of the limits of our insurance or that are not covered by the terms of our insurance policy. Due to these coverage limitations, we may incur significant unreimbursed costs to satisfy our indemnification obligations, which may have a material adverse effect on our financial condition, results of operations or cash flows.

We are exposed to potential impairment charges on certain assets.

We had approximately \$2.0 billion of goodwill on our consolidated balance sheet as of January 28, 2017. Under generally accepted accounting principles in the United States, we are required to review our intangible assets including goodwill for impairment whenever events or changes in circumstances indicate that the carrying value of these assets may not be recoverable. We perform an assessment of goodwill for impairment annually on the last business day of our fiscal fourth quarter and whenever events or changes in circumstances indicate the carrying amount of goodwill may not be recoverable.

We have identified that our business operates as a single operating segment with two components (Storage, and Networking & Connectivity), which we have concluded can be aggregated into a single reporting unit for purposes of testing goodwill impairment. As part of our restructuring announced in November 2016, our former Smart Networked Devices and Solutions component was renamed to Networking & Connectivity. The fair value of the reporting unit is determined by taking our market capitalization as determined through quoted market prices and as adjusted for a control premium and other relevant factors. If our fair value declines to below our carrying value, we could incur

significant goodwill impairment charges, which could negatively impact our financial results. If in the future a change in our organizational structure results in more than one reporting unit, we will be required to allocate our goodwill and perform an assessment of goodwill for impairment in each reporting unit. As a result, we could have an impairment of goodwill in one or more of such future reporting units.

In addition, from time to time, we have made investments in private companies. If the companies that we invest in are unable to execute their plans and succeed in their respective markets, we may not benefit from such investments, and we could potentially lose the amounts we invest. We evaluate our investment portfolio on a regular basis to determine if impairments have occurred. If the operations of any businesses that we have acquired declines significantly, we could incur significant intangible asset impairment charges. Impairment charges could have a material impact on our results of operations in any period.

If we were classified as a passive foreign investment company, there would be adverse tax consequences to U.S. holders of our ordinary shares.

If we were classified as a “passive foreign investment company” or “PFIC” under section 1297 of the Internal Revenue Code of 1986, as amended (the “Code”), for any taxable year during which a U.S. holder holds ordinary shares, such U.S. holder generally would be taxed at ordinary income tax rates on any gain realized on the sale or exchange of the ordinary shares and on any “excess distributions” (including constructive distributions) received on the ordinary shares. Such U.S. holder could also be subject to a special interest charge with respect to any such gain or excess distribution.

We would be classified as a PFIC for U.S. federal income tax purposes in any taxable year in which either (i) at least 75% of our gross income is passive income or (ii) on average, the percentage of our assets that produce passive income or are held for the production of passive income is at least 50% (determined on an average gross value basis). We were not classified as a PFIC for fiscal year 2016 or in any prior taxable year. Whether we will, in fact, be classified as a PFIC for any subsequent taxable year depends on our assets and income over the course of the relevant taxable year and, as a result, cannot be predicted with certainty. In particular, because the total value of our assets for purposes of the asset test will be calculated based upon the market price of our ordinary shares, a significant and sustained decline in the market price of our ordinary shares and corresponding market capitalization relative to our passive assets could result in our being classified as a PFIC. There can be no assurance that we will not be classified as a PFIC in the future or the Internal Revenue Service will not challenge our determination concerning PFIC status for any prior period.

As we carry only limited insurance coverage, any incurred liability resulting from uncovered claims could adversely affect our financial condition and results of operations.

Our insurance policies may not be adequate to fully offset losses from covered incidents, and we do not have coverage for certain losses. For example, there is very limited coverage available with respect to the services provided by our third-party foundries and assembly and test subcontractors. In the event of a natural disaster (such as an earthquake or tsunami), political or military turmoil, widespread health issues or other significant disruptions to their operations, insurance may not adequately protect us from this exposure. We believe our existing insurance coverage is consistent with common practice, economic considerations and availability considerations. If our insurance coverage is insufficient to protect us against unforeseen catastrophic losses, any uncovered losses could adversely affect our financial condition and results of operations.

We are subject to the risks of owning real property.

Our buildings in Santa Clara, California; Singapore; Etoy, Switzerland; and Shanghai, China subject us to the risks of owning real property, which include, but are not limited to:

- the possibility of environmental contamination and the costs associated with remediating any environmental problems;

- adverse changes in the value of these properties due to interest rate changes, changes in the neighborhood in which the property is located, or other factors;

- the possible need for structural improvements in order to comply with zoning, seismic and other legal or regulatory requirements;

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the potential disruption of our business and operations arising from or connected with a relocation due to moving to or renovating the facility;

• increased cash commitments for improvements to the buildings or the property, or both;

• increased operating expenses for the buildings or the property, or both;

• possible disputes with tenants or other third parties related to the buildings or the property, or both;

• failure to achieve expected cost savings due to extended non-occupancy of a vacated property intended to be leased;  
• and

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the risk of financial loss in excess of amounts covered by insurance, or uninsured risks, such as the loss caused by damage to the buildings as a result of earthquakes, floods and/or other natural disasters.

There can be no assurance that we will continue to declare cash dividends or effect share repurchases in any particular amount or at all, and statutory requirements under Bermuda Law, may require us to defer payment of declared dividends or suspend share repurchases.

In May 2012, we announced the declaration of our first quarterly cash dividend. In November 2016, we announced that our board of directors had authorized a \$1 billion share repurchase program and our intention to repurchase approximately \$500 million worth of shares during the period from November 2016 to October 2017. Future payment of a regular quarterly cash dividend on our common shares and future share repurchases will be subject to, among other things: the best interests of our company and our shareholders; our results of operations, cash balances and future cash requirements; financial condition; developments in ongoing litigation; statutory requirements under Bermuda law; market conditions; and other factors that the board of directors may deem relevant. Our dividend payments or share repurchases may change from time to time, and we cannot provide assurance that we will continue to declare dividends or repurchase shares in any particular amounts or at all. A reduction in, a delay of, or elimination of our dividend payments or share repurchases could have a negative effect on our share price.

We are incorporated in Bermuda, and, as a result, it may not be possible for our shareholders to enforce civil liability provisions of the securities laws of the United States. In addition, our Bye-Laws contain a waiver of claims or rights of action by our shareholders against our officers and directors, which will severely limit our shareholders' right to assert a claim against our officers and directors under Bermuda law.

We are organized under the laws of Bermuda. As a result, it may not be possible for our shareholders to affect service of process within the United States upon us, or to enforce against us in U.S. courts judgments based on the civil liability provisions of the securities laws of the United States. There is significant doubt as to whether the courts of Bermuda would recognize or enforce judgments of U.S. courts obtained against us or our directors or officers based on the civil liability provisions of the securities laws of the United States or any state, or hear actions brought in Bermuda against us or those persons based on those laws. The United States and Bermuda do not currently have a treaty providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters. Therefore, a final judgment for the payment of money rendered by any federal or state court in the United States based on civil liability, whether or not based solely on U.S. federal or state securities laws, would not be automatically enforceable in Bermuda.

Our Bye-Laws contain a broad waiver by our shareholders of any claim or right of action, both individually and on our behalf, against any of our officers and directors. The waiver applies to any action taken by an officer or director, or the failure of an officer or director to take any action, in the performance of his or her duties with or for us, other than with respect to any matter involving any fraud or dishonesty on the part of the officer or director or to any matter arising under U.S. federal securities laws. This waiver will limit the rights of our shareholders to assert claims against our officers and directors unless the act complained of involves fraud or dishonesty or arises as a result of a breach of U.S. federal securities laws. Therefore, so long as acts of business judgment do not involve fraud or dishonesty or arise as a result of a breach of U.S. federal securities laws, they will not be subject to shareholder claims under Bermuda law. For example, shareholders will not have claims against officers and directors for a breach of trust, unless the breach rises to the level of fraud or dishonesty, or arises as a result of a breach of U.S. federal securities laws.

Our Bye-Laws contain provisions that could delay or prevent a change in corporate control, even if the change in corporate control would benefit our shareholders.



Our Bye-Laws contain change in corporate control provisions, which include authorizing the issuance of preferred shares without shareholder approval. This provision could make it more difficult for a third party to acquire us, even if doing so would benefit our shareholders.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

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The following table presents the approximate square footage of our significant owned and leased facilities as of January 28, 2017:

Locations	Primary Use	(Square feet)	
		Owned Facilities	Leased Facilities (1)
United States	Headquarters in Santa Clara, California: Research and design, sales and marketing, administration and operations	993,000	230,000
China	Research and design, and sales and marketing	115,000	227,000
Singapore	Operations, and research and design	340,000	—
Switzerland	Research and design	26,000	—
Israel	Research and design	—	345,000
	Total	1,474,000	802,000

(1) Lease terms expire in various years from 2017 through 2025.

We also lease smaller facilities in Canada, Denmark, Germany, Hong Kong, India, Indonesia, Italy, Japan, Malaysia, South Korea, Spain, Taiwan, The Netherlands and Vietnam, which are occupied by administrative, sales, design and field application personnel. Based upon our estimates of future hiring, we believe that our current facilities in most locations will be adequate to meet our requirements at least through the next fiscal year.

#### Item 3. Legal Proceedings

The information set forth under “Note 10 — Commitments and Contingencies” in our Notes to the Consolidated Financial Statements set forth in Part II, Item 8 of this Annual Report on Form 10-K is incorporated herein by reference. For additional discussion of certain risks associated with legal proceedings, please see Part I, Item 1A, “Risk Factors” above.

#### Item 4. Mine Safety Disclosures

Not Applicable.

## PART II

## Item 5. Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities

## Market Information

Our common shares are traded on the NASDAQ Global Select Market under the symbol "MRVL." Our common shares began trading on June 27, 2000, upon completion of our initial public offering. For fiscal 2017 and fiscal 2016, the following table shows for the periods indicated the high and low sales prices for our common shares on the NASDAQ Global Select Market.

	Fiscal 2017		Fiscal 2016	
	High	Low	High	Low
First Quarter	\$11.00	\$8.32	\$16.78	\$13.71
Second Quarter	\$12.05	\$9.05	\$14.73	\$11.95
Third Quarter	\$13.61	\$11.27	\$13.35	\$7.55
Fourth Quarter	\$15.45	\$12.30	\$9.62	\$7.40

As of March 22, 2017, the approximate number of record holders of our common shares was 130 (not including beneficial owners of stock held in street name).

## Stock Price Performance Graph

This performance graph shall not be deemed "filed" for purposes of Section 18 of the Exchange Act or incorporated by reference into any filings under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

The graph below compares the cumulative total shareholder return of our common shares with the cumulative total return of the S&P 500 Index and the Philadelphia Semiconductor Index since January 28, 2012 through January 28, 2017. The graph compares a \$100 investment on January 28, 2012 in our common shares with a \$100 investment on January 29, 2012 in each index and assumes that any dividends were reinvested. Shareholder returns over the indicated periods should not be considered indicative of future stock prices or shareholder returns.

	1/28/2012	2/2/2013	2/1/2014	1/31/2015	1/30/2016	1/28/2017
Marvell Technology Group Ltd.	100.00	61.27	98.21	103.56	60.46	105.26
S&P 500	100.00	116.78	141.91	162.09	161.01	193.28
PHLX Semiconductor	100.00	107.03	128.87	160.17	148.48	216.97

#### Dividends

Our board of directors declared quarterly cash dividends of \$0.06 per share payable to holders of our common shares in each quarter of fiscal 2017, 2016 and 2015. As a result, we paid total cash dividends of \$122.3 million in fiscal 2017, and \$122.8 million in both fiscal 2016 and 2015.

Future payment of a regular quarterly cash dividend on the Company's common shares will be subject to, among other things, the best interests of the Company and its shareholders, the Company's results of operations, cash balances and future cash requirements, financial condition, developments in ongoing litigation, statutory requirements under Bermuda law and other factors that the Company's board of directors may deem relevant. The Company's dividend payments may change from time to time, and we cannot provide assurance that we will continue to declare dividends at all or in any particular amounts.

#### Recent Sales of Unregistered Securities

None.

#### Issuer Purchases of Equity Securities

The following table presents details of our share repurchases during the three months ended January 28, 2017 (in thousands, except per share data):

Period (1)	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximated Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (2)
October 30 - November 26	821,263	\$ 12.86	821,263	\$ 1,000,000
November 27 - December 24	4,112,294	\$ 14.30	4,112,294	\$ 941,211
December 25 - January 28	4,007,739	\$ 14.27	4,007,739	\$ 884,032
Total	8,941,296	\$ 14.15	8,941,296	\$ 884,032

(1) The monthly periods presented above for the three months ended January 28, 2017 are based on our fiscal accounting periods which follow a quarterly 4-4-5 week fiscal accounting period.

(2) On November 17, 2016, the Company announced that its Board of Directors authorized a \$1 billion share repurchase plan. The newly authorized stock repurchase program replaces in its entirety the prior \$3.25 billion stock repurchase program, which had approximately \$115 million of repurchase authority remaining as of November 17, 2016. We intend to effect share repurchases in accordance with the conditions of Rule 10b-18 under the Exchange Act, but may also make repurchases in the open market outside of Rule 10b-18 or in privately negotiated transactions. The share repurchase program will be subject to market conditions and other factors and does not obligate us to repurchase any dollar amount or number of our common shares and the repurchase program may be extended, modified, suspended or discontinued at any time.

From August 2010 when our Board of Directors initially authorized a share repurchase program through January 28, 2017, a total 254.9 million shares have been repurchased to date under the Company's share repurchase program for a total \$3.3 billion in cash and \$884.0 million was available for future share repurchases. Subsequent to the end of the

quarter through March 15, 2017, the Company repurchased an additional 2.7 million of its common shares for \$43.7 million at an average price per share of \$15.91.

Item 6. Selected Financial Data

The following selected consolidated financial data should be read together with Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and Part II, Item 8, “Financial Statements and

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Supplementary Data” contained elsewhere in this Annual Report on Form 10-K. In connection with the November 2016 announcement of our plan to restructure our operations to refocus our research and development, increase operational efficiency and improve profitability, we also plan to divest certain businesses and we began an active program to locate buyers for several businesses. As of January 28, 2017, two of these businesses were classified as discontinued operations. As required we retrospectively recast our consolidated statements of operations and balance sheets for all periods presented to reflect these businesses as discontinued operations.

	January 28, 2017 (1)	January 30, 2016 (2)	January 31, 2015	February 1, 2014	February 2, 2013
	(in thousands, except per share amounts and number of employees)				
<b>Consolidated Statements of Operations Data:</b>					
Net revenue	\$2,317,674	\$2,649,216	\$3,637,206	\$3,340,717	\$3,155,165
Cost of goods sold	\$1,029,527	\$1,442,517	\$1,799,425	\$1,613,673	\$1,482,563
Research and development	\$831,398	\$994,733	\$1,091,547	\$1,080,228	\$991,950
Operating income (loss)	\$99,994	\$(775,505 )	\$456,376	\$348,615	\$365,136
Income (loss) from continuing operations	\$43,994	\$(769,155 )	\$483,787	\$384,170	\$377,861
Loss from discontinued operations, net of tax	\$(22,843 )	\$(42,245 )	\$(48,441 )	\$(68,850 )	\$(71,276 )
Net Income (loss)	\$21,151	\$(811,400 )	\$435,346	\$315,320	\$306,585
Income (loss) from continuing operations per share:					
Basic	\$0.09	\$(1.51 )	\$0.95	\$0.77	\$0.68
Diluted	\$0.09	\$(1.51 )	\$0.93	\$0.76	\$0.67
Loss from discontinued operations per share:					
Basic	\$(0.05 )	\$(0.08 )	\$(0.10 )	\$(0.13 )	\$(0.13 )
Diluted	\$(0.05 )	\$(0.08 )	\$(0.09 )	\$(0.13 )	\$(0.13 )
Net income (loss) per share:					
Basic	\$0.04	\$(1.59 )	\$0.85	\$0.64	\$0.55
Diluted	\$0.04	\$(1.59 )	\$0.84	\$0.63	\$0.54
Weighted average shares:					
Basic	509,738	510,945	511,089	496,518	555,310
Diluted	517,513	510,945	520,760	504,413	563,123
<b>Consolidated Balance Sheet Data:</b>					
Cash, cash equivalents and short-term investments	\$1,668,360	\$2,282,749	\$2,529,555	\$1,969,405	\$1,918,990
Working capital	\$1,783,914	\$1,728,877	\$2,746,904	\$2,232,081	\$2,025,739
Total assets	\$4,648,650	\$5,442,127	\$5,884,387	\$5,451,010	\$5,261,764
Total shareholders' equity	\$4,027,651	\$4,140,123	\$5,146,089	\$4,675,910	\$4,484,595
<b>Other Data:</b>					
Cash dividends declared per share	\$0.24	\$0.24	\$0.24	\$0.24	\$0.18
Number of employees	4,617	5,437	7,163	7,355	7,259

- (1) Fiscal 2017 includes \$105.2 million of restructuring and other related charges that include \$52.6 million for impairment of certain equipment, technology licenses and to fully impair a nonrefundable deposit due to the non-utilization of the related contract. Fiscal 2017 also included \$68.0 million of tax expense related to restructuring actions taken.
- (2) Fiscal 2016 includes \$751.4 million of charges for litigation matters recognized by the Company including a \$736.0 million charge related to the \$750 million settlement reached with CMU, as well as certain other pending litigation. In addition, fiscal 2016 included \$63.5 million of restructuring and other related charges that include \$8.0 million for impairment of certain equipment and technology licenses, and \$8.0 million for the write down of

inventory due to the restructuring of the mobile platform business, a charge for a cash payment authorized by our Board of Directors of

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\$15.4 million to our former CEO Dr. Sehat Sutardja and \$11.4 million of costs for the surety bonds related to the litigation with CMU.

## Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with the financial statements and related notes included in this Annual Report on Form 10-K. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties, including those discussed under Part I, Item 1A, "Risk Factors." These risks and uncertainties may cause actual results to differ materially from those discussed in the forward-looking statements.

### Overview

Net revenue in fiscal 2017 was \$2.3 billion and was 13% lower than net revenue of \$2.6 billion in fiscal 2016. The decline was primarily due to a 47% decrease in sales of our other products and a 28% decrease in sales of our connectivity products. These decreases were primarily driven by the previously announced restructuring of the mobile platform business.

**Restructuring.** In November 2016, we announced a restructuring plan intended to refocus our research and development, increase operational efficiency and improve profitability. During fiscal 2017 we recorded restructuring and other related charges of \$105.2 million. In connection with our restructuring plan, we also plan to divest certain businesses and we began an active program to locate buyers for several businesses. As of January 28, 2017, two of these businesses have been classified as discontinued operations and we have retrospectively recast our consolidated financial statements for all periods presented to reflect these businesses as discontinued operations. These actions are expected to lower annual operating expenses to the \$820 million to \$830 million range. Unless noted otherwise, our discussion under Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations refers to our continuing operations.

**Capital Return Program.** We believe our financial position is strong and we remain committed to deliver shareholder value through our share repurchase and dividend programs. We previously announced our intention to repurchase shares of our common stock up to \$1 billion, of which we intend to repurchase \$500 million from November 2016 through October 2017. In the fourth quarter of fiscal 2017, we repurchased 8.9 million shares of our common stock for \$126.5 million. Including these stock repurchases, we returned \$303.9 million to stockholders in fiscal 2017, including \$181.6 million through repurchases of common stock and \$122.3 million of cash dividends.

Our cash, cash equivalents and short-term investments were \$1.7 billion at January 28, 2017. We used cash flow from operations of \$358.4 million through the fourth quarter of fiscal 2017, primarily due to the \$750 million settlement with CMU that was fully paid in April 2016.

### Significant Customers

Historically, a relatively small number of customers have accounted for a significant portion of our net revenue. See the table in our discussion of "Customers, Sales and Marketing" in Item 1 of this Annual Report on Form 10-K for further information. We continuously monitor the creditworthiness of our distributors and believe these distributors' sales to diverse end customers and geographies further serve to mitigate our exposure to credit risk.

Most of our sales are made to customers located outside of the United States, primarily in Asia. Sales shipped to customers with operations in Asia represented approximately 94% of our net revenues in fiscal 2017, and 96% of our net revenue in each of fiscal 2016 and 2015. Because many manufacturers and manufacturing subcontractors of our customers are located in Asia, we expect that most of our net revenue will continue to be represented by sales to our customers in that region.

A relatively large portion of our sales have historically been made on the basis of purchase orders rather than long-term agreements. In addition, the development process for our products is long, which may cause us to experience a delay between the time we incur expenses and the time revenue is generated from these expenditures. We



anticipate that the rate of new orders may vary significantly from quarter to quarter. Consequently, if anticipated sales and shipments in any quarter do not occur when expected, expenses and inventory levels could be disproportionately high, and our operating results for that quarter and future quarters may be adversely affected.

#### Critical Accounting Policies and Estimates

The preparation of consolidated financial statements in conformity with generally accepted accounting principles in the United States (“GAAP”) requires management to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we

evaluate our estimates, including those related to revenue recognition, provisions for sales returns and allowances, share-based compensation, income taxes, inventory excess and obsolescence, goodwill and other intangible assets, restructuring, litigation and other contingencies. We base our estimates of the carrying value of certain assets and liabilities on historical experience and on various other assumptions that are believed to be reasonable under the circumstances when these carrying values are not readily available from other sources. Actual results could differ from these estimates, and such differences could affect the results of operations reported in future periods. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

**Revenue Recognition.** We recognize revenue when there is persuasive evidence of an arrangement, delivery has occurred, the fee is fixed or determinable, and collection is reasonably assured. If we grant extended payment terms greater than our standard terms for a customer such that collectability is not assured, the revenue and the corresponding cost of goods sold are deferred upon shipment and will be recognized when the payment becomes due provided all other revenue recognition criteria have been satisfied. Additional review and approval by management is required for any transaction with extended payment terms that exceed 90 days to determine proper revenue recognition, which may be subject to management judgment.

Product revenue is generally recognized upon shipment of product to customers, net of accruals for estimated sales returns and rebates. However, some of our sales are made through distributors under agreements allowing for price protection and limited rights of stock rotation on product unsold by the distributors. Although title passes to the distributor upon shipment, terms and payment by our distributors is not contingent on resale of the product. Product revenue on sales made through distributors with price protection and stock rotation rights is deferred until the distributors sell the product to end customers. Deferred revenue less the related cost of the inventories is reported as deferred income. We do not believe that there is any significant exposure related to impairment of deferred cost of sales, as our historical returns have been minimal and inventory turnover for our distributors generally ranges from 60 to 90 days. Our sales to direct customers are made primarily pursuant to standard purchase orders for delivery of products.

A portion of our net revenue is derived from sales through third-party logistics providers who maintain warehouses in close proximity to our customer's facilities. Revenue from sales through these third-party logistics providers is not recognized until the product is pulled from stock by the customer.

The provision for estimated sales returns and allowances on product sales is recorded in the same period the related revenues are recorded. These estimates are based on historical sales returns, analysis of credit memo data and other known factors. In addition, payments to our customers, in cases where products with potential quality issues are not returned to us and the related quality issue can otherwise not be verified, or where the amount of the payment is not sufficiently supported by the fair value of the quality issue, may be recorded as a reduction of revenue. Actual returns could differ from these estimates. We account for rebates by recording reductions to revenue in the same period that the related revenue is recorded. The amount of these reductions is based upon the terms agreed to with the customers.

**Share-Based Compensation.** We measure our share-based compensation at the grant date, based on the fair value of the award, and recognize expense over the requisite service period. We amortize share-based compensation expense for time-based awards under the straight-line attribution method over the vesting period. Share-based compensation expense for performance-based awards is recognized when it becomes probable that the performance conditions will be met. Once it becomes probable that a performance-based award will vest, we recognize compensation expense equal to the number of shares expected to vest multiplied by the fair value of the award at the grant date, which is amortized using the accelerated method. In the case of performance-based awards based on total shareholder return ("TSR"), share-based compensation expense is amortized over the requisite service period. For stock purchase rights under the stock purchase plan, the Company amortizes share-based compensation expense ratably over the two-year offering period.

We estimate the fair value of time-based stock option and stock purchase awards on the date of grant using the Black Scholes option-pricing model. The fair value of TSR awards is estimated on the date of grant using a Monte Carlo simulation model since the award is indexed to the price of our common stock as set forth under the terms of the

award. The value of the portion of the awards that is ultimately expected to vest is recognized as expense over the requisite service periods. The Black-Scholes and Monte Carlo models incorporate various highly subjective assumptions including expected term of awards, expected future stock price volatility, expected dividend yield and risk-free interest rate.

In developing estimates used to calculate assumptions, we establish the expected term for employee stock options, as well as expected forfeiture rates, based on the historical settlement experience and after giving consideration to vesting schedules. Assumptions for stock option exercises and pre-vesting terminations of stock options were stratified by two employee groups and one employee/non-employee group with sufficiently distinct behavior patterns. Expected volatility was developed based on an equally weighted combination of historical stock price volatility and implied volatility derived from traded options on our stock in the marketplace. The expected dividend yield is calculated by dividing annualized dividend payments by the closing stock price on the grant date of the option.

The fair value of each restricted stock unit is estimated based on the market price of the Company's common shares on the date of grant less the expected dividend yield. Additionally, for certain of our performance-based awards, we must make subjective assumptions regarding the likelihood that the related performance metrics will be met. These assumptions are based on various revenue and operating performance criteria. Changes in our actual performance could cause a significant adjustment in future periods for these performance-based awards.

Share-based compensation expense is recorded net of estimated forfeitures such that expense is recorded only for those share-based awards that are expected to vest. Previously recognized expense is reversed for the portion of awards forfeited prior to vesting as and when forfeitures occurred. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from initial estimates. Assumptions for forfeitures are stratified by employee groups with sufficiently distinct behavior patterns. Changes in the estimated forfeiture rate can have a significant effect on reported share-based compensation expense, as the effect of adjusting the rate for all expense amortization is recognized in the period the forfeiture estimate is changed. If the actual forfeiture rate is higher than the estimated forfeiture rate, then an adjustment will be made to increase the estimated forfeiture rate, which will result in a decrease to the expense recognized in the financial statements. If the actual forfeiture rate is lower than the estimated forfeiture rate, then an adjustment will be made to lower the estimated forfeiture rate, which will result in an increase to the expense recognized in the financial statements. The expense we recognize in future periods could be affected by changes in the estimated forfeiture rate and may differ significantly from amounts recognized in the current period and/or our forecasts.

**Accounting for Income Taxes.** We estimate our income taxes in each of the jurisdictions in which we operate. This process involves estimating our actual tax exposure together with assessing temporary differences resulting from the differing treatment of certain items for tax return and financial statement purposes. These differences result in deferred tax assets and liabilities, which are included in our consolidated balance sheets.

We recognize income taxes using an asset and liability approach. This approach requires the recognition of taxes payable or refundable for the current year, and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in our consolidated financial statements or tax returns. The measurement of current and deferred taxes is based on provisions of the enacted tax law and the effects of future changes in tax laws or rates are not anticipated.

Evaluating the need for an amount of a valuation allowance for deferred tax assets often requires judgment and analysis of all the positive and negative evidence available, including cumulative losses in recent years and projected future taxable income, to determine whether all or some portion of the deferred tax assets will not be realized. Using available evidence and judgment, we establish a valuation allowance for deferred tax assets, when it is determined that it is more likely than not that they will not be realized. Valuation allowances have been provided primarily against the U.S. research and development credits. Valuation allowances have also been provided against certain acquired operating losses and the deferred tax assets of foreign subsidiaries. A change in the assessment of the realization of deferred tax assets may materially impact our tax provision in the period in which a change of assessment occurs.

As a multinational corporation, we conduct our business in many countries and are subject to taxation in many jurisdictions. The taxation of our business is subject to the application of various and sometimes conflicting tax laws and regulations as well as multinational tax conventions. Our effective tax rate is highly dependent upon the geographic distribution of our worldwide earnings or losses, the tax regulations and tax holidays in each geographic region, the availability of tax credits and carryforwards, and the effectiveness of our tax planning strategies. The application of tax laws and regulations is subject to legal and factual interpretation, judgment and uncertainty. Tax laws themselves are subject to change as a result of changes in fiscal policy, changes in legislation, and the evolution of regulations and court rulings. Consequently, taxing authorities may impose tax assessments or judgments against us that could materially impact our tax liability and/or our effective income tax rate.

We are subject to income tax audits by the respective tax authorities in all of the jurisdictions in which we operate. We recognize the effect of income tax positions only if these positions are more likely than not of being sustained.

Recognized income tax positions are measured at the largest amount that is more than 50% likely of being realized.

Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. We record

interest and penalties related to unrecognized tax benefits in income tax expense. The calculation of our tax liabilities involves the inherent uncertainty associated with the application of GAAP and complex tax laws. We believe we have adequately provided for in our financial statements additional taxes that we estimate may be required to be paid as a result of such examinations. While we believe that we have adequately provided for all tax positions, amounts asserted by tax authorities could be greater or less than our accrued position. These tax liabilities, including the interest and penalties, are released pursuant to a settlement with tax authorities, completion of audit or expiration of various statutes of limitation. The material jurisdictions in which we may be subject to potential examination by tax authorities throughout the world include China, Israel, Singapore, Switzerland and the United States.

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The recognition and measurement of current taxes payable or refundable, and deferred tax assets and liabilities require that we make certain estimates and judgments. Changes to these estimates or a change in judgment may have a material impact on our tax provision in a future period.

**Inventories.** We value our inventory at the lower of cost or market, cost being determined under the first-in, first-out method. We regularly review inventory quantities on hand and record a reduction to the total carrying value of our inventory for any difference between cost and estimated market value of inventory that is determined to be excess, obsolete or unsellable inventory based primarily on our estimated forecast of product demand and production requirements. The estimate of future demand is compared to our inventory levels, including open purchase commitments, to determine the amount, if any, of obsolete or excess inventory. Demand for our products can fluctuate significantly from period to period. A significant decrease in demand could result in an increase in the amount of excess inventory on hand. In addition, our industry is characterized by rapid technological change, frequent new product development and rapid product obsolescence that could result in an increase in the amount of obsolete inventory quantities on hand. Additionally, our estimates of future product demand may prove to be inaccurate, in which case we may have understated or overstated the reduction to the total carrying value of our inventory for excess and obsolete inventory. In the future, if our inventory is determined to be overvalued, we would be required to recognize such costs in our cost of goods sold at the time of such determination. Likewise, if our inventory is determined to be undervalued, we may have over-reported our cost of goods sold in previous periods and would be required to recognize additional gross margin at the time the related inventory is sold. Therefore, although we make every effort to ensure the accuracy of our forecasts of future product demand, any significant unanticipated changes in demand or technological developments could have a significant impact on the value of our inventory and our results of operations.

**Long-lived Assets and Intangible Assets.** We assess the impairment of long-lived assets and intangible assets whenever events or changes in circumstances indicate that the carrying value of such assets may not be recoverable. Circumstances which could trigger a review include, but are not limited to the following:

- significant decreases in the market price of the asset;
- significant adverse changes in the business climate or legal factors;
- accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset;
- current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; and
- current expectation that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life.

Whenever events or changes in circumstances suggest that the carrying amount of long-lived assets and intangible assets may not be recoverable, we estimate the future cash flows expected to be generated by the asset from its use or eventual disposition. If the sum of the expected future cash flows is less than the carrying amount of those assets, we recognize an impairment loss based on the excess of the carrying amount over the fair value of the assets. Significant management judgment is required in the forecasts of future operating results that are used in the discounted cash flow method of valuation.

**Goodwill.** We record goodwill when the consideration paid for a business acquisition exceeds the fair value of net tangible and intangible assets acquired. We review goodwill for impairment annually on the last business day of our fiscal fourth quarter and whenever events or changes in circumstances indicate the carrying amount of goodwill may not be recoverable. We have identified that our business operates as a single operating segment which can further be divided into two components; Storage, and Networking & Connectivity. Management concluded that goodwill is recoverable from these two components working jointly due to a fact pattern demonstrating significant sharing of assets, corporate resources, and benefits from common research and development. The two components also exhibit similar economic characteristics. Accordingly, management concluded that these two components should be aggregated into a single reporting unit for purposes of testing goodwill impairment. As part of our restructuring announced in November 2016, our former Smart Networked Devices and Solutions component was renamed to

Networking & Connectivity.

When testing goodwill for impairment, we first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. Factors we consider important which could trigger a goodwill impairment review include;

- significant underperformance relative to historical or projected future operating results;
- significant changes in the manner of our use of the acquired assets or the strategy for our overall business;
- significant negative industry or economic trends;
- a significant decline in our stock price for a sustained period; and

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a significant change in our market capitalization relative to our net book value.

If we conclude that it is more likely than not that the fair value of a reporting unit is less than its carrying amount or if we note multiple qualitative factors indicating potential impairment, then a two-step quantitative impairment test is performed. The first step requires comparing the fair value of the reporting unit to its net book value, including goodwill. A potential impairment exists if the fair value of the reporting unit is lower than its net book value.

Determining the fair value of a reporting unit involves the use of significant estimates and assumptions. Our goodwill impairment test uses a weighting of the income method and the market method to estimate a reporting unit's fair value. The income method is based on a discounted future cash flow approach that uses the following assumptions and inputs: revenue based on assumed market segment growth rates and our assumed market segment share, estimated costs, and appropriate discount rates based on our weighted average cost of capital as determined by considering the observable weighted average cost of capital of comparable companies. The market method is based on quoted prices of our shares as well as an implied control premium (the excess of the reporting unit's fair value over Marvell's market capitalization). We evaluate the control premium by comparing it to observable control premiums from recent comparable market acquisition transactions.

The second step of the process is only performed if a potential impairment exists, and it involves determining the implied fair value of the reporting unit's goodwill and comparing it to the carrying value of goodwill. If the carrying value of goodwill were to exceed its implied fair value, then the Company will record a charge for the amount of impairment in the fiscal quarter in which the determination is made.

In connection with the restructuring plan we announced in November 2016 (see "Note 8 - Restructuring and Other Related Charges"), our Board of Directors approved a plan to sell certain businesses that are classified and reported in the consolidated statement of operations as discontinued operations. As a result, goodwill was allocated to these businesses based on relative fair value since each represents a portion of our reporting unit. We obtained an independent valuation to determine the fair value of these businesses for purposes of allocating the goodwill and to complete a step one assessment for goodwill impairment of our continuing operations. Although we engaged an independent valuation specialist to provide the fair value calculations, management provided the necessary estimates used in the specialists calculations. Significant management judgment is required in determining the estimations of future cash flows, which is dependent on internal forecasts, the long-term rate of growth for our business, the life over which cash flows will occur, and the weighted average cost of capital. Management assumes full responsibility for the valuation results and the accuracy and completeness of the underlying financial data and corresponding assumptions. As of the last day of the fourth quarter of fiscal 2017, we performed our annual impairment assessment for testing goodwill. A step one assessment was performed due to the allocation of our goodwill to certain businesses that we classified and reported as discontinued operations. Based on the independent valuation we obtained, we determined there was no impairment as the fair value significantly exceeded the Company's carrying value.

**Legal Contingencies.** From time to time, we are involved in legal actions or other third-party assertions arising in the ordinary course of business. There can be no assurance these actions or other third-party assertions will be resolved without costly litigation, in a manner that does not adversely impact our financial position, results of operations or cash flows or without requiring royalty payments in the future, which may adversely impact gross margins. We record a liability when it is probable that a loss has been incurred and the amount can be reasonably estimated. In determining the probability of a loss and consequently, determining a reasonable estimate, management is required to use significant judgment. Given the uncertainties associated with any litigation, the actual outcome can be different than our estimates and could adversely affect our results of operations, financial position and cash flows.

#### Results of Operations - Continuing Operations

The following table sets forth information derived from our consolidated statements of operations expressed as a percentage of net revenue:





	Year Ended			
	January 28, 2017	January 30, 2016	January 31, 2015	
			%	%
Net revenue	100.0%	100.0	%	100.0 %
Operating costs and expenses:				
Cost of goods sold	44.4	54.5		49.5
Research and development	35.9	37.5		30.0
Selling and marketing	5.0	4.7		3.8
General and administrative	5.5	5.5		3.4
Carnegie Mellon University litigation settlement	—	24.7		—
Restructuring and other related charges	4.5	2.0		0.3
Amortization and write-off of acquired intangible assets	0.3	0.4		0.4
Total operating costs and expenses	95.6	129.3		87.4
Operating income (loss) from continuing operations	4.4	(29.3 )		12.6
Interest and other income, net	0.7	0.7		0.6
Income (loss) from continuing operations before income taxes	5.1	(28.6 )		13.2
Provision (benefit) for income taxes	3.2	0.4		(0.1 )
Income (loss) from continuing operations	1.9	(29.0 )%		13.3 %

Years Ended January 28, 2017 and January 30, 2016

#### Net Revenue

	Year Ended		
	January 28, 2017	January 30, 2016	% Change in 2017
	(in thousands, except percentage)		
Net revenue	\$2,317,674	\$2,649,216	(12.5 )%

Our net revenue for fiscal 2017 decreased by \$331.5 million compared to net revenue for fiscal 2016. This decrease was primarily due to decreased sales of our other products, which were down 47%, and decreased sales of our connectivity products, which were down by 28%. These decreases were driven by the previously announced restructuring of our mobile handset platform business. In addition, revenue from our storage products was down by 4%, mainly due to a decrease in sales of HDD products, offset by strong growth in sales of SSD product. These declines were partially offset by sales growth of 11% in our networking products, driven by the introduction of new products and increased sales to the enterprise and campus markets. Unit shipments were 22% lower and weighted average selling prices increased 12% compared to fiscal 2016, for an overall decline of 13%.

Prior to fiscal 2017, our customers agreed from time to time to take shipments in an earlier fiscal quarter than the fiscal quarter they originally requested delivery. When such agreement would not have occurred but for the request made by Marvell, we refer to such transactions internally as “pull-ins.” Beginning in fiscal 2017, our policy is not to engage in pull-in transactions and, as a result, there were no such transactions in fiscal 2017.

#### Cost of Goods Sold

	Year Ended		
	January 28, 2017	January 30, 2016	% Change in 2017
	(in thousands, except percentages)		
Cost of goods sold	\$1,029,527	\$1,442,517	(28.6 )%
% of net revenue	44.4	% 54.5	%

The cost of goods sold as a percentage of net revenue was lower for fiscal 2017 due to the \$81.3 million CMU settlement included in cost of goods sold in 2016, a reduction in sales of lower margin mobile platform related product

and lower material and manufacturing costs. Our cost of goods sold as a percentage of net revenue may fluctuate in future periods due to, among other things: changes in the mix of products sold; the timing of production ramps of new products; increased pricing pressures

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from our customers and competitors; charges for obsolete or potentially excess inventory; changes in the costs charged by our foundry, assembly and test subcontractors; product warranty costs; changes in commodity prices such as gold; and the margin profiles of our new product introductions.

#### Share-Based Compensation Expense

	Year Ended	
	January 28,	January 30,
	2017	2016
	(in thousands)	
Continuing operations:		
Cost of goods sold	\$8,334	\$ 7,787
Research and development	78,136	92,054
Selling and marketing	10,243	10,242
General and administrative	8,047	15,878
Share-based compensation - continuing operations	104,760	125,961
Discontinued operations:		
Cost of goods sold	187	129
Research and development	8,306	6,738
Selling and marketing	649	864
General and administrative	68	87
Share-based compensation - discontinued operations	9,210	7,818
Total share-based compensation	\$113,970	\$ 133,779

Share-based compensation expense for continuing operations decreased by \$21.2 million in fiscal 2017 compared to fiscal 2016. The decrease was mainly due to lower headcount from the previously announced restructuring of the mobile platform business, as well as from the restructuring announced in November 2016. The cancellation of equity awards related to certain members of our executive management who departed in April 2016 also reduced the expense. These decreases were partially offset by the effect from the acceleration of expense caused by the cancellation of the June 2016 ESPP purchase because the Company was not eligible to issue shares of its common stock due to the delay in the timely filing of its periodic reports with the SEC (see “Note 12 - Shareholder's Equity” in the Notes to the Consolidated Financial Statements set forth in Part II, Item 8 of this Annual Report on Form 10-K).

#### Restructuring and Other Related Charges

	Year Ended	
	January 28,	January 30,
	2017	2016
	(in thousands)	
Cost of goods sold	\$—	\$ 10,292
Restructuring and other related charges	105,186	53,251
	\$105,186	\$ 63,543

We recorded total restructuring charges and other related charges of \$105.2 million in fiscal 2017, which primarily arose from activities related the restructuring plan we announced in November 2016 to restructure our operations to refocus our research and development, increase operational efficiency and improve profitability. The Company recorded charges of \$98.7 million, including severance benefits of \$41.0 million, the impairment of a \$45.0 million nonrefundable deposit due to the non-utilization of the related contract, \$5.4 million for the impairment of equipment and technology licenses, and other exit-related costs of \$7.3 million associated with the closure of facilities and contract termination penalties. In addition, the Company recorded \$6.5 million related to previous fiscal 2016 restructuring actions, which included the write-off of mobile-related equipment that was previously held-for-sale and the remaining lease obligation for certain floors in one of its Israel facilities that were vacated in fiscal 2017. See “Note 8 - Restructuring and Other Related Charges” in the Notes to the Consolidated Financial Statements set forth in Part II,

Item 8 of this Annual Report on Form 10-K for further information.

As a result of the restructuring plan announced in November 2016, we expect to lower annual operating expenses to approximately \$820 million to \$830 million.

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## Research and Development

	Year Ended		
	January 28, 2017	January 30, 2016	% Change in 2017
	(in thousands, except percentages)		
Research and development	\$831,398	\$994,733	(16.4 )%
% of net revenue	35.9	% 37.5	%

Research and development expense decreased by \$163.3 million in fiscal 2017 compared to fiscal 2016. The decrease was primarily attributable to \$91.6 million of lower personnel-related costs, lower costs related to project spending and facility maintenance services of \$44.0 million, and a reduction in depreciation and amortization expense of \$9.4 million. These reductions were driven by the restructuring of our mobile platform business as well as the restructuring actions announced in November 2016.

## Selling and Marketing

	Year Ended		
	January 28, 2017	January 30, 2016	% Change in 2017
	(in thousands, except percentages)		
Selling and marketing	\$115,817	\$124,096	(6.7 )%
% of net revenue	5.0	% 4.7	%

Selling and marketing expense decreased by \$8.3 million in fiscal 2017 compared to fiscal 2016. The decrease was primarily attributable to decreases of \$7.2 million of marketing communications expenses.

## General and Administrative

	Year Ended		
	January 28, 2017	January 30, 2016	% Change in 2017
	(in thousands, except percentages)		
General and administrative	\$127,376	\$145,359	(12.4 )%
% of net revenue	5.5	% 5.5	%

General and administrative expense decreased by \$18.0 million in fiscal 2017 compared to fiscal 2016. The decrease was due to \$7.1 million of lower charges for various litigation matters and \$11.4 million of lower costs for the surety bonds related to the litigation with CMU. The decrease also included a \$9.2 million decrease in legal expenses related to legal services. In addition, the decrease reflected the effect of a \$15.4 million charge for a cash payment relating to a tax matter to our former Chief Executive Officer approved by the Company's Executive Compensation Committee and included in fiscal 2016 that was not included in fiscal 2017. These decreases were partially offset by \$22.1 million of other higher professional fees.

## Carnegie Mellon University Litigation Settlement

	Year Ended		
	January 28, 2017	January 30, 2016	% Change in 2017
	(in thousands, except percentages)		
Litigation settlement with Carnegie Mellon University	\$—	\$654,667	(100.0 )%
% of net revenue	—	% 24.7	%

In connection with the settlement agreement with CMU for \$750 million (see "Note 10 – Commitments and Contingencies" and "Note 15 – Carnegie Mellon University Settlement" in the Notes to the Consolidated Financial Statements set forth in Part II, Item 8 of this Annual Report on Form 10-K), \$654.7 million of the settlement allocated

to the mutual release of claims and covenant not to sue was recorded in operating expenses in fiscal 2016. Of the remaining \$95.3 million, \$81.3 million was recorded in cost of goods sold in fiscal 2016. The remaining \$14.0 million will be recognized in cost of goods sold over the remaining term of the license from February 2016 through April 2018.

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## Amortization and Write-Off of Acquired Intangible Assets

	Year Ended		
	January 28, 2017	January 30, 2016	% Change in 2017
Amortization and write-off of acquired intangible assets	\$8,376	\$10,098	(17.1 )%
% of net revenue	0.3	% 0.4	%

Amortization and write-off of acquired intangible assets decreased by \$1.7 million in fiscal 2017 compared to fiscal 2016. The decrease was primarily due to lower amortization expense as certain intangible assets became fully amortized.

## Interest and Other Income, net

	Year Ended		
	January 28, 2017	January 30, 2016	% Change in 2017
Interest and other income, net	\$17,022	\$17,685	(3.7 )%
% of net revenue	0.7	% 0.7	%

Interest and other income, net, decreased by \$0.7 million in fiscal 2017 compared to fiscal 2016. The decrease in fiscal 2017 reflects lower foreign currency gains from the revaluation of our foreign currency denominated tax liabilities combined with a decrease in interest income. The decrease in interest income was mainly due to overall lower average cash and investment balances offset by effects of higher interest rates.

## Provision for Income Taxes

	Year Ended		
	January 28, 2017	January 30, 2016	% Change in 2017
Provision for income taxes	\$73,022	\$11,335	544.2 %

The increase in income tax expense for fiscal 2017 compared to fiscal 2016 was primarily due to approximately \$66.9 million of tax expense related to restructuring actions taken in the fourth quarter of fiscal 2017. This consisted of \$50.1 million of foreign withholding taxes on undistributed earnings of certain subsidiaries that were no longer considered to be indefinitely reinvested as a result of these restructuring actions and \$16.8 million of additional foreign tax expense which also arises as a result of such restructuring. These tax expenses attributable to our global restructuring would not be expected to recur in the future.

Our provision for incomes taxes may be affected by changes in the geographic mix of earnings with different applicable tax rates, changes in the realizability of deferred tax assets and liabilities, accruals related to contingent tax liabilities and period-to-period changes in such accruals, the results of income tax audits, the expiration of statutes of limitations, the implementation of tax planning strategies, tax rulings, court decisions, settlements with tax authorities and changes in tax laws. Additionally, please see the information in "Item 1A: Risk Factors" under the caption "Changes in existing taxation benefits, rules or practices may adversely affect our financial results."

## Years Ended January 30, 2016 and January 31, 2015

## Net Revenue

Year Ended	% Change
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January 30, January 31, in 2016

2016          2015

(in thousands, except percentage)

Net revenue \$2,649,216 \$3,637,206 (27.2 )%

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Our net revenue for fiscal 2016 decreased by \$988.0 million compared to net revenue for fiscal 2015. The decrease was due to overall lower sales of products to customers in all of our product groups given the downsizing of the mobile handset business and continued challenges in the computing and consumer markets. Sales of our storage products decreased by 31%, sales of our other products decreased by 32%, sales of our networking products decreased by 20% and sales of our connectivity products decreased by 17%. Unit shipments were 18% lower combined with a 10% decline in average selling prices in fiscal 2016 compared to fiscal 2015, which resulted in an overall decline of 27%.

Prior to fiscal 2017, our customers agreed from time to time to take shipments in an earlier fiscal quarter than the fiscal quarter they originally requested delivery. When such agreement would not have occurred but for the request made by Marvell, we refer to such transactions internally as “pull-ins.” Pull-in sales increased compared to historical levels beginning in the fourth quarter of fiscal 2015 and returned to historical levels in the third quarter of fiscal 2016. Net revenue in fiscal 2016 related to pull-in sales for shipments taken early by our customers were approximately 9% and 11% of net revenue in the first and second quarters of fiscal 2016, respectively, and declined to less than 1% of net revenue in both the third and fourth quarters of fiscal 2016. This compares to net revenue in fiscal 2015 related to pull-in sales for shipments taken early by our customers, which were less than 1% in the first quarter of fiscal 2015, 1% in both the second and third quarter of fiscal 2015, and increased to 3% in the fourth quarter of fiscal 2015. Customer concessions related to these pull-in transactions, if any, were recorded in the same period in which the revenue was recognized. Beginning in fiscal 2017, our policy is not to engage in pull-in transactions.

#### Cost of Goods Sold

	Year Ended		
	January 30,	January 31,	% Change
	2016	2015	in 2016
	(in thousands, except percentages)		
Cost of goods sold	\$1,442,517	\$1,799,425	(19.8 )%
% of net revenue	54.5	% 49.5	%

Cost of goods sold as a percentage of net revenue was higher in fiscal 2016 due to a shift in the mix of our revenue, particularly in the first half of fiscal 2016, towards our then mobile and wireless products which had a higher average cost of goods sold as a percentage of revenue. In addition, cost of goods sold in fiscal 2016 includes higher inventory write downs due to lower than expected demand for our mobile related products. Cost of goods sold in fiscal 2016 also includes a \$81.3 million charge for the litigation settlement with CMU as described under the section “Litigation settlement with Carnegie Mellon University.”

#### Share-Based Compensation Expense

	Year Ended	
	January 30,	January 31,
	2016	2015
	(in thousands)	
Continuing operations:		
Cost of goods sold	\$7,787	\$ 7,972
Research and development	92,054	89,131
Selling and marketing	10,242	10,623
General and administrative	15,878	23,292
Share-based compensation - continuing operations	125,961	131,018
Discontinued operations:		
Cost of goods sold	129	—
Research and development	6,738	5,301
Selling and marketing	864	846
General and administrative	87	81

Share-based compensation - discontinued operations	7,818	6,228
Total share-based compensation	\$133,779	\$ 137,246

Share-based compensation expense for continuing operations decreased by \$5.1 million in fiscal 2016 compared to fiscal 2015. The decrease was mainly the result of the reversal of previously recognized expenses associated with unvested equity

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awards that were cancelled as a result of the termination of employees affected by the restructuring of our mobile platform business. Share-based compensation expense was also lower since the financial goals related to performance-based equity awards granted in fiscal 2016 to our executive officers were not achieved and the related share-based compensation expense was adjusted accordingly. These decreases were partially offset by higher share-based compensation expense in fiscal 2016 from more restricted stock awards than in fiscal 2015.

#### Restructuring and Other Related Charges

	Year Ended	
	January 30, 2016	January 31, 2015
	(in thousands)	
Cost of goods sold	\$10,292	\$ —
Restructuring and other related charges	53,251	10,438
Write-off of acquired intangible assets	—	3,386
	\$63,543	\$ 13,824

We recorded a total of \$63.5 million in fiscal 2016 in connection with restructuring and other related charges. The charges were primarily related to the restructuring of our mobile platform business announced in September 2015 and included severance, other exit-related costs, the impairment of certain equipment and other assets, as well as the write down of inventory. In addition, we incurred additional charges in connection with our ongoing effort to streamline our business.

#### Research and Development

	Year Ended		
	January 30, 2016	January 31, 2015	% Change in 2016
	(in thousands, except percentages)		
Research and development	\$994,733	\$1,091,547	(8.9 )%
% of net revenue	37.5	% 30.0	%

Research and development expense decreased by \$96.8 million in fiscal 2016 compared to fiscal 2015. The decrease was primarily attributable to \$79.8 million of lower personnel-related costs primarily associated with headcount reductions in Israel and certain other locations in connection with our efforts to streamline our operations in fiscal 2015 and in the first half of fiscal 2016. In addition, we had a reduction in depreciation and amortization expense of \$6.8 million, lower costs for professional services of \$8.6 million and lower costs for third-party vendors of \$5.1 million.

#### Selling and Marketing

	Year Ended		
	January 30, 2016	January 31, 2015	% Change in 2016
	(in thousands, except percentages)		
Selling and marketing	\$124,096	\$139,627	(11.1 )%
% of net revenue	4.7	% 3.8	%

Selling and marketing expense decreased by \$15.5 million in fiscal 2016 compared to fiscal 2015. The decrease was primarily attributable to lower personnel-related costs of \$6.9 million due to lower headcount. The decrease also reflected a decrease of \$4.0 million of marketing communications expenses.

#### General and Administrative

	Year Ended		
	January 30, 2016	January 31, 2015	% Change in 2016
	(in thousands, except percentages)		
General and administrative	\$145,359	\$124,046	17.2 %

% of net revenue      5.5      % 3.4      %

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General and administrative expense increased by \$21.3 million in fiscal 2016 compared to fiscal 2015. The increase was primarily attributable to a charge for a cash payment authorized by our Board of Directors of \$15.4 million to our former Chief Executive Officer, higher legal expenses of \$7.7 million mainly associated with certain accounting and internal control matters that are the subject of investigations by the Securities and Exchange Commission and the U.S. Attorney, and which were also investigated by the Company's Audit Committee and \$4.2 million of higher costs for the surety bond related to CMU. These increases were partially offset by \$7.8 million of lower personnel-related costs due to lower headcount and lower share-based compensation expenses related to the performance-based equity awards granted to our executive officers in fiscal 2016 for which financial goals were not achieved.

#### Carnegie Mellon University Litigation Settlement

	Year Ended		
	January 30, 2016	January 31, 2015	% Change in 2016
	(in thousands, except percentages)		
Litigation settlement with Carnegie Mellon University	\$654,667	\$ —	100.0 %
% of net revenue	24.7	% —	%

In connection with the settlement agreement with CMU for \$750 million, \$654.7 million of the settlement allocated to the mutual release of claims and covenant not to sue was recorded in operating expenses. Of the remaining \$95.3 million, \$81.3 million was recorded in cost of goods sold for fiscal 2016. The remaining \$14.0 million will be recognized in cost of goods sold over the remaining term of the license through April 2018.

#### Amortization and Write-Off of Acquired Intangible Assets

	Year Ended		
	January 30, 2016	January 31, 2015	% Change in 2016
	(in thousands, except percentages)		
Amortization and write-off of acquired intangible assets	\$10,098	\$15,747	(35.9 )%
% of net revenue	0.4	% 0.4	%

Amortization and write-off of acquired intangible assets decreased by \$5.6 million in fiscal 2016 compared to fiscal 2015. The decrease was due to lower amortization expense as certain intangible assets became fully amortized. In addition, fiscal 2016 included charges of \$0.3 million to write off a trade name and \$0.3 million to write off core technology, compared to a \$3.4 million write-off of IPR&D upon our decision to discontinue the related project in fiscal 2015.

#### Interest and Other Income, net

	Year Ended		
	January 30, 2016	January 31, 2015	% Change in 2016
	(in thousands, except percentages)		
Interest and other income, net	\$17,685	\$23,334	(24.2 )%
% of net revenue	0.7	% 0.6	%

Interest and other income, net, decreased by \$5.6 million in fiscal 2016 compared to fiscal 2015. The decrease was mainly due to a \$3.0 million loss due to the write-off of an equity investment and a \$1.2 million impairment loss on our auction rate securities, compared to an \$8.8 million gain from the sale of an investment in fiscal 2015. The decrease was partially offset by the recognition of foreign currency gains, which were \$4.8 million higher in fiscal 2016 compared to fiscal 2015 due to revaluation of our foreign currency denominated tax liabilities and releases of previously accumulated liabilities, and the increase in interest income from higher rate of return as well as higher average cash and investment balances.

#### Provision (benefit) for Income Taxes



Year Ended		
January 30,	January 31,	% Change
2016	2015	in 2016
(in thousands, except percentages)		

Provision (benefit) for income taxes \$11,335 \$ (4,077 ) (378.0 )%

The increase in income tax expense for fiscal 2016 compared to fiscal 2015 was primarily due to the recognition of \$7.5 million of valuation allowance against certain non-U.S. deferred tax assets that will not be realized in the foreseeable future and an additional tax provision of \$3.1 million related to a \$15.4 million payment to our former Chief Executive Officer.

#### Liquidity and Capital Resources

Our principal source of liquidity as of January 28, 2017 consisted of approximately \$1.7 billion of cash, cash equivalents and short-term investments, of which approximately \$970 million was held by foreign subsidiaries (outside Bermuda). Approximately \$620 million of this amount held by foreign subsidiaries is related to undistributed earnings which have been indefinitely reinvested outside of Bermuda. These funds are primarily held in China, Israel and the United States. We have plans to use such amounts to fund various activities outside of Bermuda, including working capital requirements, capital expenditures for expansion, funding of future acquisitions or other financing activities. If such funds were needed by the parent company in Bermuda or if the amounts were otherwise no longer considered indefinitely reinvested, we would incur a tax expense of approximately \$190 million. In addition, as described under "Provision for Income Taxes" above, we accrued deferred taxes of approximately \$50.1 million on undistributed earnings of certain subsidiaries that were no longer considered to be indefinitely reinvested due to restructuring actions taken in the fourth quarter of fiscal year 2017.

We believe that our existing cash, cash equivalents and short-term investments, together with cash generated from operations, will be sufficient to cover our working capital needs, capital expenditures, investment requirements and any declared dividends, repurchase of our common stock and commitments for at least the next 12 months. Our capital requirements will depend on many factors, including our rate of sales growth, market acceptance of our products, costs of securing access to adequate manufacturing capacity, the timing and extent of research and development projects and increases in operating expenses, which are all subject to uncertainty. In addition, we are named as defendants in several litigation actions and an unfavorable outcome in any current litigation could have a material adverse effect on our liquidity, cash flows and results of operations.

To the extent that our existing cash, cash equivalents and short-term investments and cash generated by operations are insufficient to fund our future activities, we may need to raise additional funds through public or private debt or equity financing. We may also enter into additional acquisitions of businesses, purchase assets or enter into other strategic arrangements in the future, which could also require us to seek debt or equity financing. Additional equity financing or convertible debt financing may be dilutive to our current shareholders. If we elect to raise additional funds, we may not be able to obtain such funds on a timely basis or on acceptable terms, if at all. In addition, the equity or debt securities that we issue may have rights, preferences or privileges senior to our common shares.

Future payment of a regular quarterly cash dividend on our common shares and our planned repurchases of common stock will be subject to, among other things, the best interests of the Company and our shareholders, our results of operations, cash balances and future cash requirements, financial condition, developments in ongoing litigation, statutory requirements under Bermuda law, market conditions and other factors that our board of directors may deem relevant. Our dividend payments and repurchases of common stock may change from time to time, and we cannot provide assurance that we will continue to declare dividends at all or in any particular amounts.

#### Cash Flows from Operating Activities



Net cash used in operating activities was \$358.4 million for fiscal 2017 compared to net cash provided by operating activities of \$205.4 million and \$728.9 million for fiscal 2016 and fiscal 2015, respectively. The cash outflows from operations for fiscal 2017 were primarily due to \$21.2 million of net income adjusted for \$329.6 million of non-cash items, offset by a net decrease in working capital of \$709.2 million. The cash outflow from working capital for fiscal 2017 was primarily driven by the decrease in the CMU accrued litigation settlement that was fully paid in the first quarter of fiscal 2017. The negative effect on working capital was partially offset by an increase in accrued liabilities and other non-current liabilities primarily due to an increase in income taxes for fiscal 2017 combined with a decrease in inventories.

The cash inflows from operations for fiscal 2016 were primarily due to \$811.4 million of net loss adjusted for \$282.6 million of non-cash items and a net increase in working capital of \$734.2 million. The cash inflow from working capital was

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primarily driven by a decrease in accounts receivable due to improved collections and a decrease in inventories, combined with an increase in accrued liabilities and the accrued litigation settlement with CMU. The net increase in working capital was partially offset by decreases in accounts payable due to the timing of payments and accrued compensation primarily due to lower annual incentive compensation in fiscal 2016 compared to fiscal 2015, as well as an increase in prepaid expenses and other assets due to a deposit paid in connection with a foundry agreement executed in October 2015.

The cash inflows from operations for fiscal 2015 were primarily due to \$435.3 million of net income adjusted for \$238.2 million of non-cash items and a net increase in working capital changes of \$55.4 million. The cash inflow from working capital was primarily driven by a decrease in accounts receivable due to improved collections and a decrease in inventories, combined with an increase in accrued employee compensation as a result of higher incentive compensation.

#### Cash Flows from Investing Activities

Net cash provided by investing activities was \$161.6 million for fiscal 2017 compared to \$201.7 million provided by investing activities for fiscal 2016 and net cash used in investing activities of \$368.9 million for fiscal 2015. For fiscal 2017, net cash provided by investing activities was primarily generated from the sales and maturities of available-for-sale securities of \$856.3 million less purchases of available-for-sale securities of \$489.9 million, which were also partially offset by payments of \$150.0 million for net purchases of time deposits, \$44.5 million for purchases of property and equipment and \$10.3 million for the purchase of technology licenses.

For fiscal 2016, net cash provided by investing activities was primarily generated from the sales and maturities of available-for-sale securities of \$1.3 billion less purchases of available-for-sale securities of \$1.1 billion, which were partially offset by payments of \$37.3 million for the purchase of property and equipment, and \$8.2 million for the purchase of technology licenses.

For fiscal 2015, net cash used in investing activities was primarily due to purchases of available-for-sale securities of \$1.1 billion, offset by the sales and maturities of available-for-sale securities of \$826.3 million. In addition, we paid \$63.0 million for the purchase of property and equipment, and \$16.4 million for the purchase of technology licenses.

#### Cash Flows from Financing Activities

Net cash used in financing activities was \$267.2 million for fiscal 2017 compared to \$339.8 million for fiscal 2016 and \$114.8 million for fiscal 2015. For fiscal 2017, net cash used in financing activities was primarily attributable to payments for repurchases under our share repurchase program of our common shares in the open market for \$181.6 million and for our quarterly cash dividends of \$122.3 million. The cash outflow was partially offset by net proceeds of \$57.5 million from the issuance of our common shares under our share-based plans less the minimum tax withholding on behalf of employees for net share settlements.

For fiscal 2016, net cash used in financing activities was primarily attributable to payments for repurchases under our share repurchase program of our common shares in the open market for \$260.9 million and for our quarterly cash dividends of \$122.8 million. The cash outflow was partially offset by net proceeds of \$56.4 million from the issuance of our common shares under our share-based plans less the minimum tax withholding on behalf of employees for net share settlements.

For fiscal 2015, net cash used in financing activities was primarily attributable to payments of our quarterly cash dividends of \$122.8 million and repurchases under our share repurchase program of our common shares in the open market for \$65.0 million. The cash outflow was partially offset by net proceeds of \$85.9 million from the issuance of our common shares under our share-based plans less the minimum tax withholding on behalf of employees for net share settlements.

#### Off-Balance Sheet Arrangements

As part of our ongoing business, we do not participate in transactions that generate relationships with unconsolidated entities of financial partnerships, such as entities often referred to as structured finance or special purpose entities (“SPEs”), which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As of January 28, 2017, we were not involved in any unconsolidated SPE transactions.

Contractual Obligations and Commitments

Under our manufacturing relationships with our foundry partners, cancellation of outstanding purchase orders is allowed but requires repayment of all expenses incurred through the date of cancellation. As of January 28, 2017, these foundries had incurred approximately \$208.8 million of manufacturing costs and expenses relating to our outstanding purchase orders.

The following table summarizes our contractual obligations as of January 28, 2017 and the effect that such obligations are expected to have on our liquidity and cash flow in future periods (in thousands):

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	Payment Obligations by Fiscal Year						Total
	2018	2019	2020	2021	2022	Thereafter	
Contractual obligations:							
Facilities operating leases, net	\$15,397	\$12,779	\$6,508	\$3,767	\$610	\$ 2,147	\$41,208
Computer-aided design software	21,770	14,225	10,200	—	—	—	46,195
Purchase commitments to foundries	208,817	—	—	—	—	—	208,817
Capital purchase obligations	10,930	—	—	—	—	—	10,930
Technology license obligations	23,180	7,025	7,025	—	—	—	37,230
Other non-current obligations (1)	—	3,185	2,000	—	—	4,076	9,261
Total contractual cash obligations	\$280,094	\$37,214	\$25,733	\$3,767	\$610	\$ 6,223	\$353,641

(1) Amounts represent anticipated future cash payments, including anticipated interest payments not recorded in the consolidated balance sheet.

In addition to the above commitments and contingencies, as of January 28, 2017, we have \$16.3 million of unrecognized tax benefits as liabilities. We also have a liability for potential interest and penalties of \$21.6 million as of January 30, 2016. It is reasonably possible that the amount of unrecognized tax benefits could increase or decrease significantly due to changes in tax law in various jurisdictions, new tax audits and changes in the U.S. dollar as compared to foreign currencies within the next 12 months. Excluding these factors, uncertain tax positions may decrease by as much as \$9.5 million from the lapse of statutes of limitation in various jurisdictions during the next 12 months. Government tax authorities from several non-U.S. jurisdictions are also examining our tax returns. We believe that we have adequately provided for any reasonably foreseeable outcomes related to these tax audits and that any settlement will not have a material effect on our results at this time.

#### Recent Accounting Pronouncements

Please see “Note 1 — The Company and its Significant Accounting Policies — Recent Accounting Pronouncements” for further details in our Notes to the Consolidated Financial Statements set forth in Part II, Item 8 of this Annual Report on Form 10-K.

#### Related Party Transactions

Please see “Note 14 — Related Party Transactions” for further details in our Notes to the Consolidated Financial Statements set forth in Part II, Item 8 of this Annual Report on Form 10-K.

#### Item 7A. Quantitative and Qualitative Disclosures About Market Risk

**Interest Rate Risk.** Our interest rate risk relates primarily to our fixed income short-term investment portfolio as we did not have any outstanding debt as of January 28, 2017. We maintain an investment policy that requires minimum credit ratings, diversification of credit risk and limits the long-term interest rate risk by requiring effective maturities of generally less than five years. We invest our excess cash primarily in highly liquid debt instruments of the U.S. government and its agencies, money market mutual funds, asset backed securities, corporate debt securities and municipal debt securities that are classified as available-for-sale and time deposits. These investments are recorded on our consolidated balance sheets at fair market value with their related unrealized gain or loss reflected as a component of accumulated other comprehensive income (loss) in the consolidated statement of shareholders’ equity. Investments in both fixed rate and floating rate interest earning securities carry a degree of interest rate risk. Fixed rate securities may have their fair market value adversely impacted due to a rise in interest rates, while floating rate securities may produce less income than predicted if interest rates fall.

To provide an assessment of the interest rate risk associated with our investment portfolio, we performed a sensitivity analysis to determine the impact that an adverse change in interest rates would have on the value of the investment portfolio, excluding time deposits. Based on investment positions as of January 28, 2017, a hypothetical 100 basis point increase in interest rates across all maturities would result in a \$6.4 million decline in the fair market value of the portfolio. Due to our positive cash flow from operations, the relatively short-term nature of our investment

portfolio and our ability to hold investments to maturity, such change in fair market value would likely not have resulted in any significant cash flow impact.

As of January 28, 2017, our investment portfolio included \$5.0 million in par value of an auction rate security classified as a long-term investment. Although the security has continued to pay interest, there is currently limited trading volume. To estimate the fair value of the auction rate security, we use a discounted cash flow model based on estimated timing and amount of future interest and principal payments. In developing the cash flow model, we consider the credit quality and liquidity of the underlying securities and related issuer, the collateralization of underlying security investments and other considerations.

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We made a determination in January 2016 that we did not expect to recover the par value of certain auction rate securities and consider any impairment of the securities to be other-than-temporary. There has been no change in circumstances since January 2016 based upon the current time horizon for holding the remaining security and the continuation of an illiquid market. Based on our assessment of fair value as of January 28, 2017, we determined there was no further impairment of the remaining auction rate security.

During fiscal 2017, the Company sold auction rate securities with an aggregate par value of \$7.5 million for total net proceeds of \$6.9 million. The carrying value of these auction rate securities was \$6.7 million and resulted in a net gain of \$0.2 million recorded in interest and other income, net, in the year ended January 28, 2017.

**Foreign Currency Exchange Risk.** All of our sales and the majority of our expenses are denominated in U.S. dollars. Since we operate in many countries, we pay certain payroll and other operating expenses in local currencies and these expenses may be higher or lower in U.S. dollar terms. Furthermore, our operations in Israel and China represent a large portion of our total foreign currency exposure. Additionally, we may hold certain assets and liabilities, including potential tax liabilities, in local currency on our consolidated balance sheet. These tax liabilities would be settled in local currency. Therefore, foreign exchange gains and losses from remeasuring the tax liabilities are recorded to interest and other income, net. The related effects of foreign exchange fluctuations on local currency expenses are recorded to operating expenses. There is also a risk that our customers may be negatively impacted in their ability to purchase our products priced in U.S. dollars when there has been significant volatility in foreign currency exchange rates.

We engage in hedging transactions to help mitigate some of the volatility to forecasted cash flows due to changes in foreign exchange rates and, in particular, hedge a portion of the forecasted expenses denominated in Israeli shekel and on occasion Chinese yuan. We enter into certain short-term forward exchange contracts, typically less than 12 months in duration, to hedge exposures for expenses denominated in foreign currencies when the currency exposure is significant and there is a high certainty of the underlying cash flow. We do not enter into derivative financial instruments for trading or speculative purposes. We may choose not to hedge certain foreign exchange exposures due to immateriality, offsetting exposures, prohibitive economic cost of hedging a particular currency, and limited availability of appropriate hedging instruments. To the extent our foreign currency hedges are effective, the results of the hedge activities offset the underlying expense within the operating expense. Financial instruments not designated as hedges or hedges deemed ineffective are recorded in interest and other income, net. We do not hedge our tax liabilities denominated in local currency on our consolidated balance sheet as the timing of these tax liabilities becoming cash flows is not deemed to be certain.

To provide an assessment of the foreign currency exchange risk associated with our foreign currency exposures within operating expense, we performed a sensitivity analysis to determine the impact that an adverse change in exchange rates would have on our financial statements. If the U.S. dollar weakened by 10%, our operating expense could increase by less than 4%. We expect our hedges of foreign currency exposures to be highly effective and offset a significant portion of the short-term impact of changes in exchange rates on the hedged portion of our exposures.

Item 8. Financial Statements and Supplementary Data  
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Marvell Technology Group Ltd.  
Santa Clara, California

We have audited the accompanying consolidated balance sheets of Marvell Technology Group Ltd. and subsidiaries (the "Company") as of January 28, 2017 and January 30, 2016, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity, and cash flows for the years then ended. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Marvell Technology Group Ltd. and subsidiaries as of January 28, 2017 and January 30, 2016, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of January 28, 2017, based on the criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 27, 2017 expressed an adverse opinion on the Company's internal control over financial reporting because of material weaknesses.

/s/ Deloitte & Touche LLP

San Jose, California  
March 27, 2017



REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Marvell Technology Group Ltd.

In our opinion, the accompanying consolidated statements of operations, of comprehensive income (loss), of shareholders' equity and of cash flows for the year ended January 31, 2015 present fairly, in all material respects, the results of operations and cash flows of Marvell Technology Group Ltd. and its subsidiaries for the year ended January 31, 2015, in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) for the year ended January 31, 2015 presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audit. We conducted our audit of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

San Jose, California

March 26, 2015, except for the effects of discontinued operations  
discussed in Note 2 to the consolidated financial statements,  
as to which the date is March 27, 2017

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## MARVELL TECHNOLOGY GROUP LTD.

## CONSOLIDATED BALANCE SHEETS

(In thousands, except par value per share)

	January 28, 2017	January 30, 2016
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$814,092	\$1,278,180
Short-term investments	854,268	1,004,569
Accounts receivable, net of provision for sales returns and allowances of \$1,384 and \$2,762 in fiscal 2017 and 2016, respectively	335,384	323,300
Inventories	171,969	200,958
Prepaid expenses and other current assets	58,771	102,560
Assets held for sale	45,846	45,095
Total current assets	2,280,330	2,954,662
Property and equipment, net	243,397	296,778
Long-term investments	4,615	11,296
Goodwill	2,003,413	2,003,413
Acquired intangible assets, net	3,571	11,947
Other non-current assets	113,324	164,031
Total assets	\$4,648,650	\$5,442,127
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$143,484	\$180,372
Accrued liabilities	143,491	132,060
Carnegie Mellon University accrued litigation settlement	—	736,000
Accrued employee compensation	139,647	121,631
Deferred income	68,124	53,973
Current liabilities held for sale	1,670	1,749
Total current liabilities	496,416	1,225,785
Non-current income taxes payable	60,646	49,256
Other non-current liabilities	63,937	26,963
Total liabilities	620,999	1,302,004
Commitments and contingencies (Note 10)		
Shareholders' equity:		
Preferred stock, \$0.002 par value; 8,000 shares authorized; no shares issued and outstanding	—	—
Common stock, \$0.002 par value; 992,000 shares authorized; 506,095 and 507,572 shares issued and outstanding in fiscal 2017 and 2016, respectively	1,012	1,015
Additional paid-in capital	3,016,775	3,028,921
Accumulated other comprehensive income (loss)	23	(795 )
Retained earnings	1,009,841	1,110,982
Total shareholders' equity	4,027,651	4,140,123
Total liabilities and shareholders' equity	\$4,648,650	\$5,442,127
See accompanying Notes to Consolidated Financial Statements.		



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## MARVELL TECHNOLOGY GROUP LTD.

## CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share amounts)

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Net revenue	\$2,317,674	\$2,649,216	\$3,637,206
Operating costs and expenses:			
Cost of goods sold	1,029,527	1,442,517	1,799,425
Research and development	831,398	994,733	1,091,547
Selling and marketing	115,817	124,096	139,627
General and administrative	127,376	145,359	124,046
Carnegie Mellon University litigation settlement	—	654,667	—
Restructuring and other related charges	105,186	53,251	10,438
Amortization and write-off of acquired intangible assets	8,376	10,098	15,747
Total operating costs and expenses	2,217,680	3,424,721	3,180,830
Operating income (loss)	99,994	(775,505 )	456,376
Interest and other income, net	17,022	17,685	23,334
Income (loss) from continuing operations before income taxes	117,016	(757,820 )	479,710
Provision (benefit) for income taxes	73,022	11,335	(4,077 )
Income (loss) from continuing operations	\$43,994	\$(769,155 )	\$483,787
Loss from discontinued operations, net of tax	(22,843 )	(42,245 )	(48,441 )
Net Income (loss)	\$21,151	\$(811,400 )	\$435,346
Net income (loss) per share - Basic:			
Continuing operations	\$0.09	\$(1.51 )	\$0.95
Discontinued operations	\$(0.05 )	\$(0.08 )	\$(0.10 )
Net Income (loss) per share basic	\$0.04	\$(1.59 )	\$0.85
Net income (loss) per share - Diluted:			
Continuing operations	\$0.09	\$(1.51 )	\$0.93
Discontinued operations	\$(0.05 )	\$(0.08 )	\$(0.09 )
Net Income (loss) per share diluted	\$0.04	\$(1.59 )	\$0.84
Weighted average shares:			
Basic	509,738	510,945	511,089
Diluted	517,513	510,945	520,760
Cash dividends declared per share	\$0.24	\$0.24	\$0.24

See accompanying Notes to Consolidated Financial Statements.

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## MARVELL TECHNOLOGY GROUP LTD.

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(In thousands)

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Net income (loss)	\$21,151	\$(811,400)	\$435,346
Other comprehensive income (loss), net of tax:			
Net change in unrealized gain (loss) on marketable securities	(145 )	(4,424 )	1,234
Net change in unrealized loss on auction rate securities	—	2,274	597
Net change in unrealized gain (loss) on cash flow hedges	963	1,047	(2,120 )
Other comprehensive income (loss), net of tax	818	(1,103 )	(289 )
Comprehensive income (loss), net of tax	\$21,969	\$(812,503)	\$435,057

See accompanying Notes to Consolidated Financial Statements.

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## MARVELL TECHNOLOGY GROUP LTD.

## CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(In thousands except per share amounts)

	Common Stock		Additional	Accumulated	Retained	Total
	Shares	Amount	Paid-in Capital	Other Comprehensive Income (Loss)	Earnings	
Balance at February 1, 2014	502,405	\$1,005	\$2,941,650	\$ 597	\$1,732,658	\$4,675,910
Shares issued pursuant to stock options and awards	9,673	19	38,020	—	—	38,039
Issuance of common stock under the employee stock purchase plan	9,690	19	74,299	—	—	74,318
Cancellation of restricted stock units for net share settlement	(1,661 )	(3 )	(26,491 )	—	—	(26,494 )
Share-based compensation	—	—	137,001	—	—	137,001
Tax benefit from employee stock transactions	—	—	21	—	—	21
Repurchase of common stock	(5,070 )	(10 )	(64,952 )	—	—	(64,962 )
Cash dividends declared and paid (cumulatively \$0.24 per share)	—	—	—	—	(122,801 )	(122,801 )
Net income	—	—	—	—	435,346	435,346
Other comprehensive loss	—	—	—	(289 )	—	(289 )
Balance at January 31, 2015	515,037	1,030	3,099,548	308	2,045,203	5,146,089
Shares issued pursuant to stock options and awards	8,022	16	21,763	—	—	21,779
Issuance of common stock under the employee stock purchase plan	5,890	11	58,927	—	—	58,938
Cancellation of restricted stock units for net share settlement	(1,677 )	(3 )	(24,355 )	—	—	(24,358 )
Share-based compensation	—	—	133,766	—	—	133,766
Tax benefit from employee stock transactions	—	—	108	—	—	108
Repurchase of common stock	(19,700 )	(39 )	(260,836 )	—	—	(260,875 )
Cash dividends declared and paid (cumulatively \$0.24 per share)	—	—	—	—	(122,821 )	(122,821 )
Net loss	—	—	—	—	(811,400 )	(811,400 )
Other comprehensive loss	—	—	—	(1,103 )	—	(1,103 )
Balance at January 30, 2016	507,572	1,015	3,028,921	(795 )	1,110,982	4,140,123
Shares issued pursuant to stock options and awards	11,203	22	57,509	—	—	57,531
Issuance of common stock under the employee stock purchase plan	2,276	5	16,683	—	—	16,688
Cancellation of restricted stock units for net share settlement	(1,653 )	(3 )	(16,679 )	—	—	(16,682 )
Share-based compensation	—	—	113,402	—	—	113,402
Tax deficiency from employee stock transactions	—	—	(24 )	—	—	(24 )

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Repurchase of common stock	(13,303 )	(27 )	(183,037 )	—	—	(183,064 )
Cash dividends declared and paid (cumulatively \$0.24 per share)	—	—	—	—	(122,292 )	(122,292 )
Net income	—	—	—	—	21,151	21,151
Other comprehensive income	—	—	—	818	—	818
Balance at January 28, 2017	506,095	\$1,012	\$3,016,775	\$ 23	\$1,009,841	\$4,027,651

See accompanying Notes to Consolidated Financial Statements.

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## MARVELL TECHNOLOGY GROUP LTD.

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Cash flows from operating activities:			
Net income (loss)	\$21,151	\$(811,400)	\$435,346
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization	107,851	100,176	106,248
Share-based compensation	113,970	133,779	137,246
Amortization and write-off of acquired intangible assets	10,641	12,688	18,337
Restructuring and other related charges	52,581	16,032	17
Loss (gain) from investments in privately-held companies	—	3,503	(8,829)
Amortization (accretion) of premium /discount on available-for-sale securities	3,319	8,112	(3,582)
Other non-cash expense (income), net	(3,312)	2,196	1,765
Excess tax benefits from share-based compensation	(37)	(26)	(145)
Deferred income tax	44,637	6,096	(12,913)
Changes in assets and liabilities, net of assets acquired and liabilities assumed in acquisitions:			
Accounts receivable	(12,084)	97,655	34,165
Inventories	29,325	90,586	39,454
Prepaid expenses and other assets	1,825	(23,209)	5,788
Accounts payable	(28,153)	(105,898)	(43,871)
Accrued liabilities and other non-current liabilities	3,763	(15,202)	(30,024)
Carnegie Mellon University accrued litigation settlement	(736,000)	736,000	—
Accrued employee compensation	18,016	(33,338)	43,561
Deferred income	14,072	(12,398)	6,373
Net cash provided by (used in) operating activities	(358,435)	205,352	728,936
Cash flows from investing activities:			
Purchases of available-for-sale securities	(489,856)	(1,056,045)	(1,128,319)
Sales of available-for-sale securities	616,697	991,657	534,908
Maturities of available-for-sale securities	239,557	311,843	291,402
Distributions from (investments in) privately-held companies	16	(41)	(701)
Purchases of time deposits	(275,000)	—	—
Maturities of time deposits	125,000	—	—
Proceeds from sale of an investment in a privately-held company	—	—	13,220
Purchases of technology licenses	(10,309)	(8,236)	(16,424)
Purchases of property and equipment	(44,510)	(37,255)	(63,030)
Purchases of equipment previously leased	—	(10,240)	—
Proceeds from equipment held for sale	—	10,007	—
Net cash provided by (used in) investing activities	161,595	201,690	(368,944)
Cash flows from financing activities:			
Repurchase of common stock	(181,564)	(260,875)	(64,962)
Proceeds from employee stock plans	74,219	80,717	112,357
Minimum tax withholding paid on behalf of employees for net share settlement	(16,683)	(24,358)	(26,494)
Dividend payments to shareholders	(122,292)	(122,821)	(122,801)



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Payments on technology license obligations	(20,965 )	(12,528 )	(13,010 )
Excess tax benefits from share-based compensation	37	26	145
Net cash used in financing activities	(267,248 )	(339,839 )	(114,765 )
Net increase (decrease) in cash and cash equivalents	(464,088 )	67,203	245,227
Cash and cash equivalents at beginning of the year	1,278,180	1,210,977	965,750
Cash and cash equivalents at end of the year	\$814,092	\$1,278,180	\$1,210,977

See accompanying Notes to Consolidated Financial Statements.

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MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 — The Company and its Significant Accounting Policies

The Company

Marvell Technology Group Ltd., a Bermuda exempted company, and its subsidiaries (the “Company”), is a fabless semiconductor provider of high-performance application-specific standard products. The Company’s core strength is the development of complex System-on-a-Chip devices, leveraging its extensive technology portfolio of intellectual property in the areas of analog, mixed-signal, digital signal processing, and embedded and standalone integrated circuits. The Company also develops platforms that it defines as integrated hardware along with software that incorporates digital computing technologies designed and configured to provide an optimized computing solution. The Company’s broad product portfolio includes devices for storage, networking and connectivity.

Basis of Presentation

The Company’s fiscal year is the 52- or 53-week period ending on the Saturday closest to January 31. Accordingly, every fifth or sixth fiscal year will have a 53-week period. The additional week in a 53-week year is added to the fourth quarter, making such quarter consist of 14 weeks. Fiscal 2017, 2016 and 2015 each had a 52-week period. The next 53-week year will be fiscal 2018.

Discontinued Operations

In connection with the plan the Company announced in November 2016 to restructure its operations to refocus its research and development, increase operational efficiency and improve profitability, it also planned to divest certain businesses and it began an active program to locate buyers for several businesses. As of January 28, 2017, two of these businesses have been classified as discontinued operations (see "Note 2 - Discontinued Operations"). As required, the Company has retrospectively recast its consolidated statements of operations and balance sheets for all periods presented to reflect these businesses as discontinued operations. The cash flows of these discontinued operations were not material for any period presented and we have not segregated the cash flows of these businesses in the consolidated statements of cash flows. Management was also required to make certain assumptions and apply judgment to determine historical expenses related to the discontinued operations presented in prior periods. Unless noted otherwise, discussion in the Notes to Consolidated Financial Statements refers to the Company’s continuing operations.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires management to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent liabilities. On an ongoing basis, the Company evaluates its estimates, including those related to performance-based compensation, revenue recognition, provisions for sales returns and allowances, inventory excess and obsolescence, investment fair values, goodwill and other intangible assets, restructuring, income taxes, litigation and other contingencies. In addition, the Company uses assumptions when employing the Monte Carlo simulation and Black-Scholes valuation models to calculate the fair value of share-based awards that are granted. Actual results could differ from these estimates, and such differences could affect the results of operations reported in future periods.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated. The functional currency of the Company and its subsidiaries is the U.S. dollar.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less from the date of purchase to be cash equivalents. Cash and cash equivalents consist of cash on deposit with banks, time deposits, U.S. government and agency debt, municipal debt securities, corporate debt securities and money market funds.

Investments

The Company's marketable investments are classified as available-for-sale and are reported at fair value. The Company determines any realized gains or losses on the sale of available-for-sale securities on a specific identification method, and such gains and losses are recorded as a component of interest and other income, net. Unrealized gains and losses of the available-for-sale securities are excluded from earnings and reported as a component of accumulated other comprehensive income. Time

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MARVELL TECHNOLOGY GROUP LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

deposits with maturities greater than 90 days, but less than one year are classified in short-term investments as held-to-maturity since the Company has both the intent and ability to hold them to maturity.

In general, investments with original maturities of greater than 90 days and remaining maturities of less than one year are classified as short-term investments. Investments with maturities beyond one year may also be classified as short-term based on their highly liquid nature and can be sold to fund current operations.

The Company also has equity investments in privately-held companies. If the Company has the ability to exercise significant influence over the investee, but not control, or if the investee is a partnership type investment, the Company accounts for the investments under the equity method. If the Company does not have the ability to exercise significant influence over the operations of the investee, the Company accounts for the investment under the cost method. Investments in privately-held companies are included in other non-current assets.

Impairment of Investments

The Company performs a periodic review of its available-for-sale securities to determine whether an other-than-temporary impairment has occurred. Generally, for an individual security that has been in an unrealized loss position for an extended period of time, the Company evaluates whether an impairment charge should be recognized. Its evaluation is based on specific facts and circumstances at the time of assessment, including general market conditions, and the duration and extent to which the fair value is below cost. If the fair value of a debt security is less than its amortized cost, then an other-than-temporary impairment for the difference is recognized if:

the Company has the intent to sell the security;

it is more likely than not that the Company will be required to sell the security before recovery of its amortized cost base; or

a credit loss exists insofar as the Company does not expect to recover the entire recognized amortized cost of the security.

If a debt security's market value is below amortized cost and the Company either intends to sell the security or it is more likely than not that the Company will be required to sell the security before its anticipated recovery, the Company records an other-than-temporary impairment charge to interest and other income, net in the consolidated statements of operations.

Investments in privately-held companies are subject to a periodic impairment review. Investments are considered impaired when the fair value is below the investment's cost basis and the decline in value is judged to be other-than-temporary. This assessment is based on a qualitative and quantitative analysis, including, but not limited to, the investee's revenue and earnings trends, available cash and liquidity, and the status of the investee's products and the related market for such products.

Derivative Financial Instruments

The Company accounts for its derivative instruments as either assets or liabilities and carries them at fair value. For derivative instruments that hedge the exposure to variability in expected future cash flows and are designated as cash flow hedges, the effective portion of the gain or loss on the derivative instrument is reported as a component of accumulated other comprehensive income in the consolidated statements of shareholders' equity and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. The ineffective portion of the gain or loss on the derivative instrument is recognized in current earnings. To receive hedge accounting treatment, cash flow hedges must be highly effective in offsetting changes to expected future cash flows on hedged transactions. Derivatives that are not designated as hedges must be adjusted to fair value through earnings.

Concentration of Credit Risk and Significant Customers

Financial instruments that potentially subject the Company to a significant concentration of credit risk consist principally of cash equivalents, short-term investments and accounts receivable. Cash, cash equivalents and short-term investments balances are maintained with high-quality financial institutions, the composition and maturities of which are regularly monitored by management. The Company believes that the concentration of credit risk in its trade receivables, which consists of a customer base located primarily in the Asia Pacific Region, is substantially mitigated

by the Company's credit evaluation process, relatively short collection terms and the high level of credit worthiness of its customers. The Company performs ongoing credit evaluations of its customers' financial conditions and limits the amount of credit extended when deemed necessary based upon payment history and the customer's current credit worthiness, but generally requires no collateral. The Company regularly reviews the allowance for bad debt and doubtful accounts by considering factors such as historical experience, credit quality, age of the accounts receivable balances and current economic conditions that may affect a customer's ability to pay.

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## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The Company's accounts receivable was concentrated with three customers at January 28, 2017, who represented 14%, 13%, and 11% of gross accounts receivable, respectively, compared with two customers at January 30, 2016, who represented 13% and 11% of gross accounts receivable, respectively.

Historically, a relatively small number of customers have accounted for a significant portion of our net revenue. Net revenue attributable to significant customers whose revenues as a percentage of net revenue was 10% or greater of total net revenues is presented in the following table:

Customer:	Year Ended		Year Ended	
	January 28, 2017	January 30, 2016	January 31, 2016	January 31, 2015
Western Digital*	21 %	19 %	20 %	20 %
Toshiba	13 %	**%	13 %	**%
Seagate	9 %	14 %	13 %	13 %
Wintech	10 %	**%	11 %	11 %

\* The percentage of net revenues reported for Western Digital for fiscal year 2017 includes net revenue of HGST and SanDisk that became subsidiaries of Western Digital in late fiscal 2016.

\*\* Less than 10% of net revenue

The Company continuously monitors the creditworthiness of its distributors and believes these distributors' sales to diverse end customers and to diverse geographies further serve to mitigate the Company's exposure to credit risk.

#### Inventories

Inventory is stated at the lower of cost or market, cost being determined under the first-in, first-out method. The total carrying value of the Company's inventory is reduced for any difference between cost and estimated market value of inventory that is determined to be excess, obsolete or unsellable inventory based upon assumptions about future demand and market conditions. If actual future demand for the Company's products is less than currently forecasted, the Company may be required to write inventory down below the current carrying value. Once the carrying value of inventory is reduced, it is maintained until the product to which it relates to is sold or otherwise disposed of.

Inventoriable shipping and handling costs are classified as a component of cost of goods sold in the consolidated statements of operations.

#### Property and Equipment, Net

Property and equipment, net, are stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the assets, which ranges from 3 to 7 years for machinery and equipment, and 3 to 4 years for computer software, and furniture and fixtures. Buildings are depreciated over an estimated useful life of 30 years and building improvements are depreciated over estimated useful lives of 15 years. Leasehold improvements are depreciated over the shorter of the remaining lease term or the estimated useful life of the asset.

#### Goodwill

Goodwill is recorded when the consideration paid for a business acquisition exceeds the fair value of net tangible and intangible assets acquired. Goodwill is measured and tested for impairment annually on the last business day of the fiscal fourth quarter and whenever events or changes in circumstances indicate the carrying amount of goodwill may not be recoverable. The Company first assesses qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount.

If the Company concludes that it is more likely than not that the fair value of a reporting unit is less than its carrying amount or if the Company notes multiple qualitative factors indicating potential impairment, then a two-step

quantitative impairment test is performed. The first step requires comparing the fair value of the reporting unit to its net book value, including goodwill. The Company has identified that its business operates as a single operating segment with two components (Storage, and Networking & Connectivity), which it has concluded can be aggregated into a single reporting unit for purposes of testing goodwill impairment. As part of a restructuring announced in November 2016 (see “Note 8 - Restructuring and Other Related Charges”), the former Smart Networked Devices and Solutions component was renamed to Networking & Connectivity. A potential impairment exists if the fair value of the reporting unit is lower than its net book value. The second step of the process is only performed if a potential impairment exists, and it involves determining the implied fair value of the reporting unit’s goodwill and comparing it to the carrying value of goodwill. If the carrying value of goodwill were to exceed

MARVELL TECHNOLOGY GROUP LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

its implied fair value, then the Company would record an impairment loss for the difference in the fiscal quarter in which the determination is made.

Long-Lived Assets and Intangible Assets

The Company assesses the impairment of long-lived assets and intangible assets whenever events or changes in circumstances indicate that the carrying amount of long-lived assets may not be recoverable. The Company estimates the future cash flows, undiscounted and without interest charges, expected to be generated by the assets from its use or eventual disposition. If the sum of the expected undiscounted future cash flows is less than the carrying amount of those assets, the Company recognizes an impairment loss based on the excess of the carrying amount over the fair value of the assets. Please see “Note 7 — Goodwill and Acquired Intangible Assets, Net” for further details regarding impairment of acquisition-related identified intangible assets.

Acquisition-related identified intangible assets are amortized on a straight-line basis over their estimated economic lives. In-process research and development (“IPR&D”) is not amortized until the completion of the related development.

Foreign Currency Transactions

The functional currency of all of the Company’s non-U.S. operations is the U.S. dollar. Monetary accounts maintained in currencies other than the U.S. dollar are re-measured using the foreign exchange rate at the balance sheet date. Operational accounts and nonmonetary balance sheet accounts are measured and recorded at the exchange rate in effect at the date of the transaction. The effects of foreign currency re-measurement are reported in current operations.

Revenue Recognition

The Company recognizes revenue when there is persuasive evidence of an arrangement, delivery has occurred, the fee is fixed or determinable, and collection is reasonably assured. If the Company grants extended payment terms greater than its standard terms for a customer such that collectability is not assured, the revenue is deferred upon shipment and will be recognized when the payment becomes due provided all other revenue recognition criteria have been satisfied.

Product revenue is generally recognized upon shipment of product to customers, net of accruals for estimated sales returns and rebates. However, some of the Company’s sales are made through distributors under agreements allowing for price protection and limited rights of stock rotation on products unsold by the distributors. Although title passes to the distributor upon shipment, terms and payment by the Company’s distributors is not contingent on resale of the product. Product revenue on sales made through distributors with price protection and stock rotation rights are deferred until the distributors sell the product to end customers. Deferred revenue less the related cost of the inventories is reported as deferred income. The Company does not believe that there is any significant exposure related to impairment of deferred cost of sales, as its historical returns have been minimal and inventory turnover for its distributors generally ranges from 60 to 90 days. The Company’s sales to direct customers are made primarily pursuant to standard purchase orders for delivery of products.

A portion of the Company’s net revenue is derived from sales through third-party logistics providers, who maintain warehouses in close proximity to the customer’s facilities. Revenue from sales through these third-party logistics providers is not recognized until the product is pulled from stock by the end customer.

The provision for estimated sales returns on product sales is recorded in the same period the related revenues are recorded. These estimates are based on historical returns, analysis of credit memo data and other known factors. Actual returns could differ from these estimates. The Company accounts for rebates by recording reductions to revenue for rebates in the same period that the related revenue is recorded. The amount of these reductions is based upon the terms agreed to with the customer.

Advertising Expense

Advertising costs are expensed as incurred. The Company recorded \$0.5 million, \$5.1 million and \$5.6 million of advertising costs for fiscal 2017, 2016 and 2015, respectively, included in selling and marketing expenses in the consolidated statement of operations.

Share-Based Compensation



Share-based compensation is measured at the grant date, based on the fair value of the award, and is recognized as expense over the requisite service period. The Company amortizes share-based compensation expense for time-based awards under the straight-line attribution method over the vesting period. Share-based compensation expense for performance-based awards is recognized when it becomes probable that the performance conditions will be met. Once it becomes probable that a performance-based award will vest, the Company recognizes compensation expense equal to the number of shares expected to vest multiplied by the fair value of the award at the grant date, which is amortized using the accelerated method. In the case of performance-based awards based on total shareholder return ("TSR"), share-based compensation expense is amortized over the

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MARVELL TECHNOLOGY GROUP LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

requisite service period. For stock purchase rights under the stock purchase plan, the Company amortizes share-based compensation expense ratably over the two-year offering period.

The Company estimates the fair value of time-based stock option and stock purchase awards on the date of grant using the Black Scholes option-pricing model. The fair value of TSR awards is estimated on the date of grant using a Monte Carlo simulation model since the award is indexed to the price of the Company's common stock as set forth under the terms of the award. The value of the portion of the awards that is ultimately expected to vest is recognized as expense over the requisite service periods. The Black Scholes and Monte Carlo models incorporate various highly subjective assumptions including expected term of awards, expected future stock price volatility, expected dividend yield and risk-free interest rate.

In developing estimates used to calculate assumptions, the Company establishes the expected term for employee stock options, as well as expected forfeiture rates, based on the historical settlement experience and after giving consideration to vesting schedules. Assumptions for stock option exercises and pre-vesting terminations of stock options are stratified by two employee groups and one employee/non-employee group with sufficiently distinct behavior patterns. Expected volatility was developed based on equally weighted combination of historical stock price volatility and implied volatility derived from traded options on the Company's stock in the marketplace. The expected dividend yield is calculated by dividing annualized dividend payments by the closing stock price on the grant date of the option.

The fair value of each restricted stock unit is estimated based on the market price of the Company's common shares on the date of grant less the expected dividend yield.

Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from initial estimates. Share-based compensation expense for time-based and performance-based awards is recorded net of estimated forfeitures such that expense is recorded only for those share-based awards that are expected to vest. Previously recognized expense is reversed for the portion of awards forfeited prior to vesting as and when forfeitures occurred.

#### Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income and unrealized gains and losses, net of tax, on available-for-sale securities, auction rate securities and cash flow hedges. Accumulated other comprehensive income (loss), as presented on the accompanying consolidated balance sheets, consists of net unrealized gains and losses on available-for-sale securities, auction rate securities and cash flow hedges, net of tax.

#### Accounting for Income Taxes

The Company recognizes income taxes using an asset and liability approach. This approach requires the recognition of taxes payable or refundable for the current year, and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in the Company's consolidated financial statements or tax returns. The measurement of current and deferred taxes is based on provisions of the enacted tax law and the effects of future changes in tax laws or rates are not anticipated.

Using available evidence and judgment, the Company establishes a valuation allowance for deferred tax assets, when it is determined that it is more likely than not that they will not be realized. Valuation allowances have been provided primarily against the U.S. research and development credits. Valuation allowances have also been provided against certain acquired operating losses and the deferred tax assets of foreign subsidiaries. A change in the assessment of the realization of deferred tax assets may materially impact the Company's tax provision in the period in which a change of assessment occurs.

The Company is subject to income tax audits by the respective tax authorities in each jurisdiction in which the Company operates. The Company recognizes the effect of income tax positions only if these positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is more than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The Company records interest and penalties related to unrecognized tax benefits in income tax expense.

Warranty

The Company's products are generally subject to warranty, which provides for the estimated future costs of repair or replacement upon shipment of the product. The Company's products carry a standard 90-day warranty, with certain exceptions in which the warranty period can extend to more than one year based on contractual agreements. The warranty accrual is primarily estimated based on historical claims compared to historical revenues and assumes that the Company will have to replace products subject to a claim. From time to time, the Company becomes aware of specific warranty situations, and it records specific accruals to cover these exposures. Warranty expenses were not material in fiscal 2017, 2016 and 2015.

Recent Accounting Pronouncements

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MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Accounting Pronouncements Recently Adopted

In April 2015, the Financial Accounting Standards Board ("FASB") issued new guidance to help entities evaluate the accounting for fees paid by a customer in a cloud computing arrangement, which the Company adopted beginning in the first quarter of fiscal 2017. The guidance provides a basis for evaluating whether a cloud computing arrangement includes a software license and whether the license arrangement should be accounted for as an intangible asset. This guidance also strikes from previous authoritative guidance, the use by analogy to the accounting for capital leases, which the Company previously applied in the accounting for certain of its technology license agreements. As such, the Company accounts for new agreements under the new guidance by determining if capitalization as an asset is appropriate or if the arrangement should be treated as a subscription with expense recognized in the period when service is received. Similarly, the Company will re-evaluate the accounting for any renewals to existing license agreements in accordance with the new guidance as they occur.

Accounting Pronouncements Not Yet Effective

In May 2014, the FASB issued a new standard on the recognition of revenue from contracts with customers, which will supersede nearly all existing revenue recognition guidance under GAAP. The new standard will require an entity to recognize revenue from 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 guidance addresses, in particular, contracts with more than one performance obligation, as well as the accounting for some costs to obtain or fulfill a contract with a customer, and provides for additional disclosures with respect to revenues and cash flows arising from contracts with customers. Public entities are required to apply the amendments on either a full or modified retrospective basis for annual periods beginning after December 15, 2017 and for interim periods within those annual periods. This update will be effective for the Company beginning in the first quarter of fiscal year 2019. Early adoption is not permitted. The Company plans to adopt the standard retrospectively with the cumulative effect of initially applying it recognized at the date of initial application under the full retrospective approach.

The Company's initial assessment has identified a change in revenue recognition timing on our component sales made to distributors. The Company expects to recognize revenue when the Company delivers to the distributor rather than deferring recognition until the distributor sells the components. Other changes may be identified as the Company completes the assessment phase of its revenue project. On the date of initial application, the Company will remove the deferred net revenue on component sales made to distributors through a cumulative adjustment to retained earnings. The Company expects the revenue and corresponding cost of goods sold deferral to be offset by the acceleration of revenue recognition as control of the product transfers to our customer.

To date, the Company has completed the assessment phase of its revenue project and has begun the next phase for the design and development of its systems and processes to enable compliance with the new standards. It expects to complete this phase in its second quarter of fiscal 2018 ending July 29, 2017. Currently, the Company has determined to apply the amendments on a full retrospective basis, although it may decide to change at a later date. The Company will continue to track relevant elements and finalize its evaluation of any changes to its accounting policies and disclosures.

In July 2015, the FASB issued an amendment to its guidance regarding the subsequent measurement of inventory. Currently, inventory is measured at the lower of cost or market. Market could be replacement cost, net realizable value or net realizable value less an approximately normal profit margin. Under this amended guidance, inventory is to be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. This amendment applies to inventories for which cost is determined by methods other than last-in first-out and the retail

inventory method. This standard is effective for annual and interim reporting periods beginning after December 15, 2016. The Company does not expect the adoption of this new accounting standard in the first quarter of fiscal 2018 will have a material effect on its consolidated financial statements.

In February 2016, the FASB issued a new standard on the accounting for leases, which requires a lessee to record a right-of-use asset and a corresponding lease liability on the balance sheet for all leases with terms longer than twelve months. The standard also expands the required quantitative and qualitative disclosures surrounding lease arrangements. The standard is effective for annual and interim reporting periods beginning after December 15, 2018. The Company is currently evaluating the effect this new guidance will have on its consolidated financial statements.

In March 2016, the FASB issued new guidance which simplifies several aspects of the accounting for share-based payment award transactions, including the accounting for income taxes, forfeitures and statutory tax withholding requirements, as well as classification in the statement of cash flows. The guidance is effective for annual and interim reporting periods

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

beginning after December 15, 2016. The Company does not expect the adoption of this new accounting standard to have a material effect on its consolidated financial statements since the Company will continue to account for forfeitures based on an estimated forfeiture rate.

In June 2016, the FASB issued a new standard requiring financial assets measured at amortized cost be presented at the net amount expected to be collected, through an allowance for credit losses that is deducted from the amortized cost basis. The standard eliminates the probable initial recognition in current GAAP and reflects an entity's current estimate of all expected credit losses. The measurement of expected credit losses is based upon historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the financial assets. The standard is effective for annual and interim reporting periods beginning after December 15, 2019. The Company is currently evaluating the effect this new guidance will have on its consolidated financial statements.

In August 2016, the FASB issued an accounting standards update to add or clarify guidance on the classification of certain cash receipts and cash payments in the statement of cash flows. The amendments in the update provide guidance on eight specific cash flow issues, and is effective for annual and interim periods beginning after December 15, 2017. Early adoption is permitted, including adoption in an interim period. The amendments to the guidance should be applied using a retrospective transition method for each period presented and if it is impracticable to apply all of the amendments retrospectively for some of the issues, the amendments for those issues would be applied prospectively as of the earliest date practicable. The Company is evaluating the effect this new guidance will have on its consolidated statement of cash flows.

In October 2016, the FASB issued new guidance which simplifies the accounting for the income tax effects of intra-entity transfers and will require companies to recognize the income tax effects of intra-entity transfers of assets other than inventory when the transfer occurs. Previous guidance required companies to defer the income tax effects of intra-entity transfers of assets until the asset had been sold to an outside party or otherwise recognized. The guidance is effective for annual and interim periods beginning after December 15, 2017. Early adoption is permitted, including adoption in an interim period. The Company is evaluating the effect this new guidance will have on its consolidated financial statements.

In November 2016, the FASB issued new guidance which requires entities to include in their cash and cash-equivalent balances in the statement of cash flows those amounts that are deemed to be restricted cash and restricted cash equivalents. As a result, companies will no longer present transfers between cash and cash equivalents, and restricted cash and restricted cash equivalents in the statement of cash flows. The guidance is effective for annual and interim periods beginning after December 15, 2017. Early adoption is permitted, including adoption in an interim period. The Company is evaluating the effect this new guidance will have on its consolidated financial statements.

In January 2017, the FASB issued an accounting standards update which revises the definition of a business. The amendments provide a more robust framework for determining when a set of assets and activities is a business and is intended to help companies evaluate whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The guidance is effective for annual and interim periods beginning after December 15, 2018. Early adoption is permitted for certain transactions as specifically described in the guidance. The Company is evaluating the effect this new guidance will have on its consolidated financial statements.

In January 2017, the FASB issued an accounting standards update which simplifies the accounting for goodwill impairment by eliminating Step 2 of the goodwill impairment test, which required a hypothetical purchase price allocation. Instead, an entity shall perform its annual or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. Goodwill impairment will now be measured as the amount by which a

reporting unit's carrying value exceeds its fair value, but not in an amount to exceed the carrying amount of goodwill allocated to the reporting unit. This guidance will be effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019, with early adoption permitted for interim or annual goodwill impairment tests performed on testing dates after January 31, 2017. The Company's current year step one test outcomes indicated that the adoption of this pronouncement is not expected to have a material effect on the Company's consolidated financial statements.

Note 2 — Discontinued Operations

In July 2016, the Company hired a new President and Chief Executive Officer who immediately initiated a review of the Company's businesses in order to assess the market position and potential returns of each business. The outcome of this process was to align the Company's core competencies to ensure it is investing in areas that are most likely to provide the best long-

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MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

term returns. The Company identified several businesses that it believes no longer fit with its core competencies and long-term goals to focus on the storage, networking and connectivity markets.

After the business review had been completed, the Company assessed its overall resource requirements in terms of direct costs and indirect costs. In November 2016, the Company announced a plan to restructure its operations to refocus its research and development, increase operational efficiency and improve profitability. The Company expects that the restructuring actions, which include discontinuing investment in specific research and development programs, streamlining engineering processes, and consolidating research and development sites, will eliminate approximately 900 positions worldwide. In addition, the Company plans to divest certain businesses with approximately \$60 million in operating expenses and \$100 million in revenue based on a first half of fiscal 2017 annualized run rate.

As part of the above actions, the Company began an active program to locate buyers for several businesses. The Company concluded that the divestitures of these businesses represented a strategic shift that has a major effect on the Company's operations and financial results. These businesses were deemed not to align with the Company's core business. As of January 28, 2017, the Company believes two of these businesses will be sold within the next twelve months. The Company has entered into an agreement with a buyer for one of the businesses and is actively seeking a buyer for another business, which it believes is probable and, therefore, the Company expects the sale of these two businesses to be completed within the next twelve months. The Company continues its effort to sell a third business. However, at this time, management does not believe the sale will be completed within the next twelve months. As a result, the Company has classified the two above-mentioned businesses as discontinued operations, and has reclassified its statement of operations and balance sheets for all periods presented in its consolidated financial statements to report the effect of these discontinued operations.

The following table presents a reconciliation of the carrying amounts of major classes of assets and liabilities of the discontinued operations to the total assets and liabilities of the disposal group classified as held for sale that are presented separately in the consolidated balance sheets (in thousands):

	January 28, 2017	January 30, 2016
Current assets held for sale:		
Inventory	\$8,154	\$9,059
Property and equipment, net	2,898	2,762
Goodwill	26,532	26,532
Acquired intangible assets, net	3,799	6,063
Other	1,490	679
Current assets held for sale for discontinued operations	42,873	45,095
Other assets held for sale		
Property and equipment, net	2,973	—
Total assets of the disposal group classified as held for sale	\$45,846	\$45,095
Current liabilities held for sale:		
Deferred Income	\$1,670	\$1,749
Total liabilities of the disposal group classified as held for sale	\$1,670	\$1,749

The following table presents a reconciliation of the major financial lines constituting the results of operations for discontinued operations to the net loss from discontinued operations presented separately in the consolidated statement of operations (in thousands):





## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Net Revenue	\$98,755	\$76,612	\$69,757
Operating costs and expenses:			
Cost of goods sold	60,799	52,219	44,281
Research and development	53,784	59,524	67,263
Selling and marketing	4,750	4,684	4,325
General and administrative	963	769	795
Amortization of acquired intangible assets	325	650	650
Total operating costs and expenses	120,621	117,846	117,314
Loss from discontinued operations before income taxes	(21,866 )	(41,234 )	(47,557 )
Provision for income taxes	977	1,011	884
Net loss from discontinued operations	\$(22,843)	\$(42,245)	\$(48,441)

The Company has elected not to separately report discontinued operations in its consolidated statement of cash flows since its effect is not material. Non-cash operating amounts reported for discontinued operations include share-based compensation expense of \$9.2 million, \$7.8 million and \$6.2 million in fiscal 2017, 2016 and 2015, respectively. Depreciation, amortization and capital expenditures are not material and there were no other material non-cash investing amounts related to the cash flows from discontinued operations. Due to the Company's transfer pricing arrangements, the Company generates income in most jurisdictions in which it operates, regardless if there is a loss on a consolidated basis. As such, the Company has reflected tax expense of \$1.0 million, \$1.0 million, and \$0.9 million for fiscal years 2017, 2016, and 2015, respectively, attributable to discontinued operations.

## Note 3 — Investments

The following tables summarize the Company's investments (in thousands):

	January 28, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Short-term investments:				
Available-for-sale:				
Corporate debt securities	\$432,603	\$ 281	\$(776 )	\$432,108
U.S. government and agency debt	185,584	86	(283 )	185,387
Asset backed securities	45,541	33	(47 )	45,527
Foreign government and agency debt	13,425	—	(50 )	13,375
Municipal debt securities	27,916	4	(49 )	27,871
Held-to-Maturity:				
Time deposits	150,000	—	—	150,000
Total short-term investments	855,069	404	(1,205 )	854,268
Long-term investments:				
Available-for-sale:				
Auction rate securities	4,615	—	—	4,615
Total long-term investments	4,615	—	—	4,615
Total investments	\$859,684	\$ 404	\$(1,205 )	\$858,883



## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	January 30, 2016			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Short-term investments:				
Available-for-sale:				
Corporate debt securities	\$558,337	\$ 766	\$ (1,282 )	\$557,821
U.S. government and agency debt	317,595	64	(254 )	317,405
Asset backed securities	76,711	81	(56 )	76,736
Foreign government and agency debt	21,370	2	(14 )	21,358
Municipal debt securities	31,211	45	(7 )	31,249
Total short-term investments	1,005,224	958	(1,613 )	1,004,569
Long-term investments:				
Available-for-sale:				
Auction rate securities	11,296	—	—	11,296
Total long-term investments	11,296	—	—	11,296
Total investments	\$1,016,520	\$ 958	\$ (1,613 )	\$1,015,865

As of January 28, 2017, the Company's investment portfolio included auction rate securities with an aggregate par value of \$5 million. Although these auction rate securities have continued to pay interest and the underlying collateral has not deteriorated, there is currently limited trading volume. The Company uses a discounted cash flow model to estimate the fair value of the auction rate securities based on its estimated timing and amount of future interest and principal payments. The fair value of the auction rate securities as of January 28, 2017 was \$0.4 million less than the par value and is included in long-term investments.

The Company made a determination in January 2016 that it did not expect to recover the par value of these auction rate securities and considers any impairment of these securities to be other-than-temporary. There has been no change in circumstances since January 2016 based upon the current time horizon for holding these auction rate securities and the continuation of an illiquid market. Based on the Company's assessment of fair value as of January 28, 2017, the Company determined there was no further impairment of these auction rate securities.

During fiscal 2017, the Company sold auction rate securities with an aggregate par value of \$7.5 million for total net proceeds of \$6.9 million. The carrying value of these auction rate securities was \$6.7 million and resulted in a net gain of \$0.2 million recorded in interest and other income, net, in the year ended January 28, 2017.

Gross realized gains and gross realized losses on sales of available-for-sale securities are presented in the following table (in thousands):

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Gross realized gains	\$2,047	\$ 1,654	\$ 1,618
Gross realized losses	(547 )	(1,923 )	(169 )
Impairment loss	—	(1,204 )	—
Total net realized gains (losses)	\$1,500	\$ (1,473 )	\$ 1,449

The contractual maturities of available-for-sale securities are presented in the following table (in thousands):

	January 28, 2017		January 30, 2016	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
Due in one year or less	\$423,151	\$ 423,058	\$304,117	\$304,035
Due between one and five years	423,669	422,995	689,847	689,279
Due over five years	12,864	12,830	22,556	22,551

\$859,684 \$858,883 \$1,016,520 \$1,015,865

## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

For individual securities that have been in a continuous unrealized loss position, the fair value and gross unrealized loss for these securities aggregated by investment category and length of time in an unrealized position are presented in the following tables (in thousands):

	January 28, 2017					
	Less than 12 months		12 months or more		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Corporate debt securities	\$199,382	\$ (751 )	\$16,063	\$ (25 )	\$215,445	\$ (776 )
U.S. government and agency debt	94,064	(283 )	—	—	94,064	(283 )
Asset backed securities	16,754	(47 )	—	—	16,754	(47 )
Foreign government and agency debt	11,875	(48 )	1,499	(2 )	13,374	(50 )
Municipal debt securities	17,450	(47 )	1,248	(2 )	18,698	(49 )
Total securities	\$339,525	\$ (1,176 )	\$18,810	\$ (29 )	\$358,335	\$ (1,205 )

  

	January 30, 2016					
	Less than 12 months		12 months or more		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
Corporate debt securities	\$283,138	\$ (1,237 )	\$14,383	\$ (45 )	\$297,521	\$ (1,282 )
U.S. government and agency debt	263,325	(254 )	—	—	263,325	(254 )
Asset backed securities	46,646	(56 )	—	—	46,646	(56 )
Foreign government and agency debt	16,458	(14 )	—	—	16,458	(14 )
Municipal debt securities	2,943	(5 )	1,571	(2 )	4,514	(7 )
Total securities	\$612,510	\$ (1,566 )	\$15,954	\$ (47 )	\$628,464	\$ (1,613 )

## Note 4 — Supplemental Financial Information (in thousands)

## Consolidated Balance Sheets

	January 28, 2017	January 30, 2016
Cash and cash equivalents:		
Cash	\$ 651,953	\$ 669,312
Cash equivalents:		
Time deposits	67,000	209,405
U.S. government and agency debt	17,497	184,374
Money market funds	36,122	160,400
Corporate debt securities	31,280	54,689
Municipal debt securities	8,740	—
Foreign government and agency debt	1,500	—
Cash and cash equivalents	\$ 814,092	\$ 1,278,180
	January 28, 2017	January 30, 2016
Provision for sales returns and allowances:		
Sales returns	\$ 470	\$ 1,873
Doubtful accounts	914	889
	\$ 1,384	\$ 2,762



MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	January 28, 2017	January 30, 2016
Inventories:		
Work-in-process	\$ 110,083	\$ 125,800
Finished goods	61,886	75,158
Inventories	\$ 171,969	\$ 200,958

Inventory held by third-party logistics providers is recorded as consigned inventory on the Company's consolidated balance sheet. The amount of inventory held at third-party logistics providers was \$26.5 million and \$21.0 million at January 28, 2017 and January 30, 2016, respectively.

	January 28, 2017	January 30, 2016
Property and equipment, net:		
Machinery and equipment	\$ 578,248	\$ 575,954
Buildings and building improvements	194,290	194,247
Computer software	99,186	102,840
Land	53,373	53,373
Leasehold improvements	49,004	50,192
Furniture and fixtures	23,903	27,118
Construction in progress	11,240	1,353
	1,009,244	1,005,077
Less: Accumulated depreciation	(765,847 )	(708,299 )
Property and equipment, net	\$ 243,397	\$ 296,778

The Company recorded depreciation expense of \$82.4 million, \$73.8 million and \$78.3 million for fiscal 2017, 2016 and 2015, respectively.

	January 28, 2017	January 30, 2016
Other non-current assets:		
Technology and other licenses	\$ 53,254	\$ 48,091
Deferred tax assets	26,608	34,505
Investments in privately-held companies	5,787	5,804
Prepaid land use rights	12,810	13,123
Deposits	3,756	51,512
Other	11,109	10,996
Other non-current assets	\$ 113,324	\$ 164,031

Amortization of technology and other licenses was \$25.5 million, \$26.4 million and \$27.9 million in fiscal 2017, 2016 and 2015, respectively. In connection with its restructuring plan announced in November 2016, the Company recorded the impairment of a \$45.0 million nonrefundable deposit due to non-utilization of the related contract in fiscal 2017.



## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	January 28, 2017	January 30, 2016		January 28, 2017	January 30, 2016
Accrued liabilities:					
Accrued rebates	\$ 26,095	\$ 41,320			
Restructuring liability	23,150	3,842			
Accrued royalties	17,349	16,217			
Technology license obligations	21,905	17,985			
Accrued legal expense	5,127	9,761			
Other	49,865	42,935			
Accrued liabilities	\$ 143,491	\$ 132,060			
Deferred income:					
Net deferred revenue	\$ 93,148	\$ 75,541			
Deferred cost of goods sold	(25,024 )	(21,568 )			
Deferred income	\$ 68,124	\$ 53,973			
Other non-current liabilities:					
Technology license obligations	\$ 14,949	\$ 12,461			
Long-term accrued employee compensation	4,075	6,078			
Deferred tax liabilities	38,777	1,098			
Other	6,136	7,326			
Other non-current liabilities	\$ 63,937	\$ 26,963			

## Accumulated other comprehensive income (loss):

The changes in accumulated other comprehensive income (loss) by components are presented in the following tables (in thousands):

	Unrealized Gain (Loss) on Marketable Securities	Unrealized Loss on Auction Rate Securities	Unrealized Gain (Loss) on Cash Flow Hedges	Total
Balance at January 31, 2015	\$ 3,768	\$ (2,274 )	\$ (1,186 )	\$ 308
Other comprehensive income (loss) before reclassifications	(3,838 )	—	1,111	(2,727)
Amounts reclassified from accumulated other comprehensive income (loss)	(586 )	2,274	(64 )	1,624
Net current-period other comprehensive income (loss), net of tax	(4,424 )	2,274	1,047	(1,103)
Balance at January 30, 2016	(656 )	—	(139 )	(795 )
Other comprehensive income before reclassifications	1,766	—	1,496	3,262
Amounts reclassified from accumulated other comprehensive income	(1,911 )	—	(533 )	(2,444)
Net current-period other comprehensive income (loss), net of tax	(145 )	—	963	818
Balance at January 28, 2017	\$ (801 )	\$ —	\$ 824	\$ 23

The amounts reclassified from accumulated other comprehensive income (loss) by components are presented in the following table (in thousands):



## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Affected Line Item in the Statement of Operations	Year Ended		
	January 28, 2017	February 30, 2016	January 31, 2015
Interest and other income, net:			
Available-for-sale securities:			
Marketable securities	\$ 1,911	\$ 586	\$ 1,245
Auction rate securities	—	(2,274 )	(512 )
Operating costs and expenses:			
Cash flow hedges:			
Research and development	467	48	(198 )
Selling and marketing	10	(1 )	(8 )
General and administrative	56	17	(12 )
Total	\$2,444	\$ (1,624 )	\$ 515

## Consolidated Statements of Operations

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Interest and other income, net:			
Interest income	\$ 13,198	\$ 15,982	\$ 11,370
Net realized gain (loss) on investments	1,500	(1,473 )	1,449
Currency translation gain	1,746	6,655	1,871
Other income (loss)	946	(2,773 )	9,811
Interest expense	(368 )	(706 )	(1,167 )
	\$ 17,022	\$ 17,685	\$ 23,334

## Consolidated Statements of Cash Flows

	Year Ended		
	January 28, 2017	February 30, 2016	January 31, 2015
Supplemental cash flow information:			
Cash paid for interest	\$ 363	\$ 703	\$ 1,167
Cash paid for income taxes, net	\$ 17,032	\$ 13,363	\$ 15,727
Non-Cash Investing and Financing Activities:			
Purchase of intellectual property under license obligations	\$ 27,081	\$ 13,800	\$ —
Unsettled trade receivable of available-for-sale securities	\$ 7,742	\$ 53,749	\$ —
Unsettled trade payable of available-for-sale securities	\$ 15,371	\$ —	\$ —
Unpaid purchase of property and equipment at end of year	\$ 2,547	\$ 9,069	\$ 7,083
Unpaid repurchases of our common shares	\$ 1,499	\$ —	\$ —

## Net income (loss) per share

The Company reports both basic net income (loss) per share, which is based on the weighted average number of common shares outstanding during the period, and diluted net income (loss) per share, which is based on the weighted average number of common shares outstanding and potentially dilutive shares outstanding during the period. The computations of basic and diluted net income (loss) per share are presented in the following table (in thousands, except per share amounts):



## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Numerator:			
Income (loss) from continuing operations	\$43,994	\$(769,155)	\$483,787
Loss from discontinued operations	(22,843 )	(42,245 )	(48,441 )
Net income (loss)	\$21,151	\$(811,400)	\$435,346
Denominator:			
Weighted average shares — basic	509,738	510,945	511,089
Effect of dilutive securities:			
Share-based awards	7,775	—	9,671
Weighted average shares — diluted	517,513	510,945	520,760
Income (loss) from continuing operations per share:			
Basic	\$0.09	\$(1.51 )	\$0.95
Diluted	\$0.09	\$(1.51 )	\$0.93
Loss from discontinued operations per share:			
Basic	\$(0.05 )	\$(0.08 )	\$(0.10 )
Diluted	\$(0.05 )	\$(0.08 )	\$(0.09 )
Net income (loss) per share:			
Basic	\$0.04	\$(1.59 )	\$0.85
Diluted	\$0.04	\$(1.59 )	\$0.84

Potential dilutive securities include dilutive common shares from share-based awards attributable to the assumed exercise of stock options, restricted stock units and employee stock purchase plan shares using the treasury stock method. Under the treasury stock method, potential common shares outstanding are not included in the computation of diluted net income per share, if their effect is anti-dilutive.

Anti-dilutive potential shares are presented in the following table (in thousands):

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Weighted average shares outstanding:			
Share-based awards	22,642	64,420	35,636

Anti-dilutive potential shares from share-based awards are excluded from the calculation of diluted earnings per share for all periods reported above because either their exercise price exceeded the average market price during the period or the share-based awards were determined to be anti-dilutive based on applying the treasury stock method.

Anti-dilutive potential shares from share-based awards are also excluded from the calculation of diluted earnings per share for the year ended January 30, 2016 due to the net loss reported in fiscal 2016.

## Note 5 — Derivative Financial Instruments

The Company manages some of its foreign currency exchange rate risk through the purchase of foreign currency exchange contracts that hedge against the short-term effect of currency fluctuations. The Company's policy is to enter into foreign currency forward contracts with maturities less than 12 months that mitigate the effect of rate fluctuations on certain local currency denominated operating expenses. All derivative instruments are recorded at fair value in either prepaid expenses and other current assets or accrued liabilities. The Company reports cash flows from derivative instruments in cash flows from operating activities. The Company uses quoted prices to value its derivative instruments.

The notional amounts of outstanding forward contracts were as follows (in thousands):

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## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

## Buy Contracts

	January 28,	January 30,
	2017	2016

Israeli shekel	\$63,523	\$ 19,082
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**Cash Flow Hedges.** The Company designates and documents its foreign currency forward exchange contracts as cash flow hedges for certain operating expenses. The Company evaluates and calculates the effectiveness of each hedge at least quarterly. The effective change is recorded in accumulated other comprehensive income and is subsequently reclassified to operating expense when the hedged expense is recognized. Ineffectiveness is recorded in interest and other income, net.

**Other Foreign Currency Forward Contracts.** The Company may enter into foreign currency forward exchange contracts to hedge certain assets and liabilities denominated in various foreign currencies that it does not designate as hedges for accounting purposes. The maturities of these contracts are generally less than 12 months. Gains or losses arising from the remeasurement of these contracts to fair value each period are recorded in interest and other income, net.

The fair value of foreign currency exchange contracts was not significant as of any period presented.

The following table provides information about gains (losses) associated with our derivative financial instruments (in thousands):

	Amount of Gains (Losses) in Statement		
	of Operations for the Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Derivatives designated as cash flow hedges:			
Forward contracts:			
Research and development	\$737	\$ (390 )	\$ (1,930 )
Selling and marketing	15	(5 )	(24 )
General and administrative	86	(26 )	(157 )
	\$838	\$ (421 )	\$ (2,111 )

The portion of gains (losses) excluded from the assessment of hedge effectiveness are included in interest and other income, net, and these amounts were \$(0.3) million, \$(0.1) million and \$0.2 million in fiscal 2017, 2016 and 2015, respectively. In addition, realized losses from forward contracts that are not designated as hedging instruments that are included in interest and other income, net, were not material in fiscal 2017, 2016 and 2015. The Company also reports hedge ineffectiveness from derivative financial instruments in current earnings, which were not material in fiscal 2017, 2016 and 2015. No cash flow hedges were terminated as a result of forecasted transactions that did not occur.

**Note 6 — Fair Value Measurements**

Fair value is an exit price representing the amount that would be received in the sale of an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. As a basis for considering such assumptions, the accounting guidance establishes a three-tier value hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value:

Level 1 — Observable inputs that reflect quoted prices for identical assets or liabilities in active markets.

Level 2 — Other inputs that are directly or indirectly observable in the marketplace.

Level 3 — Unobservable inputs that are supported by little or no market activity.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

The Company's Level 1 assets include institutional money-market funds that are classified as cash equivalents and marketable investments in U.S. government and agency debt, which are valued primarily using quoted market prices.

The Company's Level 2 assets include its marketable investments in time deposits, corporate debt securities, foreign government and agency debt, municipal debt securities and asset backed securities as the market inputs used to value these instruments consist of market yields, reported trades and broker/dealer quotes, which are corroborated with observable market data. In addition, forward contracts, and the severance pay fund are classified as Level 2 assets as the valuation inputs are based on quoted prices and market observable data of similar instruments. The Company's investments in auction rate securities are

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MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

classified as Level 3 assets because there are currently no active markets for the auction rate securities and consequently the Company is unable to obtain independent valuations from market sources. Therefore, the auction rate securities are valued using a discounted cash flow model. Some of the inputs to the discounted cash flow model are unobservable in the market.

The tables below set forth, by level, the Company's assets and liabilities that are measured at fair value on a recurring basis. The tables do not include assets and liabilities that are measured at historical cost or any basis other than fair value (in thousands):

	Fair Value Measurements at January 28, 2017			
	Level 1	Level 2	Level 3	Total
Items measured at fair value on a recurring basis:				
Assets				
Cash equivalents:				
Money market funds	\$36,122	\$—	\$—	\$36,122
Time deposits	—	67,000	—	67,000
U.S. government and agency debt	17,497	—	—	17,497
Corporate debt securities	—	31,280	—	31,280
Foreign government and agency debt	—	1,500	—	1,500
Municipal debt securities	—	8,740	—	8,740
Short-term investments:				
U.S. government and agency debt	185,387	—	—	185,387
Corporate debt securities	—	432,108	—	432,108
Asset backed securities	—	45,527	—	45,527
Foreign government and agency debt	—	13,375	—	13,375
Municipal debt securities	—	27,871	—	27,871
Time deposits	—	150,000	—	150,000
Prepaid expenses and other current assets:				
Foreign currency forward contracts	—	735	—	735
Long-term investments:				
Auction rate securities	—	—	4,615	4,615
Other non-current assets:				
Severance pay fund	—	736	—	736
Total assets	\$239,006	\$778,872	\$4,615	\$1,022,493
Liabilities				
Accrued liabilities:				
Foreign currency forward contracts	\$—	\$58	\$—	\$58

MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Fair Value Measurements at January 30, 2016			
	Level 1	Level 2	Level 3	Total
Items measured at fair value on a recurring basis:				
Assets				
Cash equivalents:				
Money market funds	\$ 160,400	\$—	\$—	\$ 160,400
Time deposits	—	209,405	—	209,405
U.S. government and agency debt	184,374	—	—	184,374
Corporate debt securities	—	54,689	—	54,689
Short-term investments:				
U.S. government and agency debt	317,405	—	—	317,405
Corporate debt securities	—	557,821	—	557,821
Asset backed securities	—	76,736	—	76,736
Foreign government and agency debt	—	21,358	—	21,358
Municipal debt securities	—	31,249	—	31,249
Prepaid expenses and other current assets:				
Foreign currency forward contracts	—	30	—	30
Long-term investments:				
Auction rate securities	—	—	11,296	11,296
Other non-current assets:				
Severance pay fund	—	678	—	678
Total assets	\$662,179	\$951,966	\$11,296	\$1,625,441
Liabilities				
Accrued liabilities:				
Foreign currency forward contracts	\$—	\$195	\$—	\$195

The following table summarizes the change in fair values for Level 3 assets for the years ended January 28, 2017 and January 30, 2016 (in thousands):

	Level 3
Changes in fair value during the year (pre-tax):	
Balance at January 31, 2015	\$10,226
Impairment loss	(1,204 )
Unrealized gain included in accumulated other comprehensive income	2,274
Balance at January 30, 2016	11,296
Sales, redemption and settlement	(6,681 )
Unrealized gain included in accumulated other comprehensive income	—
Balance at January 28, 2017	\$4,615

There were no transfers of assets between levels in either fiscal 2017 or 2016.

Note 7 — Goodwill and Acquired Intangible Assets, Net  
Goodwill

There was no activity for acquisitions or divestitures recorded to goodwill in fiscal 2017 and 2016 due to business combinations.

The Company has identified that its business operates as a single operating segment with two components that it has concluded can be aggregated into a single reporting unit. In connection with the restructuring plan the Company announced in November 2016 (see “Note 8 - Restructuring and Other Related Charges”), its Board of Directors approved a plan to sell certain businesses that are classified and reported in the consolidated statement of operations as

discontinued operations. As a result, goodwill was allocated to these businesses based on relative fair value since each represents a portion of the Company's

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## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

reporting unit (see "Note 2 - Discontinued Operations"). The Company obtained an independent valuation to determine the fair value of these businesses for purposes of allocating the goodwill and to complete an assessment for goodwill impairment of the Company's continuing operations. Although the Company engaged an independent valuation specialist to provide the fair value calculations, management assumed full responsibility for the valuation results, and the accuracy and completeness of the underlying financial data and corresponding assumptions. The Company's annual test for goodwill impairment as of the last day of the fourth quarter of fiscal 2017 did not result in any impairment charge.

## Acquired Intangible Assets, Net

The carrying amounts of acquired intangible assets are as follows (in thousands):

	Range of Useful Lives	January 28, 2017			January 30, 2016		
		Gross Carrying Amounts	Accumulated Amortization and Write-Offs	Net Carrying Amounts	Gross Carrying Amounts	Accumulated Amortization and Write-Offs	Net Carrying Amounts
Purchased and core technology	4 - 8 years	\$25,798	\$ (22,227 )	\$ 3,571	\$25,798	\$ (17,950 )	\$ 7,848
Customer intangibles	5 - 7 years	24,700	(24,700 )	—	24,700	(20,601 )	4,099
Total acquired intangible assets from continuing operations, net		\$50,498	\$ (46,927 )	\$ 3,571	\$50,498	\$ (38,551 )	\$ 11,947

Intangible assets, along with the related accumulated amortization, are removed from the table above at the end of the fiscal year they become fully amortized. The Company recorded charges of \$3.4 million to write off IPR&D in fiscal 2015 upon the Company's decision to discontinue the related project. These impairment charges are included in amortization and write-off of acquired intangible assets in the consolidated statements of operations.

Based on the identified intangible assets recorded at January 28, 2017, the future amortization expense of identified intangibles for the next five fiscal years is as follows (in thousands):

## Fiscal Year

2018	\$3,571
2019 and thereafter —	
	\$3,571

## Note 8 — Restructuring and Other Related Charges

The following table provides a summary of restructuring and other related charges as presented in the Consolidated Statements of Operations (in thousands):

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Cost of goods sold	\$—	\$ 10,292	\$ —
Restructuring and other related charges	105,186	53,251	10,438
Write-off of acquired intangible assets	—	—	3,386
	\$105,186	\$ 63,543	\$ 13,824

The following table presents details of charges recorded by the Company related to the restructuring actions described below (in thousands):

MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Severance and related costs	\$41,035	\$ 43,926	\$ 5,181
Facilities and related costs	6,587	1,407	1,924
Loss on early contract termination	—	1,644	3,230
Other exit-related costs	5,452	534	86
	53,074	47,511	10,421
Release of reserves:			
Severance	(86	) —	—
Other exit-related costs	(383	) —	—
Impairment and write-off of assets:			
Prepaid deposit	45,000	—	—
Inventory	—	8,046	—
Technology licenses	629	1,250	—
Equipment and other	6,952	6,736	17
Acquired intangible asset	—	—	3,386
	\$105,186	\$ 63,543	\$ 13,824

Fiscal 2017. The Company recorded \$105.2 million of restructuring and other related charges in fiscal 2017 as described in the following paragraphs:

In November 2016, the Company announced a plan to restructure its operations to refocus its research and development, increase operational efficiency and improve profitability (see "Note 2 - Discontinued Operations"). The Company expects that the restructuring actions, which include discontinuing investment in specific research and development programs, streamlining engineering processes, and consolidating research and development sites, will eliminate approximately 900 positions worldwide. In addition, the Company plans to divest certain businesses (see "Note 3 - Discontinued Operations"). These actions began immediately following the announcement and are expected to be fully executed by the end of October 2017. As a result of these actions, the Company expects to incur charges of \$90 million to \$110 million through fiscal 2017, including cash charges of \$35 million to \$50 million. Restructuring and restructuring-related charges include an estimate of severance, asset impairment, lease termination fees and other costs.

The Company recorded restructuring and other related charges of \$98.7 million in fiscal 2017 related to this restructuring plan announced in November 2016. The charges included \$41.0 million of severance benefits, \$5.5 million of other exit-related costs primarily related to contract cancellation penalties, \$1.9 million of costs related to closing certain facilities, \$45.0 million to fully impair a nonrefundable deposit due to the non-utilization of the related contract, and \$5.4 million for the impairment of equipment and technology licenses. The Company is on track to complete activities related to this restructuring plan and expects to incur additional charges in fiscal 2018 since facilities related to the closure of certain operations have yet to be vacated and certain additional actions related to this restructuring plan have yet to occur. Estimated remaining costs are expected to be approximately \$10 million to \$15 million, which is in line with the Company's original estimated amount.

In connection with the restructuring of its mobile platform business in September 2015, substantially all of the remaining activities expected to be completed in the first half of fiscal 2017 were completed. As a result, the Company recorded a charge of \$1.9 million in fiscal 2017, which included \$2.2 million primarily for the write off of all remaining mobile-related equipment that was previously classified as held for sale that was offset by a net credit of \$0.3 million, mainly due to the release of a reserve related to the loss on contract termination previously recognized in fiscal 2016. Total cumulative charges recorded through the end of fiscal 2017 related to this restructuring action were \$46.4 million, which included \$28.1 million of severance benefits, a \$1.3 million loss on early contract termination,

\$8.8 million for impairment of technology licenses and certain equipment, \$0.2 million related to facility closures and an \$8.0 million write down of inventory. The total cumulative charges were lower than the original estimate of \$100 million to \$130 million primarily due to the Company's decision to retain approximately 140 mobile employees to support the remaining mobile business than it originally anticipated and certain equipment planned for disposal was subsequently determined to have alternative use. The Company also offered retention bonuses to another 128 mobile employees to remain through the ramp down of certain operations. Their benefit packages were recognized ratably over the employees' remaining service periods through the first half of fiscal 2017.

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MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In addition to the restructuring actions described in the preceding paragraph, the Company recorded charges of \$4.6 million in the fiscal 2017, primarily for the remaining lease obligation, net of sublease income, upon vacating certain floors in one of its Israel facilities and ongoing operating expenses of vacated facilities related to restructuring actions in previous years.

Fiscal 2016. The Company recorded \$63.5 million of restructuring and other related charges in fiscal 2016 as described in the following paragraphs.

In September 2015, the Company announced a significant restructuring of its mobile platform business in order to focus the mobile product line on more profitable opportunities and align its expenses with corporate targets. The Company implemented actions to significantly downsize the mobile platform organization to refocus its technology to other emerging opportunities. As a result of these actions, the Company recorded restructuring and other related charges of \$44.4 million in fiscal 2016 related to this restructuring. The charge primarily included severance benefits for 825 employees who were notified of their termination, a loss on early contract termination, the impairment of technology licenses and certain equipment, and the write down of inventory. Substantially all of the affected employees departed by the end of fiscal 2016.

In May 2015, the Company decided to further reduce its research and development operations in Israel and close certain other design centers, primarily located in Europe and the U.S. in connection with its ongoing effort to streamline its business. As a result, the Company recorded a total \$16.3 million charge in fiscal 2016 comprised of \$15.1 million for severance related to the termination of 358 employees who were notified of their termination and \$1.2 million for a lease obligation related to a facility that the Company vacated in July 2015. Substantially all of the activities associated with these actions were completed and all affected employees departed before the end of fiscal 2016.

In March 2015, the Company exercised the early buyout option under an existing operating lease for corporate equipment that it planned to sell as part of a cost reduction action. The Company actively sought a buyer and classified the equipment as held for sale within prepaid and current assets on the consolidated balance sheet. It also ceased depreciation on the asset and recorded impairment charges of \$1.4 million through the second quarter ended August 1, 2015. In October 2015, the Company sold the corporate equipment for net proceeds of \$9.3 million, which approximated the carrying value and resulted in no gain or loss recognized upon the sale of the asset.

In addition to the restructuring actions described in the preceding paragraphs, the Company recorded \$1.4 million of additional charges primarily associated with ongoing operating expenses of vacated facilities related to restructuring actions in previous fiscal years and maintenance costs for the corporate equipment sold in October 2015.

Fiscal 2015. The Company decided to streamline its operations, primarily in Israel, to align with its overall strategic plan, and to discontinue the development of a product it originally acquired in a business combination. As a result, the Company recorded \$13.8 million of restructuring and other related charges in fiscal 2015. Facilities and related costs primarily included a charge for a portion of the lease obligation related to vacating the floors the Company no longer planned to occupy in one of its Israel facilities. The write-off of an acquired intangible asset in fiscal 2015 was due to the Company's decision to discontinue the related project. These actions were substantially completed by the end of fiscal 2015. In addition, the Company decided to exercise an early buy out option to acquire an asset under an existing operating lease agreement, and recorded a \$3.2 million loss from the termination of the agreement in fiscal 2015.

The following table sets forth a reconciliation of the beginning and ending restructuring liability balances by each major type of costs associated with the restructuring charges (in thousands):

## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	November 2016 Restructuring			Mobile & Other Prior Restructuring		Total
	Severance and related costs	Facilities and related costs	Other exit-related costs	Severance and related costs	Facilities and Other exit-related costs	
Balance at January 31, 2015	\$—	\$ —	\$ —	\$—\$1,339	\$ 3,230	\$4,569
Cost reduction charges	—	—	—	43,924	2,178	47,511
Cash payments	—	—	—	(42,745)	(3,764)	(48,072)
Exchange rate adjustment	—	—	—	(30)	(106)	(136)
Balance at January 30, 2016	—	—	—	1,155	1,644	3,842
Cost reduction charges	41,020	1,872	5,452	15 4,715	—	53,074
Cash payments	(24,065)	(110)	(829)	(1,082)	(1,261)	(32,459)
Release of reserves	—	—	—	(86)	(383)	(469)
Exchange rate adjustment	45	1	2	(2)	65	111
Balance at January 28, 2017	17,000	1,763	4,625	—	711	24,099
Less: non-current portion	—	(949)	—	—	—	(949)
Current portion	\$17,000	\$ 814	\$ 4,625	\$—\$711	\$ —	\$23,150

During fiscal 2017, the Company paid severance and related benefit costs to approximately 500 employees who departed in fiscal 2017 as part of the restructuring actions described above. The remaining severance represents termination benefits determined to have been established under a substantive ongoing benefit arrangement for which payment was considered probable due to the timing of notification to certain additional employee groups after the end of fiscal 2017 and is expected to be paid within the first half of fiscal 2018. The balance at January 28, 2017 for facility and related costs includes remaining payments under lease obligations related to vacated space that are expected to be paid through fiscal 2019. Other exit-related costs are expected to be paid in the first quarter of fiscal 2018.

## Note 9 — Income Taxes

The U.S. and non-U.S. components of income (loss) before income taxes of continuing operations consist of the following (in thousands):

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
U.S. operations	\$30,889	\$32,433	\$ 30,607
Non-U.S. operations	86,127	(790,253)	449,103
	\$117,016	\$(757,820)	\$ 479,710

The provision (benefit) for income taxes consists of the following (in thousands):



MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Current income tax provision (benefit):			
Federal	\$8,289	\$ 10,482	\$ 8,826
State	180	83	(161 )
Foreign	19,916	(5,326 )	171
Total current income tax provision (benefit)	28,385	5,239	8,836
Deferred income tax provision (benefit):			
Federal	(5,062 )	(4,355 )	(1,775 )
State	(12 )	580	16
Foreign	49,711	9,871	(11,154 )
Total deferred income tax provision (benefit)	44,637	6,096	(12,913 )
Total provision (benefit) for income taxes	\$73,022	\$ 11,335	\$ (4,077 )

Deferred tax assets consist of the following (in thousands):

	January 28, 2017	January 30, 2016
Deferred tax assets:		
Federal and California research and other tax credits	\$450,503	\$414,662
Reserves and accruals	35,887	35,200
Share-based compensation	3,733	4,476
Net operating losses	5,361	11,055
Gross deferred tax assets	495,484	465,393
Valuation allowance	(456,541 )	(424,914 )
Total deferred tax assets	38,943	40,479
Total deferred tax liabilities	(51,112 )	(7,073 )
Net deferred tax assets (liabilities)	\$(12,169 )	\$33,406

As presented in the consolidated balance sheets as of January 28, 2017 and January 30, 2016, and in the table above, unrecognized tax benefits have been offset by deferred tax assets for certain net operating losses that are available to be used in the amount of \$7.5 million and \$6.3 million, respectively.

At the end of fiscal 2017, the Company recorded a valuation allowance of \$456.5 million which is an increase of \$31.6 million from fiscal 2016. The Company provided a full valuation allowance against its federal and various state research credits which it earns in excess of its current year tax liabilities, as well as a portion against its net operating loss carryforwards in the U.S. federal and California jurisdictions. Based on the objectively verifiable positive and negative evidence, the Company determined that it is more likely than not that these research credits and net operating losses will not be realized in the future. The Company also provided a valuation allowance against the deferred tax assets of a portion of its operations in Israel, which has cumulative losses in recent years and is not projecting sufficient future taxable income to realize the benefit of its deferred tax assets.

As of January 28, 2017, the Company had net operating loss carryforwards available to offset future taxable income of approximately \$82.7 million, \$1.4 million and \$6.3 million for foreign, U.S. federal and state of California purposes, respectively. The federal carryforwards will expire in various fiscal years between 2022 and 2028, and the California carryforwards will expire at various fiscal years between 2018 and 2033, if not utilized before these years. The majority of the Company's non-U.S. losses carry forward indefinitely. For U.S. federal income tax return purposes, the Company had research tax credit carryforwards of approximately \$268.5 million that expire through fiscal 2037. As of January 28, 2017, the Company had unused California research and tax credit carryforwards of approximately \$279.4 million, which can be carried forward indefinitely. Included in the U.S. federal and California carryforward amounts

are \$63.0 million and \$60.0 million, respectively, that are attributable to excess tax benefits from stock options. Upon realization, the benefit associated with these credits will increase additional paid-in capital. The Company also has research and investment tax credit carryforwards of approximately \$24.3 million in other U.S. states that expire through fiscal 2032 due to the statutes of limitation.

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## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The Company consists of a Bermuda parent holding company with various foreign and U.S. subsidiaries. The applicable statutory rate in Bermuda is zero for the Company for fiscal 2017, 2016, and 2015. For purposes of the reconciliation between the provision (benefit) for income taxes at the statutory rate and the effective tax rate, a notional U.S. 35% rate is applied as follows:

	Year Ended					
	January 28, 2017		January 30, 2016		January 31, 2015	
Provision at U.S. notional statutory rate	35.0	%	35.0	%	35.0	%
Difference in U.S. and non-U.S. tax rates	(23.7)		(37.1)	)	(35.1)	)
Benefits from utilization of general business credits	(35.8)		5.2		(10.8)	)
Change in valuation allowance	30.6		(4.3)	)	9.5	
Withholding taxes	42.8		—		—	
Tax effects of global restructuring	14.3		—		—	
Other	(0.8)	)	(0.3)	)	0.5	
Effective tax rate	62.4	%	(1.5)	)%	(0.9)	)%

The following table reflects changes in the unrecognized tax benefits (in thousands):

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Unrecognized tax benefits as of the beginning of the period	\$29,139	\$45,197	\$51,682
Increases related to prior year tax positions	2,080	304	976
Decreases related to prior year tax positions	—	(4,334)	(386)
Increases related to current year tax positions	2,363	4,237	5,356
Settlements	—	(704)	—
Lapse in the statute of limitations	(6,576)	(9,739)	(10,691)
Foreign exchange gain	(3,213)	(5,822)	(1,740)
Gross amounts of unrecognized tax benefits as of the end of the period	\$23,793	\$29,139	\$45,197

Included in the balances as of January 28, 2017 is \$23.4 million of unrecognized tax benefit that would affect the effective income tax rate if recognized. Also, \$7.5 million and \$6.3 million of the gross unrecognized tax benefits presented in the table above are offset against deferred tax assets in the consolidated balance sheets as of January 28, 2017 and January 30, 2016, respectively.

The amounts in the table above do not include the related interest and penalties. The amount of interest and penalties accrued was approximately \$21.6 million as of January 28, 2017, \$26.4 million as of January 30, 2016, and \$27.7 million as of January 31, 2015. The Company's policy is to recognize these interest and penalties as a component of income tax expense. The consolidated statements of operations for fiscal 2017, 2016, and 2015 included \$2.7 million, \$4.6 million, and \$3.8 million, respectively, of interest and penalties related to the unrecognized tax benefits.

The Company is subject to income tax audits by the respective tax authorities in all of the jurisdictions in which it operates. The examination of tax liabilities in each of these jurisdictions requires the interpretation and application of complex and sometimes uncertain tax laws and regulations. As of January 28, 2017, the material jurisdictions that are subject to examination include China, Israel, Singapore, Switzerland and the United States for the Company's fiscal years 2006 through 2016. As of January 28, 2017, several of the Company's non-U.S. entities are under examination for fiscal years encompassing 2006 through 2016. The Company is also under examination by the State of California for fiscal year 2013 and 2014.

For fiscal 2018, the Company will continue to review its tax positions and provide for or reverse unrecognized tax benefits as issues arise. During the next 12 months, it is reasonably possible that the amount of unrecognized tax benefits could increase or decrease significantly due to changes in tax law in various jurisdictions, new tax audits and changes in the U.S. dollar as compared to foreign currencies within the next 12 months. Excluding these factors,

uncertain tax positions may decrease by as much as \$9.5 million from the lapse of the statutes of limitation in various jurisdictions during the next 12 months.

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## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The Singapore Economic Development Board (“EDB”) initially granted a 10-year Pioneer Status in July 1999 to the Company’s Singapore subsidiary. In October 2004, the Company’s subsidiary in Singapore was granted a second incentive known as the Develop and Expansion Incentive (“DEI”), and in June 2006, the EDB agreed to extend the Pioneer status for 15 years to June 2014. The Company re-negotiated with the Singapore government and in fiscal 2015, they extended the DEI tax credits to the Company until June 2019. In order to retain these tax benefits in Singapore, the Company must meet certain operating conditions relating to, among other things, maintenance of a regional headquarters function, and research and development activities in Singapore. In fiscal 2017, 2016 and 2015 tax savings associated with these tax holidays were approximately \$0.9 million, \$5.3 million and \$0.1 million, respectively, which if paid would impact the Company’s earnings per share by \$0.01 per share in fiscal 2016, and less than \$0.01 per share in fiscal 2017 and 2015.

Under the Israeli Encouragement law of “approved or benefited enterprise,” two branches of Marvell Israel (M.I.S.L) Ltd., the GTL branch and the cellular branch (formerly Marvell DSPC), are entitled to approved and benefited tax programs that include reduced tax rates and exemption of certain income, subject to various operating and other conditions. Income from the approved or benefited enterprises, with the exception of capital gains, is eligible up to fiscal 2027. There was no such benefit in fiscal 2017, 2016 and 2015.

During fiscal 2007, each of the Swiss Federal Department of Economy and the Vaud Cantonal Tax Administration granted the Company’s subsidiary in Switzerland a 10 year tax holiday on revenues from research and design wafer supply trading activities, which commenced in February 2007 and expired at the end of fiscal 2016. The fiscal 2016, and 2015 tax savings associated with this tax holiday was approximately \$3.7 million and \$4.5 million, respectively, which provided earnings per share of \$0.01 per share in fiscal 2016 and 2015. No tax savings was recognized in fiscal 2017 due to expiration of the tax holiday.

As a result of restructuring actions taken in the fourth quarter of fiscal 2017, the Company recognized tax expense of \$66.9 million, \$50.1 million of this amount was attributable to foreign withholding taxes on undistributed earnings of certain subsidiaries that are no longer considered to be indefinitely reinvested. \$16.8 million is attributable to foreign taxes associated with such restructuring actions.

The Company’s principal source of liquidity as of January 28, 2017 consisted of approximately \$1.7 billion of cash, cash equivalents and short-term investments, of which approximately \$970 million was held by foreign subsidiaries (outside Bermuda). Approximately \$620 million of this amount held by foreign subsidiaries is related to undistributed earnings which have been indefinitely reinvested outside of Bermuda. These funds are primarily held in China, Israel and the United States. We have plans to use such amounts to fund various activities outside of Bermuda, including working capital requirements, capital expenditures for expansion, funding of future acquisitions or other financing activities. If such funds were needed by the parent company in Bermuda or if the amounts were otherwise no longer considered indefinitely reinvested, we would incur a tax expense of approximately \$190 million.

## Note 10 — Commitments and Contingencies

## Warranty Obligations

The Company’s products carry a standard 90-day warranty with certain exceptions in which the warranty period can extend to more than one year based on contractual agreements. The Company’s warranty expense has not been significant in the periods presented.

## Lease Commitments

The Company leases some of its facilities, equipment and computer aided design software under non-cancelable operating leases. Rent expense, net of sublease income for fiscal 2017, 2016, and 2015 was approximately \$23.7 million, \$23.8 million and \$26.1 million, respectively. The Company also purchases certain intellectual property under technology license obligations. Future minimum lease payments, net of estimated sublease income, and payments under technology license obligations as of January 28, 2017, are presented in the following tables (in thousands):



MARVELL TECHNOLOGY GROUP LTD.  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Fiscal Year	Minimum Operating Leases Payments
2018	\$ 37,167
2019	27,004
2020	16,708
2021	3,767
2022	610
Thereafter	2,147
Total future minimum lease payments	\$ 87,403

  

Fiscal Year	Technology License Obligations
2018	\$ 23,180
2019	7,025
2020 and thereafter	7,025
Total future minimum lease payments	\$ 37,230
Less: amount representing interest	(170 )
Present value of future minimum payments	37,060
Less: current portion	(22,111 )
Non-current portion	\$ 14,949

Technology license obligations include the liabilities under agreements for technology licenses between the Company and various vendors.

#### Purchase Commitments

Under the Company's manufacturing relationships with its foundry partners, cancellation of all outstanding purchase orders is allowed but requires payment of all costs and expenses incurred through the date of cancellation. As of January 28, 2017, these foundries had incurred approximately \$208.8 million of manufacturing costs and expenses relating to the Company's outstanding purchase orders.

#### Intellectual Property Indemnification

The Company has agreed to indemnify certain customers for claims made against the Company's products where such claims allege infringement of third-party intellectual property rights, including, but not limited to, patents, registered trademarks, and/or copyrights. Under the aforementioned indemnification clauses, the Company may be obligated to defend the customer and pay for the damages awarded against the customer as well as the attorneys' fees and costs under an infringement claim. The Company's indemnification obligations generally do not expire after termination or expiration of the agreement containing the indemnification obligation. Generally, there are limits on and exceptions to the Company's potential liability for indemnification. Although historically the Company has not made significant payments under these indemnification obligations, the Company cannot estimate the amount of potential future payments, if any, that it might be required to make as a result of these agreements. The maximum potential amount of any future payments that the Company could be required to make under these indemnification obligations could be significant.

#### Contingencies

The Company and certain of its subsidiaries are currently parties to various legal proceedings, including those noted in this section. The legal proceedings and claims described below could result in substantial costs and could divert the attention and resources of the Company's management. The Company is also engaged in other legal proceedings and claims not described below, which arise in the ordinary course of its business. The Company is currently unable to predict the final outcome of these lawsuits and therefore cannot determine the likelihood of loss or estimate a range of

possible loss, except with respect to amounts where it has determined a loss is both probable and estimable and has made an accrual. Litigation is subject to inherent uncertainties and unfavorable rulings could occur. An unfavorable ruling in litigation, particularly patent litigation, could require the Company to pay damages, one-time license fees or ongoing royalty payments, and could prevent the Company from manufacturing or selling some of its products or limit or restrict the type of work that employees involved in such litigation may perform for the Company, any of which could adversely affect financial results in future periods. There can

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

be no assurance that these matters will be resolved in a manner that is not adverse to the Company's business, financial condition, results of operations or cash flows.

**Carnegie Mellon University Litigation.** On March 6, 2009, CMU filed a complaint in the U.S. District Court for the Western District of Pennsylvania ("W.D. of Pennsylvania"). CMU has asserted U.S. Patent Nos. 6,201,839 and 6,438,180 (collectively, the "CMU patents in suit"), which relate to read-channel integrated circuit devices and the hard disk drive ("HDD") incorporating such devices. A jury trial began on November 26, 2012. On December 26, 2012, a jury delivered a verdict that found the CMU patents in suit were literally and willfully infringed and valid, and awarded past damages in the amount of \$1.17 billion. Based on post-trial motions and decisions, the W.D. of Pennsylvania calculated the damages including enhancement to total approximately \$1.54 billion, and held that, under its decision, CMU is entitled to post judgment interest and an ongoing royalty. On May 7, 2014, the W.D. of Pennsylvania entered final judgment, from which the Company filed a notice of appeal on May 14, 2014. On August 4, 2015, the Federal Circuit in a three-judge panel issued an opinion affirming in part, reversing in part, and vacating and remanding in part. On February 16, 2016, the Company and CMU entered into a Settlement Agreement and Patent License pursuant to which the Company has agreed to pay an aggregate of \$750 million, without any ongoing royalty payments, to CMU and the parties have agreed to mutually acceptable release, license and covenant not to sue provisions. Please see "Note 15 — Carnegie Mellon University Settlement" for additional information on the effect of the settlement in the Company's consolidated financial statements for fiscal 2017. In connection with the settlement, the primary supersedeas bond that the Company entered into in connection with this litigation was reduced to \$439 million and the secondary bond, which is secured, was adjusted to \$311 million. All of the Company's obligations under both bonds were discharged pursuant to an order releasing supersedeas bonds on April 21, 2016. On October 18, 2016, the case was dismissed with prejudice.

**Innovatio Litigation.** On March 16, 2015, Innovatio IP Ventures, LLC filed suit against MSI in the U.S. District Court for the Northern District of Illinois, alleging infringement of U.S. Patent Nos. 6,697,415; 5,844,893; 5,740,366; 7,916,747; 6,665,536; 7,013,138; 7,107,052; 5,546,397; 7,710,907; 7,710,935; 6,714,559; 7,457,646; and 6,374,311, purportedly related to certain wireless technology. The complaint sought unspecified damages. On October 11, 2016, the case was dismissed with prejudice.

**Luna Litigation and Consolidated Cases.** On September 11, 2015, Daniel Luna filed an action asserting putative class action claims on behalf of the Company's shareholders in the United States District Court for the Southern District of New York ("S.D. of New York"). This action was consolidated with two additional, nearly identical complaints subsequently filed by Philip Limbacher and Jim Farno. The complaints asserted violations of federal securities laws based on allegations that the Company and certain of its officers and directors (Sehat Sutardja, Michael Rashkin, and Sukhi Nagesh) made, caused to be made, or failed to correct false and/or misleading statements in the Company's press releases and public filings. The complaints request damages in unspecified amounts, costs and fees of bringing the action, and other unspecified relief.

On November 18, 2015, the S.D. of New York granted the Company's motion to transfer the consolidated cases to the N.D. of California. On December 21, 2015, the N.D. of California granted the Company's motion to deem the consolidated cases related to the Saratoga litigation, discussed below. On February 8, 2016, the N.D. of California granted an unopposed motion to appoint Plumbers and Pipefitters National Pension Fund as Lead Plaintiff. On March 19, 2016, Lead Plaintiff filed a consolidated amended complaint. On April 29, 2016, Marvell and each of the individual defendants each filed motions to dismiss. The hearing on the motions to dismiss took place on July 29, 2016 and the court took the matter under submission. On October 12, 2016, the Court granted Defendants' motions to dismiss with leave to amend and granted lead plaintiff 30 days to file an amended complaint. The parties agreed that the plaintiffs shall file and serve an amended complaint by November 28, 2016. Plaintiffs filed and served the

amended complaint on November 28, 2016. The Initial Case Management Conference took place on January 12, 2017. Marvell and co-defendants filed separate Motions to Dismiss on January 17, 2017. A further Case Management Conference and a hearing on defendants' Motions to Dismiss are both set for May 4, 2017. Trial is set for March 5, 2018.

Saratoga Litigation. On October 16, 2015, Saratoga Advantage Trust Technology & Communications Portfolio (“Saratoga”) filed an action asserting shareholder derivative claims ostensibly on behalf of the Company in the Superior Court of the State of California, County of Santa Clara. The complaint names eight current or former officers and/or directors (Sehat Sutardja, Weili Dai, Juergen Gromer, Arturo Krueger, John Kassakian, Randhir Thakur, Michael Rashkin, and Sukhi Nagesh) as defendants and asserts various California state law causes of action based on allegations that the Company and the named officers and directors made, caused to be made, or failed to correct false and/or misleading statements in the Company’s press releases and public filings, leading to the filing of securities class actions that allegedly damaged the Company. The Company was named as a nominal defendant. The complaint requested damages and restitution in unspecified amounts, equitable and/or

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

injunctive relief, costs and fees of bringing the action, and other unspecified relief. On September 15, 2016, the case was dismissed with prejudice.

**Surety Bonds**

On May 14, 2014, the Company filed a Notice of Appeal to appeal the final judgment issued by the W.D. of Pennsylvania in the CMU litigation. In order to stay the execution of the final judgment pending its appeal, the Company filed a supersedeas bond for \$1.54 billion with the W.D. of Pennsylvania in the event the Company did not fully satisfy a final judgment as affirmed after the completion of all appellate proceedings. The bond was issued by a consortium of sureties authorized by the U.S. Treasury. In support of the bond, the Company entered into separate indemnity agreements with each of the sureties to indemnify the sureties from all costs and payments made under the bond. The indemnity agreements did not require collateral to be posted at the time of the issuance of the bond. However, the indemnity agreements provided that each of the sureties had the right to demand to be placed in funds or call for collateral under pre-defined events.

On November 14, 2014, the Company filed a second surety bond for \$216 million and filed a commitment letter from the sureties to issue up to an additional \$95 million in bonding under certain conditions. The second bond and commitment were secured by the Company's campus located in Santa Clara, California with a carrying value of \$126.7 million at January 28, 2017.

In connection with the settlement that was reached with CMU, the primary supersedeas bond that the Company entered into was reduced to \$439 million and the secondary bond was adjusted to \$311 million and both were discharged pursuant to an order releasing supersedeas bonds on April 21, 2016. For additional information, see CMU litigation under "Contingencies" above.

**Indemnities, Commitments and Guarantees**

During its normal course of business, the Company has made certain indemnities, commitments and guarantees under which it may be required to make payments in relation to certain transactions. These indemnities may include intellectual property indemnities to the Company's customers in connection with the sales of its products, indemnities for liabilities associated with the infringement of other parties' technology based upon the Company's products, indemnities for general commercial obligations, indemnities to various lessors in connection with facility leases for certain claims arising from such facility or lease, and indemnities to directors and officers of the Company to the maximum extent permitted under the laws of Bermuda. In addition, the Company has contractual commitments to various customers, which could require the Company to incur costs to repair an epidemic defect with respect to its products outside of the normal warranty period if such defect were to occur. The duration of these indemnities, commitments and guarantees varies, and in certain cases, is indefinite. Some of these indemnities, commitments and guarantees do not provide for any limitation of the maximum potential future payments that the Company could be obligated to make. In general, the Company does not record any liability for these indemnities, commitments and guarantees in the accompanying consolidated balance sheets as the amounts cannot be reasonably estimated and are not considered probable. The Company does, however, accrue for losses for any known contingent liability, including those that may arise from indemnification provisions, when future payment is probable.

**Note 11 — Benefit Plans**

The Company sponsors a 401(k) savings and investment plan that allows eligible U.S. employees to participate by making pre-tax contributions to the 401(k) plan ranging from 1% to 50% of eligible earnings subject to a required annual limit. The Company matches 100% of the first 4% of the employee's contribution and 50% of the next 2%, up to a \$3,000 maximum contribution. The Company made matching contributions to employees of \$4.5 million in fiscal 2017, \$4.9 million in fiscal 2016 and \$5.1 million in fiscal 2015. As of January 28, 2017, the 401(k) plan offers a variety of investment alternatives, representing different asset classes. Employees may not invest in the Company's common shares through the 401(k) plan.

The Company also has voluntary defined contribution plans in various non-U.S. locations. In connection with these plans, the Company made contributions on behalf of employees totaling \$11.8 million, \$14.5 million and \$18.5 million during fiscal 2017, 2016 and 2015, respectively. The Company also maintains a limited number of defined

benefit plans for certain non-U.S. locations. Total costs under these plans were \$0.1 million, \$1.5 million and \$0.1 million in fiscal 2017, 2016 and 2015, respectively.

Note 12 — Shareholders' Equity  
Common and Preferred Stock

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MARVELL TECHNOLOGY GROUP LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

As of January 28, 2017, the Company is authorized to issue 992.0 million shares of \$0.002 par value common stock and 8 million shares of \$0.002 par value preferred stock. As of January 28, 2017 and January 30, 2016, no shares of preferred stock were outstanding.

1995 Stock Option Plan

In April 1995, the Company adopted the 1995 Stock Option Plan (the “Option Plan”). The Option Plan, as amended from time to time, had 383.4 million common shares reserved for issuance thereunder as of January 28, 2017. Options granted under the Option Plan generally have a term of 10 years and generally must be issued at prices equal to the fair market value of the stock on the date of grant. Incentive stock options granted to shareholders who own greater than 10% of the outstanding stock at the time of the grant may not have a term exceeding five years and these options must be issued at prices of at least 110% of the fair market value of the stock on the date of grant. The Company can also grant stock awards, which may be subject to vesting. Further, the Company can grant restricted stock unit (“RSU”) awards. RSU awards are denominated in shares of stock, but may be settled in cash or shares upon vesting, as determined by the Company at the time of grant. Awards under the Option Plan generally vest over 2 to 5 years.

As of January 28, 2017, approximately 98.6 million shares remained available for future issuance under the Option Plan.

Fiscal 2017. In August 2016, the Company granted performance-based equity awards to each of its executive officers who then joined the Company. The Company also granted performance-based equity awards to an additional four executive officers who later joined the Company in September, November and December of 2016. These equity awards include RSU’s which vest based on the achievement of certain financial goals (“Financial Performance RSU”). The Financial Performance RSUs will be earned on the achievement of certain financial operating metrics to be measured as of the end of fiscal 2018 and will vest on the third anniversary of the respective vesting commencement dates. Shares granted under these Financial Performance RSUs (based on 100% expected achievement) are reported in the table presented below as “Performance-Based.” The executive officers were also granted equity awards which shall vest based on total shareholder return (each a “Total Shareholder Return Award”). The Total Shareholder Return Awards will vest on the third anniversary of the respective vesting commencement dates based on the achievement of performance objectives relating to relative total shareholder return of the Company’s common shares as compared to that of comparable companies of the Philadelphia Semiconductor Sector Index over a performance period defined in the award. These Total Shareholder Return Awards are reported in the table presented below as “Market-Based.”

Fiscal 2016. In April 2015, the Company granted performance-based equity awards to each of its executive officers, which were based on their achievement of certain performance goals for a performance period beginning in fiscal 2016. These equity awards included RSUs which would vest based on the achievement of certain financial goals (each a “Financial Performance RSU”), and performance awards for which a portion would vest based on the achievement of individual strategic objectives (each a “Strategic Objective Award”) and a portion would vest based on total shareholder return (each a “Total Shareholder Return Award”). These awards are reported as “Performance-Based,” except for the Total Shareholder Return Award which is reported as “Market-Based.” The Financial Performance RSUs would be earned based on the achievement of revenue and modified non-GAAP operating income that have been established at “threshold,” “target” and “maximum” levels that would vest on the first anniversary of the vest commencement date. The Strategic Objective Awards would also vest on the first anniversary of the commencement date at the target level based on the achievement of individual strategic goals and, with respect to a portion of each Strategic Objective Award, the further achievement of either the revenue or modified non-GAAP operating income objective established for the Financial Performance RSU. The Total Shareholder Return Awards would vest on the second anniversary of the commencement date based on the Company’s stock price performance in comparison to the Philadelphia Semiconductor Sector Index.

Fiscal 2015. In April 2014, the Company granted performance-based equity awards to each of its executive officers which were based on their achievement of certain performance goals in fiscal 2015 and 2016. These equity awards included RSUs which would vest based on financial performance criteria (“Financial Performance RSU”) and restricted stock units which vest based on both financial performance criteria and individual strategic goals (“Strategic Performance Award”). The Financial Performance RSUs would be earned based on the achievement of revenue and modified non-GAAP operating income that have been established at “threshold,” “target” and “maximum” levels. Each Financial Performance RSU would vest 50% on the first anniversary of the commencement date based on achievement of fiscal 2015 financial performance criteria and 50% on the second anniversary of the vesting commencement date based on the achievement of fiscal 2016 financial performance criteria. The Strategic Performance Awards would vest based on achievement at the threshold level of either the revenue or modified non-GAAP operating income objective established for the Financial Performance RSU, in addition to the achievement of additional individual strategic goals. Each Strategic Performance Award would vest 50% on the first anniversary of the

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MARVELL TECHNOLOGY GROUP LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

commencement date based on achievement of fiscal 2015 individual strategic goals and 50% on second anniversary date based on the achievement of the fiscal 2016 individual strategic goals.

In June 2014, the Company granted performance-based RSU (“PSUs”) to certain members of senior management. Pursuant to the PSUs, each eligible employee was entitled to vest in a certain number of shares based on such employee’s achievement of individual financial and strategic performance goals for fiscal 2015, including, for example, net revenue and operating expense targets, and other individual strategic milestones. The actual number of shares that would vest for each eligible employee was based on the achievement of such performance goals determined at the end of fiscal 2015 and would vest over two years, with 50% vesting on April 1, 2015 and 50% vesting on April 1, 2016.

Outside Director Equity Compensation Policy

In September 2016, the Company’s Board of Directors approved the termination of the 2007 Directors’ Stock Incentive Plan, (“2007 Director Plan”) that was initially adopted in October 2007 and it approved a new Outside Director Equity Compensation Policy, which governs the granting of equity awards to non-employee directors under the Option Plan. At the annual general meeting of shareholders held in June 2015, the shareholders approved an amendment to the Option Plan to enable a full range of awards to be granted to non-employee directors. Under the newly adopted Outside Director Compensation Policy, each outside director upon election or appointment at an annual meeting of shareholders will be granted an RSU award under the 1995 Stock Option Plan for a number of shares with an aggregate fair market value equal to \$220,000 on the grant date. In no event shall an outside director be awarded an annual RSU award for more than 20,000 shares. The RSU award vests 100% on the earlier of the date of the next annual general meeting of shareholders or the one-year anniversary of the date of grant.

2000 Employee Stock Purchase Plan

Under the 2000 Employee Stock Purchase Plan, as amended and restated on October 31, 2011 (the “ESPP”), participants purchase the Company’s stock using payroll deductions, which may not exceed 15% of their total cash compensation. Pursuant to the terms of the current ESPP, the “look-back” period for the stock purchase price is 24 months. Offering and purchase periods begin on December 8 and June 8 of each year. Participants enrolled in a 24-month offering period will continue in that offering period until the earlier of the end of the offering period or the reset of the offering period. A reset occurs if the fair market value of the Company’s common shares on any purchase date is less than it was on the first day of the offering period. Participants in a 24-month offering period will be granted the right to purchase common shares at a price per share that is 85% of the lesser of the fair market value of the shares at (i) the participant’s entry date into the two-year offering period or (ii) the end of each six-month purchase period within the offering period.

Under the ESPP, a total of 2.3 million shares were issued in fiscal 2017 at a weighted-average price of \$7.33 per share, a total of 5.9 million shares were issued in fiscal 2016 at a weighted-average price of \$10.00 per share and a total of 9.7 million shares were issued in fiscal 2015 at a weighted-average price of \$7.67 per share. As of January 28, 2017, there was \$16.2 million of unamortized compensation cost related to the ESPP.

As of January 28, 2017, approximately 29.5 million shares remained available for future issuance under the ESPP.

Option Plan and Stock Award Activity

Stock option activity under the Company’s stock option and stock incentive plans is included in the following table (in thousands, except for per share amounts):

## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Time-Based Options		Market-Based Options		Total	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Balance at February 1, 2014	49,156	\$ 13.40	2,623	\$ 15.43	51,779	\$ 13.51
Granted	6,365	\$ 15.33	—	—	6,365	\$ 15.33
Exercised	(3,732 )	\$ 10.19	—	—	(3,732 )	\$ 10.19
Canceled/Forfeited	(4,649 )	\$ 14.66	(391 )	\$ 15.43	(5,040 )	\$ 14.72
Balance at January 31, 2015	47,140	\$ 13.79	2,232	\$ 15.43	49,372	\$ 13.88
Granted	6,170	\$ 14.13	—	—	6,170	\$ 14.13
Exercised	(2,225 )	\$ 9.79	—	—	(2,225 )	\$ 9.79
Canceled/Forfeited	(10,211 )	\$ 15.68	(76 )	\$ 15.43	(10,287 )	\$ 15.68
Balance at January 30, 2016	40,874	\$ 13.59	2,156	\$ 15.43	43,030	\$ 13.68
Granted	2,104	\$ 9.99	—	—	2,104	\$ 9.99
Exercised	(5,558 )	\$ 10.35	—	—	(5,558 )	\$ 10.35
Canceled/Forfeited	(12,324 )	\$ 16.44	(2,156 )	\$ 15.43	(14,480 )	\$ 16.29
Balance at January 28, 2017	25,096	\$ 12.61	—	—	25,096	\$ 12.61
Vested or expected to vest at January 28, 2017	24,253	\$ 12.57	—	—	24,253	\$ 12.57

For time-based stock options vested and expected to vest at January 28, 2017, the aggregate intrinsic value was \$68.0 million. For time-based stock options exercisable at January 28, 2017, the aggregate intrinsic value was \$45.7 million. The aggregate intrinsic value of stock options exercised during fiscal 2017, 2016 and 2015 was \$19.8 million, \$9.7 million and \$19.3 million, respectively. The market-based stock options automatically expired in April 2016 since the market price conditions were not met within the required five years from date of grant. The Company's closing stock price of \$15.09 as reported on the NASDAQ Global Select Market as of January 27, 2017 was used to calculate the aggregate intrinsic value for all in-the-money options.

Outstanding options and exercisable options information by range of exercise prices as of January 28, 2017 was as follows:

Range of Exercise Prices	Outstanding Options				Exercisable Options	
	Number of Shares (in Thousands)	Weighted Average Remaining Contractual Term (in Years)	Weighted Average Exercise Price	Number of Shares (in Thousands)	Weighted Average Exercise Price	
\$5.70 - \$10.47	3,842	4.84	\$ 8.11	2,214	\$ 6.94	
\$10.76 - \$10.76	7,004	6.16	\$ 10.76	4,344	\$ 10.76	
\$10.80 - \$14.35	6,047	5.79	\$ 13.13	2,630	\$ 11.72	
\$14.45 - \$15.87	5,540	5.82	\$ 15.40	2,385	\$ 15.24	
\$15.91 - \$21.62	2,663	1.19	\$ 16.95	2,599	\$ 16.96	
Total	25,096	5.27	\$ 12.61	14,172	\$ 12.23	

As of January 28, 2017, the unamortized compensation expense for time-based stock options was \$15.5 million. The unamortized compensation expense for time-based options will be amortized on a straight-line basis and is expected to be recognized over a weighted-average period of 1.4 years.

Activity related to the non-vested portion of the restricted stock units is included in the following table (in thousands, except for share prices):





## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Time-Based		Performance-Based		Market-Based		Total	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value
Balance at February 1, 2014	11,254	\$ 14.14	100	\$ 10.52			11,354	\$ 14.11
Granted	5,534	\$ 15.20	1,277 *	\$ 14.98			6,811	\$ 15.16
Vested	(5,938 )	\$ 13.96	(3 )	\$ 10.52			(5,941 )	\$ 13.96
Canceled/Forfeited	(1,102 )	\$ 14.32	(120 )	\$ 11.23			(1,222 )	\$ 14.02
Balance at January 31, 2015	9,748	\$ 14.84	1,254	\$ 14.99			11,002	\$ 14.85
Granted	5,689	\$ 12.88	669 *	\$ 14.08	407	\$ 12.24	6,765	\$ 12.96
Vested	(5,139 )	\$ 15.06	(658 )	\$ 15.15	—	\$ —	(5,797 )	\$ 15.07
Canceled/Forfeited	(1,955 )	\$ 13.99	(288 )	\$ 14.39	(54 )	\$ 12.24	(2,297 )	\$ 14.00
Balance at January 30, 2016	8,343	\$ 13.57	977	\$ 14.43	353	\$ 12.24	9,673	\$ 13.61
Granted	9,139	\$ 9.83	366 *	\$ 13.91	612	*\$ 11.94	10,117	\$ 10.11
Vested	(5,490 )	\$ 13.95	(155 )	\$ 14.15	—	—	(5,645 )	\$ 13.95
Canceled/Forfeited	(2,067 )	\$ 10.69	(875 )	\$ 14.45	(406)	\$ 12.39	(3,348 )	\$ 11.88
Balance at January 28, 2017	9,925	\$ 10.52	313	\$ 13.91	559	\$ 11.80	10,797	\$ 10.69

Amounts represent the target number of restricted stock units at grant date. For awards granted to our executive \*officers, up to 200% of the target restricted stock units may vest if the maximum level for performance goals is achieved.

In connection with the performance-based equity awards granted in fiscal 2016 to each of the Company's executive officers, a total of 33,616 shares vested on April 1, 2016 based on achieving certain individual strategic goals as evaluated by the Executive Compensation Committee of the Company's Board of Directors. No shares vested for the achievement of financial performance goals since the financial performance criteria were below the threshold level. The amount of canceled shares reported in the table above includes the unvested shares that were not earned.

In connection with the performance-based equity awards granted in fiscal 2015 to each of the Company's executive officers, a total of 478,001 shares vested on April 1, 2015 in connection with the first performance period completed at the end of fiscal 2015. Of this amount, an additional 107,954 shares are included as granted in the table above for fiscal 2015 since each executive officer achieved greater than their target shares for one of the financial performance goals. The amount of canceled shares reported in the table above includes the portion of unvested shares that were not earned since performance objectives for each executive officer's other financial and strategic performance goals were not fully achieved. No shares will be issued in connection with the second performance period since the financial and strategic performance goals for fiscal 2016 were not achieved.

In connection with the PSUs granted in fiscal 2015 to certain members of senior management, final evaluation for each individual's achievement of their performance was measured in the first quarter of fiscal 2016. As a result, a total of 360,723 shares vested on April 1, 2015 and are included in the above table. There was no material adjustment to share-based compensation expense related to these performance-based restricted stock units in fiscal 2016. The amount of canceled shares reported in the table above includes the portion of unvested shares that were not earned since certain performance achievements were not fully achieved.

The aggregate intrinsic value of restricted stock units expected to vest as of January 28, 2017 was \$152.4 million. The number of restricted stock units that are expected to vest is 10.1 million shares.

As of January 28, 2017, unamortized compensation expense related to restricted stock units was \$64.2 million. The unamortized compensation expense for restricted stock units will be amortized on a straight-line basis and is expected to be recognized over a weighted-average period of 1.4 years.

## Share-Based Compensation

The following table presents details of share-based compensation expenses by functional line item (in thousands):



## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Continuing operations:			
Cost of goods sold	\$8,334	\$ 7,787	\$ 7,972
Research and development	78,136	92,054	89,131
Selling and marketing	10,243	10,242	10,623
General and administrative	8,047	15,878	23,292
Share-based compensation - continuing operations	\$104,760	\$ 125,961	\$ 131,018
Discontinued operations:			
Cost of goods sold	187	129	—
Research and development	8,306	6,738	5,301
Selling and marketing	649	864	846
General and administrative	68	87	81
Share-based compensation - discontinued operations	9,210	7,818	6,228
Total share-based compensation	\$113,970	\$ 133,779	\$ 137,246

Share-based compensation capitalized in inventory was \$0.9 million at January 28, 2017 and \$1.5 million at both January 30, 2016 and January 31, 2015.

Upon the termination of certain members of our executive management in April 2016, it was determined that the vesting in certain of their unvested stock awards was no longer probable. As a result, the Company recorded a reversal of the previously recognized related share-based compensation expense in fiscal 2017.

## Valuation Assumptions

The expected volatility for awards granted during fiscal 2017, 2016 and 2015 was based on an equally weighted combination of historical stock price volatility and implied volatility derived from traded options on the Company's stock in the marketplace. The Company believes that the combination of historical volatility and implied volatility provides a better estimate of future stock price volatility.

The expected dividend yield is calculated by dividing the current annualized dividend by the closing stock price on the date of grant of the option.

The following weighted average assumptions were used for each respective period to calculate the fair value of each time-based stock option award on the date of grant using the Black-Scholes option pricing model:

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Time-based Stock Options:			
Weighted average fair value	\$2.92	\$ 3.93	\$ 4.35
Expected volatility	40 %	34 %	35 %
Expected term (in years)	5.2	5.4	5.0
Risk-free interest rate	1.3 %	1.6 %	1.6 %
Expected dividend yield	2.5 %	1.8 %	1.6 %

There have been no market-based stock option grants since fiscal 2012, when the Company issued 3.1 million stock options with a market-based condition for a group of senior employees. The market price conditions were not met within the five years from date of grant and these stock options automatically expired in April 2016.

The following weighted-average assumptions were used for each respective period to calculate the fair value of common shares to be issued under the ESPP on the date of grant using the Black-Scholes option pricing model:



MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Employee Stock Purchase Plan:			
Estimated fair value	\$3.83	\$ 3.24	\$ 4.10
Expected volatility	39 %	41 %	30 %
Expected term (in years)	1.2	1.3	1.3
Risk-free interest rate	0.7 %	0.6 %	0.3 %
Expected dividend yield	1.9 %	2.4 %	1.6 %

The following weighted-average assumptions were used for each respective period to calculate the fair value of common shares to be issued under Total Shareholder Return performance awards on the date of grant using the Monte Carlo pricing model:

	Year Ended	
	January 28, 2017	January 30, 2016
Total Shareholder Return Awards:		
Expected term (in years)	2.9	2.0
Expected volatility	36 %	27 %
Average correlation coefficient of peer companies	0.5	0.4
Risk-free interest rate	0.9 %	0.5 %
Expected dividend yield	2.1 %	1.7 %

The correlation coefficients are calculated based upon the price data used to calculate the historical volatilities and is used to model the way in which each entity tends to move in relation to its peers.

#### Share Repurchase Program

On November 17, 2016, the Company announced that its Board of Directors authorized a \$1.0 billion share repurchase plan. The current stock repurchase program replaced in its entirety the prior \$3.25 billion stock repurchase program, which had approximately \$115.0 million of repurchase authority remaining as of November 27, 2016. The Company intends to effect share repurchases in accordance with the conditions of Rule 10b-18 under the Exchange Act but may also make repurchases in the open market outside of Rule 10b-18 or in privately negotiated transactions. The share repurchase program will be subject to market conditions and other factors, and does not obligate the Company to repurchase any dollar amount or number of its common shares and the repurchase program may be extended, modified, suspended or discontinued at any time.

The Company repurchased 13.3 million of its common shares for \$183.1 million, 19.7 million of its common shares for \$260.9 million and 5.1 million of its common shares for \$65.0 million in cash during fiscal 2017, 2016 and 2015, respectively. All of the repurchased shares were retired immediately after the repurchases were completed. The Company records all repurchases, as well as investment purchases and sales, based on their trade date. From August 2010 when the Company's Board of Directors initially authorized a share repurchase program through January 28, 2017, a total of 254.9 million shares have been repurchased to date under the Company's share repurchase program for a total \$3.3 billion in cash and there was \$884.0 million remaining available for future share repurchases.

Subsequent to the year ended January 28, 2017 through March 15, 2017, the Company repurchased an additional 2.7 million of its common shares for \$43.7 million at an average price per share of \$15.91.

#### Dividends

On March 16, 2017, the Company announced that its board of directors declared a cash dividend of \$0.06 per share payable on April 20, 2017 to shareholders of record as of April 4, 2017.

Note 13 — Segment and Geographic Information

The Company operates in one reportable segment — the design, development and sale of integrated circuits. The chief executive officer was identified as the chief operating decision maker (“CODM”) for the years ended January 28, 2017, January 30, 2016 and January 31, 2015. The Company’s CODM is ultimately responsible and actively involved in the allocation of resources and the assessment of the Company’s performance. The fact that the Company operates in only one reportable segment is based on the following:

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## MARVELL TECHNOLOGY GROUP LTD.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The Company uses a highly-integrated approach in developing its products in that discrete technologies developed by the Company are frequently integrated across many of its products. Substantially all of the Company's integrated circuits are manufactured under similar manufacturing processes.

The Company's organizational structure is based along functional lines. Each of the functional department heads reports directly to the CODM. Shared resources in the Company also report directly to the CODM or to a direct report of the CODM.

The assessments of performance across the Company, including assessment of the Company's incentive compensation plan, are based largely on operational performance and consolidated financial performance.

The decisions on allocation of resources and other operational decisions are made by the CODM based on his direct involvement with the Company's operations and product development.

The following tables present net revenue and long-lived asset information based on geographic region. Net revenue is based on the destination of the shipments and long-lived assets are based on the physical location of the assets (in thousands):

	Year Ended		
	January 28, 2017	January 30, 2016	January 31, 2015
Net Revenue:			
United States	\$51,416	\$60,119	\$61,470
China	1,239,931	1,509,244	2,171,299
Thailand	113,778	189,299	294,706
Malaysia	286,267	302,953	377,903
Philippines	283,345	211,602	254,381
Others	342,937	375,999	477,447
	\$2,317,674	\$2,649,216	\$3,637,206
		January 28, January 30,	
		2017	2016
Property and equipment, net:			
China		\$ 16,484	\$ 22,294
Israel		12,133	15,069
Singapore		54,054	68,212
United States		147,552	173,158
Others		13,174	18,045
		\$ 243,397	\$ 296,778

## Note 14 — Related Party Transactions

The Company, through one of its subsidiaries, is a party to technology license agreements with each of VeriSilicon Holdings Co., Ltd. ("VeriSilicon") and Vivante Corporation ("Vivante"). Pursuant to its agreements with VeriSilicon, which has been amended from time to time, and a services agreement with VeriSilicon, the Company paid \$1.5 million, \$1.8 million and \$3.7 million to VeriSilicon during fiscal 2017, 2016 and 2015, respectively. As of January 28, 2017, the Company had \$0.1 million of liability to VeriSilicon. Pursuant to its agreements with Vivante, which has been amended from time to time, and a services agreement with Vivante, the Company paid \$3.5 million, \$4.0 million and \$9.1 million to Vivante during fiscal 2017, 2016 and 2015, respectively. As of January 28, 2017, the Company had no liability to Vivante. VeriSilicon acquired Vivante in late 2016. Dr. Sehat Sutardja and Ms. Weili Dai, the Company's former Chairman and Chief Executive Officer and President and a director of the Company, respectively, and currently greater than 10% shareholder of the Company, are husband and wife. Ms. Dai's brothers (and Dr. Sutardja's brothers-in-law) Wayne Dai and Weijin Dai are executive officers and board members of



VeriSilicon. Dr. Sutardja and Ms. Dai are shareholders (directly and indirectly) in VeriSilicon.

In February 2015, the Executive Compensation Committee (“Committee”) of the Company’s Board of Directors approved a cash payment of approximately \$15.4 million to Dr. Sehat Sutardja. The U.S. Court of Federal Claims ruled against Dr. Sutardja in his legal challenge with the Internal Revenue Service and the California Franchise Tax Board related to the tax

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MARVELL TECHNOLOGY GROUP LTD.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

treatment of several stock options granted in fiscal 2004. After discussing and evaluating the alternatives to a continuing legal challenge of the court's determination, the likelihood of success of further appeal by Dr. Sutardja and the potential negative impact on the Company of a continuation of the case regardless of the outcome, the Committee determined to provide Dr. Sutardja with relief from the financial effects of the penalty taxes. Accordingly, the Committee approved the cash payment to Dr. Sutardja equal to the amount of his penalty taxes owed under the Tax Codes, plus accrued interest owed with respect to such liabilities, all grossed-up for income taxes that will be owed by Dr. Sutardja on receipt of such cash payment. The Company recorded the payment in general and administrative expense in fiscal 2016. A payment of \$8.4 million was made to Dr. Sutardja in fiscal 2016 representing reimbursement for the U.S. federal tax portion. As of January 28, 2017, the Company had a remaining \$7.0 million liability to Dr. Sutardja with respect to the California tax portion.

Note 15 — Carnegie Mellon University Settlement

In February 2016, the Company and CMU settled their patent infringement lawsuit pursuant to a court-ordered mediation and entered into a Settlement Agreement and Patent License (the "Agreement"). The parties agreed to mutual release of claims, license and covenant not to sue provisions for which the Company paid an aggregate of \$750 million to CMU in fiscal 2017. See CMU litigation under "Note 10 - Commitments and Contingencies" for further information about the lawsuit.

The Agreement was accounted for as a multiple-element arrangement and accordingly, a valuation was completed to determine the estimated fair value of each identifiable element. As a result, the Company allocated \$654.7 million to the mutual release of claims and covenant not to sue provisions; \$81.3 million to the licensing of intellectual property in fiscal 2016; and the remaining \$14.0 million representing the future use of the license through April 2018.

The \$654.7 million for the mutual release of claims and covenant not to sue was recorded in fiscal 2016 as a settlement charge in operating expenses since there is no future benefit. The \$81.3 million license fee was recorded in fiscal 2016 as a charge in cost of goods sold for past use of the license. The \$14.0 million representing the future use of the license, is to be recognized in cost of goods sold over the remaining term of the license from February 2016 through April 2018. Accordingly, the Company recorded \$6.2 million to cost of goods sold in fiscal 2017.

MARVELL TECHNOLOGY GROUP LTD.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Note 16 — Changes in the Company's Organization

In April 2016, the employment of Dr. Sehat Sutardja as Chief Executive Officer and Ms. Weili Dai as President was terminated by the Company's Board of Directors. The Board of Directors then formed an Interim Office of the Chief Executive and appointed Maya Strelar-Migotti, Executive Vice President of the Smart Networked Devices and Solutions Business Group, and Dr. Pantelis Alexopoulos, Executive Vice President of the Storage Business Group, as Interim Co-Chief Executive Officers.

In April 2016, the Company announced that it entered into an agreement with Starboard Value LP ("Starboard"), regarding the composition of its Board of Directors. Under the terms of the agreement, the Company elected Peter A. Feld, Richard S. Hill, Oleg Khaykin, Michael Strachan and Robert Switz to serve on its board. The agreement specifies that the Board would recommend and the Company would support and solicit proxies only for the election at the 2016 annual general meeting of Messrs. Feld, Hill, Khaykin, Strachan and Switz, the four independent directors serving on the Board immediately prior to the execution of the agreement, Dr. Juergen Groemer, Dr. John G. Kassakian, Arturo Krueger and Dr. Randhir Thakur, and Matthew J. Murphy, who joined the Company in July 2016 after the Board of Directors appointed him to serve as the Company's President and Chief Executive Officer in June 2016.

Upon the commencement of Mr. Murphy's employment, the Board subsequently appointed Richard S. Hill, the Chairman of the Board, as the Company's Interim Principal Executive Officer, to serve in that capacity until the Company filed its Quarterly Report on Form 10-Q for the second quarter of fiscal 2017 ("Q217 Form 10-Q"). Mr. Murphy assumed the role of the Company's principal executive officer immediately following the filing of the Q217 Form 10-Q.

In August 2016, the Company announced the appointment of Jean Hu as Chief Financial Officer effective August 22, 2016. David P. Eichler, the Company's Interim Chief Financial Officer and principal financial officer, ceased serving as the Company's principal financial officer upon Ms. Hu's appointment as Chief Financial Officer. In September 2016, the Company announced the departure of Dr. Zining Wu as the Company's Chief Technical Officer. In October 2016, the Company announced the appointment of David Caron as Chief Accounting Officer and Controller.

At the Company's Annual General Meeting of Shareholders held on November 8, 2016 (the "Annual Meeting"), shareholders whose shares were present either in person or by proxy voted upon the election of directors to the Board of Directors. The shareholders elected the following directors to serve until the next annual general meeting of shareholders: Peter Feld; Richard Hill; Oleg Khaykin; Matthew Murphy; Michael Strachan; Robert Switz; and Randhir Thakur. Immediately following the Annual Meeting, the terms of directors Dr. Sehat Sutardja, Weili Dai, Dr. Juergen Groemer, Dr. John Kassakian and Arturo Krueger expired. On November 15, 2016, the Board of Directors appointed Dr. Thakur to serve on the Audit Committee of the Board of Directors, effective immediately. In December 2016, the Board of Directors appointed Tudor Brown as a member of the Board of Directors and the Executive Compensation Committee. In January 2017, Ms. Strelar-Migotti left the Company.

SUPPLEMENTARY DATA  
(Unaudited)

The following table presents the unaudited consolidated statements of operations data for each of the eight quarters in the period ended January 28, 2017. In connection with the Company's announcement in November 2016 to restructure its operations to refocus its research and development, increase operational efficiency and improve profitability, it also plans to divest certain businesses and it began an active program to locate buyers for several businesses. As of January 28, 2017, two of these businesses were classified as discontinued operations. As required, the Company

retrospectively recast its consolidated statements of operations and balance sheets for all period presented to reflect these business as discontinued operations.

In management's opinion, this information has been presented on the same basis as the audited consolidated financial statements included in a separate section of this Annual Report on Form 10-K, and all necessary adjustments, consisting only of normal recurring adjustments, have been included in the amounts below to fairly state the unaudited quarterly results when read in conjunction with the audited consolidated financial statements and related notes. The operating results for any period should not be considered indicative of results to be expected in any future period. The Company expects the quarterly operating results to fluctuate in future periods due to a variety of reasons, including those discussed in Part I, Item 1A, "Risk Factors."

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## MARVELL TECHNOLOGY GROUP LTD.

	Fiscal 2017			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter (2)
	(In thousands, except per share amounts)			
Net revenue	\$519,383	\$600,799	\$626,092	\$571,400
Gross profit (1)	\$275,029	\$327,822	\$357,779	\$327,517
Income (loss) from continuing operations	\$(13,271 )	\$56,688	\$77,454	\$(76,877 )
Loss from discontinued operations	\$(9,408 )	\$(5,383 )	\$(4,838 )	\$(3,214 )
Net income (loss)	\$(22,679 )	\$51,305	\$72,616	\$(80,091 )
Income (loss) per share from continuing operations:				
Basic	\$(0.03 )	\$0.11	\$0.15	\$(0.15 )
Diluted	\$(0.03 )	\$0.11	\$0.15	\$(0.15 )
Loss per share from discontinued operations:				
Basic	\$(0.01 )	\$(0.01 )	\$(0.01 )	\$(0.01 )
Diluted	\$(0.01 )	\$(0.01 )	\$(0.01 )	\$(0.01 )
Net income (loss) per share:				
Basic	\$(0.04 )	\$0.10	\$0.14	\$(0.16 )
Diluted	\$(0.04 )	\$0.10	\$0.14	\$(0.16 )
	Fiscal 2016			
	First Quarter (3)	Second Quarter (4)	Third Quarter (5)	Fourth Quarter
	(In thousands, except per share amounts)			
Net revenue	\$709,563	\$687,923	\$649,217	\$602,513
Gross profit (1)	\$368,427	\$241,920	\$286,127	\$310,225
Income (loss) from continuing operations	\$27,112	\$(761,484)	\$(51,956 )	\$17,173
Loss from discontinued operations	\$(13,022 )	\$(10,456 )	\$(5,794 )	\$(12,973 )
Net income	\$14,090	\$(771,940)	\$(57,750 )	\$4,200
Income (loss) per share from continuing operations:				
Basic	\$0.06	\$(1.47 )	\$(0.10 )	\$0.03
Diluted	\$0.06	\$(1.47 )	\$(0.10 )	\$0.03
Loss per share from discontinued operations:				
Basic	\$(0.03 )	\$(0.02 )	\$(0.01 )	\$(0.02 )
Diluted	\$(0.03 )	\$(0.02 )	\$(0.01 )	\$(0.02 )
Net income (loss) per share:				
Basic	\$0.03	\$(1.49 )	\$(0.11 )	\$0.01
Diluted	\$0.03	\$(1.49 )	\$(0.11 )	\$0.01

(1)Gross profit as presented in the tables above is calculated as net revenue less cost of goods sold.

The fourth quarter of fiscal 2017 includes \$98.9 million of restructuring and other related charges that include (2)\$50.5 million for impairment of certain equipment, technology licenses and to fully impair a nonrefundable deposit due to non-utilization of the related contract and \$68.0 million of tax expense related to restructuring actions taken.

(3)The first quarter of fiscal 2016 includes a charge for a cash payment authorized by our Board of Directors of \$15.4 million to Dr. Sehat Sutardja and \$2.9 million of costs for the surety bonds related to the litigation with CMU.

(4)The second quarter of fiscal 2016 includes a \$745.6 million charge for litigation matters recognized by the Company including the settlement reached with CMU and certain other pending litigation, \$13.0 million of restructuring and other related charges, and \$2.7 million of costs for the surety bonds related to the litigation with

CMU.

(5) The third quarter of fiscal 2016 includes \$45.5 million of restructuring and other related charges that include \$8.0 million for the write down of inventory and \$6.2 million for the impairment of equipment and other assets due to the restructuring of the mobile platform business, and \$2.9 million of costs for the surety bonds related to the litigation with CMU.

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Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure  
None.

Item 9A. Controls and Procedures  
Audit Committee Investigation

As reported in the Current Report on Form 8-K filed by the Company with the SEC on March 1, 2016, and disclosed in our Quarterly Reports on Form 10-Q for the quarters ended August 1, 2015 and October 31, 2015, our Annual Report on Form 10-K for the fiscal year ended January 30, 2016 and our Quarterly Reports on Form 10-Q for the quarters ended April 30, 2016, July 30, 2016 and October 29, 2016, the Audit Committee (the "Audit Committee") of the Company's Board of Directors completed and made its findings with respect to an internal investigation (the "Audit Committee Investigation"). This investigation generally included a review of certain revenue recognized in the first and second quarters of fiscal 2016 and the fourth quarter of fiscal 2015, including transactions that would have, in the normal course of events and but for action by Marvell employees, been completed and recognized in a subsequent quarter (referred to internally as "pull-ins"), the accrual of a litigation reserve in the second quarter of fiscal 2016, and stated belief by Marvell's former Chief Executive Officer and Chairman of ownership of certain patent rights related to the Final-Level Cache invention. The Audit Committee also reviewed disclosure concerning the foregoing matters and related circumstances, and whether senior management's operating style during the relevant periods resulted in an open flow of information and communication to set an appropriate "tone at the top" for an effective control environment.

The Audit Committee identified no fraudulent activity in the course of this investigation. The Audit Committee's key conclusions regarding this investigation included the following:

- revenue related to pull-in transactions during the subject periods was for most such transactions properly recognized in accordance with Marvell's revenue recognition policy and generally accepted accounting principles,
- (a) though for certain transactions Marvell's internal controls were not fully followed and revenue from certain pull-in and distributor transactions was recognized prematurely based on certain provisions of the revenue recognition policy in place at the time;
- (b) Marvell's public disclosures for such periods related to revenue properly including pull-in transactions were not misleading;

- while Marvell's former Chief Executive Officer and Chairman stated his belief that he had a good faith claim to ownership of the Final-Level Cache invention, the invention was owned by Marvell during all periods in which
- (c) company resources related to such invention were deployed and, as a result, there were no errors in accounting related to the Final-Level Cache invention, and the disclosures relating to such invention contained in Marvell's Form 10-Q for the first quarter of fiscal 2016 were not misleading; and

- while Marvell lacked a well-structured process to establish significant and judgmental reserves associated with
- (d) litigation and royalties, there was no contemporaneous evidence that the increase in the reserve ultimately recorded in Marvell's books and records for the second quarter of fiscal 2016 was not reasonable or appropriate.

The Audit Committee investigation also found certain "tone at the top" issues, including significant pressure on sales and finance personnel to meet revenue targets and the failure by Marvell's former Chief Executive Officer and Chairman and by legal counsel to raise to the appropriate level at the appropriate times the initial assertion of Marvell's former Chief Executive Officer and Chairman that he owned the Final-Level Cache invention, the patent rights for which he later assigned to Marvell.

Audit Committee Review of Certain Transactions

As noted above, the Audit Committee's investigation included a review of pull-in transactions - transactions that would have, in the normal course of events and but for action by certain Marvell employees, been completed and recognized in a subsequent quarter ("Pull-In Transactions"). In the course of its investigation, the Audit Committee also identified certain transactions (the "Extended Payment Terms Transactions") for which revenue was recognized prematurely based on certain provisions of the Company's revenue recognition policy (the "Policy") in effect at the time, namely, the provision of the Policy

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that called for deferral of revenues associated with transactions having payment terms of 90 days or more (the “Deferral Provision”). Some of the Extended Payment Terms Transactions were also Pull-In Transactions, and some were not.

At the end of its investigation, the Audit Committee made certain conclusions described above regarding those Pull-In Transactions that the Audit Committee was able to confirm had been properly recognized as revenue in the periods originally recorded. With respect to the Extended Payment Terms Transactions, additional review was determined to be necessary. The additional review was then performed and the Company concluded that, as described below, application of the Deferral Provision to defer revenues on the Extended Payment Terms Transactions would have been inconsistent with U.S. Generally Accepted Accounting Principles (“GAAP”) and that the Extended Payment Terms Transactions were properly recognized in the periods originally recorded.

When coming to that conclusion, the Company re-evaluated the Extended Payment Terms Transactions based on GAAP, as opposed to the Policy, and the applicable facts and a number of considerations including, but not limited to, the following:

- the Company’s policies establishing credit limits for each customer;
- the Company has a history of collecting under the original terms of customer agreements with similar payment terms (i.e., contract terms, including payment, are historically not renegotiated or modified subsequent to sale);
- the Company does not have a history of granting customer refunds;
- the Company’s historical bad debt experience has been immaterial;
- the Company’s end-customers have no return or exchange rights; and
- the Company does not have a history of accepting product returns or exchanges from its end-customers.

The aggregate amount of revenue recognized from the Extended Payment Terms Transactions was:

approximately \$46 million recorded and properly recognized in accordance with GAAP in the fourth quarter of fiscal 2015, representing approximately 5.4% and 1.3% of net revenues for the fourth quarter and fiscal year of (i) 2015, respectively (which according to the Deferral Provision of the Policy would have been recognized in Q1 of 2016), and

approximately \$17 million recorded and properly recognized in accordance with GAAP in the first quarter of fiscal (ii) 2016, representing approximately 2.4% and 0.63% of net revenues for the first quarter and fiscal year of 2016, respectively (which according to the Deferral Provision of the Policy would have been recognized in Q2 of fiscal 2016).

With respect to the Deferral Provision not being consistent with GAAP, we took into account the deferral provision matter, including its specific application by finance and accounting personnel, together with other control deficiencies, as part of our determination that the Company had material weaknesses related to “Entity Level Controls,” “Sufficiency of Accounting and Finance Department Resources” and “Revenue Recognition” as described on page 112 of our Annual Report on Form 10-K for the fiscal year ended January 30, 2016.

Management’s Evaluation of Disclosure Controls and Procedures

Management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act) as of January 28, 2017. Disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and that such information is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were not effective as of January 28, 2017 due to material weaknesses described below.

Notwithstanding the material weaknesses in our internal controls over financial reporting as of January 28, 2017, management has concluded that the consolidated financial statements included in this Form 10-K present fairly, in all material

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respects, our financial position, results of operations and cash flows for the periods presented in conformity with accounting principles generally accepted in the United States.

#### 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 Rule 13a-15(f) of the Exchange Act. Internal control over financial reporting consists of 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) are designed and operated to provide reasonable assurance regarding the reliability of our financial reporting and our process for the preparation of financial statements for external purposes 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.

Our internal control over financial reporting is designed by, and under the supervision of the principal executive officer and principal financial officer and effected by the Company's Board of Directors, management, and others. 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.

Management has evaluated the effectiveness of our internal control over financial reporting as of January 28, 2017 using the criteria set forth in the Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. In connection with management's assessment of our internal control over financial reporting described above, management identified the following deficiencies that constituted individually, or in the aggregate, material weaknesses in our internal control over financial reporting as of January 28, 2017.

**Sufficiency of Accounting and Finance Department Resources** - The Company had insufficient finance and accounting department resources with appropriate knowledge, expertise and training commensurate with the Company's corporate structure and financial reporting requirements to effectively assess risk, design, operate and oversee internal controls over financial reporting. This lack of appropriate resources resulted in inconsistent expectations around the preparation, review and maintenance of documentation critical to the design and consistent execution of internal controls as well as a lack of segregation of duties in certain controls. Further, the lack of appropriate resources resulted in controls that relied upon information that did not have sufficiently precise controls around accuracy and completeness of that information and was therefore not reliable. These factors contributed to deficiencies in the Company's financial reporting process due to a lack of precision in the review controls over certain information and assumptions impacting various financial reporting areas including those items that are nonrecurring in nature and therefore bear a greater degree of complexity given their infrequency. Additionally, they contributed to deficiencies in the Company's ability to identify, assess and monitor the appropriate accounting treatment of certain contractual arrangements.

**Revenue Recognition** - The Company's internal controls to identify, accumulate and assess the accounting impact of certain concessions or side agreements on whether the Company's revenue recognition criteria had been met were in certain instances not fully followed or were not effective. The Company's controls were not effective to ensure (i)

consistent standards in the level of documentation of agreements required to support accurate recording of revenue transactions, and (ii) that such documentation is retained, complete, and independently reviewed to ensure certain terms impacting revenue recognition were accurately reflected in the Company's books and records.

Because of these material weaknesses, management has concluded that we did not maintain effective internal control over financial reporting as of January 28, 2017.

The effectiveness of our internal control over financial reporting as of January 28, 2017 has been audited by Deloitte & Touche LLP, our independent registered public accounting firm, as stated in its report which is included herein.

### Changes to Internal Control over Financial Reporting

During the fiscal year ended January 28, 2017, management developed and implemented plans to complete the following activities to remediate previously identified material weaknesses:

• Made significant changes to our executive management team and Board of Directors that have improved our entity level controls, including our “tone at the top.”

• Replaced certain senior managers and executives, including the Company’s former CEO and former President.

• In May 2016, appointed five new independent directors to our Board of Directors, two of whom were appointed to the Audit Committee and have been determined by the Board of Directors to be “audit committee financial experts” as defined in rules promulgated by the SEC. Concurrently, we appointed a new Chairman of our Board of Directors.

• In May 2016, appointed a new Executive Vice President and Chief Legal Officer and Secretary of the Company who is designated an executive officer of the Company and who communicates directly with the Company’s Board of Directors on matters of compliance, litigation and other relevant matters.

• In June 2016, appointed a new Chief Executive Officer who has provided strong leadership to the Company and established open lines of communication with his internal business unit leaders and external partners.

• In August 2016, appointed a new Chief Financial Officer who has brought expertise and leadership to the Company and our finance team, and has established open lines of communication with internal business unit leaders and the finance and accounting team world-wide.

• In October 2016, appointed a new Controller and Chief Accounting Officer who has brought additional technical expertise to our finance and accounting function and supports the Company’s substantial efforts to design, operate and oversee effective internal controls over financial reporting (including hiring of additional resources within our global accounting organization).

• Hired a new Senior Vice President of Finance and Assistant Corporate Controller to increase the depth and breadth of knowledge and expertise commensurate with the Company’s corporate structure and financial reporting requirements.

• Conducted a training program for our executives, vice presidents and associate vice presidents, led by our executive management team, to enhance awareness and understanding of the Company’s Code of Conduct and Ethics Policy and the importance of financial reporting integrity, and developed and implemented a similar program for finance, operations and sales personnel and others involved in the sales process. Training of new personnel is ongoing.

• Redesigned our controls over obtaining background checks to include hiring of employees with a title of Vice President or higher in our foreign operations.

• Redesigned our process for approving earnings guidance to incorporate approval from our Audit Committee.

• Redesigned our process for approving compensation arrangements for any employee with the title of Associate Vice President or higher reporting directly to the Chief Executive Officer, including, but not limited to, those designated as executive officers. As a result, we now require approval from the Executive Compensation Committee (a committee of our Board of Directors). We believe this provides more transparent monitoring of performance of, and incentives offered to, senior management that may influence “tone at the top.”

• Adopted an updated patent disclosure and assignment policy that includes augmented procedures for review of claims of individual ownership and enhanced processes with respect to patent disclosure and assignment.

• Management reports to the Audit Committee on the methodologies used and basis of estimates for the establishment of significant and judgmental reserves, including litigation and royalties.

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- Revised our revenue recognition policy to prohibit Company-initiated “pull-in” transactions. For fiscal 2017, “pull ins” had no meaningful effect on our revenue.

In the fourth quarter of fiscal 2017, the Company implemented the following additional changes to its internal control over financial reporting to remediate its material weaknesses:

- Redesigned our controls over updates to our related party list and receipt of certifications used by our executive officers in support of our periodic filings with the SEC.

- Prepared and then communicated to the Board of Directors an entity risk management assessment that incorporated feedback from personnel throughout the Company’s organization to assist the Board in their oversight and monitoring of the Company’s business operations.

- Redesigned our internal controls over litigation contingencies and regulatory compliance, including incorporating feedback from both legal and accounting personnel.

- Hired a new Director of Revenue who has brought expertise related to revenue accounting and the business processes required to ensure revenue is properly recognized in accordance with U.S. GAAP.

- Revised the revenue recognition policy to ensure it complies with GAAP in all material respects.

We continue to enhance the Company’s finance and accounting department staff, in terms of both number and competency of personnel, particularly in the area of revenue recognition and technical accounting. Our new senior finance and accounting team members are contributing their substantial experience and abilities to raise the level of expertise across the finance and accounting functions.

We are in the process of developing a roles and responsibilities matrix for our key accounting and operations personnel to incorporate segregation of duties considerations. We expect our recently hired senior finance personnel to contribute their significant expertise to this process.

The Audit Committee has directed management to identify additional resources and develop a detailed plan and timetable for executing and monitoring the identification, implementation and completion of remedial measures related to the identified material weaknesses.

As a result of the above activities, management determined that the material weaknesses related to “Entity Level Controls” and “Process to Identify Contingencies, Including Those Related to the Company’s Intellectual Property” were remediated as of January 28, 2017.

Our management has worked, and continues to work, to strengthen our internal control over financial reporting. We are committed to ensuring that such controls are designed and operating effectively. The remaining material weaknesses will not be considered remediated until the applicable remedial controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively.

Our Board of Directors and management take internal controls over financial reporting and the integrity of the Company’s financial statements seriously and believe that the steps taken to remediate material weaknesses were and are essential steps to maintaining strong and effective internal controls over financial reporting and a strong internal control environment.

The Audit Committee will continue to monitor management's remediation activities until the identified material weaknesses have been fully remediated. In addition, under the direction of the Audit Committee, management continues to review and make necessary changes to the overall design of our internal control environment, as well as to our policies and procedures, in order to improve the overall effectiveness of internal control over financial reporting.

Except as noted in the preceding paragraphs, no other change in the Company's internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) occurred during the fiscal quarter ended January 28, 2017, that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.



#### Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and our principal financial officer, does not expect that our disclosure controls or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of the effectiveness of controls to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

#### Item 9B. Other Information

None

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of  
Marvell Technology Group Ltd.  
Santa Clara, California

We have audited the internal control over financial reporting of Marvell Technology Group Ltd. and subsidiaries (the "Company") as of January 28, 2017, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. 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 conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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 that 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.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. 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 the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weaknesses have been identified and included in management's assessment: the Company did not have sufficient accounting and finance department resources to effectively assess risk, and design, operate and oversee effective internal controls over financial reporting, which contributed to the failure in the effectiveness of certain controls, and the Company's controls related to revenue recognition were not effective.

These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the consolidated financial statements and financial statement schedule as of and for the year ended January 28, 2017, of the Company and this report does not affect our report on such financial statements and financial statement schedule.

In our opinion, because of the effect of the material weaknesses identified above on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of January 28, 2017, based on the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements and financial statement schedule as of and for the year ended January 28, 2017, of the Company and our report dated March 27, 2017 expressed an unqualified opinion on those financial statements and financial statement schedule.

/s/ Deloitte & Touche LLP

San Jose, California

March 27, 2017

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### PART III

#### Item 10. Directors, Executive Officers and Corporate Governance

The information required by Items 401 and 407(c)(3) of Regulation S-K with respect to our directors, director nominees, executive officers and corporate governance is incorporated by reference herein to the information set forth under the captions “Board of Directors and Committees of the Board” and “Executive Officers” in our definitive proxy statement in connection with our 2017 annual general meeting of shareholders to be held June 15, 2017 (the “2017 Proxy Statement”), which will be filed with the SEC no later than 120 days after January 28, 2017.

#### Section 16(a) Beneficial Ownership Reporting Compliance

The information required by Item 405 of Regulation S-K is incorporated by reference herein to the information set forth under the caption “Section 16(a) Beneficial Ownership Reporting Compliance” in our 2017 Proxy Statement.

#### Code of Ethics

We have adopted a Code of Ethics and Business Conduct for Employees, Officers and Directors that applies to all of our directors, officers (including our Chief Executive Officer (our principal executive officer), Chief Financial Officer (our principal financial officer), Corporate Controller (our chief accounting officer) and any person performing similar functions) and employees. This Code of Ethics was most recently amended as of August 29, 2013. We will disclose future amendments to or waivers from our Code of Ethics and Business Conduct for Employees, Officers and Directors on our website or in a report on Form 8-K within four business days following the date of such amendment or waiver. Our Code of Ethics and Business Conduct for Employees, Officers and Directors is available on our website [www.marvell.com](http://www.marvell.com). None of the material on our website is part of our Annual Report on Form 10-K or is incorporated by reference herein.

#### Committees of the Board of Directors

The information required by Items 407(d)(4) and (d)(5) of Regulation S-K concerning our Audit Committee and audit committee financial expert is incorporated by reference herein to the information set forth under the caption “Board of Directors and Committees of the Board - Committees of our Board of Directors” in our 2017 Proxy Statement.

#### Item 11. Executive Compensation

The information required by Items 402, 407(e)(4) and 407(e)(5) of Regulation S-K is incorporated by reference herein to the information set forth under the captions “Board of Directors and Committees of the Board - Director Compensation Table,” “Executive Compensation” and “Executive Compensation Committee Interlocks and Insider Participation” in our 2017 Proxy Statement.

#### Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters

The information required by Item 403 of Regulation S-K is incorporated by reference herein to the information set forth under the caption “Security Ownership of Certain Beneficial Owners and Management” in our 2017 Proxy Statement.

#### Securities Authorized for Issuance under Equity Compensation Plans

##### Equity Compensation Plan Information

The following table provides certain information with respect to all of our equity compensation plans in effect as of January 28, 2017:

Plan Category	(a) Number of Securities to Be Issued Upon Exercise of Outstanding Options, Warrants and Rights (1)	(b) Weighted Average Exercise Price of Outstanding Options, Warrants, and Rights (2)	(c) 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 (3)(4)	35,662,014	\$ 12.97	120,536,940

- (1) Includes only options and restricted stock units (outstanding under our equity compensation plans, as no stock warrants or other rights were outstanding as of January 28, 2017).
- (2) The weighted average exercise price calculation does not take into account any restricted stock units as those units vest, without any cash consideration or other payment required for such shares.
- (3) Includes our Amended and Restated 1995 Stock Option Plan, our Amended 2000 Employee Stock Purchase Plan (the "2000 ESPP").
- (4) The number of shares reserved for issuance under our 2000 ESPP includes an annual increase in shares reserved for issuance equal to the lesser of (i) 8,000,000 shares of Common Stock, or (ii) 1.5% of the outstanding shares of capital stock on such date, or (iii) an amount determined by the Board (provided that the amount approved by the Board shall not be greater than (i) or (ii)).

#### Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by Item 404 of Regulation S-K is incorporated by reference herein to the information set forth under the caption "Related Party Transactions" in our 2017 Proxy Statement.

The information required by Item 407(a) of Regulation S-K is incorporated by reference herein to the information set forth under the caption "Board of Directors and Committees of the Board" in our 2017 Proxy Statement.

#### Item 14. Principal Accounting Fees and Services

The information required by Item 9(e) of Schedule 14A is incorporated by reference to the information set forth under the caption "Information Concerning Independent Registered Public Accounting Firm" in our 2017 Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules

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

1. Financial Statements:

See the “Index to Consolidated Financial Statements” on page 44 of this Annual Report on Form 10-K.

2. Financial Statement Schedule:

See “Schedule II — Valuation and Qualifying Accounts” on page 103 of this Annual Report on Form 10-K:

All other schedules not listed above have been omitted because they are not applicable or required, or the information required to be set forth therein is included in the Consolidated Financial Statements or Notes thereto.

3. Exhibits.

See the “Index to Exhibits” immediately following the signature page of this Annual Report on Form 10-K.

## 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.

## MARVELL TECHNOLOGY GROUP LTD.

Dated: March 27, 2017 By: /S/ Jean Hu  
 Jean Hu  
 Chief Financial Officer  
 (Principal Financial Officer)

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Mitchell Gaynor and Jean Hu, and each of them individually, as his or her attorney-in-fact, each with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorney-in-fact, or his 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 report has been signed by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Name and Signature	Title	Date
/S/ MATT MURPHY Matt Murphy	President and Chief Executive Officer (Principal Executive Officer)	March 27, 2017
/S/ JEAN HU Jean Hu	Chief Financial Officer (Principal Financial Officer)	March 27, 2017
/S/ DAVE CARON Dave Caron	Controller and Chief Accounting Officer (Principal Accounting Officer)	March 27, 2017
/S/ TUDOR BROWN Tudor Brown	Director	March 27, 2017
/S/ PETER FELD Peter Feld	Director	March 27, 2017
/S/ RICHARD S. HILL Richard S. Hill	Chairman of the Board	March 27, 2017
/S/ OLEG KHAYKIN	Director	March 27, 2017



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Name and Signature	Title	Date
/S/ MICHAEL STRACHAN Michael Strachan	Director	March 27, 2017
/S/ ROBERT E. SWITZ Robert E. Switz	Director	March 27, 2017
/S/ RANDHIR THAKUR Dr. Randhir Thakur	Director	March 27, 2017

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SCHEDULE II  
VALUATION AND QUALIFYING ACCOUNTS  
(in thousands)

	Balance at Beginning of Year	Additions	Deductions	Balance at End of Year
Fiscal year ended January 28, 2017				
Allowance for doubtful accounts and sales return reserve	\$ 2,762	\$ 4,456	\$ (5,834 )	\$ 1,384
Deferred tax valuation allowance	\$ 424,914	\$ 31,627	\$ —	\$ 456,541
Fiscal year ended January 30, 2016				
Allowance for doubtful accounts and sales return reserve	\$ 2,112	\$ 2,614	\$ (1,964 )	\$ 2,762
Deferred tax valuation allowance	\$ 382,796	\$ 42,118	\$ —	\$ 424,914
Fiscal year ended January 31, 2015				
Allowance for doubtful accounts and sales return reserve	\$ 2,294	\$ 3,041	\$ (3,223 )	\$ 2,112
Deferred tax valuation allowance	\$ 335,890	\$ 46,906	\$ —	\$ 382,796

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## INDEX TO EXHIBITS

Exhibit No.	Description	Form	File Number	Incorporated by Reference from Exhibit Number	Filed with SEC
3.1	Memorandum of Association of Marvell Technology Group Ltd.	S-1	333-33086	3.1	3/23/2000
3.2	Fourth Amended and Restated Bye-Laws of Marvell Technology Group Ltd.	8-K	000-30877	3.1	11/10/2016
3.3	Memorandum of Increase of Share Capital of Marvell Technology Group Ltd.	8-K	000-30877	3.1	7/6/2006
10.1#	1997 Directors' Stock Option Plan	S-1	333-33086	10.2	3/23/2000
10.1.1#	Form of Notice of Stock Option Grants, Nonstatutory Stock Option Agreement, Exercise Notice and Restricted Stock Purchase Agreement for use under the 1997 Directors' Stock Option Plan	S-8	333-148621	10.7	1/11/2008
10.2#	2000 Employee Stock Purchase Plan (as amended and restated as of October 31, 2011)	10-Q	000-30877	10.1	12/2/2011
10.2.1#	2000 Employee Stock Purchase Plan Form of Subscription Agreement	10-K	000-30877	10.4	3/29/2013
10.3#	Amended and Restated 1995 Stock Option Plan, amended through April 16, 2015	8-K	000-30877	10.2	7/2/2015
10.3.1#	Amended and Restated 1995 Stock Option Plan Restricted Stock Agreement	10-K	000-30877	10.2	4/13/2006
10.3.2#	Form of Option Agreement for use with the Amended and Restated 1995 Stock Option Plan (for options granted prior to December 4, 2008)	10-K	000-30877	10.21	4/13/2006
10.3.3#	Form of Stock Option Agreement and Notice of Grant of Stock Options and Option Agreement for use with the Amended and Restated 1995 Stock Option Plan (for options granted on or after December 4, 2008)	8-K	000-30877	10.1	12/17/2008
10.3.4#	Form of Stock Option Agreement and Notice of Grant of Stock Options and Option Agreement for use with the Amended and Restated 1995 Stock Option Plan (for options granted on or after August 2, 2010)	10-Q	000-30877	10.3	9/3/2010
10.3.5#		8-K	000-30877	10.1	9/26/2013

Form of Stock Option Agreement and Notice of Grant  
of Stock Options and Option Agreement for use with  
the Amended and Restated 1995 Stock Option Plan (for  
options granted on or after September 20, 2013)

10.3.6# Form of Restricted Stock Unit Agreement for use with  
the Amended and Restated 1995 Stock Option Plan (for 10-K 000-30877 10.34 7/2/2007  
RSUs granted prior to December 4, 2008)

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10.3.7#	Form of Stock Unit Agreement and Notice of Grant of Award and Award Agreement for use with the Amended and Restated 1995 Stock Option Plan (for RSUs granted on or after December 4, 2008)	8-K	000-30877	10.2	12/17/2008
10.3.8#	Form of Stock Unit Agreement and Notice of Grant of Award and Award Agreement for use with the Amended and Restated 1995 Stock Option Plan (for RSUs granted on or after August 2, 2010)	10-Q	000-30877	10.4	9/3/2010
10.3.9#	Form of Notice of Grant of Stock Options — Performance-Based, for use with the Amended and Restated 1995 Stock Option Plan	8-K	000-30877	10.1	12/19/2008
10.3.10#	Form of Performance Award Agreement and Notice of Grant of Performance Award and Award Agreement for use with the Amended and Restated 1995 Stock Option Plan	10-Q	000-30877	10.2	6/5/2014
10.4#	Reformation of Stock Option Agreement dated December 27, 2006 by and between Sehat Sutardja and Marvell Technology Group Ltd.	8-K	000-30877	10.1	1/4/2007
10.5#	Reformation of Stock Option Agreement dated December 27, 2006 by and between Weili Dai and Marvell Technology Group Ltd.	8-K	000-30877	10.2	1/4/2007
10.6#	Reformation of Stock Option Agreement dated May 6, 2007 between Marvell Technology Group Ltd. and Dr. Sehat Sutardja	8-K	000-30877	10.1	5/8/2007
10.7#	Amendment of Stock Option Agreement dated May 6, 2007 between Marvell Technology Group Ltd. and Weili Dai	8-K	000-30877	10.2	5/9/2007
10.8#	Marvell Technology Group Ltd. Executive Performance Incentive Plan	8-K	000-30877	10.1	7/2/2015
10.9#	2007 Director Stock Incentive Plan, as amended and restated effective March 11, 2014	10-K	000-30877	10.15	3/27/2014
10.9.1#	Form of Stock Option Agreement for use with the 2007 Director Stock Incentive Plan — Initial Award	8-K	000-30877	10.2	10/25/2007
10.9.2#	Form of Stock Option Agreement for use with the 2007 Director Stock Incentive Plan — Initial Award	8-K	000-30877	10.2	10/25/2007
10.9.3#	Form of Stock Unit Agreement and Notice of Grant of Award and Award Agreement for use with the 2007 Director Stock Incentive Plan	8-K	000-30877	10.2	7/1/2011
10.10#	Description of Indemnification Rights for certain current and former directors, officers and employees	10-Q	000-30877	10.37	9/6/2007



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10.11#	Form of Indemnification Agreement with Directors and Executive Officers	8-K	000-30877	10.1	10/10/2008	
10.12#	Indemnification Arrangement with Dr. Sehat Sutardja	8-K	000-30877	10.1	3/7/2011	
10.13#	Interim Services Agreement between the registrant and Randstad Professionals U.S., LP d/b/a "Tatum" dated October 15, 2015 in connection with the retention of David P. Eichler as Interim Chief Financial Officer	10-Q	000-30877	10.1	7/21/2016	
10.14#	Offer Letter between the Marvell and Matthew J. Murphy and form of Severance Agreement attached thereto as Appendix B	8-K	000-30877	10.1	6/20/2016	
10.15#	Marvell Technology Group Ltd. Change in Control Severance Plan and Summary Plan Description, effective June 15, 2016	8-K	000-30877	10.2	6/20/2016	
10.16#	Offer Letter between Marvell and Mitchell Gaynor	10-Q	000-30877	10.3	9/8/2016	
10.17#	Offer Letter between Marvell and Christopher Koopmans	10-Q	000-30877	10.4	9/8/2016	
10.18#	Offer Letter between Marvell and Andrew Micallef	10-Q	000-30877	10.5	9/8/2016	
10.19	Starboard Agreement	8-K	000-30877	10.1	4/27/2016	
10.20#	Offer Letter between the Company and Jean Hu	8-K	000-30877	10.1	8/23/2016	
10.21#	Offer Letter between the Company and David Caron	8-K	000-30877	10.1	10/3/2016	
10.22#	Offer Letter between the Company and Thomas Lagatta					Filed herewith
10.23#	Severance Agreement between the Company and Mitchell Gaynor					Filed herewith
21.1	Subsidiaries of Registrant					Filed herewith
23.1	Consent of Independent Registered Public Accounting Firm - Deloitte & Touche LLP					Filed herewith
23.2	Consent of Independent Registered Public Accounting Firm - PricewaterhouseCoopers LLP					Filed herewith
24.1	Power of Attorney (contained in the signature page to this Annual Report)					Filed herewith
31.1	Rule 13a-14(a)/15d-14(a) Certification of the Principal Executive Officer					Filed herewith





31.2	Rule 13a-14(a)/15d-14(a) Certification of the Principal Financial Officer	Filed herewith
32.1*	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for Principal Executive Officer	Filed herewith
32.2*	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for Principal Financial Officer	Filed herewith

101.INS XBRL Instance Document

101.SCH XBRL Taxonomy Extension Schema Document

101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy Extension Definition

101.LAB XBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Presentation Linkbase Document

# Management contracts or compensation plans or arrangements in which directors or executive officers are eligible to participate.

In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release No. 33-8238 and 34-47986, Final Rule: Management's Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, the certifications furnished in Exhibits 32.1 and 32.2 hereto are deemed to accompany this Annual Report Form 10-K and will not be deemed "filed" for purposes of Section 18 of the Exchange Act. Such certifications will not be deemed to be incorporated by reference into any filings under the Securities Act or the Exchange Act, except to the extent that the registrant specifically incorporates it by reference.