UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): June 26, 2020

Broadcom Inc.
(Exact name of registrants as specified in its charter)

Delaware	001-38449	35-2617337
(State or other jurisdiction of incorporation or organization)	(Commission file Number)	(I.R.S. Employer Identification No.)

1320 Ridder Park Drive
San Jose, CA 95131-2313
(408) 433-8000
(Address, including zip code, of principal executive offices and registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, $0.001 par value	AVGO	The NASDAQ Global Select Market
Mandatory Convertible Preferred Stock, Series A, $0.001 par value	AVGOP	The NASDAQ Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.
Emerging growth company ☐

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

Item 8.01 Other Events.

As previously disclosed in the Quarterly Report on Form 10-Q of Broadcom Inc. ("Broadcom" or the "Company") for the quarter ended February 2, 2020 (as filed with the Securities and Exchange Commission (the "SEC") on March 13, 2020), effective November 4, 2019, the Company realigned its organizational structure and the composition of its reportable segments.

The Company is filing this Current Report on Form 8-K to update operating results for all periods covered in its Annual Report on Form 10-K for the year ended November 3, 2019 (the “2019 Form 10-K”) (as filed with the SEC on December 20, 2019), in order to give effect to the change in reportable segments. Specific information subject to update is as follows:

- Consent of Independent Registered Public Accounting Firm, attached as Exhibit 23.1 to this report and incorporated herein by reference; and
- Part I, Item 1: Business, Part II, Item 7: Management’s Discussion and Analysis of Financial Condition and Results of Operations, and Part II, Item 8: Financial Statements and Supplemental Data, included in Exhibit 99.1 to this report and incorporated herein by reference.

This Current Report on Form 8-K does not reflect events occurring after December 20, 2019, the date that the Company filed the 2019 Form 10-K, and does not modify or update the disclosures therein in any way, other than as required to reflect the change in accounting methodology as described above and to incorporate the reclassifications to incorporate the change in reportable segments described above and set forth in Exhibit 99.1, attached hereto. For information on developments regarding the Company since the filing of the 2019 Form 10-K, please refer to the Company’s reports filed with the SEC, including the Company’s Quarterly Reports on Form 10-Q for the quarterly periods ended February 2, 2020, and May 3, 2020 and other subsequent SEC filings.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
23.1	Consent of Independent Registered Public Accounting Firm
99.1	Part I, Item 1: Business, Part II, Item 7: Management’s Discussion and Analysis of Financial Condition and Results of Operations, and Part II, Item 8: Financial Statements and Supplemental Data
104	Cover Page Interactive Data File (formatted as Inline XBRL).

Cautionary Note Regarding Forward-Looking Statements

This report contains forward-looking statements (including within the meaning of Section 21E of the United States Securities Exchange Act of 1934, as amended, and Section 27A of the United States Securities Act of 1933, as amended) concerning Broadcom. These statements include, but are not limited to, statements that address our expected future business and financial performance and other statements identified by words such as "will", "expect", "believe", "anticipate", "estimate", "should", "intend", "plan", "potential", "predict" "project", "aim", and similar words, phrases or expressions. These forward-looking statements are based on current expectations and beliefs of the management of Broadcom, as well as assumptions made by, and information currently available to, such management, current market trends and market conditions and involve risks and uncertainties, many of which are outside the Company's and management's control, and which may cause actual results to differ materially from those contained in forward-looking statements. Accordingly, you should not place undue reliance on such statements.

Particular uncertainties that could materially affect future results include risks associated with: the COVID-19 pandemic, which has, and will likely continue to, negatively impact the global economy and disrupt normal business activity, and which may have an adverse effect on our results of operations; any loss of our significant customers and fluctuations in the timing and volume of significant customer demand; our dependence on contract manufacturing and outsourced supply chain; our dependency on a limited number of suppliers; global economic conditions and concerns; international political and economic conditions; any acquisitions we may make, such as delays, challenges and expenses associated with receiving governmental and regulatory approvals and satisfying other closing conditions, and with integrating acquired businesses with our existing businesses and our ability to achieve the benefits, growth prospects and synergies expected by such acquisitions, including our recent acquisition of Symantec Corporation's Enterprise Security business; government regulations and trade restrictions; our significant indebtedness and the need to generate sufficient cash flows to service and repay such debt; dependence on and risks associated with distributors and resellers of our products; dependence on senior management and our ability to attract and retain qualified personnel; involvement in legal or administrative proceedings; quarterly and annual fluctuations in operating results; our ability to accurately estimate customers' demand and adjust our manufacturing and supply chain accordingly; cyclicality in the semiconductor industry or in our target markets; our competitive performance and ability to continue achieving design wins with our customers, as well as the timing of any design wins; prolonged disruptions of our or our contract manufacturers' manufacturing facilities, warehouses or other significant operations; our ability to improve our manufacturing efficiency and quality; our dependence on outsourced service providers for certain key business services and their ability to execute to our requirements; our ability to maintain or improve gross margin; our ability to protect our intellectual property and the unpredictability of any associated litigation expenses; compatibility of our software products with operating environments, platforms or third-party products; our ability to enter into satisfactory software license agreements; sales to our government clients; availability of third party software used in our products; use of open source code sources in our products; any expenses or reputational damage associated with resolving customer product warranty and indemnification claims; market acceptance of the end products into which our products are designed; our ability to sell to new types of customers and to keep pace with technological advances; our compliance with privacy and data security laws; our ability to protect against a breach of security systems; changes in accounting standards; fluctuations in foreign exchange rates; our provision for income taxes and overall cash tax costs, legislation that may impact our overall cash tax costs and our ability to maintain tax concessions in certain jurisdictions; and other events and trends on a national, regional and global scale, including those of a political, economic, business, competitive and regulatory nature. Many of the foregoing risks and uncertainties are, and will be, exacerbated by the outbreak of COVID-19 and any worsening of the global business and economic environment as a result.

Our filings with the SEC, which you may obtain for free at the SEC's website at http://www.sec.gov, discuss some of the important risk factors that may affect our business, results of operations and financial condition. Actual results may vary from the estimates provided. We undertake no intent or obligation to publicly update or revise any of the estimates and other forward-looking statements made in this announcement, whether as a result of new information, future events or otherwise, except as required by law.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: June 26, 2020

Broadcom Inc.

By:	/s/ Thomas H. Krause, Jr.
Name:	Thomas H. Krause, Jr.
Title:	Chief Financial Officer

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-221654-01, 333-215291-01, 333-209331-01, 333-228175, 333-235663, and 333-235753) and Form S-3 (No. 333-225648) of Broadcom Inc. of our report dated December 20, 2019, except with respect to our opinion on the consolidated financial statements insofar as it relates to the effects of the change in the composition of reportable segments discussed in Note 6 and Note 12, as to which the date is June 26, 2020, relating to the financial statements and financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Current Report on Form 8-K.

/s/ PricewaterhouseCoopers LLP
San Jose, California
June 26, 2020

PART I

As described in the Current Report on Form 8-K filed with the Securities and Exchange Commission on June 26, 2020, we have updated operating results for all periods presented in our Annual Report on Form 10-K for the fiscal year ended November 3, 2019 (as filed with the Securities and Exchange Commission on December 20, 2019) ("2019 Form 10-K"), in order to give effect to the change in reportable segments. Item 1. "Business" that follows reflects the change in reportable segments and should be read in conjunction with the updated Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Item 8. "Financial Statements and Supplementary Data" included as an exhibit to the Current Report on Form 8-K filed on June 26, 2020.

ITEM 1. BUSINESS

Overview

Broadcom Inc. ("Broadcom") is the successor to Broadcom Pte. Ltd. (formerly Broadcom Limited), a Singapore company ("Broadcom-Singapore"), as a result of our redomiciliation to the United States on April 4, 2018 (the "Redomiciliation Transaction"). We are a global technology leader that designs, develops and supplies a broad range of semiconductor and infrastructure software solutions. Our over 50-year history of innovation dates back to our diverse origins from Hewlett-Packard Company, AT&T, LSI Corporation, Broadcom Corporation ("BRCM"), Brocade Communications Systems LLC ("Brocade"), CA, Inc. ("CA") and Symantec Corporation. Over the years, we have assembled a large team of semiconductor and software design engineers around the world. We maintain design, product and software development engineering resources at locations in the U.S., Asia, Europe and Israel, providing us with engineering expertise worldwide. We strategically focus our research and development resources to address niche opportunities in our target markets and leverage our extensive portfolio of U.S. and other patents, and other intellectual property ("IP") to integrate multiple technologies and create system-on-chip ("SoC") component and software solutions that target growth opportunities. We design products and software that deliver high-performance and provide mission-critical functionality.

We develop semiconductor devices with a focus on complex digital and mixed signal complementary metal oxide semiconductor ("CMOS") based devices and analog III-V based products. We have a history of innovation in the semiconductor industry and offer thousands of products that are used in end products such as enterprise and data center networking, home connectivity, set-top boxes, broadband access, telecommunication equipment, smartphones and base stations, data center servers and storage systems, factory automation, power generation and alternative energy systems, and electronic displays. We differentiate ourselves through our high performance design and integration capabilities and focus on developing products for target markets where we believe we can earn attractive margins.

Our infrastructure software solutions enable customers to plan, develop, automate, manage, and secure applications across mainframe, distributed, mobile, and cloud platforms. Many of the largest companies in the world, including most of the Fortune 500 and many government agencies, rely on our enterprise and mainframe software to help manage and secure their on-premise and hybrid cloud environments. Our portfolio of mainframe and enterprise software solutions enables customers to leverage the benefits of agility, automation, insights and security in managing business processes and technology investments. We also offer mission critical fibre channel storage area networking ("FC SAN") products and related software in the form of modules, switches and subsystems incorporating multiple semiconductor products. Following the acquisition of Symantec's Enterprise Security business, we also offer a cybersecurity solutions portfolio, including data loss prevention, endpoint protection, and web, email and cloud security solutions.

Recent Developments

Acquisition of Symantec's Enterprise Security Business

On November 4, 2019, we completed the purchase of certain assets and assumed certain liabilities of the Symantec Corporation (now known as NortonLifeLock Inc.) Enterprise Security business (the "Symantec Business") for approximately $10.7 billion in cash, on a cash-free, debt-free basis (the "Symantec Asset Purchase"), subject to delayed closings in certain non-U.S. jurisdictions, in accordance with the terms of the Asset Purchase Agreement (as amended or supplemented) we entered into with Symantec on August 8, 2019. The addition of the Symantec Business significantly expands our infrastructure software solutions as we continue to build one of the world's leading infrastructure technology companies.

The Symantec Business is an established leader in cybersecurity. We acquired the Symantec Business to expand our footprint of mission critical infrastructure software with our existing customer base. The Symantec Business includes a deep and broad mix of products, services and solutions, unifying cloud and on-premises security to provide advanced threat protection and information protection across endpoints, network, email and cloud applications. The key components of the Symantec Business include:

Data Loss Prevention: Data access governance, activity monitoring, threat detection, and remediation solutions that enable security access to cloud applications.

Endpoint Protection: A single agent architecture that delivers multi-layered security across endpoints - desktop, server, mobile and Internet of Things ("IoT") - and enables customers to protect enterprise and mobile workforces, regardless of operating system, device or network security approaches.

Network Security: Cloud and on-premises network security solutions, based on an advanced proxy architecture, that provide superior defense against advanced threats, enable users to protect critical business information, and help ensure secure and compliant use of cloud applications and the web.

Email Security: Multiple layers of protection (including threat isolation and advanced analytics) against ransomware, spear phishing, and enterprise email compromise that help to identify targeted attacks and enable users to protect email against user error and data leakage.

Cloud Application Security: Advanced solutions that secure cloud access, cloud infrastructure, and cloud applications, providing in-depth visibility, data security, and threat protection to safeguard users, information and workloads across public and private clouds.

Acquisition of CA, Inc.

On November 5, 2018, we acquired CA for approximately $18.8 billion in cash and assumed $2.25 billion of outstanding unsecured bonds (the "CA Merger"). We financed the CA Merger with $18 billion in new term loans, as well as cash on hand of the combined companies. We also assumed all eligible unvested CA equity awards in the transaction.

Following the CA Merger, we sold Veracode, Inc., a subsidiary of CA and provider of application security testing solutions, to Thoma Bravo, LLC for an aggregate purchase price of $950 million.

Segment Reporting

During the first quarter of our fiscal year ending November 1, 2020, we changed our organizational structure, resulting in two reportable segments: semiconductor solutions and infrastructure software. Each segment represents a component for which separate financial information is available that is utilized on a regular basis by the chief operating decision maker in determining how to allocate resources and evaluate performance. The reportable segments are determined based on several factors including, but not limited to, customer base, homogeneity of products, technology, delivery channels and similar economic characteristics.

Our semiconductor solutions segment includes all of our semiconductor solution product lines, as well as our IP licensing. Our infrastructure software segment includes our mainframe and enterprise software solutions, our FC SAN business and the Symantec Business.

Segment results for all periods presented have been recast to conform to the current presentation. See discussion in the "Results of Operations" section included in Part II, Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations* and Note 12. "Segment Information" included in Part II, Item 8. *Financial Statements and Supplementary Data,* of this Exhibit 99.1 for additional segment information. For the fiscal year ended November 3, 2019 ("fiscal year 2019"), net revenue included contributions from CA commencing on November 5, 2018, which are included in the infrastructure software segment. For the fiscal year ended November 4, 2018 ("fiscal year 2018"), net revenue included contributions from Brocade commencing on November 17, 2017, which are primarily included in the infrastructure software segment. *All discussions and information in this Exhibit 99.1 regarding our business and financial results relate solely to our operations prior to the Symantec Asset Purchase, unless otherwise indicated.*

Business Strategy

Our strategy is to combine best-of-breed technology leadership in semiconductor and infrastructure software solutions, with unmatched scale, on a common sales and administrative platform to deliver a comprehensive suite of infrastructure technology products to the world's leading business and government customers. We seek to achieve this through responsibly financed acquisitions of category-leading businesses and technologies, as well as investing extensively in research and development, to ensure our products retain their technology leadership. This strategy results in a robust business model designed to drive diversified and sustainable operating and financial results.

Products and Markets

Semiconductor Solutions

Semiconductors are made by imprinting a network of electronic components onto a semiconductor wafer. These devices are designed to perform various functions such as processing, amplifying and selectively filtering electronic signals, controlling electronic system functions and processing, and transmitting and storing data. Our digital and mixed signal products are based on silicon wafers with CMOS transistors offering fast switching speeds and low power consumption, which are both critical design factors for the markets we serve. We also offer analog products, which are based on III-V semiconductor materials that

have higher electrical conductivity than silicon, and thus tend to have better performance characteristics in radio frequency (“RF”), and optoelectronic applications. III-V refers to elements from the 3rd and 5th groups in the periodic table of chemical elements. Examples of these materials used in our products are gallium arsenide (“GaAs”) and indium phosphide, (“InP”).

We provide semiconductor solutions for managing the movement of data in data center, telecom, enterprise, and embedded networking applications. We provide a broad variety of RF semiconductor devices, wireless connectivity solutions and custom touch controllers for mobile applications. We also provide semiconductor solutions for enabling the set-top box and broadband access markets and for enabling secure movement of digital data to and from host machines, such as servers, personal computers and storage systems, to the underlying storage devices, such as hard disk drives and solid state drives. We also provide a broad variety of products for the general industrial and automotive markets.

Our product portfolio ranges from discrete devices to complex sub-systems that include multiple device types and may also incorporate firmware for interfacing between analog and digital systems. In some cases, our products include mechanical hardware that interfaces with optoelectronic or capacitive sensors. We focus on markets that require high quality and the technology leadership and integrated performance characteristic of our products. The table below presents our major semiconductor product families and their major applications during fiscal year 2019.

Major Applications	Major Product Families
• Set-top Box (“STB”) and Broadband Access	• STB SoCs
	• Cable, digital subscriber line (“DSL”) and passive optical networking (“PON”) central office/consumer premise equipment (“CO/CPE”) SoCs
	• Wireless local area network (“WLAN”) access point SoCs
• Data center, Telecom, Enterprise and Embedded Networking	• Ethernet switching and routing application specific standard product (“ASSP”)
	• Embedded processors and controllers
	• Serializer/Deserializer (“SerDes”), application specific integrated circuits (“ASICs”)
	• Optical and copper, physical layer (“PHYs”)
	• Fiber optic transmitter and receiver components
• Mobile handsets	• RF front end modules (FEMs), filters, power amplifiers
	• Wi-Fi, Bluetooth, global positioning system/global navigation satellite system (“GPS/GNSS”) SoCs
	• Custom touch controllers
• Servers and storage systems	• Serial attached small computer system interface (“SAS”) and redundant array of independent disks (“RAID”) controllers and adapters
	• Peripheral component interconnect express (“PCIe”) switches
	• Fibre channel host bus adapters (“HBA”)
• Hard disk drives (“HDD”); Solid state drives (“SSD”)	• Read channel based SoCs; Custom flash controllers
	• Preamplifiers
• Power isolation, power conversion and renewable energy systems	• Optocouplers
• Factory automation, in-car infotainment and renewable energy systems	• Industrial fiber optics
• Motor controls and factory automation	• Motion control encoders and subsystems
• Displays and lighting	• Light emitting diode (“LEDs”)

Set-Top Box Solutions: We offer complete SoC platform solutions for cable, satellite, Internet Protocol television, over-the-top and terrestrial STBs. Our products enable global service providers to introduce new and enhanced technologies and services in STBs, including transcoding, digital video recording functionality, higher definition video processing, increased networking capabilities, and more tuners to enable faster channel change and more simultaneous recordings. We are also enabling service providers in deploying High Efficiency Video Coding (“HEVC”), a video compression format that is a successor to the H.264/MPEG-4 format. HEVC enables ultra-high definition (“Ultra HD”), services by effectively doubling the capacity of existing networks to deploy new or existing content. Our families of STB solutions support the complete range of resolutions, from standard definition, to high definition, and Ultra HD.

Broadband Access Solutions: We offer complete SoC platform solutions for DSL, cable, PON and WLAN for both CPE and CO deployments. Our CPE devices are used in broadband modems, residential gateways and Wi-Fi access points and routers. Our CO devices, including DSL Access Multiplexer, cable modem termination systems and PON optical line termination medium access controller, are empowering modern operator broadband infrastructure. Our products enable global service providers to continue to deploy next generation broadband access technologies across multiple standards, including G.Fast, data over cable service interface specification, PON and Wi-Fi to provide more bandwidth and faster speeds to consumers.

Ethernet Switching & Routing: Ethernet is a ubiquitous interconnection technology that enables high performance and cost effective networking infrastructure. We offer a broad set of Ethernet switching and routing products that are optimized for data center, service provider network, enterprise network, and embedded network applications. In the data center market, our high capacity, low latency, switching silicon supports advanced protocols around virtualization and multi-pathing. Our Ethernet switching fabric technologies provide the ability to build highly scalable flat networks supporting tens of thousands of servers. Our service provider switch portfolio enables carrier/service provider networks to support a large number of services in the wireless backhaul, access, aggregation and core of their networks. For enterprise networks and embedded ethernet applications, we offer product families that combine multi-layer switching capabilities and support lower power modes that comply with industry standards around energy efficient Ethernet.

Embedded Processors & Controllers: Our embedded processors leverage our ARM central processing unit and Ethernet switching technology to deliver SoCs for high performance embedded applications in a wide range of communication products such as voice-over-internet-protocol, telephony, point-of-sale devices and enterprise and retail access points and gateways. We offer a range of knowledge-based processors to enable high-performance decision-making for packet processing in a variety of advanced devices in the enterprise, metro, access, edge and core networking spaces. We also offer a range of Ethernet controllers for servers and storage systems supporting multiple generations of Ethernet technology.

SerDes ASICs: For data center and enterprise networking, and high performance computing applications, we supply high speed SerDes technology integrated into ASICs. These ASICs are custom products built to individual customers specifications. Our ASICs are designed on advanced CMOS process technologies, focused primarily on leading edge geometries.

Physical Layer Devices: These devices, also referred to as PHYs, are transceivers that enable the reception and transmission of Ethernet data packets over a physical medium such as copper wire or optical fibers. Our high performance Ethernet transceivers are built upon a proprietary digital signal processing communication architecture optimized for high-speed network connections and support the latest standards and advanced features, such as energy efficient Ethernet, data encryption and time synchronization. We also offer a range of automotive Ethernet products to meet growing consumer demand for in-vehicle connectivity.

Fiber Optic Components: We supply a wide array of optical components to the Ethernet networking, storage, and access, metro- and long-haul telecommunication markets. Our optical components enable the high speed reception and transmission of data through optical fibers.

RF Semiconductor Devices: Our RF semiconductor devices selectively filter, as well as amplify, RF signals. Filters enable modern wireless communication systems to support a large number of subscribers simultaneously by ensuring that the multiple transmissions and receptions of voice and data streams do not interfere with each other. We were among the first to deliver commercial film bulk acoustic resonator (“FBAR”) filters that offer technological advantages over competing filter technologies, to allow mobile handsets to function more efficiently in today's congested RF spectrum. FBAR technology has a significant market share within the cellular handset market. Our RF products include FEMs that incorporate multiple die into multi-function RF devices, duplexers and multiplexers, which are a combination of two or more transmit and receive filters in a single device, using our proprietary FBAR technology, discrete filters and discrete power amplifiers.

Our expertise in FBAR technology, amplifier design, and module integration enables us to offer industry-leading performance in cellular RF transceiver applications. Our proprietary GaAs wafer manufacturing processes are critical to the production of power amplifier and low noise amplifier products.

Connectivity Solutions: Our connectivity solutions include discrete and integrated Wi-Fi and Bluetooth solutions, and satellite-based GPS/GNSS mobile navigation receivers.

Wi-Fi allows devices on a local area network to communicate wirelessly, adding the convenience of mobility to the utility of high-speed data networks. We offer a family of high performance, low power Wi-Fi chipsets. Bluetooth is a low power technology that enables direct connectivity between devices. We offer a complete family of Bluetooth silicon and software solutions that enable manufacturers to easily and cost-effectively add Bluetooth functionality to virtually any device. These solutions include combination chips that offer integrated Wi-Fi and Bluetooth functionality, which provides significant performance advantages over discrete solutions.

We also offer a family of GPS, assisted-GPS (“A-GPS”) and GNSS semiconductor products, software and data services. These products are part of a broader location platform that leverages a broad range of communications technologies, including Wi-Fi, Bluetooth and GPS, to provide more accurate location and navigation capabilities.

Custom Touch Controllers: Our touch controllers process signals from touch screens in mobile handsets and tablets.

SAS, RAID & PCIe Products: We provide SAS and RAID controller and adapter solutions to server and storage system original equipment manufacturers ("OEMs"). These solutions enable secure and high speed data transmission between a host computer, such as a server, and storage peripheral devices, such as HDD, SSD and optical disk drives and disk and tape-based storage systems. Some of these solutions are delivered as stand-alone semiconductors, typically as a controller. Other solutions are delivered as circuit boards, known as adapter products, which incorporate our semiconductors onto a circuit board with other features. RAID technology is a critical part of our server storage connectivity solutions as it provides protection against the loss of critical data resulting from HDD failures.

We also provide interconnect semiconductors that support the PCI and PCIe communication standards. PCIe is the primary interconnection mechanism inside computing systems today.

Fibre Channel Products: We provide Fibre Channel HBAs, which connect host computers such as servers to FC SANs.

HDD & SSD Products: We provide read channel-based SoCs and preamplifiers to HDD OEMs. These are the critical chips required to read, write and protect data. An HDD SoC is an integrated circuit ("IC") that combines the functionality of a read channel, serial interface, memory and a hard disk controller in a small, high-performance, low-power and cost-effective package. Read channels convert analog signals that are generated by reading the stored data on the physical media into digital signals. In addition, we sell preamplifiers, which are used to amplify the initial signal to and from the drive disk heads so the signal can be processed by the read channel.

We also provide custom flash controllers to SSD OEMs. An SSD stores data in flash memory instead of on a hard disk, providing high speed access to the data. Flash controllers manage the underlying flash memory in SSDs, performing critical functions such as reading and writing data to and from the flash memory and performing error correction, wear leveling and bad block management.

Optocouplers: We offer optical isolators, or optocouplers, which provide electrical insulation and signal isolation for signaling systems that are susceptible to electrical noise or interference. Optocouplers are used in a diverse set of applications, including industrial motors, automotive systems including those used in hybrid engines, power generation and distribution systems, switching power supplies, motion sensors, telecommunications equipment, computers and office equipment, plasma displays, and military electronics.

Industrial Fiber Optics: For industrial networking, we provide robust optical transceivers using plastic optical fiber that enable high-speed and interoperable networking and factory automation.

Motion Encoders: For industrial motors and robotic motion control, we supply optical encoders, as well as ICs for the controller and decoder functions.

LEDs: For electronic signs and signals, we supply LED assemblies that offer high brightness and stable light output over thousands of hours, enabling us to support traffic signals, large commercial signs and other displays.

Infrastructure Software

Our portfolio of mission critical software solutions enables customers to leverage the benefits of agility, automation, insights, resiliency and security in managing business processes and technology investments. Our mainframe software solutions include solutions for the IBM Z® mainframe platform, which runs many of our largest customers' mission critical business applications. These software products help customers improve economics by increasing throughput and lowering cost per transaction, increasing business agility through DevOps tooling and processes, increasing reliability and availability of operations through machine intelligence and automation solutions, and protecting enterprise data with security and compliance.

Our enterprise software solutions enable large global organizations to transform into digital businesses by providing an end-to-end digital infrastructure management platform that delivers speed, agility and the ability to optimize for risk across multi-cloud hybrid environments and workloads. More specifically, these products offer unique solutions that help with application development, testing and deployment, operations and automation, and securing users and access to information technology ("IT") infrastructure and applications. We are able to leverage our core strengths and development efforts to create products and enterprise software solutions that bring new innovation to our mainframe software solutions and vice versa, spanning three strategic portfolios: Agile, DevOps and Security.

We also offer mission critical FC SAN products designed to help customers reduce the cost and complexity of managing business information within a shared data storage environment, enabling high levels of availability of mission critical applications in the form of modules, switches and subsystems incorporating multiple semiconductor products. We deliver reliable and simplified management of these FC SAN products through our software-based management tools designed to maximize uptime, dramatically simplify storage area networking deployment and management, and provide high levels of visibility and insight into the storage network.

The table below presents our software portfolios and their major offerings during fiscal year 2019.

Portfolio	Major Portfolio Offerings
• **Agile** defines how work is planned, executed and serviced to deliver rapid value to our customers, and enables customers to plan, deliver, manage and optimize application development and project management.	• Agile Planning
	• Project & Portfolio Management
• **DevOps** accelerates software delivery, enabling customers to simplify, automate, and make their processes and applications more robust, and provides customers the flexibility to optimize workloads across mobile, cloud, on-premise, and mainframe environments.	• Continuous Delivery
	• Automation
	• Agile Operations
	• Application Programming Interface ("API") Management
• **Security** provides seamless access to the right data designed to minimize the risk of data breaches.	• Application Security
	• Identity & Access Management
	• Payment Security
• **FC SAN Management**	• Fibre Channel switch

Agile Planning: This solution helps customers to collaboratively plan, prioritize and track agile software development at scale using an iterative work cadence that decreases time-to-market, increases product quality and maintains a focus on generating rapid business value.

Project & Portfolio Management: This offering is complementary to Agile Planning, enables customers to collect, prioritize, plan and deliver products, services and customer experiences.

Continuous Delivery: This offering automates the deployment of applications across all stages of their lifecycles enabling the development, testing and release teams to work concurrently and continuously.

Automation: We provide end-to-end automation capabilities that cover service orchestration, workload automation and release automation capabilities, accelerating the entire application delivery process.

Agile Operations: We provide intelligent analytics, comprehensive coverage, and an open, extensible architecture that helps customers correlate end-user, application and infrastructure data from cloud-hosted containers to mainframes.

API Management: This solution facilitates the creation, security and management of APIs through their lifecycle, enabling customers to connect more directly with end-users via mobile apps, cloud platforms and IoT devices.

Application Security: This solution is hosted on a unified application security testing platform and integrates into existing development toolchains. This enables users to quickly identify and remediate security flaws earlier in the development process and supports the development of high-quality, secure code.

Identity & Access Management: We provide enterprise-grade identity management and governance capabilities, including broad provisioning support for on-premises and cloud-based applications, extensibility and flexibility to integrate with other IT systems and control and monitor the access and activity of privileged users.

Payment Security: This is a software as a service ("SaaS")-based payment authentication service to help banks protect against fraud and ensure a hassle-free online shopping experience for their customers.

Fibre Channel Switch Products: The Fibre Channel switch products we acquired in connection with our acquisition of Brocade provide interconnection, bandwidth, and high-speed switching between servers and storage devices which are in a FC SAN. FC SANs are networks dedicated to mission critical storage traffic, and enable simultaneous high speed and secure connections among multiple host computers and multiple storage arrays.

Research and Development

We are committed to continuous investment in product development and enhancement, with a focus on rapidly introducing new, proprietary products and releases. Many of our products have grown out of our own research and development efforts, and have given us competitive advantages in certain target markets due to performance differentiation. However, we opportunistically seek to enhance our capabilities through the acquisition of engineers with complementary research and development skills and complementary technologies and businesses. We focus our research and development efforts on the development of mission critical, innovative, sustainable and higher value product platforms and those that improve the quality and stability in our broadly deployed products. We leverage our design capabilities in markets where we believe our innovation and reputation will allow us to earn attractive margins by developing high value-add products.

We plan to continue investing in product development, both organically and through acquisitions, to drive growth in our business. We also invest in process development and improvements to product features and functions, as well as fabrication capabilities to optimize processes for devices that are manufactured internally. Our field application engineers, design engineers, and product and software development engineers are located in many places around the world, and in many cases near our top customers. This enhances our customer reach and our visibility into new product opportunities and, in the case of our semiconductor customers, enables us to support our customers in each stage of their product development cycle, from the early stages of production design to volume manufacturing and future growth. By collaborating with our customers, we have opportunities to develop high value-added, customized products for them that leverage our existing technologies. We anticipate that we will continue to make significant research and development expenditures in order to maintain our competitive position, and to ensure a continuous flow of innovative and sustainable product platforms.

Customers, Sales and Distribution

We sell our products through our direct sales force and a select network of distributors and channel partners globally. Distributors and OEMs, or their contract manufacturers, typically account for the substantial majority of our semiconductor sales. Historically, a relatively small number of customers have accounted for a significant portion of our net revenue. Sales to distributors accounted for 46% and 34% of our net revenue for fiscal years 2019 and 2018, respectively. Direct sales to WT Microelectronics accounted for 17% of our net revenue for the fiscal year 2019. We believe our aggregate sales to our top five end customers, through all channels, accounted for more than 30% and more than 40% of our net revenue for fiscal years 2019 and 2018, respectively. We believe aggregate sales to Apple Inc., through all channels, accounted for approximately 20% of our net revenue for fiscal year 2019 and approximately 25% for fiscal year 2018. We expect to continue to experience significant customer concentration in future periods. The loss of, or significant decrease in demand from, any of our top five end customers could have a material adverse effect on our business, results of operations and financial condition.

Many of our semiconductor customers design products in North America or Europe that are then manufactured in Asia. To serve customers around the world, we have strategically developed relationships with large global electronic component distributors, complemented by a number of regional distributors with customer relationships based on their respective product ranges. We also sell our products to a wide variety of OEMs or their contract manufacturers. We have established strong relationships with leading OEM customers across multiple target markets. Our direct sales force focuses on supporting our large OEM customers, and has specialized product and service knowledge that enables us to sell specific offerings at key levels throughout a customer’s organization. Certain customers require us to contract with them directly and with specified intermediaries, such as contract manufacturers. Many of our major customer relationships have been in place for many years and are often the result of years of collaborative product development. This has enabled us to build our extensive IP portfolio and develop critical expertise regarding our customers’ requirements, including substantial system-level knowledge. This collaboration has provided us with key insights into our customers' businesses and has enabled us to be more efficient and productive and to better serve our target markets and customers. Many of our customers and their contract manufacturers often require time critical delivery of our products to multiple locations around the world. With sales offices located in various countries, our primary warehouse in Malaysia, and dedicated regional customer support call centers, where we address customer issues and handle logistics and other order fulfillment requirements, we believe we are well-positioned to support our customers throughout the design, technology transfer and manufacturing stages across all geographies.

Our software customers are in most major industries worldwide, including banks, insurance companies, other financial services providers, government agencies, global IT service providers, telecommunication providers, transportation companies, manufacturers, technology companies, retailers, educational organizations and health care institutions. Our traditional software customers generally consist of large enterprises that have computing environments from multiple vendors and are highly complex. We remain focused on strengthening relationships and increasing penetration within our existing core, mainframe-centric customers and expanding the adoption of our enterprise software offerings with these customers. We believe our enterprise-wide license model will continue to offer our customers reduced complexity, more flexibility and an easier renewal process that will help drive revenue growth.

Manufacturing Operations

We focus on maintaining an efficient global supply chain and a variable, low-cost operating model. Accordingly, we outsource a majority of our manufacturing operations, utilizing third-party foundry and assembly and test capabilities, as well as some of our corporate infrastructure functions. The majority of our front-end wafer manufacturing operations is outsourced to external foundries, including Taiwan Semiconductor Manufacturing Company Limited ("TSMC"), primarily, as well as United Microelectronics Corporation, GlobalFoundries, Silicon Manufacturing Partners Pte. Ltd., Tower Semiconductor Ltd. and WIN Semiconductors Corp. We use third-party contract manufacturers for a significant majority of our assembly and test operations, including Advanced Semiconductor Engineering, Inc., Foxconn Technology Group, Amkor Technology, Inc. and Siliconware Precision Industries Co., Ltd. We use our internal fabrication facilities for products utilizing our innovative and proprietary processes, to protect our IP and to accelerate time to market for our products, while outsourcing commodity processes such as standard CMOS. Examples of internally fabricated semiconductors include our FBAR filters for wireless communications and our vertical-cavity surface emitting laser and side emitting lasers-based on GaAs and InP lasers for fiber optic communications. The majority of our internal III-V semiconductor wafer fabrication is done in the U.S. and Singapore. Many of our products are designed to be manufactured in a specific process, typically at one particular foundry, either our own or with a particular contract manufacturer, and in some instances, we may only qualify one contract manufacturer to manufacture certain of our products.

We also have a long history of operating in Asia, where approximately 35% of our employees are located and where we manufacture and source the majority of our products and materials. We store the majority of our product inventory in our warehouse in Malaysia and our presence in Asia places us in close proximity to many of our customers' manufacturing facilities and at the center of worldwide electronics manufacturing.

Manufacturing Materials and Suppliers

Our manufacturing operations employ a wide variety of semiconductors, electromechanical components and assemblies and raw materials. We purchase materials from hundreds of suppliers on a global basis. These supply relationships are generally conducted on a purchase order basis. While we have not experienced any significant difficulty in obtaining the materials used in the conduct of our business and we believe that no single supplier is material, some of the parts are not readily available from alternate suppliers due to their unique design or the length of time necessary for re-design or qualification. Our long-term relationships with our suppliers allow us to proactively manage our technology development and product discontinuance plans, and to monitor our suppliers' financial health. Some suppliers may, nonetheless, extend their lead times, limit supplies, increase prices or cease to produce necessary parts for our products. If these are unique or highly specialized components, we may not be able to find a substitute quickly, or at all. To address the potential disruption in our supply chain, we may use a number of techniques, including, in some cases, qualifying more than one source of supply, redesigning products for alternative components and incremental, or in some cases, "lifetime" purchases of affected parts for supply buffer.

Competition

The markets in which we participate are highly competitive. Our competitors range from large, international companies offering a wide range of products to smaller companies specializing in narrow markets. The competitive landscape is changing as a result of a trend toward consolidation within many industries, as some of our competitors have merged with or been acquired by other competitors, while others have begun collaborating with each other. We expect this consolidation trend to continue. We expect competition in the markets in which we participate to continue to increase as existing competitors improve or expand their product offerings and as new companies enter the market. Additionally, our ability to compete effectively depends on a number of factors, including: quality, technical performance, price, product features, product system compatibility, system-level design capability, engineering expertise, responsiveness to customers, new product innovation, product availability, delivery timing and reliability, and customer sales and technical support.

In the semiconductor market, we compete with integrated device manufacturers, fabless semiconductor companies, as well as the internal resources of large, integrated OEMs. Our primary competitors are Analog Devices, Inc., Cisco Systems, Inc., Cree, Inc., Finisar Corp., GlobalFoundries, Hamamatsu Photonics K.K., Heidenhain Corporation, HiSilicon Technologies Co. Ltd., Intel Corp., Lumentum Operations LLC, MACOM Technology Solutions Holdings, Inc., Marvell Technology Group, Ltd., Mediatek Inc., Mellanox Technologies, Inc., Microsemi Corp., Mitsubishi Electric Corporation, Murata Manufacturing Co., Ltd., NXP Semiconductors N.V., Qorvo, Inc., Qualcomm Inc., Quantenna Communications, Inc. (acquired by ON Semiconductor Corporation), ST Microelectronics N.V., Renesas Electronics Corporation, Skyworks Solutions, Inc., Sumitomo Corporation, TDK-EPC Corporation, Toshiba Corporation, and Texas Instruments, Inc. We compete based on the strength and expertise of our high speed proprietary design expertise, FBAR technology, amplifier design, module integration, proprietary materials processes, multiple storage protocols and mixed-signal design, our broad product portfolio, support of key industry standards, reputation for quality products, and our customer relationships.

In the infrastructure software market, we compete with large vendors of hardware and operating system software and cloud service providers, who continue to both expand their product and service offerings, and consolidate offerings into broad product lines. Our primary competitors are AppDynamics, Inc. (acquired by Cisco), Atlassian Corporation, Plc, BMC Software Inc., BeyondTrust, Compuware Corporation, CyberArk Software, Ltd., International Business Machines Corporation, Micro Focus International Plc, Microsoft Corporation, MuleSoft, Inc. (acquired by Salesforce.com, Inc.), New Relic, Inc., Oracle Corporation, SailPoint, Inc., ServiceNow, Inc., SolarWinds, Inc., Splunk, Inc. and VMware, Inc. We compete based on our breadth of portfolio of enterprise management tools, breadth and synergy of offerings, our platform and hardware independence, our global reach, and our deep customer relationships and industry experience.

Intellectual Property

Our success depends in part upon our ability to protect our IP. To accomplish this, we rely on a combination of IP rights, including patents, copyrights, trademarks, service marks, trade secrets and similar IP, as well as customary contractual protections with our customers, suppliers, employees and consultants, and through security measures to protect our trade secrets. We believe our current product expertise, key engineering talent and IP portfolio provide us with a strong platform from which to develop application specific products in key target markets.

As of November 3, 2019, we had 21,677 U.S. and other patents and 1,593 U.S. and other pending patent applications. Our research and development efforts presently result in approximately 100 new patent applications per year, relating to a wide range of ASIC, isolation, encoder, LED, RF and optoelectronic components, enterprise storage products, HDD silicon, PCIe, USB and other standard I/O devices, Ethernet and Fibre-Channel connectivity and controllers, set-top box SoCs, cable modem SoCs, broadband access SoCs, wireless connectivity SoCs, switching/routing SoCs, high performance processor SoCs, infrastructure software, and associated applications. The expiration dates of our patents range from 2019 to 2038, with a small number of patents expiring in the near future, none of which are expected to be material to our IP portfolio. We are not substantially dependent on any single patent or group of related patents.

We focus our patent application program to a greater extent on those inventions and improvements that we believe are likely to be incorporated into our products, as contrasted with more basic research. However, we do not know how many of our pending patent applications will result in the issuance of patents or the extent to which the examination process could require us to narrow our claims.

We and our predecessors have also entered into a variety of IP licensing and cross-licensing arrangements that have both benefited our business and enabled some of our competitors. A portion of our revenue comes from IP licensing royalty payments and from technology claim settlements relating to such IP. We also license third-party technologies that are incorporated into some elements of our design activities, products and manufacturing processes. Historically, licenses of the third-party technologies used by us have generally been available to us on acceptable terms.

The semiconductor industry is characterized by the existence of a large number of patents, copyrights, trademarks and trade secrets and by the vigorous pursuit, protection and enforcement of IP rights, including by patent holding companies that do not make or sell products. Many of our customer agreements require us to indemnify our customers for third-party IP infringement claims. Claims of this sort could harm our relationships with our customers and might deter future customers from doing business with us. With respect to any IP rights claims against us or our customers or distributors, we may be required to cease manufacture of the infringing product, pay damages, expend resources to develop non-infringing technology, seek a license which may not be available on commercially reasonable terms or at all, or relinquish patents or other IP rights.

With respect to our infrastructure software, the source code for our products is protected both as a trade secret and as copyrighted work. Except with respect to software components that are subject to open source licenses, our customers do not generally have access to the source code for our products. Rather, on-premise customers typically access only the executable code for our products, and SaaS customers access only the functionality of our SaaS offerings. Under certain contingent circumstances, some of our customers are beneficiaries of a source code escrow arrangement that enables them to obtain a limited right to access our source code.

Employees

As of November 3, 2019, we had approximately 19,000 employees worldwide. By geography, approximately 53% of our employees are located in North America, 35% in Asia, and 12% in Europe, the Middle East and Africa. In the U.S., none of our employees are represented by a labor union. A small number of our employees in other countries are represented by workers' councils or labor unions or are party to collective bargaining agreements.

Environmental and Other Regulation

Our semiconductor manufacturing operations and research and development involve the use of hazardous substances and are regulated under international, federal, state and local laws governing health, safety and the environment. These regulations include limitations on discharge of pollutants to air, water, and soil; remediation requirements; product chemical content limitations; manufacturing chemical use and handling restrictions; pollution control requirements; waste minimization considerations; and treatment, transport, storage and disposal of solid and hazardous wastes. We are also subject to regulation by the United States Occupational Safety and Health Administration and similar health and safety laws in other jurisdictions.

We believe that our properties and operations at our facilities comply in all material respects with applicable environmental laws and worker health and safety laws. However, the risk of environmental liabilities cannot be completely eliminated and there can be no assurance that the application of environmental, health and safety laws to our business will not require us to incur significant expenditures.

We are also regulated under a number of international, federal, state and local laws regarding recycling, product packaging and product content requirements, including legislation enacted in the U.S., European Union and China, among a growing number of jurisdictions, which have placed greater restrictions on the use of lead, among other chemicals, in electronic products, which affects materials composition and semiconductor packaging. These laws are becoming more stringent and may in the future cause us to incur significant expenditures.

Backlog

Our semiconductor sales are generally made pursuant to short-term purchase orders. These purchase orders are made without deposits and may be, and often are, rescheduled, cancelled or modified on relatively short notice, without substantial penalty. In addition, our mainframe and enterprise software contracting model for the majority of our customers, which are for enterprise-wide licenses, provide for termination thereof by our customers at any time for any reason. As a result, we recognize revenue from these contracts ratably over time. Therefore, we believe that purchase orders or backlog are not necessarily a reliable indicator of future sales.

Seasonality

Historically, our net revenue has typically been higher in the second half of the fiscal year than in the first half, primarily due to seasonality in our wireless communications products. These products have historically experienced seasonality due to launches of new mobile handsets manufactured by our OEM customers. However, from time to time, typical seasonality and industry cyclicality are overshadowed by other factors such as wider macroeconomic effects, the timing of significant product transitions and launches by large OEMs, particularly with our wireless communications products. We have a diversified business portfolio and we believe that our overall revenue is less susceptible to seasonal variations as a result of this diversification.

Other Information

Broadcom was incorporated in Delaware in January 2018 and our headquarters are in San Jose, California. The address of our headquarters is 1320 Ridder Park Drive, San Jose, California 95131, and our telephone number there is (408) 433-8000. Our website is www.broadcom.com. You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and other reports (and amendments thereto) filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the Securities and Exchange Commission (“SEC”), as well as proxy statements filed by Broadcom, free of charge at the “Investor Center - SEC Filings” section of our website at www.broadcom.com, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. Such periodic reports, proxy statements and other information are also available at the SEC’s website at http://www.sec.gov. The reference to our website address does not constitute incorporation by reference of the information contained on or accessible through our website.

PART II

As described in the Current Report on Form 8-K filed with the Securities and Exchange Commission on June 26, 2020, we have updated operating results for all periods presented in our Annual Report on Form 10-K for the fiscal year ended November 3, 2019 (as filed with the Securities and Exchange Commission on December 20, 2019), in order to give effect to the change in reportable segments. Item 7: "Management's Discussion and Analysis of Financial Condition and Results of Operations" that follows recasts the information included in the 2019 Form 10-K in order to reflect the change in reportable segments and should be read in conjunction with the updated Item 1. "Business" and Item 8. "Financial Statements and Supplementary Data" included as an exhibit to the Current Report on Form 8-K filed on June 26, 2020.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with "Selected Financial Data" and our consolidated financial statements and notes thereto which appear elsewhere in this Exhibit 99.1. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under the caption "Risk Factors" or in other parts of our Annual Report on Form 10-K for the fiscal year ended November 3, 2019.

Overview

We are a global technology leader that designs, develops and supplies a broad range of semiconductor and infrastructure software solutions. We develop semiconductor devices with a focus on complex digital and mixed signal complementary metal oxide semiconductor based devices and analog III-V based products. We have a history of innovation in the semiconductor industry and offer thousands of products that are used in end products such as enterprise and data center networking, home connectivity, set-top boxes, broadband access, telecommunication equipment, smartphones and base stations, data center servers and storage systems, factory automation, power generation and alternative energy systems, and electronic displays. Our infrastructure software solutions enable customers to plan, develop, automate, manage, and secure applications across mainframe, distributed, mobile, and cloud platforms. We have two reportable segments: semiconductor solutions and infrastructure software.

Our strategy is to combine best-of-breed technology leadership in semiconductor and infrastructure software solutions, with unmatched scale, on a common sales and administrative platform to deliver a comprehensive suite of infrastructure technology products to the world's leading business and government customers. We seek to achieve this through responsibly financed acquisitions of category-leading businesses and technologies, as well as investing extensively in research and development, to ensure our products retain their technology leadership. This strategy results in a robust business model designed to drive diversified and sustainable operating and financial results.

The demand for our products has been affected in the past, and is likely to continue to be affected in the future, by various factors, including the following:

- gain or loss of significant customers;
- general economic and market conditions in the industries and markets in which we compete;
- our distributors' product inventory and end customer demand;
- the rate at which our present and future customers and end-users adopt our products and technologies in our target markets, and the rate at which our customers' products that include our technology are accepted in their markets;
- the shift to cloud-based IT solutions and services, such as hyperscale computing, which may adversely affect the timing and volume of sales of our products for use in traditional enterprise data centers; and
- the timing, rescheduling or cancellation of expected customer orders.

Uncertainty in global economic conditions poses significant risks to our business. For example, customers may defer purchases in response to tighter credit and negative financial news, which would in turn adversely affect product demand and our results of operations.

Our fiscal year ended November 3, 2019 ("fiscal year 2019") and our fiscal year ended October 29, 2017 ("fiscal year 2017") were 52-week fiscal years compared to our fiscal year ended November 4, 2018 ("fiscal year 2018"), which was a 53-week fiscal year. The additional week in the first quarter of fiscal year 2018 resulted in higher net revenue, gross margin dollars, research and development expense, and selling general and administrative expense for fiscal year 2018, compared to fiscal years 2019 and 2017.

Fiscal Year Highlights

Highlights during fiscal year 2019 include the following:

- On September 30, 2019, we completed an offering of approximately 4 million shares of 8.00% Mandatory Convertible Preferred Stock, Series A, $0.001 par value per share (the “Mandatory Convertible Preferred Stock”), which generated net proceeds of $3,679 million. We used the net proceeds, together, with cash on hand, to repay $4.8 billion of our long-term debt.
- We generated $9,697 million of cash from operations.
- We paid $5,435 million to repurchase shares of our common stock under our stock repurchase program, $4,235 million for cash dividends and distributions and $972 million in employee withholding taxes related to net share settled equity awards.
- On November 5, 2018, we completed the acquisition of CA, Inc. (“CA”) for aggregate consideration of approximately $18.8 billion.

Recent Developments

Purchase of Symantec Corporation’s Enterprise Security Business

On November 4, 2019, we completed the purchase and assumption of certain assets and certain liabilities, respectively, of Symantec Corporation’s Enterprise Security business (“Symantec Business”) for approximately $10.7 billion in cash (the “Symantec Asset Purchase”).

In connection with the Symantec Asset Purchase, we entered into a credit agreement with certain financial institutions to provide (i) up to $12 billion in term loans to fund the Symantec Asset Purchase and related working capital needs and (ii) $3.5 billion in term loans to refinance certain existing senior notes maturing in the first quarter of our fiscal year ending November 1, 2020 (“fiscal year 2020”).

The discussions below relate to our business, reporting segments and financial results for fiscal year 2019 and prior periods and do not include any impact from or information relating to the Symantec Asset Purchase.

Acquisitions and Divestitures

The discussion and analysis in this section and the accompanying consolidated financial statements include the results of operations of acquired companies commencing on their respective acquisition dates.

Acquisition of CA, Inc.

On November 5, 2018 (the “CA Acquisition Date”), we acquired CA for approximately $18.8 billion in aggregate cash purchase consideration and assumed $2.25 billion of outstanding unsecured bonds (the “CA Merger”). We financed the CA Merger with $18 billion of term loans borrowed on the CA Acquisition Date, as well as cash on hand of the combined companies. See Note 9. “Borrowings” included in Part II, Item 8. of this Exhibit 99.1 for further detail. We also assumed all eligible unvested CA equity awards in the transaction. On December 31, 2018, we sold Veracode, Inc. (“Veracode”), a subsidiary of CA and provider of application security testing solutions, to Thoma Bravo, LLC for cash consideration of $950 million, before working capital adjustments.

Acquisition of Brocade Communications Systems, Inc.

On November 17, 2017, we acquired Brocade Communications Systems, Inc. (“Brocade”) for approximately $6.0 billion in cash, including retirement of their term loan debt (the “Brocade Merger”), which we financed using the net proceeds from the issuance of our senior unsecured notes, issued in October 2017, as well as cash on hand. We also assumed all eligible unvested Brocade equity awards in the transaction. On December 1, 2017, we sold certain Brocade businesses for an aggregate of $800 million in cash.

Net Revenue

A majority of our net revenue is derived from sales of a broad range of semiconductor devices that are incorporated into electronic products, as well as from modules, switches and subsystems. Net revenue is also generated from the sale of software solutions that enable our customers to plan, develop, automate, manage, and secure applications across mainframe, distributed, mobile, and cloud platforms. Our two reportable segments were: semiconductor solutions and infrastructure software.

Our overall net revenue, as well as the percentage of total net revenue generated by sales in our semiconductor solutions and infrastructure software segments, has varied from quarter to quarter, due largely to fluctuations in end-market

demand, including the effects of seasonality, which are discussed in detail in Part I, Item 1. *Business* under “Seasonality” of this Exhibit 99.1.

Original equipment manufacturers (“OEMs”), or their contract manufacturers, and distributors typically account for the substantial majority of our semiconductor sales. To serve customers around the world, we have strategically developed relationships with large global electronic component distributors, complemented by a number of regional distributors with customer relationships based on their respective product ranges. We also sell our products to a wide variety of OEMs or their contract manufacturers. We have established strong relationships with leading OEM customers across multiple target markets. Our direct sales force focuses on supporting our large OEM customers and has specialized product and service knowledge that enables us to sell specific offerings at key levels throughout a customer’s organization. Certain customers require us to contract with them directly and with specified intermediaries, such as contract manufacturers. Many of our major customer relationships have been in place for many years and are often the result of years of collaborative product development. This has enabled us to build our extensive intellectual property (“IP”) portfolio and develop critical expertise regarding our customers’ requirements, including substantial system-level knowledge. This collaboration has provided us with key insights into our customers' businesses and has enabled us to be more efficient and productive and to better serve our target markets and customers. We recognize revenue upon delivery of product to the distributors, which can cause our quarterly net revenue to fluctuate significantly. Such revenue is reduced for estimated returns and distributor allowances.

Our traditional software customers generally consist of large enterprises that have computing environments from multiple vendors and are highly complex. We believe our enterprise-wide license model will continue to offer our customers reduced complexity, more flexibility and an easier renewal process that will help drive revenue growth.

Costs and Expenses

Cost of products sold. Cost of products sold consists primarily of the costs for semiconductor wafers and other materials as well as the costs of assembling and testing those products and materials. Such costs include personnel and overhead related to our manufacturing operations, which include stock-based compensation expense; related occupancy; computer services; equipment costs; manufacturing quality; order fulfillment; warranty adjustments; inventory adjustments, including write-downs for inventory obsolescence; and acquisition costs, which include direct transaction costs and integration-related costs.

Although we outsource a significant portion of our manufacturing activities, we do have some proprietary semiconductor fabrication facilities. If we are unable to utilize our owned fabrication facilities at a desired level, the fixed costs associated with these facilities will not be fully absorbed, resulting in higher average unit costs and lower gross margins.

Cost of subscriptions and services. Cost of subscriptions and services consists of personnel, project costs associated with professional services or support of our subscriptions and services revenue, and allocated facilities costs and other corporate expenses. Personnel costs include stock-based compensation expense.

Total cost of revenue also includes the purchase accounting effect on inventory, amortization of acquisition-related intangible assets and restructuring charges.

Research and development. Research and development expense consists primarily of personnel costs for our engineers engaged in the design and development of our products and technologies, including stock-based compensation expense. These expenses also include project material costs, third-party fees paid to consultants, prototype development expense, allocated facilities costs and other corporate expenses and computer services costs related to supporting computer tools used in the engineering and design process.

Selling, *general and administrative.* Selling expense consists primarily of compensation and associated costs for sales and marketing personnel, including stock-based compensation expense, sales commissions paid to our independent sales representatives, advertising costs, trade shows, corporate marketing, promotion, travel related to our sales and marketing operations, related occupancy and equipment costs, and other marketing costs. General and administrative expense consists primarily of compensation and associated costs for executive management, finance, human resources and other administrative personnel, including stock-based compensation expense, outside professional fees, allocated facilities costs, acquisition-related costs and other corporate expenses.

Amortization of acquisition-related intangible assets. In connection with our acquisitions, we recognize intangible assets that are being amortized over their estimated useful lives of 1 year to 25 years. We also recognize goodwill, which is not amortized, and in-process research and development (“IPR&D”), which is initially capitalized as an indefinite-lived intangible asset, in connection with acquisitions. Upon completion of each underlying project, IPR&D assets are reclassified as an amortizable purchased intangible asset and amortized over their estimated useful lives.

Restructuring, impairment and disposal charges. Restructuring, impairment and disposal charges consist primarily of compensation costs associated with employee exit programs, alignment of our global manufacturing operations, rationalizing

product development program costs, IPR&D impairment, fixed asset impairment, facility and lease abandonments, and other exit costs, including curtailment of service or supply agreements.

Interest expense. Interest expense includes coupon interest, commitment fees, accretion of original issue discount, and amortization of debt premiums and debt issuance costs, and expenses related to debt modification.

Other income, net. Other income, net includes interest income, gains (losses) on investments and on foreign currency remeasurement, and other miscellaneous items.

Provision for (benefit from) income taxes. The U.S. Tax Cuts and Jobs Act ("2017 Tax Reform Act") made significant changes to the U.S. Internal Revenue Code, including (1) a decrease in the U.S. corporate tax rate from 35% to 21% effective for tax years beginning after December 31, 2017, (2) the accrual of U.S. income tax on foreign earnings when earned, allowing certain foreign dividends to then be tax-exempt, rather than deferring such income tax payments until the foreign earnings are repatriated into the U.S., and (3) the transition tax on the mandatory deemed repatriation of accumulated non-U.S. earnings of U.S. controlled foreign corporations (the "Transition Tax"). Following the enactment of the 2017 Tax Reform Act, the Securities and Exchange Commission ("SEC"), issued guidance for situations when there is insufficient information to complete the accounting for certain income tax effects of the 2017 Tax Reform Act. Based on our interpretation of the 2017 Tax Reform Act and the SEC's guidance, we recognized an income tax benefit of $7,278 million during fiscal year 2018. During fiscal year 2019 we recorded an income tax provision of $113 million from a change in estimate of our fiscal year 2018 benefit as a result of proposed U.S. Treasury regulations issued in fiscal year 2019 related to the 2017 Tax Reform Act. We also recognized an income tax benefit of $1,162 million in fiscal year 2018 primarily as a result of our redomiciliation to the United States in April 2018 (the "Redomiciliation Transaction").

We have structured our operations to maximize the benefit from tax incentives extended to us in various jurisdictions to encourage investment or employment. Our tax incentives from the Singapore Economic Development Board, an agency of the Government of Singapore, provide that any qualifying income earned in Singapore is subject to tax incentives or reduced rates of Singapore income tax. Subject to our compliance with the conditions specified in these incentives and legislative developments, these Singapore tax incentives are presently expected to expire in November 2025, subject in certain cases to potential extensions, which we may or may not be able to obtain. Absent these tax incentives, the corporate income tax rate in Singapore that would otherwise apply to us would be 17%. We also have a tax holiday on our qualifying income in Malaysia, which is scheduled to expire in fiscal year 2028.

The tax incentives and tax holiday that we have obtained are also subject to our compliance with various operating and other conditions. If we cannot, or elect not to, comply with the operating conditions included in any particular tax incentive, we will lose the related tax benefits and we could be required to refund previously realized material tax benefits. Depending on the incentive at issue, we could also be required to modify our operational structure and tax strategy, which may not be as beneficial to us as the benefits provided under the present tax concession arrangements. Before taking into consideration the effects of the 2017 Tax Reform Act and other indirect tax impact, the effect of these tax incentives and tax holiday was to increase the benefit from income taxes by approximately $923 million and $590 million for fiscal years 2019 and 2018, respectively. For fiscal year 2017, the effect of these tax incentives and tax holiday was to reduce the overall provision for income taxes by approximately $237 million.

Our interpretations and conclusions regarding the tax incentives are not binding on any taxing authority, and if our assumptions about tax and other laws are incorrect or if these tax incentives are substantially modified or rescinded we could suffer material adverse tax and other financial consequences, which would increase our expenses, reduce our profitability and adversely affect our cash flows. In addition, taxable income in any jurisdiction is dependent upon acceptance of our operational practices and intercompany transfer pricing by local tax authorities as being on an arm's length basis. Due to inconsistencies in application of the arm's length standard among taxing authorities, as well as lack of adequate treaty-based protection, transfer pricing challenges by tax authorities could, if successful, substantially increase our income tax expense.

Critical Accounting Estimates

The preparation of financial statements in accordance with generally accepted accounting principles in the United States ("GAAP") requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. We base our estimates and assumptions on current facts, historical experience and various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and the accrual of costs and expenses that are not readily apparent from other sources. Our actual financial results may differ materially and adversely from our estimates. Our critical accounting policies are those that affect our historical financial statements materially and involve difficult, subjective or complex judgments by management. Those policies include revenue recognition, business combinations, valuation of long-lived assets, intangible assets and goodwill, inventory valuation, income taxes, retirement and post-retirement benefit plan

assumptions, stock-based compensation and employee bonus programs. See Note 2. “Summary of Significant Accounting Policies” included in Part II, Item 8. of this Exhibit 99.1 for further information on our critical accounting policies and estimates.

Revenue recognition. We account for a contract with a customer when both parties have approved the contract and are committed to perform their respective obligations, each party’s rights can be identified, payment terms can be identified, the contract has commercial substance, and it is probable we will collect substantially all of the consideration we are entitled to. Revenue is recognized when, or as, performance obligations are satisfied by transferring control of a promised product or service to a customer. Our products and services can be broadly categorized as sales of products and subscriptions and services.

We recognize products revenue from sales to direct customers and distributors when control transfers to the customer. An allowance for distributor credits covering price adjustments is made based on our estimate of historical experience rates as well as considering economic conditions and contractual terms. To date, actual distributor claims activity has been materially consistent with the provisions we have made based on our historical estimates. However, because of the inherent nature of estimates, there is always a risk that there could be significant differences between actual amounts and our estimates. Different judgments or estimates could result in variances that might be significant to reported operating results. We also record reductions of revenue for rebates in the same period that the related revenue is recorded. We accrue 100% of potential rebates at the time of sale. We reverse the accrual of unclaimed rebate amounts as specific rebate programs contractually end and when we believe unclaimed rebates are no longer subject to payment and will not be paid. Thus, the reversal of unclaimed rebates may have a positive impact on our net revenue and net income in subsequent periods.

Our contracts may contain more than one of our products and services, each of which is separately accounted for as a distinct performance obligation. When available, we use directly observable transactions to determine the standalone selling prices for performance obligations. Our estimates of standalone selling price for each performance obligation require judgment that considers multiple factors, including, but not limited to, historical discounting trends for products and services and pricing practices through different sales channels, gross margin objectives, internal costs, competitor pricing strategies, technology lifecycles and market conditions.

We also estimate the standalone selling price of our material rights. Our estimate of the value of the customer’s option to purchase or receive additional products or services at a discounted price includes estimating the incremental discount the customer would obtain when exercising the option and the likelihood that the option would be exercised.

Certain contracts contain a right of return that allows the customer to cancel all or a portion of the product or service and receive a credit. We estimate returns based on historical returns data which is constrained to an amount for which a material revenue reversal is not probable. We do not recognize revenue for products or services that are expected to be returned.

Business combinations. Accounting for business combinations requires management to make significant estimates and assumptions, especially at the acquisition date, for intangible assets, contractual obligations assumed, restructuring liabilities, pre-acquisition contingencies and contingent consideration, where applicable. Although we believe the assumptions and estimates we have made in the past have been reasonable and appropriate, they are based, in part, on historical experience and information obtained from management of the acquired companies and are inherently uncertain. Critical estimates in valuing certain of the intangible assets we have acquired include, but are not limited to, future expected cash flows from product sales, customer contracts and acquired technologies, expected costs to develop IPR&D into commercially viable products, estimated cash flows from the projects when completed, and discount rates. The discount rates used to discount expected future cash flows to present value are typically derived from a weighted-average cost of capital analysis and adjusted to reflect inherent risks. Unanticipated events and circumstances may occur that could affect either the accuracy or validity of such assumptions, estimates or actual results.

Valuation of goodwill and long-lived assets. We perform an annual impairment review of our goodwill during the fourth fiscal quarter of each year, and more frequently if we believe indicators of impairment exist. The process of evaluating the potential impairment of goodwill is highly subjective and requires significant judgment. To review for impairment, we first assess qualitative factors to determine whether events or circumstances lead to a determination that it is more-likely-than-not that the fair value of any of our reporting units is less than its carrying amount. Our qualitative assessment of the recoverability of goodwill, whether performed annually or based on specific events or circumstances, considers various macroeconomic, industry-specific and company-specific factors. These factors include: (i) severe adverse industry or economic trends; (ii) significant company-specific actions, including exiting an activity in conjunction with restructuring of operations; (iii) current, historical or projected deterioration of our financial performance; or (iv) a sustained decrease in our market capitalization below our net book value. After assessing the totality of events and circumstances, if we determine that it is not more-likely-than-not that the fair value of any of our reporting units is less than its carrying amount, no further assessment is performed. If we determine that it is more likely than not that the fair value of any of our reporting units is less than its

carrying amount, we calculate the fair value of that reporting unit and compare the fair value to the reporting unit’s net book value.

Determining the fair value of a reporting unit involves the use of significant estimates and assumptions. Our goodwill impairment test uses both the income approach and the market approach to estimate a reporting unit's fair value. The income approach is based on the discounted cash flow method that uses the reporting unit estimates for forecasted future financial performance including revenues, operating expenses, and taxes, as well as working capital and capital asset requirements. These estimates are developed as part of our long-term planning process based on assumed market segment growth rates and our assumed market segment share, estimated costs based on historical data and various internal estimates. Projected cash flows are then discounted to a present value employing a discount rate that properly accounts for the estimated market weighted-average cost of capital, as well as any risk unique to the subject cash flows. The market approach is based on weighting financial multiples of comparable companies and applies a control premium. A reporting unit's carrying value represents the assignment of various assets and liabilities, excluding certain corporate assets and liabilities, such as cash and debt.

We assess the impairment of long-lived assets including purchased IPR&D, property, plant and equipment, and intangible assets, whenever events or changes in circumstances indicate that the carrying value of such assets may not be recoverable. Factors we consider important which could trigger an impairment review include (i) significant under-performance relative to historical or projected future operating results, (ii) significant changes in the manner of our use of the acquired assets or the strategy for our overall business, or (iii) significant negative industry or economic trends. The process of evaluating the potential impairment of long-lived assets under the accounting guidance on property, plant and equipment and other intangible assets is also highly subjective and requires significant judgment. In order to estimate the fair value of long-lived assets, we typically make various assumptions about the future prospects of our business or the part of our business that the long-lived asset relates to. We also consider market factors specific to the business and estimate future cash flows to be generated by the business, which requires significant judgment as it is based on assumptions about market demand for our products over a number of future years. Based on these assumptions and estimates, we determine whether we need to take an impairment charge to reduce the value of the long-lived asset stated on our consolidated balance sheet to reflect its estimated fair value. Assumptions and estimates about future values and remaining useful lives are complex and often subjective. They can be affected by a variety of factors, including external factors, such as the real estate market, industry and economic trends, and internal factors, such as changes in our business strategy and our internal forecasts. Although we believe the assumptions and estimates we have made in the past have been reasonable and appropriate, changes in assumptions and estimates could materially impact our reported financial results.

Inventory valuation. We regularly review inventory quantities on hand and record a provision for excess and obsolete inventory based primarily on our forecast of product demand and production requirements. 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 quantities 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, which may cause us to understate or overstate both the provision required for excess and obsolete inventory and cost of products 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.

Income taxes. Significant management judgment is required in developing our provision for income taxes, including the determination of deferred tax assets and liabilities and any valuation allowances that might be required against the deferred tax assets. We have considered projected future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for valuation allowances. If we determine that a valuation allowance is required, such adjustment to the deferred tax assets would increase our tax expense in the period in which such determination is made. Conversely, if we determine that a valuation allowance exceeds our requirement, such adjustment to the deferred tax assets would decrease tax expense in the period in which such determination is made. In evaluating the exposure associated with various tax filing positions, we accrue an income tax liability when such positions do not meet the more-likely-than-not threshold for recognition.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax law and regulations in a multitude of jurisdictions. We recognize potential liabilities for anticipated tax audit issues in the U.S. and other tax jurisdictions based on our estimate of whether, and the extent to which, additional taxes, interest and penalties will be due. If our estimate of income tax liabilities proves to be less than the actual amount ultimately assessed, a further charge to tax expense would be required. If the payment of these amounts ultimately proves to be unnecessary, the reversal of the accrued liabilities would result in tax benefits being recognized in the period when we determine the liabilities no longer exist.

Retirement and post-retirement benefit plan assumptions. Retirement and post-retirement benefit plan costs represent obligations that will ultimately be settled sometime in the future and therefore, are subject to estimation. Pension accounting is intended to reflect the recognition of future retirement and post-retirement benefit plan costs over the employees' average expected future service to us, based on the terms of the plans and investment and funding decisions. To estimate the impact of these future payments and our decisions concerning funding of these obligations, we are required to make assumptions using actuarial concepts within the framework of GAAP. One assumption is the discount rate used to calculate the estimated costs. Other assumptions include the expected long-term return on plan assets, expected future salary increases, the health care cost trend rate, expected future increases to benefit payments, expected retirement dates, employee turnover, retiree mortality rates, and portfolio composition. We evaluate these assumptions at least annually.

The discount rate is used to determine the present value of future benefit payments at the relevant measurement dates — November 3, 2019 and November 4, 2018, for both U.S. and non-U.S. plans, in fiscal years 2019 and 2018, respectively. The U.S. discount rates are based on the results of matching expected plan benefit payments with cash flows from a hypothetical yield curve constructed with high-quality corporate bond yields. The discount rate for non-U.S. plans was based either on published rates for government bonds or use of a hypothetical yield curve constructed with high-quality corporate bond yields, depending on the availability of sufficient quantities of quality corporate bonds. Lower discount rates increase present values of the pension liabilities and subsequent year pension expense; higher discount rates decrease present values of the pension liabilities and subsequent year pension expense.

The U. S. expected rate of return on plan assets is set equal to the discount rate due to the implementation of our fully-matched, liability-driven investment strategy.

Actuarial assumptions are based on our best estimates and judgment. Material changes may occur in retirement benefit costs in the future if these assumptions differ from actual events or experience. We performed a sensitivity analysis on the discount rate, which is the key assumption in calculating U.S. pension and post-retirement benefit obligations as of November 3, 2019. Each change of 25 basis points in the discount rate assumption would have had an estimated $40 million impact on the benefit obligations as of November 3, 2019. Each change of 25 basis points in the discount rate assumption or expected rate of return assumption would not have a material impact on annual net retirement benefit costs for fiscal year 2020.

Stock-based compensation expense. Stock-based compensation expense consists of expense for RSUs and stock options granted to employees and non-employees or assumed from acquisitions as well as expense associated with Broadcom employee stock purchase plan (“ESPP”). We recognize compensation expense for time-based stock options and ESPP rights based on the estimated grant-date fair value method required under the authoritative guidance using the Black-Scholes valuation model.

Certain equity awards include both time-based and market-based conditions and are accounted for as market-based awards. The fair value of these market-based awards is estimated on the date of grant using a Monte Carlo simulation model.

Employee Bonus Programs. Our employee bonus programs, which are overseen by our Compensation Committee, or our Board, in the case of our Chief Executive Officer, provide for variable compensation based on the attainment of overall corporate annual targets and functional performance metrics. In the first fiscal quarter of the year, if management determines that it is probable that the targets and metrics will be achieved and the amounts can be reasonably estimated, a variable, proportional compensation accrual is recognized based on an assumed 100% achievement of the targets and metrics. The bonus payout levels can be greater if attainment of metrics and targets is greater than 100% and a portion of the payouts may not occur if a minimum floor of performance is not achieved. In subsequent quarters, we monitor and accrue for variable compensation expense based on our actual progress toward the achievement of the annual targets and metrics. The actual achievement of target metrics at the end of the fiscal year, which is subject to approval by our Compensation Committee, may result in the actual variable compensation amounts being significantly higher or lower than the relevant estimated amounts accrued in earlier quarters, which would result in a corresponding adjustment in the fourth fiscal quarter.

Fiscal Year Presentation

We operate on a 52- or 53-week fiscal year ending on the Sunday closest to October 31 in a 52-week year and the first Sunday in November in a 53-week year. Our fiscal years 2019 and 2017 consisted of 52 weeks. Fiscal year 2018 consisted of 53 weeks.

The financial statements included in Part II, Item 8. of this Exhibit 99.1 are presented in accordance with GAAP and expressed in U.S. dollars.

Results of Operations

Fiscal Year 2019 Compared to Fiscal Year 2018

The following table sets forth our results of operations for the periods presented:

	Fiscal Year Ended			
	November 3, 2019	November 4, 2018	November 3, 2019	November 4, 2018
	(In millions)		(As a percentage of net revenue)	
Statements of Operations Data:				
Net revenue:				
Products	$ 18,117	$ 19,754	80%	95%
Subscriptions and services	4,480	1,094	20	5
Total net revenue	22,597	20,848	100	100
Cost of revenue:				
Cost of products sold	6,208	6,924	28	33
Cost of subscriptions and services	515	97	2	1
Purchase accounting effect on inventory	—	70	—	—
Amortization of acquisition-related intangible assets	3,314	3,004	15	14
Restructuring charges	77	20	—	—
Total cost of revenue	10,114	10,115	45	48
Gross margin	12,483	10,733	55	52
Research and development	4,696	3,768	21	18
Selling, general and administrative	1,709	1,056	8	5
Amortization of acquisition-related intangible assets	1,898	541	8	3
Restructuring, impairment and disposal charges	736	219	3	1
Litigation settlements	—	14	—	—
Total operating expenses	9,039	5,598	40	27
Operating income	$ 3,444	$ 5,135	15%	25%

Net Revenue

Historically, a relatively small number of customers has accounted for a significant portion of our net revenue. Sales of products to distributors accounted for 46% and 34% of our net revenue for fiscal years 2019 and 2018, respectively. Direct sales to WT Microelectronics, a distributor, accounted for 17% of our net revenue for fiscal year 2019. No direct customer represented more than 10% of our net revenue during fiscal year 2018. We believe our aggregate sales to our top five end customers through all channels accounted for more than 30% and more than 40% of our net revenue for fiscal years 2019 and 2018, respectively. We believe aggregate sales to Apple Inc., through all channels, accounted for approximately 20% of our net revenue for fiscal year 2019 and approximately 25% for fiscal year 2018. We expect to continue to experience significant customer concentration in future periods. The loss of, or significant decrease in demand from, any of our top five end customers could have a material adverse effect on our business, results of operations and financial condition. Additionally, if export restrictions on one of our larger customers continue, revenue in future periods may continue to be adversely impacted.

From time to time, some of our key semiconductor customers place large orders or delay orders, causing our quarterly net revenue to fluctuate significantly. This is particularly true for our wireless products as fluctuations may be magnified by the launches of, and seasonal variations in sales of mobile handsets.

Although we recognize revenue for the majority of our products when title and control transfer in Penang, Malaysia, we disclose net revenue by country based on the geographic shipment or delivery location specified by distributors, OEMs, contract manufacturers, channel partners, or software customers. In fiscal year 2019, approximately 35% of our net revenue came from shipments or deliveries to China (including Hong Kong), compared to approximately 50% for both fiscal years 2018 and 2017. However, the end customers for either our products or for the end products into which our products are incorporated, are frequently located in countries other than China (including Hong Kong). As a result, we believe that a substantially smaller percentage of our net revenue is ultimately dependent on sales of either our product or our customers' product incorporating our product, to end customers located in China (including Hong Kong).

The following tables set forth net revenue by segment for the periods presented:

Net Revenue by Segment	Fiscal Year Ended November 3, 2019	Fiscal Year Ended November 4, 2018	$ Change	% Change
	(In millions, except for percentages)			
Semiconductor solutions	$ 17,441	$ 19,068	$ (1,627)	(9)%
Infrastructure software	5,156	1,780	3,376	190 %
Total net revenue	$ 22,597	$ 20,848	$ 1,749	8 %

Net Revenue by Segment	Fiscal Year Ended November 3, 2019	Fiscal Year Ended November 4, 2018
	(As a percentage of net revenue)	
Semiconductor solutions	77%	91%
Infrastructure software	23	9
Total net revenue	100%	100%

Our total net revenue increased primarily due to the acquisition of CA in fiscal year 2019. Net revenue from our semiconductor solutions segment decreased due to lower demand for our wireless content in mobile handsets, as well as lower demand for our broadband, optocoupler, set-top box and server storage connectivity. Fiscal year 2018 semiconductor solutions revenue benefited from a later than typical new mobile handset ramp with a major customer in the first quarter, which resulted in higher shipments in that quarter, as well as an extra week in the fiscal year as compared to fiscal year 2019. Net revenue from our infrastructure software segment increased primarily due to contributions from our CA mainframe and enterprise software products.

Gross Margin

Gross margin was $12,483 million for fiscal year 2019 compared to $10,733 million for fiscal year 2018. Gross margin as a percentage of net revenue increased to 55% in fiscal year 2019 from 52% for fiscal year 2018. These increases were primarily due to contributions from our CA mainframe and enterprise software products and favorable product mix within our semiconductor solutions segment. These increases were partially offset by higher amortization of acquisition-related intangible assets and restructuring charges as a result of the CA Merger and higher stock-based compensation expense. We expect to incur additional amortization of acquisition-related intangible assets in future periods as a result of our acquisition of the Symantec Business and any further acquisitions we may make.

Research and Development Expense

Research and development expense increased $928 million, or 25%, in fiscal year 2019. Research and development expense as a percentage of net revenue was 21% and 18% for fiscal years 2019 and 2018, respectively. The increase was primarily due to the acquisition of CA and higher stock-based compensation expense, offset by lower variable employee compensation expense. Stock-based compensation expense increased primarily due to the issuance of multi-year equity grants of time- and market-based RSUs (the “Multi-Year Equity Awards”) in the first quarter of fiscal year 2019, the impact of the change from annual to quarterly vesting of equity awards and the assumed CA equity awards. Our stock-based compensation expense for fiscal year 2019 included employee equity awards granted at higher grant-date fair values than those granted in prior years, which also contributed to the increase. We expect to incur additional research and development expense in future periods as a result of our acquisition of the Symantec Business and any future acquisitions we may make.

Selling, General and Administrative Expense

Selling, general and administrative expense increased $653 million, or 62%, in fiscal year 2019. Selling, general and administrative expense as a percentage of net revenue was 8% and 5% for fiscal years 2019 and 2018, respectively. The increase was primarily due to the acquisition of CA and higher stock-based compensation expense. Stock-based compensation expense increased primarily due to the issuance of the Multi-Year Equity Awards, the impact of the change from annual to quarterly vesting of equity awards and the assumed CA equity awards.

Amortization of Acquisition-Related Intangible Assets

Amortization of acquisition-related intangible assets recognized in operating expenses increased $1,357 million, or 251%, in fiscal year 2019. The increase was primarily due to the addition of amortization of intangible assets acquired in the CA Merger. We expect to incur additional amortization of acquisition-related intangible assets in future periods as a result of our acquisition of the Symantec Business and any further acquisitions we may make.

Restructuring, Impairment and Disposal Charges

Restructuring, impairment and disposal charges included in operating expenses increased $517 million, or 236%, in fiscal year 2019. The increase was primarily due to employee termination costs, as well as lease and other exit costs resulting from the CA Merger. We expect to incur additional restructuring charges in future periods as a result of our acquisition of the Symantec Business and any further acquisitions we may make.

Segment Operating Results

Operating Income	Fiscal Year Ended November 3, 2019	Fiscal Year Ended November 4, 2018	$ Change	% Change
	(In millions, except for percentages)			
Semiconductor solutions	$ 8,148	$ 9,160	$ (1,012)	(11)%
Infrastructure software	3,781	1,250	2,531	202 %
Unallocated expenses	(8,485)	(5,275)	(3,210)	61 %
Total operating income	$ 3,444	$ 5,135	$ (1,691)	(33)%

Operating income from our semiconductor solutions segment decreased primarily due to lower demand for our wireless content in mobile handsets, as well as lower demand for our optocoupler, broadband, server storage connectivity and set-top box products. Fiscal year 2018 semiconductor solutions operating income benefited from a later than typical new mobile handset ramp with a major customer in the first quarter, which resulted in higher shipments in that quarter, as well as an extra week in the fiscal year as compared to fiscal year 2019. Operating income from our infrastructure software segment increased primarily due to contributions from our CA mainframe and enterprise software products.

Unallocated expenses include amortization of acquisition-related intangible assets; stock-based compensation expense; acquisition-related costs; restructuring, impairment and disposal charges; and other costs that are not used in evaluating the results of, or in allocating resources to, our segments. Unallocated expenses increased 61% in fiscal year 2019 mainly due to higher amortization of acquisition-related intangible assets, stock-based compensation expense, and restructuring, impairment and disposal charges primarily related to the CA Merger. The increase in stock-based compensation expense also due to the issuance of the Multi-Year Equity Awards and the impact of the change from annual to quarterly vesting of certain time-based equity awards.

Non-Operating Income and Expenses

Interest expense. Interest expense was $1,444 million and $628 million for fiscal years 2019 and 2018, respectively. Interest expense was higher in fiscal year 2019 primarily due to interest on the debt we incurred to finance the CA Merger in the first quarter of fiscal year 2019. We expect to incur additional interest expense in future periods as a result of term loan indebtedness associated with any future acquisitions, including our acquisition of the Symantec Business.

Other income, net. Other income, net was $226 million and $144 million in fiscal years 2019 and 2018, respectively. The increase was primarily due to an increase in unrealized gains on investments partially offset by losses on foreign currency remeasurement.

Benefit from income taxes. Benefit from income taxes was $510 million and $8,084 million for fiscal years 2019 and 2018, respectively. The benefit from income taxes in fiscal year 2019 was primarily due to $232 million of excess benefit from stock-based awards that vested or were exercised during the year, $131 million from the recognition of gross unrecognized tax benefits as a result of audit settlements and lapses of statutes of limitations net of increases in balances related to tax positions taken during the current year, $80 million of benefit from deferred tax measurement in state and foreign jurisdictions, $66 million of benefit related to internal reorganizations, and $54 million of benefit from the partial release of our valuation allowance as a result of the CA Merger, partially offset by $113 million of expense from a change in estimate of our fiscal year 2018 benefit as a result of proposed U.S. Treasury regulations issued in fiscal year 2019 related to the 2017 Tax Reform Act. The benefit from income taxes in fiscal year 2018 was primarily due to income tax benefits recognized from the enactment of the 2017 Tax Reform Act and the Redomiciliation Transaction.

Fiscal Year 2018 Compared to Fiscal Year 2017

The following table sets forth our results of operations for the periods presented:

Statements of Operations Data:	**Fiscal Year Ended**			
	November 4, 2018	**October 29, 2017**	**November 4, 2018**	**October 29, 2017**
	(In millions)		**(As a percentage of net revenue)**	
Net revenue:				
Products	$ 19,754	$ 17,033	95%	97%
Subscriptions and services	1,094	603	5	3
Total net revenue	20,848	17,636	100	100
Cost of revenue:				
Cost of products sold	6,924	6,549	33	37
Cost of subscriptions and services	97	44	1	1
Purchase accounting effect on inventory	70	4	—	—
Amortization of acquisition-related intangible assets	3,004	2,511	14	14
Restructuring charges	20	19	—	—
Total cost of revenue	10,115	9,127	48	52
Gross margin	10,733	8,509	52	48
Research and development	3,768	3,302	18	19
Selling, general and administrative	1,056	789	5	4
Amortization of acquisition-related intangible assets	541	1,764	3	10
Restructuring, impairment and disposal charges	219	161	1	1
Litigation settlements	14	122	—	1
Total operating expenses	5,598	6,138	27	35
Operating income	$ 5,135	$ 2,371	25%	13%

The following tables set forth net revenue by segment for the periods presented:

Net Revenue

Net Revenue by Segment	**Fiscal Year Ended**			
	November 4, 2018	**October 29, 2017**	**$ Change**	**% Change**
	(In millions, except for percentages)			
Semiconductor solutions	$ 19,068	$ 17,636	$ 1,432	8%
Infrastructure software	1,780	—	1,780	—
Total net revenue	$ 20,848	$ 17,636	$ 3,212	18%

Net Revenue by Segment	**Fiscal Year Ended**	
	November 4, 2018	**October 29, 2017**
	(As a percentage of net revenue)	
Semiconductor solutions	91%	100%
Infrastructure software	9	—
Total net revenue	100%	100%

Our total net revenue increased primarily due to the acquisition of Brocade in fiscal year 2018, as well as strong organic year-over-year growth.

Net revenue from our semiconductor solutions segment increased due to an increase in our wireless content in handsets and a later than typical new handset ramp with a major customer, which resulted in product shipments that typically would

have occurred in the fourth quarter of fiscal year 2017 occurring in the first quarter of fiscal year 2018. Additionally, net revenue from our semiconductor solutions segment increased due to an increase in demand for our networking application-specific integrated circuit ("ASIC") products. These increases were partially offset by a decrease in demand for our set top box and optical products. Net revenue from our infrastructure software segment increased due to contributions from our FC SAN business.

Gross Margin

Gross margin was $10,733 million for fiscal year 2018 compared to $8,509 million for fiscal year 2017. Gross margin as a percentage of net revenue increased to 52% in fiscal year 2018 from 48% for fiscal year 2017. The fiscal year 2018 increases were primarily due to the addition of Brocade products, as well as a more favorable product mix, partially offset by an increase in amortization of acquisition-related intangible assets.

Research and Development Expense

Research and development expense increased $466 million, or 14%, in fiscal year 2018. Research and development expense remained relatively flat as a percentage of net revenue at 18% and 19% for fiscal years 2018 and 2017, respectively. The increase in research and development expense dollars for fiscal year 2018 was primarily due to the acquisition of Brocade, higher stock-based compensation expense, and higher variable employee compensation expense due to fiscal year 2018 operating performance. Stock-based compensation expense was higher in fiscal year 2018 primarily due to annual employee equity awards granted at higher grant-date fair values.

Selling, General and Administrative Expense

Selling, general and administrative expense increased $267 million, or 34%, in fiscal year 2018. Selling, general and administrative expense as a percentage of net revenue remained relatively flat at 5% and 4% for fiscal years 2018 and 2017, respectively. The increase in selling, general and administrative expense dollars for fiscal year 2018 was primarily due to the acquisition of Brocade and associated acquisition-related costs, as well as higher stock-based compensation expense. Stock-based compensation expense was higher in fiscal year 2018 primarily due to annual employee equity awards granted at higher grant-date fair values.

Amortization of Acquisition-Related Intangible Assets

Amortization of acquisition-related intangible assets recognized in operating expenses decreased $1,223 million, or 69%, in fiscal year 2018. The decrease was primarily due to the full amortization of certain intangible assets acquired as part of our acquisition of Broadcom Corporation, partially offset by the addition of amortization of intangible assets acquired in the Brocade Merger.

Restructuring, Impairment and Disposal Charges

Restructuring, impairment and disposal charges included in operating expenses increased $58 million, or 36%, in fiscal year 2018. The increase was primarily due to an increase in restructuring activities resulting from the Brocade Merger, partially offset by a decrease in restructuring activities resulting from our acquisition of Broadcom Corporation.

Litigation Settlements

During fiscal years 2018 and 2017, we incurred $14 million and $122 million of litigation charges, respectively, associated with certain legal settlement agreements.

Segment Operating Results

	Fiscal Year Ended			
Operating Income by Segment	**November 4, 2018**	**October 29, 2017**	**$ Change**	**% Change**
		(In millions, except for percentages)		
Semiconductor solutions	$ 9,160	$ 7,970	$ 1,190	15 %
Infrastructure software	1,250	—	1,250	—
Unallocated expenses	(5,275)	(5,599)	324	(6)%
Total operating income	$ 5,135	$ 2,371	$ 2,764	117 %

Operating income from our semiconductor solutions segment increased due to an increase in our wireless content in handsets, as well as a later than typical new handset ramp with a major customer, which resulted in higher shipments in fiscal

year 2018. Additionally, we experienced an increase in demand for our networking ASIC products. These increases were partially offset by a decrease in demand for our set-top box and optical products. Operating income from our infrastructure software segment increased primarily due to contributions from our FC SAN business.

Unallocated expenses include amortization of acquisition-related intangible assets, stock-based compensation expense, restructuring, impairment and disposal charges, acquisition-related costs, charges for litigation settlements, and other costs that are not used in evaluating the results of, or in allocating resources to, our segments. Unallocated expenses decreased 6% in fiscal year 2018 primarily due to decreases in amortization of acquisition-related intangible assets and charges for litigation settlements, substantially offset by increases in stock-based compensation expense, acquisition-related costs, purchase accounting effect on inventory, and restructuring, impairment and disposal charges.

Non-Operating Income and Expenses

Interest expense. Interest expense was $628 million and $454 million for fiscal years 2018 and 2017, respectively. Interest expense was higher in fiscal year 2018 primarily due to the October 2017 issuance of unsecured senior notes, as well as debt commitment fees paid in connection with the Brocade Merger.

Impairment on investment. We recognized $106 million in fiscal year 2018 for an other than temporary impairment of one of our cost method investments.

Loss on extinguishment of debt. Loss on extinguishment of debt was $166 million for fiscal year 2017. We issued senior unsecured notes in January 2017 to repay all of the term loans outstanding under our guaranteed, collateralized credit agreement dated February 1, 2016. As a result, we wrote-off $166 million of debt issuance costs.

Other income, net. Other income, net was $144 million and $74 million in fiscal years 2018 and 2017, respectively. The increase was primarily due to increases in interest income and gains on foreign currency remeasurement.

Provision for (benefit from) income taxes. Our benefit from income taxes was $8,084 million for fiscal year 2018, compared to a provision for income taxes of $35 million for fiscal year 2017. The benefit from income taxes in fiscal year 2018 was primarily due to the income tax benefits recognized from the enactment of the 2017 Tax Reform Act and the Redomiciliation Transaction. The provision for income taxes in fiscal year 2017 was primarily due to an increase in profit before tax and a discrete expense of $76 million resulting from entity reorganizations, partially offset by the recognition of $273 million of excess tax benefits from stock-based equity awards that vested or were exercised during fiscal year 2017 and, to a lesser extent, the recognition of previously unrecognized tax benefits primarily as a result of audit settlements.

Liquidity and Capital Resources

The following section discusses our principal liquidity and capital resources as well as our primary liquidity requirements and uses of cash. Our cash and cash equivalents are maintained in highly liquid investments with remaining maturities of 90 days or less at the time of purchase. We believe our cash equivalents are liquid and accessible.

Our primary sources of liquidity as of November 3, 2019 consisted of: (i) $5,055 million in cash and cash equivalents, (ii) cash we expect to generate from operations, (iii) available capacity under our $5 billion revolving credit facility (the “Revolving Facility”), and (iv) available capacity under our $2 billion commercial paper program. In addition, we may also generate cash from the sale of assets and debt or equity financing from time to time.

Our short-term and long-term liquidity requirements primarily arise from: (i) business acquisitions and investments we may make from time to time, (ii) working capital requirements, (iii) research and development and capital expenditure needs, (iv) cash dividend payments (if and when declared by the Board of Directors), (v) interest and principal payments related to outstanding indebtedness and (vi) payment of income taxes. Beginning April 2018, we settle withholding tax amounts due upon vesting of compensatory equity awards using cash on hand, and withholding from the grant recipient that number of shares having a value equivalent to the withholding tax amount (“Tax Shares”). This net settlement method reduces the dilutive effects of such awards as they vest. Previously, the Tax Shares were issued and mandatorily sold into the market, and the cash proceeds were used to pay such withholding tax amounts. This change results in an increased use of our cash as our outstanding equity awards vest. Our ability to fund these requirements will depend, in part, on our future cash flows, which are determined by our future operating performance and, therefore, subject to prevailing global macroeconomic conditions and financial, business and other factors, some of which are beyond our control.

Our capital expenditures for fiscal year 2019 were lower than fiscal year 2018, due primarily to the completion of construction at our Irvine and San Jose campuses. We expect capital expenditures to be higher in fiscal year 2020 as compared to fiscal year 2019 due to the Symantec Asset Purchase on November 4, 2019.

Our debt and liquidity needs increased as a result of completing the Symantec Asset Purchase. We funded $10.7 billion of cash consideration needed for that transaction with debt financing.

We believe that our cash and cash equivalents on hand, cash flows from operations, and the Revolving Facility will provide sufficient liquidity to operate our business and fund our current and assumed obligations for at least the next 12 months.

From time to time, we engage in discussions with third parties regarding potential acquisitions of, or investments in, businesses, technologies and product lines. Any such transaction, or evaluation of potential transactions, could require significant use of our cash and cash equivalents, or require us to increase our borrowings to fund such transactions. If we do not have sufficient cash to fund our operations or finance growth opportunities, including acquisitions, or unanticipated capital expenditures, our business and financial condition could suffer. In such circumstances, we may seek to obtain new debt or equity financing. However, we cannot assure you that such additional financing will be available on terms acceptable to us or at all. Our ability to service our senior unsecured notes and outstanding term loans (including those we borrowed to fund our acquisition of the Symantec Business) and any other indebtedness we may incur will depend on our ability to generate cash in the future. We may also elect to sell additional debt or equity securities for reasons other than those specified above.

Working Capital

Working capital decreased to $3,018 million at November 3, 2019 from $6,769 million at November 4, 2018. The decrease was attributable to the following:

- Accounts receivable decreased to $3,259 million at November 3, 2019 from $3,325 million at November 4, 2018, primarily due to a higher volume of trade accounts receivable factoring, partially offset by higher revenue.
- Inventory decreased to $874 million at November 3, 2019 from $1,124 million at November 4, 2018 primarily due to our continued focus on inventory management.
- Current portion of long-term debt increased $2,787 million primarily due to certain unsecured senior notes becoming due within the next twelve months.
- Other current liabilities increased to $2,616 million at November 3, 2019 from $812 million at November 4, 2018 primarily due to the CA Merger and increases in contract liabilities from adoption of Accounting Standard Codification Topic 606 (“Topic 606”), notional pooling liabilities, restructuring reserves, taxes payable and interest payable.

These decreases in working capital were offset in part by the following:

- Cash and cash equivalents increased to $5,055 million at November 3, 2019 from $4,292 million at November 4, 2018 primarily due to $30,034 million in proceeds from borrowings, $9,697 million in net cash provided by operating activities, $3,679 million of Mandatory Convertible Preferred Stock issuance proceeds and $957 million in proceeds from the sale of Veracode, partially offset by $16,800 million of debt repayments, $16,027 million paid for the CA Merger, $5,435 million of common stock repurchases, $4,235 million of dividend payments, and $972 million in payments of employee withholding taxes related to net share settled equity awards. See the “Cash Flows” section below for further details.
- Other current assets increased to $729 million at November 3, 2019 from $366 million at November 4, 2018 primarily due to assets acquired in the CA Merger and increases in contract assets from adoption of Topic 606 and prepaid taxes.

Working capital decreased to $6,769 million at November 4, 2018 from $13,294 million at October 29, 2017. The decrease was attributable to the following:

- Cash and cash equivalents decreased to $4,292 million at November 4, 2018 from $11,204 million at October 29, 2017 largely due to $7,258 million of common stock repurchases, $4,780 million paid for the Brocade Merger and $2,998 million of dividend and distribution payments, partially offset by $8,880 million in net cash provided by operating activities. See the “Cash Flows” section below for further details.
- Inventory decreased to $1,124 million at November 4, 2018 from $1,447 million at October 29, 2017, due to the timing of a major customer's new handset ramp and our continued focus on inventory management.
- Other current assets decreased to $366 million at November 4, 2018 from $724 million at October 29, 2017, primarily due to lower prepaid expenses, lower prepaid taxes as a result of the 2017 Tax Reform Act, and collection of other receivables.
- Other current liabilities increased to $812 million at November 4, 2018 from $681 million at October 29, 2017, primarily due to higher deferred revenue associated with the Brocade Merger.

These decreases in working capital were offset in part by the following:

- Accounts receivable increased to $3,325 million at November 4, 2018 from $2,448 million at October 29, 2017, primarily due to higher volume and revenue linearity.
- Accounts payable decreased to $811 million at November 4, 2018 from $1,105 million at October 29, 2017, primarily due to timing of vendor payments.
- Current portion of long-term debt decreased $117 million due to repayment of certain unsecured senior notes assumed in the acquisition of Broadcom Corporation.

Capital Returns

During fiscal year 2019, we repurchased and retired approximately 21 million shares of our common stock at a weighted average price of $258.52 under an $18 billion stock repurchase program previously authorized by our Board of Directors. During fiscal year 2018, we repurchased and retired approximately 32 million shares of our common stock at a weighted average price of $227.60 under this stock repurchase program. This authorization ended on November 3, 2019.

	Fiscal Year Ended		
	November 3, 2019	November 4, 2018	October 29, 2017
	(In millions, except per share data)		
Cash dividends and distributions declared and paid per share/unit	$ 10.60	$ 7.00	$ 4.08
Cash dividends and distributions declared and paid	$ 4,235	$ 2,998	$ 1,745
Stock repurchases	$ 5,435	$ 7,258	$ —

In addition, during fiscal years 2019 and 2018, we paid approximately $972 million and $56 million, respectively, in employee withholding taxes due upon the vesting of, and related to net settled equity awards. We withheld approximately 4 million and 0.2 million shares of common stock from employees in fiscal years 2019 and 2018, respectively, in connection with such net share settlements.

Cash Flows

	Fiscal Year Ended		
	November 3, 2019	November 4, 2018	October 29, 2017
	(In millions)		
Net cash provided by operating activities	$ 9,697	$ 8,880	$ 6,551
Net cash used in investing activities	(15,422)	(4,674)	(674)
Net cash provided by (used in) financing activities	6,488	(11,118)	2,230
Net change in cash and cash equivalents	$ 763	$ (6,912)	$ 8,107

Operating Activities

Cash provided by operating activities consisted of net income adjusted for certain non-cash items and changes in assets and liabilities. The $817 million increase in cash provided by operations during fiscal year 2019 compared to fiscal year 2018 was primarily due to the adjustments to net income for non-cash items and increases in working capital, partially offset by the decrease in net income. Non-cash adjustments to net income for fiscal year 2019 as compared to fiscal year 2018 primarily included a decrease in benefits from deferred taxes and other non-cash taxes and increases in amortization of intangible assets, stock-based compensation, and non-cash restructuring, impairment and disposal charges, partially offset by a decrease in impairment of investment.

The $2,329 million increase in cash provided by operations during fiscal year 2018 compared to fiscal year 2017 was due to the impact of net income, partially offset by adjustments to net income for non-cash items. Net income for fiscal year 2018 reflected an income tax benefit of $8,084 million principally resulting from the enactment of the 2017 Tax Reform Act and the impact from the Redomiciliation Transaction and related internal reorganizations. This benefit was primarily non-cash, resulting in a significant adjustment to net income, and was included in the deferred taxes and other non-cash taxes line in the consolidated statement of cash flows for fiscal year 2018. Other non-cash adjustments to net income for fiscal year 2018 as compared to fiscal year 2017 primarily included decreases in amortization of intangible assets and the non-cash portion of the debt extinguishment loss, partially offset by increases in stock-based compensation and impairment of investment.

Investing Activities

Cash used in investing activities primarily consisted of cash used for acquisitions, capital expenditures and investments, partially offset by proceeds from sales of businesses and assets. The $10,748 million increase in cash used in investing activities for fiscal year 2019 compared to fiscal year 2018 was primarily related to $16,027 million paid for the CA Merger in fiscal year 2019, partially offset by proceeds from sales of businesses as well as lower capital expenditures.

The $4,000 million increase in cash used in investing activities for fiscal year 2018 compared to fiscal year 2017 was primarily related to $4,780 million paid for the Brocade Merger in fiscal year 2018, partially offset by proceeds from sales of businesses as well as lower capital expenditures.

Financing Activities

Cash provided by (used in) financing activities primarily consisted of net proceeds and payments related to our long-term debt, dividend and distribution payments, stock repurchases, and the issuances of common stock pursuant to our employee equity incentive plans. The $17,606 million increase in cash related to financing activities for fiscal year 2019 compared to fiscal year 2018 was primarily due to a $14,207 million increase in net proceeds from borrowings, net proceeds of $3,679 million from issuance of preferred stock, and a $1,823 million decrease in common stock repurchases, partially offset by a $1,237 million increase in dividend and distribution payments and a $916 million increase in employee withholding taxes related to net share settled equity awards.

The $13,348 million increase in cash used in financing activities for fiscal year 2018 compared to fiscal year 2017 was primarily due to $7,258 million of stock repurchases, an increase in dividend and distribution payments and the repayment of debt.

Indebtedness

See Note 9. “Borrowings” included in Part II, Item 8. of this Exhibit 99.1.

Contractual Commitments

		Payments Due by Period			
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
			(In millions)		
Debt principal, interest and fees	$ 39,038	$ 5,628	$ 10,163	$ 8,021	$ 15,226
Purchase commitments	716	652	64	—	—
Other contractual commitments	197	133	50	14	—
Operating lease obligations	800	115	179	116	390
Total	$ 40,751	$ 6,528	$ 10,456	$ 8,151	$ 15,616

Debt Principal, Interest and Fees. Represents principal, estimated interest and fees on borrowings. For borrowings subject to a floating interest rate, the estimated interest was based on the rate in effect during the last month of the fiscal year ended November 3, 2019.

Purchase Commitments. Represents unconditional purchase obligations that include agreements to purchase goods or services, primarily inventory, that are enforceable and legally binding on us and that specify all significant terms, including fixed or minimum quantities to be purchased, fixed, minimum or variable price provisions, and the approximate timing of the transaction. Purchase obligations exclude agreements that are cancelable without penalty. Cancellation for outstanding purchase orders for capital expenditures in connection with the internal fabrication facility expansion and construction of our new campuses is generally allowed but requires payment of all costs incurred through the date of cancellation and, therefore, cancelable purchase orders for these capital expenditures are included in the table above.

Other Contractual Commitments. Represents amounts payable pursuant to agreements related to information technology, human resources, financial infrastructure outsourcing services and other service agreements.

Operating Lease Obligations. Represents real property and equipment leased from third parties under non-cancelable operating leases.

Due to the inherent uncertainty with respect to the timing of future cash outflows associated with our unrecognized tax benefits at November 3, 2019, we are unable to reliably estimate the timing of cash settlement with the respective taxing authority. Therefore, $3,269 million of unrecognized tax benefits and accrued interest classified within other long-term

liabilities on our consolidated balance sheet as of November 3, 2019 have been excluded from the contractual obligations table above.

Off-Balance Sheet Arrangements

We had no material off-balance sheet arrangements at November 3, 2019 as defined in Item 303(a)(4)(ii) of Regulation S-K under the Exchange Act.

Indemnifications

See Note 13. “Commitments and Contingencies” in Part II, Item 8 of this Exhibit 99.1.

Accounting Changes and Recent Accounting Standards

For a description of accounting changes and recent accounting standards, including the expected dates of adoption and estimated effects, if any, in our consolidated financial statements, see Note 2. “Summary of Significant Accounting Policies” included in Part II, Item 8. of this Exhibit 99.1.

As described in the Current Report on Form 8-K filed with the Securities and Exchange Commission on June 26, 2020, we have updated operating results for all periods presented in our Annual Report on Form 10-K for the fiscal year ended November 3, 2019 (as filed with the Securities and Exchange Commission on December 20, 2019), in order to give effect to the change in reportable segments. Item 8. “Financial Statements and Supplementary Data” that follows recasts the information included in the 2019 Form 10-K in order to reflect the change in reportable segments and should be read in conjunction with the updated Item 1. "Business" and Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" included as an exhibit to the Current Report on Form 8-K filed on June 26, 2020.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

BROADCOM INC.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Broadcom Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Broadcom Inc. and its subsidiaries (the "Company") as of November 3, 2019 and November 4, 2018, and the related consolidated statements of operations, of comprehensive income, of equity and of cash flows for each of the three years in the period ended November 3, 2019, including the related notes and financial statement schedule (not presented herein) listed in the index appearing under Item 15(a)(2) of the Company's 2019 Annual Report on Form 10-K (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of November 3, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of November 3, 2019 and November 4, 2018, and the results of its operations and its cash flows for each of the three years in the period ended November 3, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of November 3, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting (not presented herein) appearing under Item 9A of the Company's 2019 Annual Report on Form 10-K. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control Over Financial Reporting, management has excluded CA, Inc. from its assessment of internal control over financial reporting as of November 3, 2019, because it was acquired by the Company in a purchase business combination during 2019. We have also excluded CA, Inc. from our audit of internal control over financial reporting. CA, Inc. is a wholly-owned subsidiary whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting represent 3% and 15%, respectively, of the related consolidated financial statement amounts as of and for the year ended November 3, 2019.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures

that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Valuation of Developed Technology and Customer Contracts and Related Relationships Intangible Assets Acquired in the CA, Inc. Acquisition

As described in Notes 2 and 4 to the consolidated financial statements, the Company completed the acquisition of CA, Inc. during fiscal 2019 for net consideration of $16,094 million, of which $4,957 million of finite-lived developed technology and $4,190 million of finite-lived customer contracts and related relationships intangible assets were recorded. Management valued the developed technology using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the developed technology less charges representing the contribution of other assets to those cash flows. Management valued the customer contracts and related relationships using the with-and-without-method under the income approach. In this method, the fair value was measured by the difference between the present values of the cash flows with and without the existing customers in place over the period of time necessary to reacquire the customers. As disclosed by management, significant estimates and assumptions in estimating the fair value of the developed technology and the customer contracts and related relationships include future expected cash flows from product sales, customer contracts and acquired technologies, revenue growth rate, customer ramp up period, technology obsolescence rates, and discount rates.

The principal considerations for our determination that performing procedures relating to the valuation of the developed technology and customer contracts and relationships intangible assets acquired in the CA, Inc. acquisition is a critical audit matter are (i) there was a high degree of auditor judgment and subjectivity in applying our procedures relating to the fair value measurement of the developed technology and the customer contracts and related relationships due to the significant judgment by management when developing these estimates, (ii) significant audit effort was required in assessing the significant assumptions relating to the valuation of the developed technology and the customer contracts and related relationships, which include the revenue growth rate, the technology obsolescence rates, the customer ramp-up period, and the discount rates, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the acquisition accounting, including controls over management's valuation of the developed technology and the customer contracts and related relationships and controls over development of the assumptions related to the valuation of the developed technology and the customer contracts and related relationships including the revenue growth rate, the technology obsolescence rates, the customer ramp-up period, and the discount rates. These procedures also included, among others, reading the purchase agreement and testing management's process for determining the fair value of these intangible assets, including evaluating the appropriateness of the valuation methods, testing the completeness and accuracy of underlying data, and evaluating the reasonableness of the significant assumptions, which include the revenue growth rate, the technology obsolescence rates, the customer ramp-up period, and the discount rates. Evaluating the reasonableness of the revenue growth rate, the technology obsolescence rates, and the customer ramp-up period involved considering the past performance of the acquiree, benchmarking of peer companies and, for the revenue growth rate, industry data. Professionals with

specialized skill and knowledge were used to assist us in evaluating the appropriateness of valuation methods and the reasonableness of the discount rates and the technology obsolescence rates.

Uncertain Tax Positions (“UTPs”)

As described in Notes 2 and 11 to the consolidated financial statements, the gross unrecognized tax benefits balance was $4,422 million as of November 3, 2019. As management has disclosed, management evaluates the exposure associated with various tax filing positions and accrues an income tax liability when such positions do not meet the more-likely-than-not threshold for recognition. A tax benefit from an UTP may be recognized when it is more likely than not that the position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits.

The principal considerations for our determination that performing procedures relating to the UTPs is a critical audit matter are (i) there was significant judgment by management when evaluating the technical merits of these tax positions, (ii) significant auditor judgment, subjectivity, and effort was required in understanding the relevant information and evaluating the technical merits of the tax positions, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the identification and recognition of the income tax liability for UTPs, including controls addressing completeness of the UTPs as well as controls over the measurement of the income tax liability. These procedures also included, among others, (i) testing management’s process for identifying potential new UTPs and evaluating possible outcomes for each UTP selected for testing, and (ii) testing the calculation of the liability for UTPs by jurisdiction, including management’s assessment of the technical merits of tax positions and estimates of the amount of tax benefit expected to be sustained for each UTP selected for testing. Professionals with specialized skill and knowledge were used to assist in the evaluation of the completeness and measurement of the Company’s UTPs, including the reasonableness of management’s assessment of whether certain tax positions are more-likely-than-not of being sustained and the amount of potential benefit to be realized, and the application of relevant tax laws.

/s/ PricewaterhouseCoopers LLP

San Jose, California
December 20, 2019, except with respect to our opinion on the consolidated financial statements insofar as it relates to the effects of the change in composition of reportable segments discussed in Note 6 and Note 12, as to which the date is June 26, 2020

We have served as the Company’s auditor since 2006.

BROADCOM INC.

CONSOLIDATED BALANCE SHEETS

	November 3, 2019	November 4, 2018
	(In millions, except par value)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 5,055	$ 4,292
Trade accounts receivable, net	3,259	3,325
Inventory	874	1,124
Other current assets	729	366
Total current assets	9,917	9,107
Long-term assets:		
Property, plant and equipment, net	2,565	2,635
Goodwill	36,714	26,913
Intangible assets, net	17,554	10,762
Other long-term assets	743	707
Total assets	$ 67,493	$ 50,124
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 855	$ 811
Employee compensation and benefits	641	715
Current portion of long-term debt	2,787	—
Other current liabilities	2,616	812
Total current liabilities	6,899	2,338
Long-term liabilities:		
Long-term debt	30,011	17,493
Other long-term liabilities	5,613	3,636
Total liabilities	42,523	23,467
Commitments and contingencies (Note 13)		
Preferred stock dividend obligation	29	—
Stockholders' equity:		
Preferred stock, $0.001 par value; 100 shares authorized; 8.00% Mandatory Convertible Preferred Stock, Series A, 4 and 0 shares issued and outstanding; aggregate liquidation value of $3,738 and $0 as of November 3, 2019 and November 4, 2018, respectively	—	—
Common stock, $0.001 par value; 2,900 shares authorized; 398 and 408 shares issued and outstanding as of November 3, 2019 and November 4, 2018, respectively	—	—
Additional paid-in capital	25,081	23,285
Retained earnings	—	3,487
Accumulated other comprehensive loss	(140)	(115)
Total stockholders' equity	24,941	26,657
Total liabilities and equity	$ 67,493	$ 50,124

The accompanying notes are an integral part of these consolidated financial statements.

BROADCOM INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

	Fiscal Year Ended		
	November 3, 2019	November 4, 2018	October 29, 2017
	(In millions, except per share data)		
Net revenue:			
Products	$ 18,117	$ 19,754	$ 17,033
Subscriptions and services	4,480	1,094	603
Total net revenue	22,597	20,848	17,636
Cost of revenue:			
Cost of products sold	6,208	6,924	6,549
Cost of subscriptions and services	515	97	44
Purchase accounting effect on inventory	—	70	4
Amortization of acquisition-related intangible assets	3,314	3,004	2,511
Restructuring charges	77	20	19
Total cost of revenue	10,114	10,115	9,127
Gross margin	12,483	10,733	8,509
Research and development	4,696	3,768	3,302
Selling, general and administrative	1,709	1,056	789
Amortization of acquisition-related intangible assets	1,898	541	1,764
Restructuring, impairment and disposal charges	736	219	161
Litigation settlements	—	14	122
Total operating expenses	9,039	5,598	6,138
Operating income	3,444	5,135	2,371
Interest expense	(1,444)	(628)	(454)
Impairment on investment	—	(106)	—
Loss on extinguishment of debt	—	—	(166)
Other income, net	226	144	74
Income from continuing operations before income taxes	2,226	4,545	1,825
Provision for (benefit from) income taxes	(510)	(8,084)	35
Income from continuing operations	2,736	12,629	1,790
Loss from discontinued operations, net of income taxes	(12)	(19)	(6)
Net income	2,724	12,610	1,784
Dividends on preferred stock	29	—	—
Net income attributable to noncontrolling interest	—	351	92
Net income attributable to common stock	$ 2,695	$ 12,259	$ 1,692
Basic income per share attributable to common stock:			
Income per share from continuing operations	$ 6.80	$ 29.37	$ 4.19
Loss per share from discontinued operations	(0.03)	(0.04)	(0.01)
Net income per share	$ 6.77	$ 29.33	$ 4.18
Diluted income per share attributable to common stock:			
Income per share from continuing operations	$ 6.46	$ 28.48	$ 4.03
Loss per share from discontinued operations	(0.03)	(0.04)	(0.01)
Net income per share	$ 6.43	$ 28.44	$ 4.02
Weighted-average shares used in per share calculations:			
Basic	398	418	405
Diluted	419	431	421

The accompanying notes are an integral part of these consolidated financial statements.

BROADCOM INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Fiscal Year Ended		
	November 3, 2019	November 4, 2018	October 29, 2017
		(In millions)	
Net income	$ 2,724	$ 12,610	$ 1,784
Other comprehensive income (loss), net of tax:			
Change in actuarial loss and prior service costs associated with defined benefit pension plans and post-retirement benefit plans	(24)	(8)	43
Other comprehensive income (loss)	(24)	(8)	43
Comprehensive income	2,700	12,602	1,827
Comprehensive income attributable to noncontrolling interest	—	351	92
Comprehensive income attributable to Broadcom Inc. stockholders	$ 2,700	$ 12,251	$ 1,735

The accompanying notes are an integral part of these consolidated financial statements.

BROADCOM INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Fiscal Year Ended		
	November 3, 2019	November 4, 2018	October 29, 2017
	(In millions)		
Cash flows from operating activities:			
Net income	$ 2,724	$ 12,610	$ 1,784
Adjustments to reconcile net income to net cash provided by operating activities:			
Amortization of intangible assets	5,239	3,566	4,286
Depreciation	569	515	451
Stock-based compensation	2,185	1,227	921
Deferred taxes and other non-cash taxes	(934)	(8,270)	(173)
Impairment on investment	—	106	—
Non-cash portion of debt extinguishment loss	—	—	166
Non-cash restructuring, impairment and disposal charges	133	21	71
Non-cash interest expense	90	24	24
Other	(125)	37	7
Changes in assets and liabilities, net of acquisitions and disposals:			
Trade accounts receivable, net	486	(652)	(267)
Inventory	250	417	(39)
Accounts payable	(42)	(325)	(97)
Employee compensation and benefits	(294)	6	109
Contributions to defined benefit pension plans	—	(130)	(361)
Other current assets and current liabilities	(283)	369	(490)
Other long-term assets and long-term liabilities	(301)	(641)	159
Net cash provided by operating activities	9,697	8,880	6,551
Cash flows from investing activities:			
Acquisitions of businesses, net of cash acquired	(16,033)	(4,800)	(40)
Proceeds from sales of businesses	957	773	10
Purchases of property, plant and equipment	(432)	(635)	(1,069)
Proceeds from disposals of property, plant and equipment	88	239	441
Purchases of investments	(5)	(249)	(207)
Proceeds from sales and maturities of investments	5	54	200
Other	(2)	(56)	(9)
Net cash used in investing activities	(15,422)	(4,674)	(674)
Cash flows from financing activities:			
Proceeds from long-term borrowings	28,793	—	17,426
Repayment of debt	(16,800)	(973)	(13,668)
Other borrowings	1,241	—	—
Dividend and distribution payments on common stock and exchangeable limited partnership units	(4,235)	(2,998)	(1,745)
Repurchases of common stock - repurchase program	(5,435)	(7,258)	—
Shares repurchased for tax withholdings on vesting of equity awards	(972)	(56)	—
Issuance of preferred stock, net	3,679	—	—
Issuance of common stock	253	212	257
Other	(36)	(45)	(40)
Net cash provided by (used in) financing activities	6,488	(11,118)	2,230
Net change in cash and cash equivalents	763	(6,912)	8,107
Cash and cash equivalents at beginning of period	4,292	11,204	3,097
Cash and cash equivalents at end of period	$ 5,055	$ 4,292	$ 11,204
Supplemental disclosure of cash flow information:			
Cash paid for interest	$ 1,287	$ 547	$ 310
Cash paid for income taxes	$ 741	$ 512	$ 349

The accompanying notes are an integral part of these consolidated financial statements.

BROADCOM INC.

CONSOLIDATED STATEMENTS OF EQUITY

	Special Preference Preferred Stock		8.00% Mandatory Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Retained Earnings/(Accumulated Deficit)	Accumulated Other Comprehensive Loss	Total Broadcom Inc. Stockholders' Equity	Noncontrolling Interest	Total Equity
	Shares	Amount	Shares	Par Value	Shares	Par Value						
								(In millions)				
Balance as of October 30, 2016	23	$ —	—	$ —	398	$ —	$19,241	$ (215)	$ (134)	$ 18,892	$ 2,984	$21,876
Net income	—	—	—	—	—	—	—	1,692	—	1,692	92	1,784
Other comprehensive income	—	—	—	—	—	—	—	—	43	43	—	43
Cumulative effect of accounting change	—	—	—	—	—	—	—	47	—	47	3	50
Dividends to common stockholders	—	—	—	—	—	—	—	(1,653)	—	(1,653)	—	(1,653)
Distribution by Broadcom Cayman L.P. on exchangeable limited partnership units	—	—	—	—	—	—	—	—	—	—	(92)	(92)
Exchange of exchangeable limited partnership units for common stock and cancellation of preferred stock	(1)	—	—	—	1	—	86	—	—	86	(86)	—
Common stock issued	—	—	—	—	10	—	257	—	—	257	—	257
Stock-based compensation	—	—	—	—	—	—	921	—	—	921	—	921
Balance as of October 29, 2017	22	—	—	—	409	—	20,505	(129)	(91)	20,285	2,901	23,186
Net income	—	—	—	—	—	—	—	12,259	—	12,259	351	12,610
Other comprehensive loss	—	—	—	—	—	—	—	—	(8)	(8)	—	(8)
Cumulative effect of accounting change	—	—	—	—	—	—	—	(237)	(16)	(253)	(13)	(266)
Fair value of partially vested equity awards assumed in connection with the acquisition of Brocade Communications Systems, Inc.	—	—	—	—	—	—	8	—	—	8	—	8
Dividends to common stockholders	—	—	—	—	—	—	—	(2,921)	—	(2,921)	—	(2,921)
Distribution by Broadcom Cayman L.P. on exchangeable limited partnership units	—	—	—	—	—	—	—	—	—	—	(77)	(77)
Exchange of exchangeable limited partnership units for common stock and redemption of preferred stock due to the Redomiciliation Transaction	(22)	—	—	—	22	—	3,162	—	—	3,162	(3,162)	—
Common stock issued	—	—	—	—	9	—	212	—	—	212	—	212
Stock-based	—	—	—	—	—	—	1,227	—	—	1,227	—	1,227

compensation												
Repurchases of common stock	—	—	—	—	(32)	—	(1,773)	(5,485)	—	(7,258)	—	(7,258)
Shares repurchased for tax withholdings on vesting of equity awards	—	—	—	—	—	—	(56)	—	—	(56)	—	(56)
Balance as of November 4, 2018	—	—	—	—	408	—	23,285	3,487	(115)	26,657	—	26,657
Net income	—	—	—	—	—	—	—	2,724	—	2,724	—	2,724
Other comprehensive loss	—	—	—	—	—	—	—	—	(24)	(24)	—	(24)
Cumulative effect of accounting change	—	—	—	—	—	—	—	8	(1)	7	—	7
Fair value of partially vested equity awards assumed in connection with the acquisition of CA, Inc.	—	—	—	—	—	—	67	—	—	67	—	67
Dividends to common stockholders	—	—	—	—	—	—	(880)	(3,355)	—	(4,235)	—	(4,235)
Dividends to preferred stockholders	—	—	—	—	—	—	(29)	—	—	(29)	—	(29)
Common stock issued	—	—	—	—	15	—	253	—	—	253	—	253
Preferred stock issued, net			4	—		—	3,679	—	—	3,679	—	3,679
Stock-based compensation	—	—	—	—	—	—	2,260	—	—	2,260	—	2,260
Repurchases of common stock	—	—	—	—	(21)	—	(2,571)	(2,864)	—	(5,435)	—	(5,435)
Shares repurchased for tax withholdings on vesting of equity awards	—	—	—	—	(4)	—	(983)	—	—	(983)	—	(983)
Balance as of November 3, 2019	—	$ —	4	$ —	398	$ —	$25,081	$ —	$ (140)	$ 24,941	$ —	$24,941

The accompanying notes are an integral part of these consolidated financial statements.

1. Overview and Basis of Presentation

Overview

Broadcom Inc. (“Broadcom”), a Delaware corporation, is the successor to Broadcom Limited (now Broadcom Pte. Ltd.), a Singapore company (“Broadcom-Singapore”). On April 4, 2018, all Broadcom-Singapore outstanding ordinary shares were exchanged for newly issued shares of Broadcom common stock (the “Redomiciliation Transaction”). As a result, Broadcom-Singapore became a wholly-owned subsidiary of Broadcom. In addition, all outstanding exchangeable limited partnership units (“LP Units”) of Broadcom Cayman L.P. (the “Partnership”) were mandatorily exchanged (the “Mandatory Exchange”) for newly issued shares of Broadcom common stock and all limited partners of the Partnership became common stockholders of Broadcom. Also, all related outstanding special preference shares of Broadcom-Singapore were automatically redeemed upon the Mandatory Exchange. The limited partners no longer hold a noncontrolling interest and we deregistered the Partnership.

The Redomiciliation Transaction was accounted for as an exchange of equity interests among entities under common control and the historical basis of accounting was retained as if the entities had always been combined for financial reporting purposes.

The financial statements relate to Broadcom-Singapore for periods prior to April 4, 2018, the effective date of the Redomiciliation Transaction, and relate to Broadcom for periods after April 4, 2018. Unless stated otherwise or the context otherwise requires, references to “Broadcom,” “we,” “our” and “us” mean Broadcom and its consolidated subsidiaries from and after the effective time of the Redomiciliation Transaction and, prior to that time, to our predecessor, Broadcom-Singapore.

We are a global technology leader that designs, develops and supplies a broad range of semiconductor and infrastructure software solutions. We develop semiconductor devices with a focus on complex digital and mixed signal complementary metal oxide semiconductor based devices and analog III-V based products. We have a history of innovation and offer thousands of products that are used in end products such as enterprise and data center networking, home connectivity, set-top boxes, broadband access, telecommunication equipment, smartphones and base stations, data center servers and storage systems, factory automation, power generation and alternative energy systems, and electronic displays. Our infrastructure software solutions enable customers to plan, develop, automate, manage, and secure applications across mainframe, distributed, mobile, and cloud platforms.

Basis of Presentation

We operate on a 52- or 53-week fiscal year ending on the Sunday closest to October 31 in a 52-week year and the first Sunday in November in a 53-week year. Our fiscal year ended November 3, 2019 (“fiscal year 2019”) was a 52-week fiscal year. The first quarter of our fiscal year 2019 ended on February 3, 2019, the second quarter ended on May 5, 2019 and the third quarter ended on August 4, 2019. Our fiscal year ended November 4, 2018 (“fiscal year 2018”) was a 53-week fiscal year, with the first fiscal quarter containing 14 weeks. Our fiscal year ended October 29, 2017 (“fiscal year 2017”) was a 52-week fiscal year.

On November 5, 2018 (the “CA Acquisition Date”), we acquired CA, Inc. (“CA”). On November 17, 2017, we acquired Brocade Communications Systems, Inc. (“Brocade”). The accompanying consolidated financial statements include the results of operations of CA and Brocade commencing as of their respective acquisition dates. See Note 4. “Acquisitions” for additional information.

During the first quarter of our fiscal year ending November 1, 2020 (“fiscal year 2020”), we changed our organizational structure, resulting in two reportable segments: semiconductor solutions and infrastructure software. Segment results for all periods presented have been recast to conform to the current presentation. See Note 12. “Segment Information” for additional information.

The accompanying consolidated financial statements include the accounts of Broadcom and its subsidiaries and have been prepared in accordance with generally accepted principles in the United States (“GAAP”). All intercompany balances and transactions have been eliminated in consolidation.

2. Summary of Significant Accounting Policies

Foreign currency remeasurement. We operate in a U.S. dollar functional currency environment. As such, foreign currency assets and liabilities are remeasured into U.S. dollars at current exchange rates except for non-monetary items such as inventory and property, plant and equipment, which are remeasured at historical exchange rates. The effects of foreign currency remeasurement were not material for any period presented.

Use of estimates. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates, and such differences could affect the results of operations reported in future periods.

Cash and cash equivalents. We consider all highly liquid investment securities with original or remaining maturities of three months or less at the date of purchase to be cash equivalents. We determine the appropriate classification of our cash and cash equivalents at the time of purchase.

Trade accounts receivable, net. Trade accounts receivable are recognized at the invoiced amount and do not bear interest. Accounts receivable are reduced by an allowance for doubtful accounts, which is our best estimate of the amount of probable credit losses in our existing accounts receivable. We determine the allowance based on customer-specific experience and the aging of such receivables, among other factors. Allowances for doubtful accounts were not material as of November 3, 2019 or November 4, 2018. Accounts receivable are also recognized net of sales returns and distributor credit allowances. These amounts are recognized when it is both probable and estimable that discounts will be granted or products will be returned. Allowances for sales returns and distributor credit allowances at November 3, 2019 and November 4, 2018 were $178 million and $161 million, respectively.

Concentrations of credit risk and significant customers. Our cash, cash equivalents and accounts receivable are potentially subject to concentration of credit risk. Cash and cash equivalents may be redeemable upon demand and are maintained with several financial institutions that management believes are of high credit quality and therefore bear minimal credit risk. We seek to mitigate our credit risks by spreading such risks across multiple counterparties and monitoring the risk profile of these counterparties. Our accounts receivable are derived from revenue earned from customers located both within and outside the U.S. We mitigate collection risks from our customers by performing regular credit evaluations of our customers' financial conditions, and require collateral, such as letters of credit and bank guarantees, in certain circumstances.

Concentration of other risks. We operate in markets that are highly competitive and rapidly changing. Significant technological changes, shifting customer needs, the emergence of competitive products with new capabilities, general economic conditions worldwide, the ability to safeguard patents and other intellectual property in a rapidly evolving market and reliance on assembly and test subcontractors, third-party wafer fabricators and independent distributors and other factors could affect our financial results.

Inventory. We value our inventory at the lower of actual cost or net realizable value of the inventory, with cost being determined under the first-in, first-out method. We record a provision for excess and obsolete inventory based primarily on our forecast of product demand and production requirements. The excess and obsolete balance determined by this analysis becomes the basis for our excess and obsolete inventory charge and the written-down value of the inventory becomes its new cost basis.

Retirement benefits. Post-retirement benefit plan assets and liabilities are estimates of benefits that we expect to pay to eligible retirees. We consider various factors in determining the value of our post-retirement plan assets and liabilities, including the number of employees that we expect to receive benefits and other actuarial assumptions.

For defined benefit pension plans, we consider various factors in determining our respective pension liabilities and net periodic benefit costs, including the number of employees that we expect to receive benefits, their salary levels and years of service, the expected return on plan assets, the discount rate, the timing of the payment of benefits, and other actuarial assumptions. If the actual results and events of the retirement benefit plans differ from our current assumptions, the benefit obligations may be over- or under-valued.

The key benefit plan assumptions are the discount rate and the expected rate of return on plan assets. The U.S. discount rates are based on the results of matching expected plan benefit payments with cash flows from a hypothetical yield curve constructed with high-quality corporate bond yields. The U.S. expected rate of return on plan assets is set equal to the discount rate due to the implementation of our fully-matched, liability-driven investment strategy.

For the non-U.S. plans, we set assumptions specific to each country. We have elected to measure post-retirement benefit plan and defined benefit pension plan assets and liabilities as of October 31, which is the month-end that is closest to our fiscal year-ends.

Derivative instruments. We are subject to foreign currency risks for transactions denominated in foreign currencies, primarily the Singapore Dollar, Israeli Shekel, Euro, Japanese Yen and Indian Rupee. Therefore, we enter into foreign exchange forward contracts to manage financial exposures resulting from the changes in the exchange rates of these foreign currencies. These contracts are designated at inception as hedges of the related foreign currency exposures, which include committed and forecasted revenue and expense transactions that are denominated in currencies other than the functional currency of the subsidiary which has the exposure. We exclude time value from the measurement of effectiveness. To achieve hedge accounting, contracts must reduce the foreign currency exchange rate risk otherwise inherent in the amount and duration of the hedged exposures and comply with established risk management policies; our hedging contracts generally mature within three months. We do not use derivative financial instruments for speculative or trading purposes.

We designate our forward contracts as either cash flow or fair value hedges. All derivatives are recognized on the consolidated balance sheets at their fair values based on Level 2 inputs as defined in the fair value hierarchy. The accounting for gains and losses resulting from changes in fair value depends on the use of the derivative and whether it is designated and qualifies for hedge accounting. For derivative instruments that are designated and qualify as fair value hedges, changes in value of the instruments are recognized in net income in the current period. Such hedges are recognized in net income and are offset by the changes in fair value of the underlying assets or liabilities being hedged. For derivative instruments that are designated and qualify as cash flow hedges, changes in the value of the effective portion of the derivative instrument are recognized in accumulated other comprehensive loss, a component of stockholders' equity. These amounts are then reclassified and recognized in net income when either the forecasted transaction affects earnings or it becomes probable the forecasted transaction will not occur. Changes in the fair value of the ineffective portion of derivative instruments are recognized in net income in the current period, which have not been material to date. Changes in the value of derivative instruments not designated as hedges are recognized in other income, net, in our consolidated statements of operations. We did not have any outstanding foreign exchange forward contracts as of November 3, 2019 or November 4, 2018.

Property, plant and equipment. Property, plant and equipment are stated at cost less accumulated depreciation and amortization. Additions, improvements and major renewals are capitalized, and maintenance, repairs and minor renewals are expensed as incurred. Assets are held in construction in progress until placed in service, upon which date, we begin to depreciate these assets. When assets are retired or disposed of, the assets and related accumulated depreciation and amortization are removed from our property, plant and equipment balances and the resulting gain or loss is reflected in the consolidated statements of operations. Buildings and leasehold improvements are generally depreciated over 15 to 40 years, or over the lease period, whichever is shorter, and machinery and equipment are generally depreciated over three to ten years. We use the straight-line method of depreciation for all property, plant and equipment.

Fair value measurement. Fair value is defined as the price that would be received upon sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. A three level hierarchy is applied to prioritize the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

The three levels of the fair value hierarchy under the guidance for fair value measurements are described below:

Level 1 — Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date. Our Level 1 assets include cash equivalents, banker's acceptances, trading securities investments and investment funds. We measure trading securities investments and investment funds at quoted market prices as they are traded in an active market with sufficient volume and frequency of transactions.

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

Level 3 — Level 3 inputs are unobservable inputs for the asset or liability in which there is little, if any, market activity for the asset or liability at the measurement date. Level 3 assets and liabilities include cost method investments, goodwill, intangible assets, and property, plant and equipment, which are measured at fair value using a discounted cash flow approach when they are impaired. Quantitative information for Level 3 assets and liabilities reviewed at each reporting period includes indicators of significant deterioration in the earnings performance, credit rating, asset quality, business prospects of the investee, and financial indicators of the investee's ability to continue as a going concern.

Business combinations. We account for business combinations under the acquisition method of accounting, which requires us to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values. While we use our best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, our estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recognized in our consolidated statements of operations. Accounting for business combinations requires our management to make significant estimates and assumptions, especially at the acquisition date including our estimates for intangible assets, contractual obligations assumed, restructuring liabilities, pre-acquisition contingencies, and contingent consideration, where applicable. Although we believe the assumptions and estimates we have made in the past have been reasonable and appropriate, they are based, in part, on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Critical estimates in valuing certain acquired intangible assets under the income approach include growth in future expected cash flows from product sales, customer contracts and acquired technologies, revenue growth rate, customer ramp-up period, technology obsolescence rates, expected costs to develop in-process research and development ("IPR&D") into commercially viable products, estimated cash flows from the projects when completed and discount rates. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

Goodwill. Goodwill represents the excess of purchase price and related costs over the value assigned to the net tangible and identifiable intangible assets of businesses acquired. Goodwill is not amortized but is reviewed annually (or more frequently if impairment indicators arise) for impairment. To review for impairment we first assess qualitative factors to determine whether events or circumstances lead to a determination that it is more likely than not that the fair value of any of our reporting units is less than its carrying amount. Our qualitative assessment of the recoverability of goodwill, whether performed annually or based on specific events or circumstances, considers various macroeconomic, industry-specific and company-specific factors. Those factors include: (i) severe adverse industry or economic trends; (ii) significant company-specific actions, including exiting an activity in conjunction with restructuring of operations; (iii) current, historical or projected deterioration of our financial performance; or (iv) a sustained decrease in our market capitalization below our net book value. After assessing the totality of events and circumstances, if we determine that it is not more likely than not that the fair value of any of our reporting units is less than its carrying amount, no further assessment is performed. If we determine that it is more likely than not that the fair value of any of our reporting units is less than its carrying amount, we calculate the fair value of that reporting unit and compare the fair value to the reporting unit's net book value. If the fair value of the reporting unit is greater than its net book value, there is no impairment. Otherwise, we calculate the implied fair value of goodwill by deducting the fair value of all tangible and intangible assets, excluding goodwill, of the reporting unit from the fair value of the reporting unit. The implied fair value of goodwill is compared to the carrying value of goodwill. If the implied fair value of goodwill is less than the carrying value of goodwill, an impairment loss is recognized equal to the difference. Determining the fair value of a reporting unit involves the use of significant estimates and assumptions.

Long-lived assets. Purchased finite-lived intangible assets are carried at cost less accumulated amortization. Amortization is recognized over the periods during which the intangible assets are expected to contribute to our cash flows. Purchased IPR&D projects are capitalized at fair value as an indefinite-lived intangible asset and assessed for impairment thereafter. Upon completion of each underlying project, IPR&D assets are reclassified as amortizable purchased intangible assets and amortized over their estimated useful lives. If an IPR&D project is abandoned, we recognize the carrying value of the related intangible asset in our consolidated statements of operations in the period it is abandoned. On a quarterly basis, we monitor factors and changes in circumstances that could indicate carrying amounts of long-lived assets, including purchased intangible assets and property, plant and equipment, may not be recoverable. Factors we consider important which could trigger an impairment review include (i) significant under-performance relative to historical or projected future operating results, (ii) significant changes in the manner of our use of the acquired assets or the strategy for our overall business, and (iii) significant negative industry or economic trends. An impairment loss must be measured if the sum of the expected future cash flows (undiscounted and before interest) from the use and eventual disposition of the asset (or asset group) is less than the net book value of the asset (or asset group). The amount of the impairment loss will generally be measured as the difference between the net book value of the asset (or asset group) and the estimated fair value.

Warranty. We accrue for the estimated costs of product warranties at the time revenue is recognized. Product warranty costs are estimated based upon our historical experience and specific identification of the products requirements, which may fluctuate based on product mix. Additionally, we accrue for warranty costs associated with occasional or unanticipated product quality issues if a loss is probable and can be reasonably estimated.

Revenue recognition. We account for a contract with a customer when both parties have approved the contract and are committed to perform their respective obligations, each party's rights can be identified, payment terms can be identified, the contract has commercial substance, and it is probable we will collect substantially all of the consideration we are entitled to. Revenue is recognized when, or as, performance obligations are satisfied by transferring control of a promised product or service to a customer.

Nature of Products and Services

Our products and services can be broadly categorized as sales of products and subscriptions and services. The following is a description of the principal activities from which we generate revenue.

Products. We recognize revenue from sales to direct customers and distributors when control transfers to the customer. Rebates and incentives offered to distributors, which are earned when sales to end customers are completed, are estimated at the point of revenue recognition. We have elected to exclude from the transaction price any taxes collected from a customer and to account for shipping and handling activities performed after a customer obtains control of the product as activities to fulfill the promise to transfer the product.

Subscriptions and services. Our subscriptions and services revenue consists of sales and royalties from software arrangements, support services, professional services, transfer of IP, and non-recurring engineering ("NRE") arrangements.

Revenue from software arrangements primarily consists of fees, which may be paid either at contract inception or in installments over the contract term, that provide customers with a right to use the software, access general support and maintenance, and utilize our professional services.

Our software licenses have standalone functionality from which customers derive benefit, and the customer obtains control of the software when it is delivered or made available for download. We believe that for the majority of software arrangements, customers derive significant benefit from the ongoing support we provide. Our CA-related subscriptions and services arrangements permit our customers to unilaterally terminate or cancel these arrangements at any time at the customer's convenience, referred to as termination for convenience provisions, without substantive termination penalty and receive a pro-rata refund of any prepaid fees. Accordingly, we account for arrangements with these termination for convenience provisions as a series of daily contracts, resulting in a ratable revenue recognition of software revenue over the contractual period.

Support services consist primarily of telephone support and the provision of unspecified updates and upgrades on a when-and-if-available basis. Support services represent stand-ready obligations for which revenue is recognized ratably over the term of the arrangement.

Professional services consist of implementation, consulting, customer education and customer training services. The obligation to provide professional services is generally satisfied over time, with the customer simultaneously receiving and consuming the benefits as we satisfy our performance obligations.

Rights to our IP are either sold or licensed to a customer. IP revenue recognition is dependent on the nature and terms of each agreement. We recognize IP revenue upon delivery of the IP if there are no substantive future obligations to perform under the arrangement. Sales-based or usage-based royalties from the license of IP are recognized at the later of the period the sales or usages occur or the satisfaction of the performance obligation to which some or all of the sales-based or usage-based royalties have been allocated.

There are two main categories of NRE contracts which we enter into with our customers: (a) NRE contracts in which we develop a custom chip and (b) NRE contracts in which we accelerate our development of a new chip upon the customer's request. The majority of our NRE contract revenues meet the over time criteria. As such, revenue is recognized over the development period with the measure of progress using the input method based on costs incurred to total cost ("cost-to-cost") as the services are provided. For NRE contracts that do not meet the over time criteria, revenue is recognized at a point in time when the NRE services are complete.

Material rights. Contracts with customers may also include material rights that are also performance obligations. These include the right to renew or receive products or services at a discounted price in the future. Revenue allocated to material rights is recognized when the customer exercises the right or the right expires.

Arrangements with Multiple Performance Obligations

Our contracts may contain more than one of the products and services listed above, each of which is separately accounted for as a distinct performance obligation.

Allocation of consideration. We allocate total contract consideration to each distinct performance obligation in a bundled arrangement on a relative standalone selling price basis. The standalone selling price reflects the price we would charge for a specific product or service if it were sold separately in similar circumstances and to similar customers.

Standalone selling price. When available, we use directly observable transactions to determine the standalone selling prices for performance obligations. Our estimates of standalone selling price for each performance obligation require judgment that considers multiple factors, including, but not limited to, historical discounting trends for products and services and pricing practices through different sales channels, gross margin objectives, internal costs, competitor pricing strategies, technology lifecycles and market conditions.

We separately determine the standalone selling prices by product or service type. Additionally, we segment the standalone selling prices for products where the pricing strategies differ, and where there are differences in customers and circumstances that warrant segmentation.

We also estimate the standalone selling price of our material rights. Lastly, we estimate the value of the customer's option to purchase or receive additional products or services at a discounted price by estimating the incremental discount the customer would obtain when exercising the option and the likelihood that the option would be exercised.

Other Policies and Judgments

Contract modifications. We may modify contracts to offer customers additional products or services. Each of the additional products and services are generally considered distinct from those products or services transferred to the customer before the modification. We evaluate whether the contract price for the additional products and services reflects the standalone selling price as adjusted for facts and circumstances applicable to that contract. In these cases, we account for the additional products or services as a separate contract. In other cases where the pricing in the modification does not reflect the standalone selling price as adjusted for facts and circumstances applicable to that contract, we account for the additional products or services as part of the existing contract on a prospective basis, on a cumulative catch-up basis, or on a combination of both based on the nature of modification. In instances where the pricing in the modification offers the customer a credit for a prior arrangement, we adjust our variable consideration reserves for returns and other concessions.

Right of return. Certain contracts contain a right of return that allows the customer to cancel all or a portion of the product or service and receive a credit. We estimate returns based on historical returns data which is constrained to an amount for which a material revenue reversal is not probable. We do not recognize revenue for products or services that are expected to be returned.

Transition practical expedient elected. We do not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which we recognize revenue at the amount to which we have the right to invoice for services performed. For contracts that were modified before the beginning of the earliest reporting period presented, we have not retrospectively restated the contract for those modifications. We have disclosed the aggregate effect of all modifications when identifying the satisfied and unsatisfied performance obligations for purposes of determining the transaction price and allocating the transaction price at transition.

Research and development. Research and development expense consists primarily of personnel costs for our engineers and third parties engaged in the design and development of our products, software and technologies, including salary, bonus and stock-based compensation expense, project material costs, services and depreciation. Such costs are charged to research and development expense as they are incurred.

Stock-based compensation expense. We recognize compensation expense for time-based restricted stock units ("RSUs") using the straight-line amortization method based on the fair value of RSUs on the date of grant. The fair value of RSUs is the closing market price of Broadcom common stock on the date of grant, reduced by the present value of dividends expected to be paid on Broadcom common stock prior to vesting. We recognize compensation expense for time-based stock options and employee stock purchase plan rights under the Broadcom Inc. Employee Stock Purchase Plan, as amended ("ESPP") based on the estimated grant-date fair value determined using the Black-Scholes valuation model with a straight-line amortization method.

Certain equity awards include both service and market conditions. The fair value of market-based awards is estimated on the date of grant using the Monte Carlo simulation technique. Compensation expense for market-based awards is amortized based upon a graded vesting method over the service period.

We estimate forfeitures expected to occur and recognize stock-based compensation expense for such awards expected to vest. Changes in the estimated forfeiture rates can have a significant effect on stock-based compensation expense since the effect of adjusting the rate is recognized in the period the forfeiture estimate is changed.

Shipping and handling costs. Our shipping and handling costs charged to customers are included in net revenue and the associated expense is included in total cost of revenue in the consolidated statements of operations for all periods presented.

Litigation and settlement cost. We are involved in legal actions and other matters arising in our recent business acquisitions and in the normal course of business. We recognize an estimated loss contingency when the outcome is probable prior to issuance of the consolidated financial statements and we are able to reasonably estimate the amount or range of any possible loss.

Taxes on income. We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the consolidated financial statements and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

We recognize net deferred tax assets to the extent we believe these assets will more likely than not be realized. In making such determination, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial operations. If we determine that we are able to realize our deferred income tax assets in the future in excess of their net carrying values, we adjust the valuation allowance and reduce the provision for income taxes. Likewise, if we determine that we are not able to realize all or part of our net deferred tax assets, we increase the provision for income taxes in the period such determination is made.

We account for uncertainty in income taxes in accordance with the applicable accounting guidance on income taxes. This guidance provides that a tax benefit from an uncertain tax position may be recognized when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits.

Net income per share. Basic net income per share is computed by dividing net income attributable to common stock by the weighted-average number of shares of common stock outstanding during the period. Diluted net income per share is computed by dividing net income attributable to common stock by the weighted-average number of shares of common stock and potentially dilutive shares of common stock outstanding during the period. Diluted shares outstanding include the dilutive effect of in-the-money stock options, unvested RSUs and ESPP rights (together referred to as “equity awards”), as well as convertible preferred stock and LP Units. Potentially dilutive shares whose effect would have been antidilutive are excluded from the computation of diluted net income per share.

The dilutive effect of equity awards is calculated based on the average stock price for each fiscal period, using the treasury stock method. Under the treasury stock method, the amount the employee must pay for exercising stock options and purchasing shares under the ESPP and the amount of compensation cost for future service that we have not yet recognized are collectively assumed to be used to repurchase shares. The dilutive effect of convertible preferred stock and LP Units is calculated using the if-converted method. The if-converted method assumes that these securities were converted at the beginning of the reporting period to the extent that the effect is dilutive.

Reclassifications. Certain reclassifications have been made to the prior period consolidated balance sheet, statements of operations, statements of cash flows and statements of equity. These reclassifications have no impact on the previously reported total stockholders’ equity, net income or net cash activities.

Recently Adopted Accounting Guidance

In the first quarter of fiscal year 2019, we adopted the Financial Accounting Standards Board (“FASB”) guidance issued in March 2017 that requires an employer to present the service cost component of net periodic benefit cost in the same income statement line item as other employee compensation costs arising from services rendered during the period. Other components of the net periodic benefit cost are presented separately from the service cost component. We adopted the guidance using a permitted practical expedient that uses the amounts disclosed in the pension and other post-retirement benefit plans note for the prior comparative periods as the estimation basis for applying the retrospective presentation requirements. The adoption did not have a material impact on the consolidated statements of operations presented herein.

In the first quarter of fiscal year 2019, we adopted the guidance issued in January 2016 that changes the accounting for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. This guidance requires the remeasurement of equity investments not accounted for under the equity method to be measured at fair value and any changes in fair value recognized in net income. The guidance allows for election of a measurement alternative for equity securities without readily determinable fair values to be measured at cost less impairment, adjusted for observable price changes. We adopted this guidance using the modified retrospective method for our marketable equity securities and a prospective approach for non-marketable equity securities using the measurement alternative. Upon adoption, we recognized an $8 million increase to retained earnings and a $1 million increase to accumulated other comprehensive loss. During the fiscal year ended November 3, 2019, we also recognized $145 million of unrealized gains on equity securities within other income, net in our consolidated statements of operations.

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers (“Topic 606”). We adopted Topic 606 effective November 5, 2018 using the modified retrospective method. Reporting periods prior to the adoption of the new revenue standard are presented in accordance with Accounting Standards Codification 605, Revenue Recognition (“Topic 605”), while reporting periods after adoption are presented in accordance with the new revenue standard. The cumulative effect adjustment as of November 5, 2018 to retained earnings was not significant.

Recent Accounting Guidance Not Yet Adopted

In February 2016, the FASB issued guidance related to the accounting for leases, which among other things, requires a lessee to recognize lease assets and lease liabilities on the balance sheet for operating leases. This guidance will be effective for the first quarter of our fiscal year ending November 1, 2020 (“fiscal year 2020”). We will adopt this guidance using the optional transition method and will not restate comparative prior periods. We are finalizing the implementation of related systems, policies, processes and internal controls to comply with this guidance. Based on our lease portfolio as of November 3, 2019, we expect the adoption of the new leasing guidance to result in recognition of operating right-of-use assets and corresponding liabilities on our consolidated balance sheet within a range of $500 million to $600 million, primarily related to real estate.

3. Revenue from Contracts with Customers

Disaggregation

We have considered (1) information that is regularly reviewed by our Chief Executive Officer, who has been identified as the Chief Operating Decision Maker (the “CODM”) as defined by the authoritative guidance on segment reporting, in evaluating financial performance and (2) disclosures presented outside of our financial statements in our earnings releases and used in investor presentations to disaggregate revenues. The principal category we use to disaggregate revenues is the nature of our products and subscriptions and services, as presented in our consolidated statements of operations. In addition, revenues by reportable segment are presented in Note 12. “Segment Information”.

The following table presents revenue disaggregated by type of revenue and by region:

	Fiscal Year Ended November 3, 2019			
	Americas	Asia Pacific	Europe, the Middle East and Africa	Total
	(In millions)			
Products	$ 2,023	$ 14,857	$ 1,237	$ 18,117
Subscriptions and services[a]	3,126	374	980	4,480
Total	$ 5,149	$ 15,231	$ 2,217	$ 22,597

(a) Subscriptions and services predominantly includes software licenses with termination for convenience clauses.

Although we recognize revenue for the majority of our products when title and control transfer in Penang, Malaysia, we disclose net revenue by region based on the geographic shipment or delivery location specified by distributors, OEMs, contract manufacturers, channel partners, or software customers.

Contract Balances

Contract assets and contract liabilities balances for the periods indicated below were as follows:

	Contract Assets	Contract Liabilities
	(In millions)	
Opening balance November 5, 2018[a]	$ 18	$ 272
Closing balance November 3, 2019	$ 259	$ 1,808

(a) We adopted Topic 606 immediately prior to the CA Merger. Accordingly, the opening balance does not include contract assets or contract liabilities associated with CA.

Changes in our contract assets and contract liabilities primarily result from the timing difference between our performance and the customer's payment. We fulfill our obligations under a contract with a customer by transferring products and services in exchange for consideration from the customer. We recognize a contract asset when we transfer products or services to a customer and the right to consideration is conditional on something other than the passage of time. Accounts receivable are recorded when the customer has been billed or the right to consideration is unconditional. We recognize contract liabilities when we have received consideration or an amount of consideration is due from the customer and we have a future obligation to transfer products or services. Contract liabilities include amounts billed or collected and advanced payments on contracts or arrangements which may include termination for convenience provisions. The amount of revenue recognized during the fiscal year ended November 3, 2019 that was included in the contract liabilities balance as of November 5, 2018 was $200 million.

Remaining Performance Obligations

Revenue allocated to remaining performance obligations represents the transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied. It includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods and does not include CA contracts where the customer is not committed. The customer is not considered committed when termination for convenience without payment of a substantive penalty exists. This has been extended to all CA customers, either contractually or through customary business practice. Additionally, as a practical expedient, we have not included contracts that have an original duration of one year or less nor have we included contracts with sales-based and usage-based royalties promised in exchange for a license of intellectual property.

Because the substantial majority of our customer contracts allow our customers to terminate for convenience or have an original duration of one year or less, the total amount of the transaction price allocated to remaining performance obligations as of November 3, 2019 was not significant. Since our customers generally do not exercise their termination for convenience rights and the majority of the contracts we execute for products, as well as subscriptions and services, have a duration of one year or less, our remaining performance obligations are not indicative of revenue for future periods.

Contract Costs

We have applied the practical expedient to expense commission costs as incurred for costs to obtain a contract when the amortization period would have been one year or less. As a result, no commission costs are capitalized.

We recognize an asset for costs incurred to fulfill a contract that are not within the scope of other accounting literature. We have not incurred any such costs and, as a result, no costs to fulfill a contract have been capitalized.

Topic 606 Adoption

We applied Topic 606 using the modified retrospective method for all contracts not completed as of the date of adoption. For contracts that were modified before the effective date, we reflected the aggregate effect of all modifications when identifying the performance obligations and allocating the transaction price at transition, which did not have a material effect on the adjustment to retained earnings as of November 5, 2018.

We adopted Topic 606 immediately prior to the CA Merger. Accordingly, the adoption adjustments presented below excluded CA. As a result of applying the modified retrospective method, the following adjustments were made to selected consolidated balance sheet line items as of November 5, 2018:

Balance Sheet	**Ending Balance as of November 4, 2018**	**Adjustments Due to Topic 606**	**Opening Balance as of November 5, 2018**
		(In millions)	
ASSETS			
Trade accounts receivable, net	$ 3,325	$ 11	$ 3,336
Other current assets	$ 366	$ 10	$ 376
Other long-term assets	$ 707	$ 20	$ 727
LIABILITIES			
Other current liabilities	$ 812	$ 35	$ 847
Other long-term liabilities	$ 3,636	$ 6	$ 3,642

Impact of New Revenue Guidance on Net Revenue

The following table compares net revenue for the period presented to the pro forma amounts had the previous guidance been in effect. No other amounts in the consolidated statements of operations for the fiscal year ended November 3, 2019 or in the consolidated balance sheet as of November 3, 2019 were significantly affected by the new revenue guidance.

	Fiscal Year Ended November 3, 2019		
Statement of Operations	**Pro forma as if the previous accounting was in effect**	**Effect of Change**	**As Reported**
		(In millions)	
Net revenue:			
Products	$ 18,117	$ —	$ 18,117
Subscriptions and services	4,257	223	4,480
Total net revenue	$ 22,374	$ 223	$ 22,597

4. Acquisitions

Acquisition of CA, Inc.

On November 5, 2018, we acquired CA, which was a leading provider of information technology management software and solutions. We acquired CA to enhance our infrastructure software capabilities. We financed the CA Merger with the net proceeds from borrowings under the Original 2019 Term Loans, as defined in Note 9. “Borrowings,” as well as with cash on hand of the combined companies.

Purchase Consideration

	(In millions)
Cash paid for outstanding CA common stock	$ 18,402
Cash paid by Broadcom to retire CA’s term loan	274
Cash paid for vested CA equity awards	101
Fair value of partially vested assumed equity awards	67
Total purchase consideration	18,844
Less: cash acquired	2,750
Total purchase consideration, net of cash acquired	$ 16,094

All vested in-the-money CA stock options, after giving effect to any acceleration, and all outstanding deferred stock units were cashed out upon the completion of the CA Merger. We assumed all unvested CA equity awards held by continuing employees. The portion of the fair value of partially vested equity awards associated with prior service of CA employees represents a component of the total consideration as presented above and was valued based on our share price as of the CA Acquisition Date. The following table presents our allocation of the total purchase price, net of cash acquired:

	Fair Value
	(In millions)
Current assets	$ 1,665
Goodwill	9,796
Intangible assets	12,045
Other long-term assets	240
Total assets acquired	23,746
Current liabilities	(1,966)
Long-term debt	(2,255)
Other long-term liabilities	(3,431)
Total liabilities assumed	(7,652)
Fair value of net assets acquired	$ 16,094

Goodwill is primarily attributable to the assembled workforce and anticipated synergies and economies of scale expected from the integration of the CA business. The synergies include certain cost savings, operating efficiencies, and other strategic benefits projected to be achieved as a result of the CA Merger. Goodwill is not deductible for tax purposes.

Current assets included assets held-for-sale related to CA's Veracode business, which was not aligned with our strategic objectives. On December 31, 2018, we sold this business to Thoma Bravo, LLC for cash consideration of $950 million, before working capital adjustments. We do not have any material continuing involvement with this business and have presented its results in discontinued operations. Current assets also included $80 million of real properties held-for-sale. During fiscal year 2019, we sold a portion of these real properties for $62 million and recognized a loss of $8 million.

Our results of continuing operations for fiscal year 2019 included $3,377 million of net revenue attributable to CA. It was impracticable to determine the effect on net income attributable to CA as we had integrated a substantial portion of CA into our ongoing operations during the year. The results of operations of CA were included in our infrastructure software segment. Transaction costs related to the CA Merger of $73 million were included in selling, general and administrative expense for fiscal year 2019.

Intangible Assets

	Fair Value	Weighted-Average Amortization Periods
	(In millions)	(In years)
Developed technology	$ 4,957	6
Customer contracts and related relationships	4,190	6
Order backlog	2,569	3
Trade name and other	137	5
Total identified finite-lived intangible assets	11,853	
IPR&D	192	N/A
Total identified intangible assets	$ 12,045	

Developed technology relates to products used for mission critical business tools for processes and applications, as well as products used for cloud-based planning, development, management and security tools. We valued the developed technology using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the developed technology less charges representing the contribution of other assets to those cash flows. The economic useful life was determined based on the technology cycle related to each developed technology, as well as the cash flows over the forecast period.

Customer contracts and related relationships represent the fair value of future projected revenue that will be derived from sales of products to existing customers of CA. Customer contracts and related relationships were valued using the with-and-without-method under the income approach. In the with-and-without method, the fair value was measured by the difference between the present values of the cash flows with and without the existing customers in place over the period of time necessary to reacquire the customers. The economic useful life was determined by evaluating many factors, including the useful life of other intangible assets, the length of time remaining on the acquired contracts and the historical customer turnover rates.

Order backlog represents business under existing contractual obligations. The fair value of backlog was determined using the multi-period excess earnings method under the income approach based on expected operating cash flows from future contractual revenue. The economic useful life was determined based on the expected life of the backlog and the cash flows over the forecast period.

Trade name relates to the "CA" trade name. The fair value was determined by applying the relief-from-royalty method under the income approach. This method is based on the application of a royalty rate to forecasted revenue under the trade name. The economic useful life was determined based on the expected life of the trade name and the cash flows anticipated over the forecast period.

The fair value of IPR&D was determined using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the IPR&D, less charges representing the contribution of other assets to those cash flows.

We believe the amounts of purchased intangible assets recorded above represent the fair values of, and approximate the amounts a market participant would pay for, these intangible assets as of the CA Acquisition Date.

The following table summarizes the details of IPR&D by category as of the CA Acquisition Date:

Description	IPR&D	Percentage of Completion	Estimated Cost to Complete	Expected Completion Date (By Fiscal Year)
	(Dollars in millions)			
Mainframe	$ 178	67%	$ 138	2019
Enterprise Solutions	$ 14	63%	$ 12	2019

Discount rates of 12% and 14% were applied to the projected cash flows to reflect the risk related to these mainframe and enterprise solutions IPR&D projects, respectively.

As of November 3, 2019, these IPR&D projects are expected to be fully placed in service during the first half of fiscal year 2020.

Unaudited Pro Forma Information

The following unaudited pro forma financial information presents combined results of operations for each of the periods presented, as if CA had been acquired as of the beginning of fiscal year 2018. The unaudited pro forma information includes adjustments to amortization and depreciation for intangible assets and property, plant and equipment acquired, adjustments to stock-based compensation expense, interest expense for the additional indebtedness incurred to complete the acquisition, restructuring charges related to the acquisition and transaction costs. For fiscal year 2018, non-recurring pro forma adjustments directly attributable to the CA Merger included transaction costs of $180 million. The unaudited pro forma information presented below is for informational purposes only and is not necessarily indicative of our consolidated results of operations of the combined business had the acquisition actually occurred at the beginning of fiscal year 2018 or of the results of our future operations of the combined business.

	Fiscal Year	
	2019	2018
	(In millions)	
Pro forma net revenue*	$ 21,697	$ 24,451
Pro forma net income attributable to common stock	$ 2,535	$ 9,783

***** Pro forma net revenue was presented under Topic 606 for fiscal year 2019 and under Topic 605 for fiscal year 2018.

Acquisition of Brocade

On November 17, 2017 (the “Brocade Acquisition Date”), we acquired Brocade (the “Brocade Merger”). Brocade was a supplier of networking hardware, software and services, including Fibre Channel Storage Area Network (“FC SAN”) solutions and Internet Protocol Networking (“IP Networking”) solutions. We acquired Brocade to enhance our position as a provider of enterprise storage connectivity solutions, broaden our portfolio for enterprise storage, and to increase our ability to address the evolving needs of our original equipment manufacturer (“OEM”) customers. We financed the Brocade Merger with a portion of the net proceeds from the issuance of the 2017 Senior Notes, as defined in Note 15. “Condensed Consolidating Financial Information,” as well as with cash on hand.

Purchase Consideration

	(In millions)
Cash paid for outstanding Brocade common stock	$ 5,298
Cash paid by Broadcom to retire Brocade’s term loan	701
Cash paid for Brocade equity awards	31
Fair value of partially vested assumed equity awards	8
Total purchase consideration	6,038
Less: cash acquired	1,250
Total purchase consideration, net of cash acquired	$ 4,788

We assumed all unvested Brocade stock options, RSUs and performance stock units (“PSUs”) held by continuing employees. The portion of the fair value of partially vested equity awards associated with prior service of Brocade employees represents a component of the total consideration as presented above. All vested in-the-money Brocade stock options, after giving effect to any acceleration, were cashed out upon the completion of the Brocade Merger. RSUs and PSUs were valued based on our share price as of the Brocade Acquisition Date.

The following table presents our allocation of the total purchase price, net of cash acquired:

	Fair Value
	(In millions)
Current assets	$ 1,297
Goodwill	2,187
Intangible assets	3,396
Other long-term assets	82
Total assets acquired	6,962
Current portion of long-term debt	(856)
Other current liabilities	(374)
Long-term debt	(38)
Other long-term liabilities	(906)
Total liabilities assumed	(2,174)
Fair value of net assets acquired	$ 4,788

Goodwill is primarily attributable to the assembled workforce and anticipated synergies and economies of scale expected from the integration of the Brocade business. The synergies include certain cost savings, operating efficiencies, and other strategic benefits projected to be achieved as a result of the Brocade Merger. Goodwill is not deductible for tax purposes.

Current assets included assets held-for-sale related to Brocade’s IP Networking business, which was not aligned with our strategic objectives. On December 1, 2017, we sold this business to ARRIS International plc (“ARRIS”) for cash consideration of $800 million, before contractual working capital adjustments. In connection with this sale, we indemnified ARRIS for $116 million of potential income tax liabilities. We provided transitional services as short-term assistance to ARRIS in assuming the operations of the purchased business. We do not have any material continuing involvement with this business and have presented its results in discontinued operations.

Current assets also included assets held-for-sale for Brocade’s headquarters, which was sold for $224 million during fiscal year 2018, for no gain or loss.

Our results of continuing operations for fiscal year 2018 included $1,780 million of net revenue attributable to Brocade. It was impracticable to determine the effect on net income attributable to Brocade as we had integrated a substantial portion of Brocade into our ongoing operations. The results of operations of Brocade were primarily included in our infrastructure software segment. Transaction costs of $29 million related to the Brocade Merger were included in selling, general and administrative expense for fiscal year 2018.

Intangible Assets

	Fair Value	Weighted-Average Amortization Periods
	(In millions)	(In years)
Developed technology	$ 2,925	10
Customer contracts and related relationships	255	11
Trade name and other	61	6
Total identified finite-lived intangible assets	3,241	
IPR&D	155	N/A
Total identified intangible assets	$ 3,396	

Developed technology relates to products for FC SAN applications. We valued the developed technology using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the developed technology less charges representing the contribution of other assets to those cash flows. The economic useful life was determined based on the technology cycle related to each developed technology, as well as the cash flows over the forecast period.

Customer contracts and related relationships represent the fair value of future projected revenue that will be derived from sales of products to existing customers of Brocade. Customer contracts and related relationships were valued using the distributor method and the with-and-without-method under the income approach. The distributor method determines the fair value by measuring the economic profits generated by an intermediary, which in our case represented OEM customers. In the with-and-without method, the fair value was measured by the difference between the present values of the cash flows with and without the existing customers in place over the period of time necessary to reacquire the customers. In both instances, the economic useful life was determined based on historical customer turnover rates.

Trade name relates to the “Brocade” trade name. The fair value was determined by applying the relief-from-royalty method under the income approach. This method is based on the application of a royalty rate to forecasted revenue under the trade name. The economic useful life was determined based on the expected life of the trade name and the cash flows anticipated over the forecast period.

The fair value of IPR&D was determined using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the IPR&D, less charges representing the contribution of other assets to those cash flows.

We believe the amounts of purchased intangible assets recorded above represent the fair values of, and approximate the amounts a market participant would pay for, these intangible assets as of the Brocade Acquisition Date.

The following table summarizes the details of IPR&D by category at the Brocade Acquisition Date:

Description	IPR&D	Percentage of Completion	Estimated Cost to Complete	Expected Completion Date (By Fiscal Year)
		(Dollars in millions)		
Directors	$ 64	72%	$ 45	2019
Switches	$ 50	81%	$ 21	2018
Embedded	$ 31	74%	$ 22	2019
Networking software	$ 10	73%	$ 27	2018

A discount rate of 11% was applied to the projected cash flows to reflect the risk related to these IPR&D projects. The discount rate represented a premium of 1% over the weighted-average cost of capital to reflect the higher risk and uncertainty of the cash flows for IPR&D relative to the overall businesses.

As of November 3, 2019, these IPR&D projects were substantially complete and placed in service.

Unaudited Pro Forma Information

The following unaudited pro forma financial information presents combined results of operations for each of the periods presented, as if Brocade had been acquired as of the beginning of fiscal year 2017. The unaudited pro forma information includes adjustments to amortization and depreciation for intangible assets and property, plant and equipment acquired, adjustments to stock-based compensation expense, the purchase accounting effect on inventory acquired, restructuring charges related to the acquisition and transaction costs. The unaudited pro forma information presented below is for informational purposes only and is not necessarily indicative of our consolidated results of operations of the combined business had the acquisition actually occurred at the beginning of fiscal year 2017 or of the results of our future operations of the combined business.

	Fiscal Year	
	2018	2017
	(In millions)	
Pro forma net revenue*	$ 20,978	$ 19,441
Pro forma net income attributable to common stock	$ 12,408	$ 986

* Pro forma net revenue was presented under Topic 605 for fiscal years 2018 and 2017.

5. Supplemental Financial Information

Cash Equivalents

Cash equivalents included $850 million and $1,406 million of time deposits as of November 3, 2019 and November 4, 2018, respectively. As of November 3, 2019 and November 4, 2018, cash equivalents also included $649 million and $202 million, respectively, of money-market funds. For time deposits, carrying value approximates fair value due to the short-term nature of the instruments. The fair value of money-market funds, which was consistent with their carrying value, was determined using unadjusted prices in active, accessible markets for identical assets, and as such they were classified as Level 1 assets in the fair value hierarchy.

Accounts Receivable Factoring

We sell certain of our trade accounts receivable on a non-recourse basis to third-party financial institutions pursuant to factoring agreements. We account for these transactions as sales of receivables and present cash proceeds as cash provided by operating activities in the consolidated statements of cash flows. Total trade accounts receivable sold under the factoring agreements were $1,151 million and $362 million during fiscal years 2019 and 2018, respectively. Factoring fees for the sales of receivables were recorded in other income, net and were not material for any period presented.

Inventory

	November 3, 2019	November 4, 2018
	(In millions)	
Finished goods	$ 339	$ 483
Work-in-process	414	505
Raw materials	121	136
Total inventory	$ 874	$ 1,124

Property, Plant and Equipment, Net

	November 3, 2019	November 4, 2018
	(In millions)	
Land	$ 189	$ 189
Construction in progress	85	67
Buildings and leasehold improvements	1,078	1,016
Machinery and equipment	3,544	3,257
Total property, plant and equipment	4,896	4,529
Accumulated depreciation and amortization	(2,331)	(1,894)
Total property, plant and equipment, net	$ 2,565	$ 2,635

Depreciation expense was $569 million, $515 million and $451 million for fiscal years 2019, 2018 and 2017, respectively.

As of November 3, 2019 and November 4, 2018, we had $35 million and $22 million, respectively, of unpaid purchases of property, plant and equipment included in accounts payable and other current liabilities. Amounts reported as unpaid purchases are presented as cash outflows from investing activities for purchases of property, plant and equipment in the consolidated statements of cash flows in the period in which they are paid.

Other Current Assets

	November 3, 2019	November 4, 2018
	(In millions)	
Prepaid expenses	$ 302	$ 243
Other (miscellaneous)	427	123
Total other current assets	$ 729	$ 366

Other Current Liabilities

	November 3, 2019	November 4, 2018
	(In millions)	
Contract liabilities	$ 1,501	$ 164
Tax liabilities	229	162
Interest payable	214	165
Accrued rebates	95	161
Other (miscellaneous)	577	160
Total other current liabilities	$ 2,616	$ 812

Other Long-Term Liabilities

	November 3, 2019	November 4, 2018
	(In millions)	
Unrecognized tax benefits (a) (b)	$ 3,269	$ 3,088
Tax indemnification liability	116	116
Other (miscellaneous)	2,228	432
Total other long-term liabilities	$ 5,613	$ 3,636

(a) Refer to Note 11. “Income Taxes” for additional information regarding these balances.

(b) Includes accrued interest and penalties.

Other Income, Net

	Fiscal Year		
	2019	2018	2017
	(In millions)		
Gain (loss) on investment	$ 145	$ 3	$ (1)
Interest income	98	114	44
Other income	18	27	55
Other expense	(35)	—	(24)
Other income, net	$ 226	$ 144	$ 74

Other income includes gains (losses) on foreign currency remeasurement and other miscellaneous items.

6. Goodwill and Intangible Assets

Goodwill

	Semiconductor Solutions	Infrastructure Software	Total
	(In millions)		
Balance as of October 29, 2017	$ 24,706	$ —	$ 24,706
Acquisitions	1,227	980	2,207
Balance as of November 4, 2018	25,933	980	26,913
Acquisitions	5	9,796	9,801
Balance as of November 3, 2019	$ 25,938	$ 10,776	$ 36,714

During the first quarter of fiscal year 2020, we changed our organizational structure resulting in two reportable segments: semiconductor solutions and infrastructure software. As a result, we have retrospectively reassigned the goodwill balance to reflect our new segment structure. Subsequent to the change in our organizational structure, we performed an impairment assessment and concluded that goodwill was not impaired.

During the fourth quarter of fiscal years 2019, 2018 and 2017, we completed our annual impairment assessments and concluded that goodwill was not impaired in any of these years.

Intangible Assets

	Gross Carrying Amount	Accumulated Amortization	Net Book Value
		(In millions)	
As of November 3, 2019:			
Purchased technology	$ 20,935	$ (10,113)	$ 10,822
Customer contracts and related relationships	5,978	(1,787)	4,191
Order backlog	2,569	(908)	1,661
Trade names	712	(247)	465
Other	241	(89)	152
Intangible assets subject to amortization	30,435	(13,144)	17,291
IPR&D	263	—	263
Total	$ 30,698	$ (13,144)	$ 17,554
As of November 4, 2018:			
Purchased technology	$ 15,806	$ (6,816)	$ 8,990
Customer contracts and related relationships	1,792	(878)	914
Trade names	578	(170)	408
Other	239	(53)	186
Intangible assets subject to amortization	18,415	(7,917)	10,498
IPR&D	264	—	264
Total	$ 18,679	$ (7,917)	$ 10,762

Based on the amount of intangible assets subject to amortization at November 3, 2019, the expected amortization expense for each of the next five fiscal years and thereafter was as follows:

Fiscal Year:	Expected Amortization Expense
	(In millions)
2020	$ 5,054
2021	4,151
2022	3,180
2023	2,172
2024	1,490
Thereafter	1,244
Total	$ 17,291

The weighted-average amortization periods remaining by intangible asset category were as follows:

Amortizable intangible assets:	November 3, 2019	November 4, 2018
	(In years)	
Purchased technology	5	6
Customer contracts and related relationships	5	5
Order backlog	3	N/A
Trade names	10	12
Other	10	10

7. Net Income Per Share

	Fiscal Year		
	2019	2018	2017
	(In millions, except per share data)		
Numerator:			
Income from continuing operations	$ 2,736	$ 12,629	$ 1,790
Less: Dividends on preferred stock	29	—	—
Income from continuing operations attributable to noncontrolling interest	—	352	92
Income from continuing operations attributable to common stock	2,707	12,277	1,698
Loss from discontinued operations, net of income taxes	(12)	(19)	(6)
Less: Loss from discontinued operations, net of income taxes, attributable to noncontrolling interest	—	(1)	—
Loss from discontinued operations, net of income taxes, attributable to common stock	(12)	(18)	(6)
Net income attributable to common stock	$ 2,695	$ 12,259	$ 1,692
Denominator:			
Weighted-average shares outstanding - basic	398	418	405
Dilutive effect of equity awards	21	13	16
Weighted-average shares outstanding - diluted	419	431	421
Basic income per share attributable to common stock:			
Income per share from continuing operations	$ 6.80	$ 29.37	$ 4.19
Loss per share from discontinued operations	(0.03)	(0.04)	(0.01)
Net income per share	$ 6.77	$ 29.33	$ 4.18
Diluted income per share attributable to common stock:			
Income per share from continuing operations	$ 6.46	$ 28.48	$ 4.03
Loss per share from discontinued operations	(0.03)	(0.04)	(0.01)
Net income per share	$ 6.43	$ 28.44	$ 4.02
Potentially dilutive shares excluded from the calculation of diluted income per share because their effect would have been antidilutive:			
Preferred Stock (a)	1	—	—
LP Units (b)	—	9	22

(a) Represents common stock shares issuable upon the conversion of Mandatory Convertible Preferred Stock, as defined in Note 10. “Stockholders’ Equity.”

(b) Represents common stock shares issuable upon the exchange of LP Units prior to the effective time of the Mandatory Exchange (refer to Note 10. “Stockholders’ Equity” for additional information).

8. Retirement Plans and Post-Retirement Benefits

Pension and Post-Retirement Benefit Plans

Defined Benefit Plans. The U.S. defined benefit pension plans include a management plan and a represented plan. Benefits under the management plan are provided under either an adjusted career-average-pay program or a cash-balance program. Benefits under the represented plan are based on a dollar-per-month formula. Benefit accruals under the management plan were frozen in 2009. Participants in the adjusted career-average-pay program no longer earn service accruals. Participants in the cash-balance program no longer earn service accruals, but continue to earn 4% interest per year on their cash-balance accounts. There are no active participants under the represented plan. We also have a non-qualified supplemental pension plan in the United States that principally provides benefits based on compensation in excess of amounts that can be considered under the management plan. Effective December 31, 2018, the represented plan was merged into the management plan. The plan merger did not impact any of the respective plan provisions for either management or represented plan participants. We also have pension plans covering certain non-U.S. employees.

Post-Retirement Benefit Plans. Certain of our U.S. employees who meet the retirement eligibility requirements as of their termination dates, may receive post-retirement medical benefits under our retiree medical account program. Eligible employees receive a medical benefit spending account of $55,000 upon retirement to pay premiums for medical coverage through the maximum age of 75 as retiree.

Our group life insurance plan offers post-retirement life insurance coverage for certain U.S. employees.

Non-U.S Retirement Benefit Plans. We have defined benefit plans for certain employees in Austria, France, Germany, India, Israel, Italy, Japan and Taiwan. Eligibility is generally determined based on the terms of our plans and local statutory requirements.

Net Periodic Benefit (Income) Cost

	Pension Benefits			Post-Retirement Benefits		
	Fiscal Year			Fiscal Year		
	2019	2018	2017	2019	2018	2017
	(In millions)					
Service cost	$ 10	$ 4	$ 4	$ —	$ —	$ —
Interest cost	58	51	53	3	3	3
Expected return on plan assets	(59)	(51)	(65)	(3)	(4)	(4)
Other	1	1	1	(1)	—	—
Net periodic benefit (income) cost	$ 10	$ 5	$ (7)	$ (1)	$ (1)	$ (1)
Net actuarial (gain) loss	$ 13	$ 14	$ (60)	$ 11	$ (3)	$ (3)

The components of net periodic benefit (income) costs other than the service cost are included in other income, net in our consolidated statements of operations.

Funded Status

	Pension Benefits		Post-Retirement Benefits	
	November 3, 2019	November 4, 2018	November 3, 2019	November 4, 2018
	(In millions)			
Change in plan assets:				
Fair value of plan assets — beginning of period	$ 1,394	$ 1,426	$ 81	$ 83
Actual return on plan assets	232	(65)	6	—
Employer contributions	15	130	1	—
Payments from plan assets	(94)	(93)	(3)	(2)
Foreign currency impact	(8)	(4)	—	—
Fair value of plan assets — end of period	1,539	1,394	85	81
Change in benefit obligations:				
Benefit obligations — beginning of period	1,364	1,508	74	80
Service cost	10	4	—	—
Interest cost	58	51	3	3
Actuarial (gain) loss	186	(102)	14	(7)
Benefit payments	(94)	(93)	(3)	(2)
Plan amendment	—	3	—	—
Benefit obligations assumed in an acquisition	37	—	5	—
Foreign currency impact	(8)	(7)	—	—
Benefit obligations — end of period	1,553	1,364	93	74
Overfunded (underfunded) status of benefit obligations (a)	$ (14)	$ 30	$ (8)	$ 7
Actuarial losses and prior service costs recognized in accumulated other comprehensive loss, net of taxes	$ (125)	$ (110)	$ (15)	$ (5)

(a) Substantially all amounts recognized in the consolidated balance sheets were recorded in other long-term assets and other long-term liabilities for all periods presented.

Plans with benefit obligations in excess of plan assets:

	Pension Benefits		Post-Retirement Benefits	
	November 3, 2019	November 4, 2018	November 3, 2019	November 4, 2018
	(In millions)			
Projected benefit obligations	$ 92	$ 551	$ —	$ —
Accumulated benefit obligations	$ 80	$ 546	$ 16	$ 14
Fair value of plan assets	$ 32	$ 528	$ —	$ —

Plans with benefit obligations less than plan assets:

	Pension Benefits		Post-Retirement Benefits	
	November 3, 2019	November 4, 2018	November 3, 2019	November 4, 2018
	(In millions)			
Projected benefit obligations	$ 1,461	$ 813	$ —	$ —
Accumulated benefit obligations	$ 1,460	$ 812	$ 77	$ 60
Fair value of plan assets	$ 1,507	$ 866	$ 85	$ 81

The fair value of pension plan assets at November 3, 2019 and November 4, 2018 included $151 million and $147 million, respectively, of assets for our non-U.S. pension plans.

The projected benefit obligations as of November 3, 2019 and November 4, 2018 included $184 million and $129 million, respectively, of obligations related to our non-U.S. plans. The accumulated benefit obligations as of November 3, 2019 and November 4, 2018 included $171 million and $122 million, respectively, of obligations related to our non-U.S. plans.

Expected Future Benefit Payments

Fiscal Years:	Pension Benefits	Post-Retirement Benefits
	(In millions)	
2020	$ 93	$ 6
2021	$ 92	$ 4
2022	$ 92	$ 4
2023	$ 92	$ 4
2024	$ 93	$ 4
2025-2029	$ 449	$ 23

Defined Benefit Plan Investment Policy

Plan assets of the funded defined benefit pension plans are invested in funds held by third-party fund managers or are deposited into government-managed accounts in which we have no active involvement in and no control over investment strategy, other than establishing broad investment guidelines and parameters.

Our plan’s investment committee has set the investment strategy to fully match the liability. We direct the overall portfolio allocation and use a third-party investment consultant that has discretion to structure portfolios and select the investment managers within those allocation parameters. Multiple investment managers are utilized, including both active and passive management approaches. The plan assets are invested using the liability-driven investment strategy intended to minimize market and interest rate risks, and those assets are periodically rebalanced toward asset allocation targets.

The target asset allocation for U.S. plans reflects a risk/return profile that we believe is appropriate relative to the liability structure and return goals for the plans. We periodically review the allocation of plan assets relative to alternative allocation models to evaluate the need for adjustments based on forecasted liabilities and plan liquidity needs. For both fiscal years 2019 and 2018, 100% of U. S. plan assets were allocated to fixed income, in line with the target allocation. The fixed income allocation is primarily directed toward long-term core bond investments, with smaller allocations to Treasury Inflation-Protected Securities and high-yield bonds.

Fair Value Measurement of Plan Assets

	November 3, 2019							
	Fair Value Measurements at Reporting Date Using							
	Level 1		Level 2		Level 3		Total	
	(In millions)							
Cash equivalents	$ 34	(a)	$ —		$ —		$ 34	
Equity securities:								
Non-U.S. equity securities	21	(b)	—		—		21	
Fixed-income securities:								
U.S. treasuries	—		82	(c)	—		82	
Corporate bonds	—		1,372	(c)	—		1,372	
Municipal bonds	—		19	(c)	—		19	
Government bonds	—		10	(c)	—		10	
Asset-backed securities	—		1	(c)	—		1	
Total plan assets	$ 55		$ 1,484		$ —		$ 1,539	

	November 4, 2018							
	Fair Value Measurements at Reporting Date Using							
	Level 1		Level 2		Level 3		Total	
	(In millions)							
Cash equivalents	$ 36	(a)	$ —		$ —		$ 36	
Equity securities:								
Non-U.S. equity securities	19	(b)	—		—		19	
Fixed-income securities:								
U.S. treasuries	—		80	(c)	—		80	
Corporate bonds	—		1,229	(c)	—		1,229	
Municipal bonds	—		17	(c)	—		17	
Government bonds	—		13	(c)	—		13	
Total plan assets	$ 55		$ 1,339		$ —		$ 1,394	

(a) Cash equivalents primarily included short-term investment funds which consisted of short-term money market instruments that were valued based on quoted prices in active markets.

(b) These equity securities were valued based on quoted prices in active markets.

(c) These amounts consisted of investments that were traded less frequently than Level 1 securities and were valued using inputs that included quoted prices for similar assets in active markets and inputs other than quoted prices that were observable for the asset, such as interest rates, yield curves, prepayment speeds, collateral performance, broker/dealer quotes and indices that were observable at commonly quoted intervals.

Post-Retirement Benefit Plan Investment Policy

Our overall investment strategy for the group life insurance plan is to allocate assets in a manner that seeks to both maximize the safety of promised benefits and minimize the cost of funding those benefits. The target asset allocation for plan assets reflects a risk/return profile that we believe is appropriate relative to the liability structure and return goals for the plan. We periodically review the allocation of plan assets relative to alternative allocation models to evaluate the need for adjustments based on forecasted liabilities and plan liquidity needs. We set the overall portfolio allocation and use an investment manager that directs the investment of funds consistent with that allocation. The investment manager invests the plan assets in index funds that it manages. For both fiscal years 2019 and 2018, 100% of plan assets were allocated to commingled funds that invested in fixed income, in line with the target allocation.

Assumptions

The assumptions used to determine the benefit obligations and net periodic benefit (income) cost from our defined benefit and post-retirement benefit plans are presented in the table below. The expected long-term return on assets shown in the table below represents an estimate of long-term returns on investment portfolios primarily consisting of combinations of debt, equity and other investments, depending on the plan. The long-term rates of return are then weighted based on the asset classes (both historical and forecasted) in which we expect the pension and post-retirement funds to be invested. Discount rates reflect the current rate at which defined benefit and post-retirement benefit obligations could be settled based on the measurement dates of the plans, which in each case is our fiscal year end. The range of assumptions that are used for defined benefit pension plans reflects the different economic environments within various countries.

	Assumptions for Benefit Obligations as of		Assumptions for Net Periodic Benefit (Income) Cost Fiscal Year		
	November 3, 2019	November 4, 2018	2019	2018	2017
Defined benefit pension plans:					
Discount rate	0.47%-7.00%	0.50%-8.00%	0.50%-8.00%	0.50%-7.00%	0.50%-7.00%
Average increase in compensation levels	2.00%-10.00%	2.00%-10.00%	1.80%-10.00%	2.00%-11.00%	2.00%-9.15%
Expected long-term return on assets	N/A	N/A	1.50%-7.75%	1.50%-7.50%	0.25%-8.00%

	Assumptions for Benefit Obligations as of		Assumptions for Net Periodic Benefit (Income) Cost Fiscal Year		
	November 3, 2019	November 4, 2018	2019	2018	2017
Post-retirement benefits plans:					
Discount rate	2.80%-3.20%	4.30%-4.60%	4.12%-4.60%	3.40%-3.80%	3.30%-3.90%
Average increase in compensation levels	3.00%	3.00%	3.00%	3.00%	3.50%
Expected long-term return on assets	N/A	N/A	4.80%	4.80%	4.40%

	Assumed Health Care Cost Trend Rate Used to Measure the Expected Cost of Benefits as of	
	November 3, 2019	November 4, 2018
Health care cost trend rate assumed for next year	4.50%-7.40%	6.70%
Rate to which the health care cost trend rate is assumed to decline (ultimate health care cost trend rate)	3.50%-4.50%	3.50%
Year that the rate reaches the ultimate health care cost trend rate	2031	2031

A one percentage point increase or decrease in the assumed health care cost trend rates would not have had a material effect on the accumulated post-retirement benefit obligations or service and interest cost components of the net periodic benefit cost for any periods presented.

Defined Contribution Plans

Our eligible U.S. employees participate in company-sponsored 401(k) plans. Under these plans, we provide matching contributions to employees up to 6% of their eligible earnings. All matching contributions vest immediately. During fiscal years 2019, 2018 and 2017, we made contributions of $89 million, $73 million and $61 million, respectively, to the 401(k) plans.

In addition, other eligible employees outside of the U.S. receive retirement benefits under various defined contribution retirement plans.

9. Borrowings

	Effective Interest Rate	November 3, 2019	November 4, 2018
		(In millions)	
2019 Senior Notes - fixed rate			
3.125% notes due April 2021	3.607%	$ 2,000	$ —
3.125% notes due October 2022	3.527%	1,500	—
3.625% notes due October 2024	3.980%	2,000	—
4.250% notes due April 2026	4.544%	2,500	—
4.750% notes due April 2029	4.953%	3,000	—
		11,000	—
2019 Term Loans - floating rate			
LIBOR plus 1.250% term loan due through May 2024	3.362%	800	—
LIBOR plus 1.375% term loan due through May 2026	3.452%	800	—
		1,600	—
2017 Senior Notes - fixed rate			
2.375% notes due January 2020	2.615%	2,750	2,750
2.200% notes due January 2021	2.406%	750	750
3.000% notes due January 2022	3.214%	3,500	3,500
2.650% notes due January 2023	2.781%	1,000	1,000
3.625% notes due January 2024	3.744%	2,500	2,500
3.125% notes due January 2025	3.234%	1,000	1,000
3.875% notes due January 2027	4.018%	4,800	4,800
3.500% notes due January 2028	3.596%	1,250	1,250
		17,550	17,550
Assumed CA Senior Notes - fixed rate			
5.375% notes due December 2019	3.433%	750	—
3.600% notes due August 2022	4.071%	500	—
4.500% notes due August 2023	4.099%	250	—
4.700% notes due March 2027	5.153%	350	—
		1,850	—
Commercial Paper			
Commercial paper	2.547% (a)	1,000	—
		1,000	—
Assumed Brocade Convertible Notes - fixed rate			
1.375% convertible notes due January 2020	0.628%	37	37
		37	37
Assumed BRCM Senior Notes - fixed rate			
2.500% - 4.500% notes due August 2022 - August 2034	2.585% - 4.546%	22	22
Total principal amount outstanding		33,059	17,609
Less: Unaccreted discount/premium and unamortized debt issuance costs		(261)	(116)
Total debt		$ 32,798	$ 17,493

(a) Represents the weighted average interest rate on outstanding commercial paper as of November 3, 2019.

2019 Senior Notes

In April 2019, we issued $11 billion in aggregate principal amount of senior unsecured notes (“2019 Senior Notes”). The 2019 Senior Notes are fully and unconditionally guaranteed, jointly and severally, on an unsecured, unsubordinated basis by Broadcom Corporation (“BRCM”) and Broadcom Technologies Inc. (“BTI”). Each series of our 2019 Senior Notes pays interest semi-annually in arrears on April 15 and October 15 of each year. We may, at our option, redeem or purchase, in whole or in part, any of the 2019 Senior Notes at a price equal to 100% of the principal amount of the applicable 2019 Senior Notes, plus a corresponding make-whole premium as set forth in the indenture governing the 2019 Senior Notes, plus accrued and unpaid interest, if any, to the date of repurchase. The 2019 Senior Notes are recorded as long-term debt, net of discount. The discount associated with the 2019 Senior Notes is amortized to interest expense over the respective terms of these borrowings.

2019 Term Loans

On November 5, 2018, in connection with the CA Merger, we entered into a credit agreement (the “Original 2019 Credit Agreement”), which provided for a $9 billion unsecured term A-3 facility and a $9 billion unsecured term A-5 facility, collectively referred to as the “Original 2019 Term Loans”. Interest on our Original 2019 Term Loans was based on a floating rate and was payable monthly. Our obligations under the Original 2019 Credit Agreement were guaranteed on an unsecured basis by BRCM, Broadcom Cayman Finance Limited (“Cayman Finance”) and BTI. The Original 2019 Credit Agreement also provided for a five-year $5 billion unsecured revolving credit facility. In April 2019, we used the net proceeds of $11 billion from the 2019 Senior Notes and net proceeds of $1 billion from Commercial Paper (defined below) to reduce the outstanding amount of our Original 2019 Term Loans from $18 billion to $6 billion. As a result of repaying the Original 2019 Term Loans, we wrote off $26 million of debt issuance costs, which were included in interest expense in the consolidated statements of operations. The remaining unamortized discount and debt issuance costs balance on the Original 2019 Term Loans will be amortized to interest expense over the respective terms of the 2019 Senior Notes and Commercial Paper.

In May 2019, we entered into a new credit agreement (the “2019 Credit Agreement”), which provides for a $2 billion unsecured term A-3 facility, a $2 billion unsecured term A-5 facility and a $2 billion unsecured term A-7 facility, collectively referred to as the “2019 Term Loans”. The 2019 Credit Agreement has substantially the same terms and conditions as the Original 2019 Credit Agreement, except for the maturity dates of the facilities. The 2019 Term Loans replaced the remaining $6 billion Original 2019 Term Loans, which were terminated in connection with, and as a condition to, entering into the 2019 Credit Agreement. Our obligations under the 2019 Credit Agreement are guaranteed on an unsecured basis by BRCM, Cayman Finance and BTI.

In October 2019, we fully repaid our unsecured term A-3 facility of $2 billion and repaid $1.2 billion of each of our unsecured term A-5 and A-7 facilities under the 2019 Credit Agreement, using net proceeds from our Mandatory Convertible Preferred Stock offering as defined in Note 10. “Stockholders’ Equity,” as well as with cash on hand. As a result, we wrote off $22 million of debt issuance costs and unamortized discounts, which were included in interest expense in the consolidated statements of operations.

Revolving Facility

The 2019 Credit Agreement also provided for a five-year $5 billion unsecured revolving credit facility (the “Revolving Facility”), of which $500 million was available for the issuance of multi-currency letters of credit. The Revolving Facility replaced the revolving credit facility of the same amount under the Original 2019 Credit Agreement. The issuance of letters of credit and certain other instruments would reduce the aggregate amount otherwise available under the Revolving Facility for revolving loans. Subject to the terms of the 2019 Credit Agreement, we are permitted to borrow, repay and reborrow revolving loans at any time prior to the earlier of (a) November 2023 or (b) the date of termination in whole of the revolving lenders’ commitments under the 2019 Credit Agreement in accordance with the terms thereof. We had no borrowings outstanding under the Revolving Facility on November 3, 2019.

Commercial Paper

In February 2019, we established a commercial paper program pursuant to which we may issue unsecured commercial paper notes (“Commercial Paper”) in an aggregate principal amount of up to $2 billion outstanding at any time with maturities of up to 397 days from the date of issue. Commercial Paper is sold under customary terms in the commercial paper market and may be issued at a discount from par or, alternatively, may be sold at par and bear interest at rates dictated by market conditions at the time of their issuance. The Revolving Facility supports our commercial paper program. Outstanding Commercial Paper borrowings reduce the amount that would otherwise be available to borrow for general corporate purposes under the Revolving Facility. As of November 3, 2019, we had $1 billion of Commercial Paper outstanding with maturities generally less than sixty days. We intend to continuously replace our Commercial Paper upon maturity with newly issued commercial paper. In addition, we have the ability to finance the Commercial Paper borrowings on a long-term basis as they are supported by the Revolving Facility. We have recorded Commercial Paper, net of discount, as long-term debt. The discount associated with the Commercial Paper is amortized to interest expense over its term.

2017 Senior Notes

During fiscal year 2017, BRCM and Broadcom Cayman Finance Limited, or together with BRCM referred to as the “Subsidiary Issuers”, issued of $17,550 million senior unsecured notes (the “2017 Senior Notes”). Our 2017 Senior Notes were fully and unconditionally guaranteed, jointly and severally, on an unsecured, unsubordinated basis by Broadcom-Singapore and the Partnership, subject to certain release conditions described in the indenture governing the 2017 Senior Notes (the “2017 Indentures”). On April 9, 2018, Broadcom (“Parent Guarantor”) became a guarantor of the 2017 Senior Notes and entered into supplemental indentures with the Subsidiary Issuers and the trustee of the 2017 Senior Notes. At that time, Broadcom-Singapore, a guarantor at the issuance of the 2017 Senior Notes, became an indirect wholly-owned subsidiary of Broadcom and a subsidiary guarantor (“Subsidiary Guarantor”), together with Parent Guarantor referred to as the “Guarantors”. In addition, the Partnership was released from its guarantee of the 2017 Senior Notes under each of the 2017 Indentures in accordance with their terms. Each series of 2017 Senior Notes pays interest semi-annually in cash in arrears on January 15 and July 15 of each year.

We may redeem all or a portion of our 2017 Senior Notes at any time prior to their maturity, subject to a specified make whole premium as set forth in the 2017 Indentures. In the event of a change of control triggering event, holders of our 2017 Senior Notes will have the right to require us to purchase for cash, all or a portion of their 2017 Senior Notes at a redemption price of 101% of the aggregate principal amount plus accrued and unpaid interest.

During fiscal year 2018, substantially all of the 2017 Senior Notes were tendered and exchanged for notes registered with the U.S. Securities and Exchange Commission (“SEC”), with substantially identical terms.

Assumed CA Senior Notes

In connection with the CA Merger, we assumed $2.25 billion in aggregate principal amount of CA’s outstanding senior unsecured notes (the “Assumed CA Senior Notes”). CA remains the sole obligor under the Assumed CA Senior Notes. We may redeem all or a portion of the Assumed CA Senior Notes at any time, subject to a specified make-whole premium as set forth in the related indenture. In the event of a change in control, each note holder will have the right to require us to repurchase all or any part of the holder’s notes in cash at a price equal to 101% of the principal amount of such notes plus accrued and unpaid interest, if any, to the date of repurchase (subject to the right of holders of record on the relevant interest payment date to receive interest due). Each series of the Assumed CA Senior Notes pays interest semi-annually.

In October 2019, we fully repaid our 3.600% notes due August 2020 of $400 million. As a result of this payoff, we wrote off $1 million of unamortized premium and incurred a make-whole premium of $5 million, which were included in interest expense in the consolidated statements of operations.

Assumed Brocade Debt

As a result of the Brocade Merger, we assumed $575 million in aggregate principal amount of Brocade’s 1.375% convertible senior unsecured notes due 2020, or the Assumed Brocade Convertible Notes. The Brocade Merger was a “fundamental change” as well as a “make-whole fundamental change” as defined under the terms of the indenture governing the Assumed Brocade Convertible Notes. Accordingly, the holders of the Assumed Brocade Convertible Notes received the right to require us to repurchase their notes for cash. During fiscal year 2018, we repurchased $537 million in aggregate principal amount for $548 million at a conversion rate of $1,018 for each $1,000 of principal surrendered for conversion. The remaining outstanding Assumed Brocade Convertible Notes are convertible into cash at a conversion rate of $812 for each $1,000 of principal.

We also assumed $300 million of Brocade’s 4.625% senior unsecured notes due 2023. In January 2018, we redeemed all of these outstanding notes for a total payment of $308 million.

Fair Value of Debt

As of November 3, 2019, the estimated aggregate fair value of our debt was $33,652 million. The fair value of our senior notes was determined using quoted prices from less active markets. The estimated fair value of our 2019 Term Loans approximated their carrying value due to their floating interest rates and consistency in our credit ratings. The estimated fair value of our Commercial Paper approximated its carrying value due to the short-term nature of these borrowings. All of our debt obligations are categorized as Level 2 instruments.

Future Principal Payments of Debt

The future scheduled principal payments of debt as of November 3, 2019 were as follows:

Fiscal Year:	Future Scheduled Principal Payments	
	(In millions)	
2020	$	4,537
2021		2,750
2022		5,509
2023		1,250
2024		5,307
Thereafter		13,706
Total	$	33,059

As of November 3, 2019 and November 4, 2018, we accrued interest payable of $214 million and $165 million, respectively, and were in compliance with all debt covenants.

10. Stockholders' Equity

Mandatory Convertible Preferred Stock Offering

On September 30, 2019, we completed an offering of approximately 4 million shares of 8.00% Mandatory Convertible Preferred Stock, Series A, $0.001 par value per share (the "Mandatory Convertible Preferred Stock"), including certain additional shares sold pursuant to the underwriters' option, which generated net proceeds of approximately $3,679 million. We used the net proceeds of this offering to repay a portion of the outstanding borrowings under our existing term loan facilities.

The holders of Mandatory Convertible Preferred Stock are entitled to receive, when, as and if declared by our Board of Directors, or an authorized committee thereof, out of funds legally available for payment, cumulative dividends at the annual rate of 8.00% of the liquidation preference of $1,000 per share (equivalent to $80 annually per share), payable in cash or, subject to certain limitations, by delivery of shares of our common stock or any combination of cash and shares of our common stock, at our election; provided, however, that any undeclared and unpaid dividends will continue to accumulate.

Subject to limited exceptions, no dividends may be declared or paid on shares of our common stock, unless all accumulated dividends have been paid or set aside for payment on all outstanding shares of our Mandatory Convertible Preferred Stock for all past completed dividend periods. In the event of our voluntary or involuntary liquidation, dissolution or winding-up, no distribution of our assets may be made to holders of our common stock until we have paid to holders of our Mandatory Convertible Preferred Stock a liquidation preference equal to $1,000 per share plus accumulated and unpaid dividends.

Unless earlier converted, each outstanding share of Mandatory Convertible Preferred Stock will automatically convert on the mandatory conversion date, which is expected to be September 30, 2022, into between 3.0303 and 3.5422 shares of our common stock, depending on the applicable market value of our common stock upon conversion and subject to customary anti-dilution adjustments. At any time prior to September 30, 2022, holders may elect to convert each share of Mandatory Convertible Preferred Stock into shares of our common stock at the minimum conversion rate of 3.0303, subject to anti-dilution adjustments and certain exceptions.

The Mandatory Convertible Preferred Stock will not be redeemable at our election before the mandatory conversion date. The holders of the Mandatory Convertible Preferred Stock will not have any voting rights, with limited exceptions.

During the fourth quarter of fiscal year 2019, we recognized $29 million of earned preferred stock dividends and presented it as temporary equity in our consolidated balance sheet as of November 3, 2019.

Redomiciliation Transaction

For the period prior to the Redomiciliation Transaction, our stockholders' equity reflected Broadcom-Singapore's outstanding ordinary shares. On April 4, 2018, all Broadcom-Singapore outstanding ordinary shares were exchanged on a one-for-one basis for newly issued shares of Broadcom common stock and Broadcom-Singapore became a wholly-owned subsidiary of Broadcom.

In conjunction with the Redomiciliation Transaction and pursuant to the Mandatory Exchange, all outstanding LP Units held by the limited partners were mandatorily exchanged for approximately 22 million newly issued shares of Broadcom common stock on a one-for-one basis. As a result, all limited partners of the Partnership became common stockholders of Broadcom. In addition, all related outstanding special preference shares of Broadcom-Singapore were automatically redeemed upon the Mandatory Exchange.

Noncontrolling Interest

Immediately prior to the Redomiciliation Transaction, the limited partners held a noncontrolling interest of approximately 5% in the Partnership through their ownership of LP Units. Accordingly, net income attributable to our common stock in our consolidated statements of operations excluded the noncontrolling interest's proportionate share of our results prior to the Redomiciliation Transaction. In addition, we presented the proportionate share of equity attributable to the noncontrolling interest as a separate component of total equity within our consolidated statements of equity for the periods prior to the Redomiciliation Transaction.

Dividends and Distributions

	Fiscal Year		
	2019	2018	2017
	(In millions, except per share data)		
Cash dividends and distributions declared and paid per share/unit	$ 10.60	$ 7.00	$ 4.08
Cash dividends declared and paid to common stockholders	$ 4,235	$ 2,921	$ 1,653
Cash distributions declared and paid to limited partners	$ —	$ 77	$ 92

Stock Repurchase Program

Pursuant to an $18 billion stock repurchase program authorized by our Board of Directors, we repurchased and retired approximately 21 million and 32 million shares of our common stock for $5,435 million and $7,258 million during fiscal years 2019 and 2018, respectively. This authorization ended on November 3, 2019.

Equity Incentive Award Plans

Stock-based incentive awards are provided to employees and directors under the terms of various Broadcom equity incentive plans.

2009 Plan

In July 2009, our Board of Directors adopted, and our stockholders approved, the Avago Technologies Limited 2009 Equity Incentive Award Plan (the "2009 Plan") to authorize the grant of options, stock appreciation rights, RSUs, dividend equivalents, performance awards, and other stock-based awards. A total of 20 million shares of common stock were initially reserved for issuance under the 2009 Plan, subject to annual increases starting in fiscal year 2012. The amount of the annual increase was equal to the least of (a) 6 million shares, (b) 3% of the common stock outstanding on the last day of the immediately preceding fiscal year and (c) such smaller number of common stock as determined by our Board. However, no more than 90 million shares of common stock may be issued upon the exercise of equity awards issued under the 2009 Plan. The 2009 Plan became effective on July 27, 2009.

Options issued to employees under the 2009 Plan prior to March 2011 generally expire ten years following the date of grant. Since March 2011, options issued to employees under the 2009 Plan generally expire seven years after the date of grant. Options awarded to non-employees under this plan generally expire after five years. Options issued to both employees and non-employees under the 2009 Plan generally vested over a period of four years from the date of grant and were granted with an exercise price equal to the fair market value on the date of grant. Any stock options cancelled or forfeited after July 27, 2009 under the equity incentive plans adopted prior to the 2009 Plan became available for issuance under the 2009 Plan. RSU awards granted to employees under the 2009 Plan generally vest annually over four years.

The 2009 Plan expired in July 2019.

2003 Plan

In connection with the acquisition of LSI Corporation ("LSI"), we assumed the LSI 2003 Equity Incentive Plan (the "2003 Plan") and outstanding unvested stock options and RSUs originally granted by LSI under the 2003 Plan that were held by continuing employees. Under the 2003 Plan, we may grant to former employees of LSI and other employees who were not employees of Broadcom at the time of the acquisition restricted stock awards, RSUs, stock options and stock appreciation rights with an exercise price that is no less than the fair market value on the date of grant. No participant may be granted stock options covering more than 4 million shares or more than an aggregate of 1 million shares of restricted stock and RSUs in any fiscal year. Equity awards granted under the 2003 Plan following the LSI acquisition are expected to be on similar terms and consistent with similar grants made pursuant to the 2009 Plan. As of November 3, 2019, 3 million shares remained available for issuance under the 2003 Plan.

2012 Plan

In connection with the acquisition of BRCM, we assumed the BRCM 2012 Stock Incentive Plan (the "2012 Plan") and outstanding unvested RSUs originally granted by BRCM under the 2012 Plan that were held by continuing employees. Under the 2012 Plan, we may grant to former employees of BRCM and other employees who were not employees of Broadcom at the time of the acquisition restricted stock awards, RSUs, stock options and stock appreciation rights with an exercise price that is no less than the fair market value on the date of grant. No participant may be granted stock options, restricted stock or RSUs, covering more than an aggregate of 4 million shares in any fiscal year. Equity awards granted under the 2012 Plan following the acquisition of BRCM are on similar terms and consistent with similar grants made pursuant to the 2009 Plan. As of November 3, 2019, 82 million shares remained available for issuance under the 2012 Plan. The number of shares available for issuance under the 2012 Plan is subject to an annual increase of 12 million shares.

We also grant market-based RSUs with both a service condition and a market condition as part of our equity compensation programs. The market-based RSUs generally vest over four years, subject to satisfaction of market conditions. During fiscal years 2019, 2018 and 2017, we granted market-based RSUs under which grantees may receive the number of shares ranging from 0% to 450% of the original grant at vesting based upon the total stockholder return ("TSR") on our common stock as compared to the TSR of an index group of companies.

Amendment to the RSU Vesting Schedule

During fiscal year 2019, the Compensation Committee of our Board of Directors approved an amendment to the vesting of time-based RSUs (other than those assumed in an acquisition), held by approximately 16,500 employees below the vice president level, from an annual vesting cycle to a quarterly vesting cycle.

Employee Stock Purchase Plan

The ESPP provides eligible employees with the opportunity to acquire an ownership interest in us through periodic payroll deductions, based on a 6-month look-back period, at a price equal to the lesser of 85% of the fair market value of our common stock at either the beginning or ending of the relevant offering period. The ESPP is structured as a qualified employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986. However, the ESPP is not intended to be a qualified pension, profit sharing or stock bonus plan under Section 401(a) of the Internal Revenue Code of 1986 and is not subject to the provisions of Employee Retirement Income Security Act of 1974.

Stock-Based Compensation Expense

	Fiscal Year		
	2019	2018	2017
	(In millions)		
Cost of products sold	$ 120	$ 77	$ 64
Cost of subscriptions and services	43	9	—
Research and development	1,532	855	636
Selling, general and administrative	490	286	220
Total stock-based compensation expense (a)	$ 2,185	$ 1,227	$ 920
Estimated income tax benefits for stock-based compensation	$ 400	$ 195	$ 249
Income tax benefits for stock-based awards exercised or released	$ 232	$ 181	$ 273

(a) Does not include stock-based compensation related to discontinued operations recognized during fiscal year 2017, which was included in loss from discontinued operations, net of income taxes in our consolidated statements of operations.

We have assumed an annualized forfeiture rate for RSUs of 5%. We will recognize additional expense if actual forfeitures are lower than we estimated, and will recognize a benefit if actual forfeitures are higher than we estimated.

During the first quarter of fiscal year 2019, the Compensation Committee of our Board of Directors approved a broad-based program of multi-year equity grants of time- and market-based RSUs (the “Multi-Year Equity Awards”) in lieu of our annual employee equity awards historically granted on March 15 of each year. Each Multi-Year Equity Award vests on the same basis as four annual grants made March 15 of each year, beginning in fiscal year 2019, with successive four-year vesting periods. Stock-based compensation expense related to the Multi-Year Equity Awards was $890 million for fiscal year 2019, including $133 million of Multi-Year Equity Awards granted to employees acquired in the CA Merger.

In connection with the amendment to the vesting of certain time-based RSUs from an annual cycle to a quarterly cycle, we recognized approximately $140 million in incremental compensation cost during fiscal year 2019.

For fiscal year 2019, stock-based compensation expense included $83 million related to equity awards assumed in connection with the CA Merger. In addition to stock-based compensation expense presented above, in fiscal year 2019, we recognized $75 million in restructuring charges for accelerated vesting of assumed equity awards held by employees terminated in connection with the CA Merger.

As of November 3, 2019, the total unrecognized compensation cost related to unvested stock-based awards was $5,641 million, which is expected to be recognized over the remaining weighted-average service period of 4.1 years.

The following table summarizes the weighted-average assumptions utilized to calculate the fair value of market-based awards granted in the periods presented:

	Market-Based Awards		
	Fiscal Year		
	2019	2018	2017
Risk-free interest rate	2.7%	2.4%	1.7%
Dividend yield	4.4%	2.6%	1.8%
Volatility	33.0%	32.5%	32.3%
Expected term (in years)	4.0	4.0	4.0

The risk-free interest rate was derived from the average U.S. Treasury Strips rate, which approximated the rate in effect appropriate for the term at the time of grant.

The dividend yield was based on the historical and expected dividend payouts as of the respective award grant dates.

The volatility was based on our own historical stock price volatility over the period commensurate with the expected life of the awards and the implied volatility of a 180-day call option on our own common stock measured at a specific date.

The expected term was commensurate with the awards’ contractual terms.

Restricted Stock Unit Awards

A summary of time- and market-based RSU activity is as follows:

	Number of RSUs Outstanding	Weighted-Average Grant Date Fair Value Per Share
	(In millions, except per share data)	
Balance as of October 30, 2016	17	$ 130.71
Granted	8	$ 199.33
Vested	(5)	$ 126.81
Forfeited	(2)	$ 142.78
Balance as of October 29, 2017	18	$ 163.42
Granted	7	$ 239.48
Vested	(6)	$ 155.78
Forfeited	(1)	$ 175.46
Balance as of November 4, 2018	18	$ 195.50
Assumed in CA Merger	1	$ 206.14
Granted	33	$ 183.64
Vested	(10)	$ 192.28
Forfeited	(2)	$ 182.80
Balance as of November 3, 2019	40	$ 188.52

The aggregate fair value of time- and market-based RSUs that vested in fiscal years 2019, 2018 and 2017 was $2,958 million, $1,516 million and $1,172 million, respectively, which represents the market value of our common stock on the date that the RSUs vested. The number of RSUs vested included shares of common stock that we withheld for settlement of employees' tax obligations due upon the vesting of RSUs.

Stock Option Awards

A summary of time- and market-based stock option activity is as follows:

	Number of Options Outstanding	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Life (In years)	Aggregate Intrinsic Value
	(In millions, except years and per share data)			
Balance as of October 30, 2016	15	$ 48.77		
Exercised	(4)	$ 45.48		$ 682
Cancelled	(1)	$ 66.08		
Balance as of October 29, 2017	10	$ 49.54		
Exercised	(2)	$ 47.41		$ 534
Cancelled	— *	$ 72.37		
Balance as of November 4, 2018	8	$ 50.14		
Exercised	(4)	$ 47.88		$ 761
Cancelled	— *	$ 49.00		
Balance as of November 3, 2019	4	$ 51.83	1.11	$ 1,077
Fully vested as of November 3, 2019	4	$ 51.83	1.11	$ 1,077

* Represents fewer than 0.5 million shares.

11. Income Taxes

Components of Income from Continuing Operations Before Income Taxes

As a result of the Redomiciliation Transaction on April 4, 2018, the following references to domestic activities represent the U.S. for fiscal years 2019 and 2018 and Singapore for fiscal year 2017. The following table presents the components of income from continuing operations before income taxes for financial reporting purposes:

	Fiscal Year		
	2019	2018	2017
		(In millions)	
Domestic income (loss)	$ (4,116)	$ (705)	$ 2,102
Foreign income (loss)	6,342	5,250	(277)
Income from continuing operations before income taxes	$ 2,226	$ 4,545	$ 1,825

Components of Provision for (Benefit from) Income Taxes

The benefit from income taxes in fiscal year 2019 was primarily due to $232 million of excess tax benefits from stock-based awards that vested or were exercised during the period, $131 million from the recognition of gross unrecognized tax benefits as a result of audit settlements and lapses of statutes of limitations net of increases in balances related to tax positions taken during the current year, $80 million of benefit from deferred tax remeasurement in state and foreign jurisdictions, $66 million of benefit related to internal reorganizations, and $54 million of benefit from the partial release of our valuation allowance as a result of the CA Merger, partly offset by $113 million of expense from a change in estimate of our fiscal year 2018 benefit as a result of proposed U.S. Treasury regulations issued in fiscal year 2019 related to the 2017 Tax Reform Act.

The 2017 Tax Reform Act made significant changes to the U.S. Internal Revenue Code, including, but not limited to, a decrease in the U.S. corporate tax rate from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a participation exemption regime, and the transition tax on the mandatory deemed repatriation of accumulated non-U.S. earnings of U.S. controlled foreign corporations. Several provisions of the 2017 Tax Reform Act became effective for us for the first time in fiscal year 2019, including a new minimum tax on certain foreign earnings, known as Global Intangible Low-taxed Income (“GILTI”), a new incentive for foreign-derived intangible income, changes to the limitation on the deductibility of certain executive compensation, and new limitations on the deductibility of interest expense. We have elected to account for GILTI as a period cost rather than on a deferred basis.

On December 22, 2017, the SEC issued Staff Accounting Bulletin No. 118. This guidance allowed registrants a “measurement period,” not to exceed one year from the date of enactment, to complete their accounting for the tax effects of the 2017 Tax Reform Act. We relied on this guidance to refine our estimates of the impact of the 2017 Tax Reform Act during the measurement period. The measurement period ended during our fiscal quarter ended February 3, 2019, and no adjustments were recorded. As a result, we consider our accounting for the tax effects of the 2017 Tax Reform Act to be complete based on our interpretation of the law and subsequently issued guidance. However, it is expected that the U.S. Treasury will continue to issue regulations and other guidance on the application of certain provisions of the 2017 Tax Reform Act that may impact our interpretation of the rules and our calculation of the tax impact of the transition tax on the mandatory deemed repatriation of accumulated non-U.S. earnings of U.S. controlled foreign corporations as of December 31, 2017 or other provisions of the 2017 Tax Reform Act.

In connection with the CA Merger in November 2018, we established $2,434 million of net deferred tax liabilities on the excess of the book basis over the tax basis of acquired identified intangible assets and investments in certain foreign subsidiaries that had not been indefinitely reinvested, partially offset by acquired tax attributes.

The benefit from income taxes in fiscal year 2018 was primarily due to income tax benefits recognized from the enactment of the 2017 Tax Reform Act and the Redomiciliation Transaction. As a result of the 2017 Tax Reform Act, we recorded a total provisional benefit of $7,278 million in fiscal year 2018. This provisional benefit included $7,212 million related to the Transition Tax, which was primarily due to a reduction of $10,457 million in our federal deferred income tax liabilities on accumulated non-U.S. earnings, partially offset by $2,133 million of federal provisional long-term Transaction Tax payable and $1,112 million of unrecognized federal tax benefits related to the Transition Tax. The provisional benefit also included $66 million related to the remeasurement of certain deferred tax assets and liabilities, which were based on the tax rates at which they were expected to be reversed in the future as a result of the 2017 Tax Reform Act.

The impact of the Redomiciliation Transaction and the related internal reorganizations included tax benefits of $1,162 million in fiscal year 2018 from the remeasurement of withholding taxes on undistributed earnings, partially offset by a $167 million tax provision on foreign earnings and profits subject to U.S. tax.

The income tax provision for fiscal year 2017 was primarily due to profit before tax and a discrete expense of $76 million resulting from entity reorganizations partially offset by the recognition of $273 million of excess tax benefits from stock-based awards that vested or were exercised during fiscal year 2017 and, to a lesser extent, the recognition of previously unrecognized tax benefits primarily as a result of audit settlements.

We have obtained several tax incentives from the Singapore Economic Development Board, an agency of the Government of Singapore, which provide that qualifying income earned in Singapore is subject to tax incentives or reduced rates of Singapore income tax. Each tax incentive was separate and distinct from the others, and may be granted, withheld, extended, modified, truncated, complied with or terminated independently without any effect on the other incentives. Subject to our compliance with the conditions specified in these incentives and legislative developments, the Singapore tax incentive is presently expected to expire in November 2025.

We have also obtained a tax holiday on our qualifying income in Malaysia, which is scheduled to expire in fiscal year 2028. The tax holiday that we negotiated in Malaysia is also subject to our compliance with various operating and other conditions. If we cannot, or elect not to, comply with the conditions specified, we will lose the related tax benefits and we could be required to refund previously realized material tax benefits.

Before taking into consideration the effects of the 2017 Tax Reform Act and other indirect tax impact, the effect of these tax incentives and tax holiday was to increase the benefit from income taxes by approximately $923 million and $590 million and increase diluted net income per share by $2.20 and $1.37 for fiscal years 2019 and 2018, respectively. For fiscal year 2017, the effect of these tax incentives and tax holiday was to reduce the overall provision for income taxes by approximately $237 million and reduce diluted net loss per share by $0.56.

During fiscal year 2019, we reevaluated our indefinite reinvestment assertion with regards to certain accumulated foreign earnings and concluded that we intend to indefinitely reinvest $2,677 million of such earnings as a result of interpretive guidance issued by the IRS. The amount of unrecognized deferred income tax liability indefinitely related to these earnings is estimated to be $281 million. All other current and future earnings of all our foreign subsidiaries are not considered permanently reinvested.

As a result of the Redomiciliation Transaction on April 4, 2018, the following references to current tax expense (benefit from) federal and state represent the U.S. for fiscal years 2019 and 2018 and Singapore for fiscal year 2017. Significant components of the provision for (benefit from) income taxes are as follows:

	Fiscal Year		
	2019	2018	2017
		(In millions)	
Current tax expense (benefit from):			
Federal	$ (49)	$ 255	$ 112
State	(16)	38	—
Foreign	342	171	158
	277	464	270
Deferred tax expense (benefit from):			
Federal	(497)	(8,666)	(1)
State	(113)	(103)	—
Foreign	(177)	221	(234)
	(787)	(8,548)	(235)
Total provision for (benefit from) income taxes	$ (510)	$ (8,084)	$ 35

Rate Reconciliation

	Fiscal Year		
	2019	2018	2017
Statutory tax rate	21.0 %	21.0 %	17.0 %
State, net of federal benefit	(4.6)	(1.1)	—
2017 Tax reform	5.1	(159.0)	—
Redomiciliation transaction withholding tax remeasurement	—	(25.6)	—
Foreign income taxed at different rates	(52.5)	(16.3)	(0.8)
Excess tax benefits from stock-based compensation	(10.4)	(4.0)	—
Research and development credit	(7.6)	(2.9)	—
Deemed inclusion of foreign earnings	25.9	4.7	—
Tax holidays and concessions	—	—	(13.0)
Other, net	0.2	5.3	(1.3)
Effective tax rate on income before income taxes	(22.9)%	(177.9)%	1.9 %

Summary of Deferred Income Taxes

	November 3, 2019	November 4, 2018
	(In millions)	
Deferred income tax assets:		
Net operating loss, credit and other carryforwards	$ 1,733	$ 1,421
Deferred revenue	316	—
Employee stock awards	218	159
Other deferred income tax assets	313	226
Gross deferred income tax assets	2,580	1,806
Less valuation allowance	(1,563)	(1,347)
Deferred income tax assets	1,017	459
Deferred income tax liabilities:		
Depreciation and amortization	2,360	316
Foreign earnings not indefinitely reinvested	138	16
Other deferred income tax liabilities	—	12
Deferred income tax liabilities	2,498	344
Net deferred income tax assets (liabilities)	$ (1,481)	$ 115

Deferred income taxes reflect the net effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their basis for income tax purposes and the tax effects of net operating losses and tax credit carryforwards. The increase in deferred income tax liabilities for depreciation and amortization is primarily due to the CA Merger.

The following table presents net deferred income tax assets (liabilities) as reflected on the consolidated balance sheets:

	November 3, 2019	November 4, 2018
	(In millions)	
Other long-term assets	$ 50	$ 284
Other long-term liabilities	(1,531)	(169)
Net long-term income tax assets (liabilities)	$ (1,481)	$ 115

The increase in the valuation allowance to $1,563 million in fiscal year 2019 from $1,347 million in fiscal year 2018 was primarily due to the CA Merger, foreign deferred tax assets arising from foreign credits, and losses not expected to be realized.

As of November 3, 2019, we had U.S. federal net operating loss carryforwards of $123 million, U.S. state net operating loss carryforwards of $2,813 million and other foreign net operating loss carryforwards of $1,157 million. U.S. federal and state net operating loss carryforwards begin to expire in fiscal year 2020. The other foreign net operating losses expire in various fiscal years beginning 2020. As of November 3, 2019, we had $252 million and $1,653 million of U.S. federal and state research and development tax credits, respectively, which if not utilized, begin to expire in fiscal year 2020.

The U.S. Tax Reform Act of 1986 limits the use of net operating loss and tax credit carryforwards in the case of an “ownership change” of a corporation or separate return loss year limitations. Any ownership changes, as defined, may restrict utilization of carryforwards. As of November 3, 2019, we had approximately $123 million of federal net operating loss carryforwards in the U.S. subject to an annual limitation. We do not expect these limitations to result in any permanent loss of our tax benefits.

Uncertain Tax Positions

Gross unrecognized tax benefits increased by $392 million during fiscal year 2019, resulting in gross unrecognized tax benefits of $4,422 million as of November 3, 2019.

Gross unrecognized tax benefits increased by $1,774 million during fiscal year 2018, resulting in gross unrecognized tax benefits of $4,030 million as of November 4, 2018. The increase in gross unrecognized tax benefits was primarily due to the recognition of unrecognized tax positions of $1,112 million related to the Transition Tax, offset by a reduction of our federal deferred income tax liabilities on accumulated non-U.S. earnings. The increase in gross unrecognized tax benefits was also due to the Redomiciliation Transaction, and to a lesser extent, the Brocade Merger.

Gross unrecognized tax benefits increased by $273 million during fiscal year 2017, resulting in gross unrecognized tax benefits of $2,256 million as of October 29, 2017. The increase in gross unrecognized tax benefits was primarily a result of restructuring activities in fiscal year 2017. During fiscal year 2017, we recognized $121 million of previously unrecognized tax benefits as a result of the audit settlement with taxing authorities, and $12 million as a result of the expiration of the statute of limitations for certain audit periods.

We recognize interest and penalties related to unrecognized tax benefits within provision for income taxes in the accompanying consolidated statements of operations. Accrued interest and penalties were included within other long-term liabilities on the consolidated balance sheets. As of November 3, 2019 and November 4, 2018, the combined amount of cumulative accrued interest and penalties was approximately $303 million and $190 million, respectively. The increase in cumulative accrued interest and penalties was primarily a result of the CA Merger.

The following table reconciles the beginning and ending balance of gross unrecognized tax benefits:

	Fiscal Year		
	2019	2018	2017
		(In millions)	
Beginning balance	$ 4,030	$ 2,256	$ 1,983
Lapses of statutes of limitations	(36)	(20)	(12)
Increases in balances related to tax positions taken during prior periods (including those related to acquisitions made during the year)	467	361	47
Decreases in balances related to tax positions taken during prior periods	(270)	(289)	(32)
Increases in balances related to tax positions taken during current period	460	1,726	391
Decreases in balances related to settlement with taxing authorities	(229)	(4)	(121)
Ending balance	$ 4,422	$ 4,030	$ 2,256

A portion of our unrecognized tax benefits will affect our effective tax rate if they are recognized upon favorable resolution of the uncertain tax positions. As of November 3, 2019 and November 4, 2018, approximately $4,725 million and $4,220 million of the unrecognized tax benefits including accrued interest and penalties would affect our effective tax rate, respectively.

Decreases in balances related to tax positions taken during prior periods and settlement with taxing authorities related to the settlement of income tax audits in various jurisdictions during fiscal year 2019.

We are subject to U.S. income tax examination for fiscal years 2013 and later. Certain of our acquired companies are subject to tax examinations in major jurisdictions outside of the U.S. for fiscal years 2008 and later. It is possible that our existing unrecognized tax benefits may change up to $154 million as a result of lapses of the statute of limitations for certain audit periods and/or audit examinations expected to be completed within the next 12 months.

12. Segment Information

Reportable Segments

During the first quarter of fiscal year 2020, we changed our organizational structure, resulting in two reportable segments: semiconductor solutions and infrastructure software. Segment results for all periods presented have been recast to conform to the current presentation. Each segment represents a component for which separate financial information is available that is utilized on a regular basis by the CODM in determining how to allocate resources and evaluate performance. The reportable segments are determined based on several factors including, but not limited to, customer base, homogeneity of products, technology, delivery channels and similar economic characteristics.

Semiconductor solutions. We provide semiconductor solutions for managing the movement of data in data center, telecom, enterprise and embedded networking applications. We provide a broad variety of RF semiconductor devices, wireless connectivity solutions and custom touch controllers for mobile applications. We also provide semiconductor solutions for enabling the set-top box and broadband access markets and for enabling secure movement of digital data to and from host machines, such as servers, personal computers and storage systems, to the underlying storage devices, such as hard disk drives and solid state drives. We also provide a broad variety of products for the general industrial and automotive markets. Our semiconductor solutions segment also includes our IP licensing.

Infrastructure software. We provide a portfolio of mainframe, enterprise and storage area networking solutions, which enables customers to leverage the benefits of agility, automation, insights, resiliency and security in managing business processes and technology investments, and to reduce the cost and complexity of managing business information within a shared data storage environment.

Our CODM assesses the performance of each segment and allocates resources to those segments based on net revenue and operating results and does not evaluate our segments using discrete asset information. Operating results by segment include items that are directly attributable to each segment and also include shared expenses such as global operations, including manufacturing support, logistics and quality control, in addition to expenses associated with selling, general and administrative activities for the business, which are allocated primarily based on revenue, while facilities expenses are allocated primarily based on site-specific headcount.

Unallocated Expenses

Unallocated expenses include amortization of acquisition-related intangible assets, stock-based compensation expense, restructuring, impairment and disposal charges, acquisition-related costs, charges related to inventory step-up to fair value, and other costs, which are not used in evaluating the results of, or in allocating resources to, our segments. Acquisition-related costs also include transaction costs and any costs directly related to the acquisition and integration of acquired businesses.

Depreciation expense directly attributable to each reportable segment is included in operating results for each segment. However, the CODM does not evaluate depreciation expense by operating segment and, therefore, it is not separately presented. There was no inter-segment revenue. The accounting policies of the segments are the same as those described in the summary of significant accounting policies.

	Fiscal Year		
	2019	2018	2017
	(In millions)		
Net revenue:			
Semiconductor solutions	$ 17,441	$ 19,068	$ 17,636
Infrastructure software	5,156	1,780	—
Total net revenue	$ 22,597	$ 20,848	$ 17,636
Operating income:			
Semiconductor solutions	$ 8,148	$ 9,160	$ 7,970
Infrastructure software	3,781	1,250	—
Unallocated expenses	(8,485)	(5,275)	(5,599)
Total operating income	$ 3,444	$ 5,135	$ 2,371

Geographic Information

Net revenue by country is based on the geographic shipment or delivery location as specified by the distributors, OEMs, contract manufacturers, channel partners, or software customers who purchased our products or services. For the majority of our products, title and control transfer to our customers in Penang, Malaysia. The products are then transported to the customer specific locations. Net revenue from the United States for fiscal years 2019, 2018, and 2017 was $4,235 million, $2,697 million and $1,266 million, respectively. Net revenue from China (including Hong Kong) for fiscal years 2019, 2018 and 2017 was $8,056 million, $10,305 million and $9,460 million, respectively. Net revenue from Singapore for fiscal year 2019 was $2,507 million (amounts were below 10% for fiscal years 2018 and 2017). Net revenue from other foreign countries for fiscal years 2019, 2018 and 2017 was $7,799 million, $7,846 million and $6,910 million, respectively. These geographic delivery locations are not necessarily indicative of the geographic location of our end customers or the country in which our end customers sell devices containing our products. For example, we believe a substantial portion of our products shipped or delivered to China (including Hong Kong) is included in devices sold by our end customers in the United States and Europe.

Long-lived assets include property, plant and equipment and are based on the physical location of the assets.

	November 3, 2019	November 4, 2018
	(In millions)	
Long-lived assets:		
United States	$ 1,763	$ 1,859
Taiwan	258	264
Other	544	512
Total long-lived assets	$ 2,565	$ 2,635

Significant Customer Information

We sell our products through our direct sales force and a select network of distributors globally. One customer accounted for 24% of our net accounts receivable balance at November 3, 2019 compared with two customers which accounted for 20% and 14% of our net accounts receivable balance at November 4, 2018. During fiscal year 2019, one customer accounted for 17% of our net revenue. Revenue from this customer was included in our semiconductor solutions segment. During fiscal year 2018, no direct customers represented more than 10% of our net revenue. During fiscal year 2017, one customer represented 14% of our net revenue. The majority of the revenue from this customer was included in our semiconductor solutions segment.

13. Commitments and Contingencies

Commitments

The following table summarizes contractual obligations and commitments as of November 3, 2019:

	Total	Fiscal Year 2020	2021	2022	2023	2024	Thereafter
	(In millions)						
Debt principal, interest and fees	$ 39,038	$ 5,628	$ 3,748	$ 6,415	$ 2,025	$ 5,996	$ 15,226
Purchase commitments	716	652	64	—	—	—	—
Other contractual commitments	197	133	31	19	14	—	—
Operating lease obligations	800	115	99	80	69	47	390
Total	$ 40,751	$ 6,528	$ 3,942	$ 6,514	$ 2,108	$ 6,043	$ 15,616

Debt Principal, Interest and Fees. Represents principal, estimated interest and fees on borrowings. For borrowings subject to a floating interest rate, the estimated interest was based on the rate in effect during the last month of the fiscal year ended November 3, 2019.

Purchase Commitments. Represents unconditional purchase obligations that include agreements to purchase goods or services, primarily inventory, that are enforceable and legally binding on us and that specify all significant terms, including fixed or minimum quantities to be purchased, fixed, minimum or variable price provisions, and the approximate timing of the transaction. Purchase obligations exclude agreements that are cancelable without penalty. Cancellation for outstanding
purchase orders for capital expenditures in connection with internal fabrication facility expansion and construction of our new campuses is generally allowed but requires payment of all costs incurred through the date of cancellation and, therefore, cancelable purchase orders for these capital expenditures are included in the table above.

Other Contractual Commitments. Represents amounts payable pursuant to agreements related to information technology, human resources, and other service agreements.

Operating Lease Obligations. Represents real property and equipment leased from third parties under non-cancelable operating leases. Rent expense was $244 million, $233 million and $253 million for fiscal years 2019, 2018 and 2017, respectively.

Due to the inherent uncertainty with respect to the timing of future cash outflows associated with our unrecognized tax benefits at November 3, 2019, we are unable to reliably estimate the timing of cash settlement with the respective taxing authority. Therefore, $3,269 million of unrecognized tax benefits and accrued interest classified within other long-term liabilities on our consolidated balance sheet as of November 3, 2019 have been excluded from the contractual obligations table above.

Standby Letters of Credit

As of November 3, 2019 and November 4, 2018, we had standby letters of credit of $62 million and $14 million, respectively. Standby letters of credit are financial guarantees provided by third parties for leases, customs, taxes and certain self-insured risks. If the guarantees are called, we must reimburse the provider of the guarantees.

Contingencies

From time to time, we are involved in litigation that we believe is of the type common to companies engaged in our line of business, including commercial disputes, employment issues and disputes involving claims by third parties that our activities infringe their patent, copyright, trademark or other IP rights. Legal proceedings are often complex, may require the expenditure of significant funds and other resources, and the outcome of litigation is inherently uncertain, with material adverse outcomes possible. IP property claims generally involve the demand by a third-party that we cease the manufacture, use or sale of the allegedly infringing products, processes or technologies and/or pay substantial damages or royalties for past, present and future use of the allegedly infringing IP. Claims that our products or processes infringe or misappropriate any third-party IP rights (including claims arising through our contractual indemnification of our customers) often involve highly complex, technical issues, the outcome of which is inherently uncertain. Moreover, from time to time, we pursue litigation to assert our IP rights. Regardless of the merit or resolution of any such litigation, complex IP litigation is generally costly and diverts the efforts and attention of our management and technical personnel.

Lawsuits Relating to the Acquisition of Emulex Corporation

On April 8, 2015, a putative class action complaint was filed in the U.S. Central District Court, entitled Gary Varjabedian, et al. v. Emulex Corporation, et al., No. 8:15-cv-554-CJC-JCG. The complaint names as defendants Emulex Corporation ("Emulex"), its directors, AT Wireless and Emerald Merger Sub, and purported to assert claims under Sections 14(d), 14(e) and 20(a) of the Exchange Act. The complaint alleged, among other things, that the board of directors of Emulex failed to provide material information and/or omitted material information from the Solicitation/Recommendation Statement on Schedule 14D-9 filed with the SEC on April 7, 2015 by Emulex, together with the exhibits and annexes thereto. The complaint sought to enjoin the tender offer to purchase all of the outstanding shares of Emulex common stock, as well as certain other equitable relief and attorneys' fees and costs. On July 28, 2015, the U.S. Central District Court issued an order appointing the lead plaintiff and approving lead counsel for the putative class. On September 9, 2015, plaintiff filed a first amended complaint seeking rescission of the merger, unspecified money damages, other equitable relief and attorneys' fees and costs. On October 13, 2015, defendants moved to dismiss the first amended complaint, which the U.S. Central District Court granted with prejudice on January 13, 2016. Plaintiff filed a notice of appeal to the United States Court of Appeals for the Ninth Circuit (the "Ninth Circuit Court") on January 15, 2016. The appeal is captioned Gary Varjabedian, et al. v. Emulex Corporation, et al., No. 16-55088. On June 27, 2016, the Plaintiff-Appellant filed his opening brief, on August 17 and August 22, 2016, the Defendants-Appellees filed their answering briefs, and on October 5, 2016 Plaintiff-Appellant filed his reply brief. The Ninth Circuit Court heard oral arguments on October 5, 2017. On April 20, 2018, the Ninth Circuit Court issued an opinion affirming in part and reversing in part the decision of the U.S. Central District Court and remanding Plaintiff-Appellant's claims under Sections 14(e) and 20(a) of the Exchange Act to the U.S. Central District Court for reconsideration. On May 4, 2018, the Defendants-Appellees filed a Petition for Rehearing En Banc with the Ninth Circuit Court. On July 13, 2018, Plaintiff-Appellant filed an Opposition to the Petition for Rehearing En Banc. On September 6, 2018, the Ninth Circuit Court issued an order denying the Petition for Rehearing En Banc. On October 11, 2018, Defendants-Appellees filed a Petition for a Writ of Certiorari to the United States Supreme Court (the "U.S. Supreme Court"). On January 4, 2019, the U.S. Supreme Court granted certiorari. On April 23, 2019, the U.S. Supreme Court dismissed the writ of certiorari as having been improvidently granted. On May 28, 2019, the Ninth Circuit Court remanded the case back to the U.S. Central District Court. On October 6, 2019, Plaintiffs voluntarily dismissed AT Wireless from this action. On October 7, 2019, the remaining defendants, Emulex and its directors, filed motions to dismiss the complaint, which are set to be heard on February 4, 2020. We believe these claims are all without merit and intend to vigorously defend these actions.

Other Matters

In addition to the matters discussed above, we are currently engaged in a number of legal actions in the ordinary course of our business.

Contingency Assessment

We do not believe, based on currently available facts and circumstances, that the final outcome of any pending legal proceedings or ongoing regulatory investigations, taken individually or as a whole, will have a material adverse effect on our consolidated financial statements. However, lawsuits may involve complex questions of fact and law and may require the expenditure of significant funds and other resources to defend. The results of litigation or regulatory investigations are inherently uncertain, and material adverse outcomes are possible. From time to time, we may enter into confidential discussions regarding the potential settlement of such lawsuits. Any settlement of pending litigation could require us to incur substantial costs and other ongoing expenses, such as future royalty payments in the case of an intellectual property dispute.

During the periods presented, no material amounts have been accrued or disclosed in the accompanying consolidated financial statements with respect to loss contingencies associated with any other legal proceedings or regulatory investigations, as potential losses for such matters are not considered probable and ranges of losses are not reasonably estimable. These matters are subject to many uncertainties and the ultimate outcomes are not predictable. There can be no assurances that the actual amounts required to satisfy any liabilities arising from the matters described above will not have a material adverse effect on our consolidated financial statements.

Other Indemnifications

As is customary in our industry and as provided for in local law in the U.S. and other jurisdictions, many of our standard contracts provide remedies to our customers and others with whom we enter into contracts, such as defense, settlement, or payment of judgment for IP claims related to the use of our products. From time to time, we indemnify customers, as well as our suppliers, contractors, lessors, lessees, companies that purchase our businesses or assets and others with whom we enter into contracts, against combinations of loss, expense, or liability arising from various triggering events related to the sale and the use of our products, the use of their goods and services, the use of facilities and state of our owned facilities, the state of the assets and businesses that we sell and other matters covered by such contracts, usually up to a specified maximum amount. In addition, from time to time we also provide protection to these parties against claims related to undiscovered liabilities, additional product liabilities or environmental obligations. In our experience, claims made under such indemnifications are rare and the associated estimated fair value of the liability is not material.

14. Restructuring, Impairment and Disposal Charges

Restructuring Charges

The following is a summary of significant restructuring expense recognized in continuing operations, primarily in operating expenses:

- During fiscal year 2019, we initiated cost reduction activities associated with the CA Merger. As a result, we recognized $740 million of restructuring expense primarily related to employee termination and lease and other exit costs during fiscal year 2019. We expect these restructuring activities to be substantially completed by the end of fiscal year 2020.
- During fiscal year 2018, we initiated cost reduction activities associated with the Brocade Merger. As a result, we recognized $2 million and $176 million of restructuring expense in fiscal years 2019 and 2018, respectively. These charges primarily related to employee termination costs. We have substantially completed the restructuring activities related to the acquisition of Brocade.
- In connection with cost reduction activities associated with the acquisition of BRCM, we recognized $4 million, $50 million and $124 million of restructuring expense in fiscal years 2019, 2018 and 2017, respectively. These restructuring expenses primarily related to lease and other exit costs for fiscal years 2019 and 2018 and employee termination costs for fiscal year 2017. We have substantially completed the restructuring activities related to the acquisition of BRCM.

	Employee Termination Costs	Lease and Other Exit Costs	Total
		(In millions)	
Balance as of October 30, 2016	$ 116	$ 35	$ 151
Restructuring charges (a)	86	43	129
Utilization	(174)	(61)	(235)
Balance as of October 29, 2017	28	17	45
Restructuring charges (a)	153	75	228
Utilization	(165)	(86)	(251)
Balance as of November 4, 2018	16	6	22
Liabilities assumed from CA	29	38	67
Restructuring charges	586	160	746
Utilization	(562)	(165)	(727)
Balance as of November 3, 2019 (b)	$ 69	$ 39	$ 108

(a) Included $2 million and $5 million of restructuring charges related to discontinued operations recognized during fiscal years 2018 and 2017, respectively, which was included in loss from discontinued operations in our consolidated statements of operations.

(b) The majority of the employee termination costs balance is expected to be paid within the first half of fiscal year 2020. The majority of the leases and other exit costs balance is expected to be paid through the fiscal year ending November 2, 2025.

Impairment and Disposal Charges

During fiscal year 2019, impairment and disposal charges of $67 million primarily related to property, plant and equipment. During fiscal year 2018, impairment and disposal charges of $13 million primarily related to leasehold improvements. During fiscal year 2017, impairment and disposal charges of $56 million related to property, plant and equipment and IPR&D projects acquired in the BRCM acquisition.

15. Condensed Consolidating Financial Information

As of November 4, 2018, the 2017 Senior Notes were fully and unconditionally guaranteed, jointly and severally, on an unsecured, unsubordinated basis by Broadcom and Broadcom-Singapore. Substantially all of the 2017 Senior Notes have been registered with the SEC. During fiscal year 2019, we liquidated Broadcom-Singapore and de-registered the Partnership. BTI, a 100%-owned subsidiary of Broadcom, became a guarantor of the 2017 Senior Notes and entered into supplemental indentures with BRCM, Cayman Finance and the trustee of the 2017 Senior Notes. As a result, Broadcom-Singapore was released from its guarantee of the 2017 Senior Notes as Subsidiary Guarantor under each of their respective indentures in accordance with their terms. On May 15, 2019, Cayman Finance was merged into BTI, with BTI remaining as the surviving entity. In connection with this merger, BTI remains a guarantor and became a co-issuer of the 2017 Senior Notes.

Accordingly, we updated the guarantor structure, which resulted in the following revised column headings:

- Parent Guarantor (Broadcom)
- Subsidiary Issuers (BTI and BRCM)
- Non-Guarantor Subsidiaries (our other subsidiaries)

We have applied the impacts of the change in guarantors and issuers retrospectively to all periods presented.

The following tables set forth the condensed consolidating financial information for the Parent Guarantor, the Subsidiary Issuers, and the Non-Guarantor Subsidiaries for the periods presented. Investments in subsidiaries are accounted for under the equity method; accordingly, entries necessary to consolidate the Parent Guarantor, the Subsidiary Issuers and the Non-Guarantor Subsidiaries are reflected in the Eliminations column. In the opinion of management, separate complete financial statements of the Subsidiary Issuers would not provide additional material information that would be useful in assessing their financial composition.

	Condensed Consolidating Balance Sheets				
	November 3, 2019				
	Parent Guarantor	Subsidiary Issuers	Non-Guarantor Subsidiaries	Eliminations	Consolidated Totals
	(In millions)				
ASSETS					
Current assets:					
Cash and cash equivalents	$ 374	$ 613	$ 4,068	$ —	$ 5,055
Trade accounts receivable, net	—	—	3,259	—	3,259
Inventory	—	—	874	—	874
Intercompany receivable	59	439	35	(533)	—
Intercompany loan receivable	—	10,576	9,188	(19,764)	—
Other current assets	58	37	634	—	729
Total current assets	491	11,665	18,058	(20,297)	9,917
Long-term assets:					
Property, plant and equipment, net	—	759	1,806	—	2,565
Goodwill	—	1,360	35,354	—	36,714
Intangible assets, net	—	76	17,478	—	17,554
Investment in subsidiaries	51,558	45,981	—	(97,539)	—
Intercompany loan receivable, long-term	—	—	932	(932)	—
Other long-term assets	25	95	623	—	743
Total assets	$ 52,074	$ 59,936	$ 74,251	$ (118,768)	$ 67,493
LIABILITIES AND EQUITY					
Current liabilities:					
Accounts payable	$ 24	$ 38	$ 793	$ —	$ 855
Employee compensation and benefits	—	179	462	—	641
Current portion of long-term debt	—	2,750	37	—	2,787
Intercompany payable	32	4	497	(533)	—
Intercompany loan payable	13,709	4,935	1,120	(19,764)	—
Other current liabilities	25	186	2,405	—	2,616
Total current liabilities	13,790	8,092	5,314	(20,297)	6,899
Long-term liabilities:					
Long-term debt	13,440	14,731	1,840	—	30,011
Deferred tax liabilities	(126) (a)	(295) (a)	1,952	—	1,531
Intercompany loan payable, long-term	—	932	—	(932)	—
Unrecognized tax benefits	—	2,422	847	—	3,269
Other long-term liabilities	—	107	706	—	813
Total liabilities	27,104	25,989	10,659	(21,229)	42,523
Preferred stock dividend obligation	29	—	—	—	29
Total stockholders' equity	24,941	33,947	63,592	(97,539)	24,941
Total liabilities and equity	$ 52,074	$ 59,936	$ 74,251	$ (118,768)	$ 67,493

(a) Amount represents net deferred tax assets that are offset by net deferred tax liabilities on a consolidated basis.

	Condensed Consolidating Balance Sheets				
	November 4, 2018				
	Parent Guarantor	Subsidiary Issuers	Non-Guarantor Subsidiaries	Eliminations	Consolidated Totals
	(In millions)				
ASSETS					
Current assets:					
Cash and cash equivalents	$ —	$ 2,461	$ 1,831	$ —	$ 4,292
Trade accounts receivable, net	—	—	3,325	—	3,325
Inventory	—	—	1,124	—	1,124
Intercompany receivable	56	182	67	(305)	—
Intercompany loan receivable	—	9,780	4,713	(14,493)	—
Other current assets	52	37	277	—	366
Total current assets	108	12,460	11,337	(14,798)	9,107
Long-term assets:					
Property, plant and equipment, net	—	772	1,863	—	2,635
Goodwill	—	1,360	25,553	—	26,913
Intangible assets, net	—	84	10,678	—	10,762
Investment in subsidiaries	35,268	46,742	—	(82,010)	—
Intercompany loan receivable, long-term	—	—	991	(991)	—
Other long-term assets	—	250	457	—	707
Total assets	$ 35,376	$ 61,668	$ 50,879	$ (97,799)	$ 50,124
LIABILITIES AND EQUITY					
Current liabilities:					
Accounts payable	$ 19	$ 44	$ 748	$ —	$ 811
Employee compensation and benefits	—	272	443	—	715
Intercompany payable	9	58	238	(305)	—
Intercompany loan payable	8,691	4,713	1,089	(14,493)	—
Other current liabilities	—	219	593	—	812
Total current liabilities	8,719	5,306	3,111	(14,798)	2,338
Long-term liabilities:					
Long-term debt	—	17,456	37	—	17,493
Deferred tax liabilities	—	(47) (a)	216	—	169
Intercompany loan payable, long-term	—	991	—	(991)	—
Unrecognized tax benefits	—	2,563	525	—	3,088
Other long-term liabilities	—	131	248	—	379
Total liabilities	8,719	26,400	4,137	(15,789)	23,467
Total stockholders' equity	26,657	35,268	46,742	(82,010)	26,657
Total liabilities and equity	$ 35,376	$ 61,668	$ 50,879	$ (97,799)	$ 50,124

(a) Amount represents net deferred tax assets that are offset by net deferred tax liabilities on a consolidated basis.

Condensed Consolidating Statements of Operations and Comprehensive Income					
	Fiscal Year Ended				
	November 3, 2019				
	Parent Guarantor	Subsidiary Issuers	Non-Guarantor Subsidiaries	Eliminations	Consolidated Totals
	(In millions)				
Net revenue:					
Products	$ —	$ —	$ 18,117	$ —	$ 18,117
Subscriptions and services	—	—	4,480	—	4,480
Intercompany revenue	—	1,573	—	(1,573)	—
Total net revenue	—	1,573	22,597	(1,573)	22,597
Cost of revenue:					
Cost of products sold	—	138	6,070	—	6,208
Cost of subscriptions and services	—	15	500	—	515
Intercompany cost of products sold	—	—	122	(122)	—
Amortization of acquisition-related intangible assets	—	—	3,314	—	3,314
Restructuring charges	—	(7)	84	—	77
Total cost of revenue	—	146	10,090	(122)	10,114
Gross margin	—	1,427	12,507	(1,451)	12,483
Research and development	—	1,885	2,811	—	4,696
Intercompany operating expense	—	—	1,451	(1,451)	—
Selling, general and administrative	129	324	1,256	—	1,709
Amortization of acquisition-related intangible assets	—	—	1,898	—	1,898
Restructuring, impairment and disposal charges	—	17	719	—	736
Total operating expenses	129	2,226	8,135	(1,451)	9,039
Operating income (loss)	(129)	(799)	4,372	—	3,444
Interest expense	(753)	(591)	(100)	—	(1,444)
Intercompany interest expense	(369)	(162)	(35)	566	—
Other income, net	3	25	198	—	226
Intercompany interest income	—	308	258	(566)	—
Intercompany other income (expense), net	893	—	(893)	—	—
Income (loss) from continuing operations before income taxes and earnings in subsidiaries	(355)	(1,219)	3,800	—	2,226
Provision for (benefit from) income taxes	(277)	136	(369)	—	(510)
Income (loss) from continuing operations before earnings in subsidiaries	(78)	(1,355)	4,169	—	2,736
Earnings in subsidiaries	2,802	5,299	—	(8,101)	—
Income from continuing operations and earnings in subsidiaries	2,724	3,944	4,169	(8,101)	2,736
Loss from discontinued operations, net of income taxes	—	—	(12)	—	(12)
Net income	$ 2,724	$ 3,944	$ 4,157	$ (8,101)	$ 2,724
Net income	$ 2,724	$ 3,944	$ 4,157	$ (8,101)	$ 2,724
Other comprehensive loss, net of tax:					
Change in actuarial loss and prior service costs associated with defined benefit pension plans and post-retirement benefit plans	—	—	(24)	—	(24)
Other comprehensive loss	—	—	(24)	—	(24)
Comprehensive income	$ 2,724	$ 3,944	$ 4,133	$ (8,101)	$ 2,700

	Condensed Consolidating Statements of Operations and Comprehensive Income				
	Fiscal Year Ended				
	November 4, 2018				
	Parent Guarantor	Subsidiary Issuers	Non-Guarantor Subsidiaries	Eliminations	Consolidated Totals
	(In millions)				
Net revenue:					
Products	$ —	$ —	$ 19,754	$ —	$ 19,754
Subscriptions and services	—	—	1,094	—	1,094
Intercompany revenue	—	1,924	—	(1,924)	—
Total net revenue	—	1,924	20,848	(1,924)	20,848
Cost of revenue:					
Cost of products sold	—	120	6,804	—	6,924
Cost of subscriptions and services	—	12	85	—	97
Intercompany cost of products sold	—	—	126	(126)	—
Purchase accounting effect on inventory	—	—	70	—	70
Amortization of acquisition-related intangible assets	—	—	3,004	—	3,004
Restructuring charges	—	1	19	—	20
Total cost of revenue	—	133	10,108	(126)	10,115
Gross margin	—	1,791	10,740	(1,798)	10,733
Research and development	—	1,651	2,117	—	3,768
Intercompany operating expense	—	—	1,798	(1,798)	—
Selling, general and administrative	31	297	728	—	1,056
Amortization of acquisition-related intangible assets	—	—	541	—	541
Restructuring, impairment and disposal charges	—	53	166	—	219
Litigation settlements	—	14	—	—	14
Total operating expenses	31	2,015	5,350	(1,798)	5,598
Operating income (loss)	(31)	(224)	5,390	—	5,135
Interest expense	—	(626)	(2)	—	(628)
Intercompany interest expense	(67)	(199)	(1,449)	1,715	—
Impairment on investment	—	—	(106)	—	(106)
Other income, net	—	88	56	—	144
Intercompany interest income	—	1,516	199	(1,715)	—
Intercompany other income (expense), net	111	(56)	(55)	—	—
Income from continuing operations before income taxes and earnings in subsidiaries	13	499	4,033	—	4,545
Provision for (benefit from) income taxes	44	(7,878)	(250)	—	(8,084)
Income (loss) from continuing operations before earnings in subsidiaries	(31)	8,377	4,283	—	12,629
Earnings in subsidiaries	12,290	4,266	—	(16,556)	—
Income from continuing operations and earnings in subsidiaries	12,259	12,643	4,283	(16,556)	12,629
Loss from discontinued operations, net of income taxes	—	(2)	(17)	—	(19)
Net income	12,259	12,641	4,266	(16,556)	12,610
Net income attributable to noncontrolling interest	—	351	—	—	351
Net income attributable to common stock	$ 12,259	$ 12,290	$ 4,266	$ (16,556)	$ 12,259
Net income	$ 12,259	$ 12,641	$ 4,266	$ (16,556)	$ 12,610
Other comprehensive loss, net of tax:					
Change in actuarial loss and prior service costs associated with defined benefit pension plans and post-retirement benefit plans	—	—	(8)	—	(8)
Other comprehensive loss	—	—	(8)	—	(8)
Comprehensive income	12,259	12,641	4,258	(16,556)	12,602
Comprehensive income attributable to noncontrolling interest	—	351	—	—	351
Comprehensive income attributable to Broadcom Inc. stockholders	$ 12,259	$ 12,290	$ 4,258	$ (16,556)	$ 12,251

	Condensed Consolidating Statements of Operations and Comprehensive Income				
	Fiscal Year Ended				
	October 29, 2017				
	Parent Guarantor	Subsidiary Issuers	Non-Guarantor Subsidiaries	Eliminations	Consolidated Totals
	(In millions)				
Net revenue:					
Products	$ —	$ 71	$ 16,962	$ —	$ 17,033
Subscriptions and services	—	2	601	—	603
Intercompany revenue	—	2,046	8	(2,054)	—
Total net revenue	—	2,119	17,571	(2,054)	17,636
Cost of revenue:					
Cost of products sold	—	142	6,407	—	6,549
Cost of subscriptions and services	—	12	32	—	44
Intercompany cost of products sold	—	(12)	174	(162)	—
Purchase accounting effect on inventory	—	—	4	—	4
Amortization of acquisition-related intangible assets	—	7	2,504	—	2,511
Restructuring charges	—	5	14	—	19
Total cost of revenue	—	154	9,135	(162)	9,127
Gross margin	—	1,965	8,436	(1,892)	8,509
Research and development	—	1,490	1,812	—	3,302
Intercompany operating expense	—	(66)	1,958	(1,892)	—
Selling, general and administrative	—	339	450	—	789
Amortization of acquisition-related intangible assets	—	7	1,757	—	1,764
Restructuring, impairment and disposal charges	—	54	107	—	161
Litigation settlements	—	—	122	—	122
Total operating expenses	—	1,824	6,206	(1,892)	6,138
Operating income	—	141	2,230	—	2,371
Interest expense	—	(411)	(43)	—	(454)
Intercompany interest expense	—	(274)	(1,425)	1,699	—
Loss on extinguishment of debt	—	(59)	(107)	—	(166)
Other income, net	—	30	44	—	74
Intercompany interest income	—	1,425	274	(1,699)	—
Intercompany other income (expense), net	—	(589)	589	—	—
Income from continuing operations before income taxes and earnings in subsidiaries	—	263	1,562	—	1,825
Provision for (benefit from) income taxes	—	67	(32)	—	35
Income from continuing operations before earnings in subsidiaries	—	196	1,594	—	1,790
Earnings in subsidiaries	1,692	1,601	—	(3,293)	—
Income from continuing operations and earnings in subsidiaries	1,692	1,797	1,594	(3,293)	1,790
Income (loss) from discontinued operations, net of income taxes	—	(13)	7	—	(6)
Net income	1,692	1,784	1,601	(3,293)	1,784
Net income attributable to noncontrolling interest	—	92	—	—	92
Net income attributable to common stock	$ 1,692	$ 1,692	$ 1,601	$ (3,293)	$ 1,692
Net income	$ 1,692	$ 1,784	$ 1,601	$ (3,293)	$ 1,784
Other comprehensive income, net of tax:					
Change in actuarial loss and prior service costs associated with defined benefit pension plans and post-retirement benefit plans	—	—	43	—	43
Other comprehensive income	—	—	43	—	43
Comprehensive income	1,692	1,784	1,644	(3,293)	1,827
Comprehensive income attributable to noncontrolling interest	—	92	—	—	92
Comprehensive income attributable to Broadcom Inc. stockholders	$ 1,692	$ 1,692	$ 1,644	$ (3,293)	$ 1,735

	Condensed Consolidating Statements of Cash Flows				
	Fiscal Year Ended				
	November 3, 2019				
	Parent Guarantor	Subsidiary Issuers	Non-Guarantor Subsidiaries	Eliminations	Consolidated Totals
	(In millions)				
Cash flows from operating activities:					
Net income	$ 2,724	$ 3,944	$ 4,157	$ (8,101)	$ 2,724
Adjustments to reconcile net income to net cash provided by (used in) operating activities	(3,264)	(4,571)	6,707	8,101	6,973
Net cash provided by (used in) operating activities	(540)	(627)	10,864	—	9,697
Cash flows from investing activities:					
Net change in intercompany loans	1,375	(796)	(9,210)	8,631	—
Acquisitions of businesses, net of cash acquired	(17,865)	—	1,832	—	(16,033)
Proceeds from sales of businesses	—	—	957	—	957
Purchases of property, plant and equipment	—	(165)	(297)	30	(432)
Proceeds from disposals of property, plant and equipment	—	30	88	(30)	88
Purchases of investments	(5)	—	—	—	(5)
Proceeds from sales of investments	—	—	5	—	5
Other	—	—	(2)	—	(2)
Net cash used in investing activities	(16,495)	(931)	(6,627)	8,631	(15,422)
Cash flows from financing activities:					
Net intercompany borrowings	9,818	156	(1,343)	(8,631)	—
Proceeds from long-term borrowings	28,793	—	—	—	28,793
Repayment of debt	(16,400)	—	(400)	—	(16,800)
Other borrowings	986	—	255	—	1,241
Dividend and distribution payments on common stock and exchangeable limited partnership units	(4,235)	—	—	—	(4,235)
Repurchases of common stock - repurchase program	(5,435)	—	—	—	(5,435)
Shares repurchased for tax withholdings on vesting of equity awards	—	(446)	(526)	—	(972)
Issuance of preferred stock, net	3,679	—	—	—	3,679
Issuance of common stock	253	—	—	—	253
Other	(50)	—	14	—	(36)
Net cash provided by (used in) financing activities	17,409	(290)	(2,000)	(8,631)	6,488
Net change in cash and cash equivalents	374	(1,848)	2,237	—	763
Cash and cash equivalents at beginning of period	—	2,461	1,831	—	4,292
Cash and cash equivalents at end of period	$ 374	$ 613	$ 4,068	$ —	$ 5,055

	Condensed Consolidating Statements of Cash Flows				
	Fiscal Year Ended				
	November 4, 2018				
	Parent Guarantor	Subsidiary Issuers	Non-Guarantor Subsidiaries	Eliminations	Consolidated Totals
	(In millions)				
Cash flows from operating activities:					
Net income	$ 12,259	$ 12,641	$ 4,266	$ (16,556)	$ 12,610
Adjustments to reconcile net income to net cash provided by (used in) operating activities	(12,323)	(12,893)	4,701	16,785	(3,730)
Net cash provided by (used in) operating activities	(64)	(252)	8,967	229	8,880
Cash flows from investing activities:					
Intercompany contributions paid	—	(9,099)	(3,002)	12,101	—
Distributions received from subsidiaries	—	—	1,521	(1,521)	—
Net change in intercompany loans	—	2,637	(261)	(2,376)	—
Acquisitions of businesses, net of cash acquired	—	—	(4,800)	—	(4,800)
Proceeds from sales of businesses	—	—	773	—	773
Purchases of property, plant and equipment	—	(196)	(497)	58	(635)
Proceeds from disposals of property, plant and equipment	—	55	242	(58)	239
Purchases of investments	—	(50)	(199)	—	(249)
Proceeds from sales of investments	—	54	—	—	54
Other	—	(50)	(6)	—	(56)
Net cash used in investing activities	—	(6,649)	(6,229)	8,204	(4,674)
Cash flows from financing activities:					
Intercompany contributions received	—	3,231	9,099	(12,330)	—
Net intercompany borrowings	8,690	261	(11,327)	2,376	—
Repayment of debt	—	(117)	(856)	—	(973)
Dividend and distribution payments on common stock and exchangeable limited partnership units	(1,477)	(1,521)	(1,521)	1,521	(2,998)
Repurchases of common stock - repurchase program	(7,258)	—	—	—	(7,258)
Shares repurchased for tax withholdings on vesting of equity awards	—	(20)	(36)	—	(56)
Issuance of common stock	109	—	103	—	212
Other	—	(27)	(18)	—	(45)
Net cash provided by (used in) financing activities	64	1,807	(4,556)	(8,433)	(11,118)
Net change in cash and cash equivalents	—	(5,094)	(1,818)	—	(6,912)
Cash and cash equivalents at the beginning of period	—	7,555	3,649	—	11,204
Cash and cash equivalents at end of period	$ —	$ 2,461	$ 1,831	$ —	$ 4,292

	Condensed Consolidating Statements of Cash Flows				
	Fiscal Year Ended				
	October 29, 2017				
	Parent Guarantor	Subsidiary Issuers	Non-Guarantor Subsidiaries	Eliminations	Consolidated Totals
	(in millions)				
Cash flows from operating activities:					
Net income	$ 1,692	$ 1,784	$ 1,601	$ (3,293)	$ 1,784
Adjustments to reconcile net income to net cash provided by operating activities	(1,692)	924	2,077	3,458	4,767
Net cash provided by operating activities	—	2,708	3,678	165	6,551
Cash flows from investing activities:					
Intercompany contributions paid	—	—	(40)	40	—
Distributions received from subsidiaries	—	—	1,834	(1,834)	—
Net change in intercompany loans	—	(286)	5,835	(5,549)	—
Acquisitions of businesses, net of cash acquired	—	—	(40)	—	(40)
Proceeds from sales of businesses	—	—	10	—	10
Purchases of property, plant and equipment	—	(254)	(841)	26	(1,069)
Proceeds from disposals of property, plant and equipment	—	25	442	(26)	441
Purchases of investments	—	(200)	(7)	—	(207)
Proceeds from maturities of investments	—	200	—	—	200
Other	—	—	(9)	—	(9)
Net cash provided by (used in) investing activities	—	(515)	7,184	(7,343)	(674)
Cash flows from financing activities:					
Intercompany contributions received	—	205	—	(205)	—
Net intercompany borrowings	—	(5,797)	248	5,549	—
Proceeds from long-term borrowings	—	17,426	—	—	17,426
Repayment of debt	—	(5,704)	(7,964)	—	(13,668)
Dividend and distribution payments on common stock and exchangeable limited partnership units	—	(1,834)	(1,745)	1,834	(1,745)
Issuance of common stock	—	—	257	—	257
Other	—	(26)	(14)	—	(40)
Net cash provided by (used in) financing activities	—	4,270	(9,218)	7,178	2,230
Net change in cash and cash equivalents	—	6,463	1,644	—	8,107
Cash and cash equivalents at beginning of period	—	1,092	2,005	—	3,097
Cash and cash equivalents at end of period	$ —	$ 7,555	$ 3,649	$ —	$ 11,204

16. Subsequent Events

Acquisition of Symantec Corporation's Enterprise Security Business

On November 4, 2019, we completed the purchase and assumption of certain assets and certain liabilities, respectively, of Symantec Corporation's Enterprise Security business for approximately $10.7 billion in cash (the "Symantec Asset Purchase").

We expect to account for the Symantec Asset Purchase as a business combination and are currently evaluating the purchase price allocation. It is not practicable to disclose the preliminary purchase price allocation or unaudited pro forma combined financial information for this transaction, given the short period of time between the acquisition date and the issuance of these consolidated financial statements.

2020 Term Loans

In connection with the Symantec Asset Purchase, we entered into a credit agreement (the “2020 Credit Agreement”), which provides for a $7,750 million unsecured term A-3 facility due November 2022 and a $7,750 million unsecured term A-5 facility due November 2024, collectively referred to as the “2020 Term Loans”. The 2020 Credit Agreement has substantially the same representations and warranties, covenants and events of default as the 2019 Credit Agreement. On November 4, 2019, we used $12 billion of the net proceeds from the 2020 Term Loans to fund the Symantec Asset Purchase and related working capital needs. On December 2, 2019, we refinanced our 5.375% notes due December 2019 using $750 million of net proceeds from the 2020 Term Loans. The remaining net proceeds from the 2020 Term Loans of $2,750 million are available to refinance our 2.375% notes due January 2020.

Principal payments of 2.50% of the original aggregate principal amount borrowed on our 2020 Term Loans are due quarterly beginning in March 2020 with the remaining principal due upon the respective maturity dates of our 2020 Term Loans. Interest on our 2020 Term Loans is based on a floating rate and is payable monthly. Our obligations under the 2020 Credit Agreement are guaranteed on an unsecured basis by our subsidiaries, BRCM and BTI.

Preferred Stock Cash Dividends Declared

On December 10, 2019, our Board of Directors declared a quarterly cash dividend of $20.00 per share on our Mandatory Convertible Preferred Stock, payable on December 31, 2019 to stockholders of record on December 15, 2019.

Common Stock Cash Dividends Declared

On December 10, 2019, our Board of Directors declared a quarterly cash dividend of $3.25 per share on our common stock, payable on December 31, 2019 to stockholders of record on December 23, 2019.

Supplementary Financial Data — Quarterly Data (Unaudited)

	Fiscal Quarter Ended							
	November 3, 2019 (1)	August 4, 2019 (2)	May 5, 2019 (3)	February 3, 2019 (4)	November 4, 2018 (5)	August 5, 2018 (6)	May 6, 2018 (7)	February 4, 2018 (8)
	(In millions, except per share data)							
Total net revenue (9)	$ 5,776	$ 5,515	$ 5,517	$ 5,789	$ 5,444	$ 5,063	$ 5,014	$ 5,327
Gross margin	$ 3,152	$ 3,034	$ 3,089	$ 3,208	$ 2,935	$ 2,619	$ 2,551	$ 2,628
Operating income	$ 1,054	$ 865	$ 970	$ 555	$ 1,652	$ 1,339	$ 1,201	$ 943
Income from continuing operations	$ 847	$ 715	$ 693	$ 481	$ 1,115	$ 1,197	$ 3,736	$ 6,581
Loss from discontinued operations, net of income taxes	—	—	(2)	(10)	—	(1)	(3)	(15)
Net income	847	715	691	471	1,115	1,196	3,733	6,566
Dividends on preferred stock	29	—	—	—	—	—	—	—
Net income attributable to noncontrolling interest	—	—	—	—	—	—	15	336
Net income attributable to common stock	$ 818	$ 715	$ 691	$ 471	$ 1,115	$ 1,196	$ 3,718	$ 6,230
Diluted income per share attributable to common stock:								
Income per share from continuing operations	$ 1.97	$ 1.71	$ 1.64	$ 1.15	$ 2.64	$ 2.71	$ 8.34	$ 14.66
Loss per share from discontinued operations	—	—	—	(0.03)	—	—	(0.01)	(0.04)
Net income per share	$ 1.97	$ 1.71	$ 1.64	$ 1.12	$ 2.64	$ 2.71	$ 8.33	$ 14.62
Dividends declared and paid per share	$ 2.65	$ 2.65	$ 2.65	$ 2.65	$ 1.75	$ 1.75	$ 1.75	$ 1.75
Dividends declared and paid per share-full year	$ 10.60				$ 7.00			

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(1) Includes amortization of acquisition-related intangible assets of $1,301 million.
(2) Includes amortization of acquisition-related intangible assets of $1,303 million.
(3) Includes amortization of acquisition-related intangible assets of $1,299 million.
(4) Includes the results of CA beginning with the fiscal quarter ended February 3, 2019 in connection with the completion of the CA Merger on November 5, 2018. Also includes amortization of acquisition-related intangible assets of $1,309 million and restructuring, impairment and disposal charges of $629 million.
(5) Includes amortization of acquisition-related intangible assets of $829 million and impairment on investment of $106 million.
(6) Includes amortization of acquisition-related intangible assets of $830 million.
(7) Includes amortization of acquisition-related intangible assets of $832 million.
(8) Includes the results of Brocade beginning with the fiscal quarter ended February 4, 2018 in connection with the completion of the Brocade Merger on November 17, 2017. Also includes amortization of acquisition-related intangible assets of $1,054 million, a purchase accounting effect on inventory charge of $70 million and restructuring, impairment and disposal charges of $145 million.
(9) At the beginning of fiscal year 2019, we adopted Topic 606. Periods prior to fiscal year 2019 are presented in accordance with Accounting Standards Codification 605, Revenue Recognition. Refer to Note 3. "Revenue from Contracts with Customers" included in Part II, Item 8. for additional information on our adoption of Topic 606.

Schedule II — Valuation and Qualifying Accounts

	Balance at Beginning of Period	Additions to Allowances	Charges Utilized/ Write-offs	Balance at End of Period
	(In millions)			
Accounts receivable allowances:				
Distributor credit allowances (1)				
Fiscal year ended November 3, 2019	$ 151	$ 705	$ (703)	$ 153
Fiscal year ended November 4, 2018	$ 177	$ 882	$ (908)	$ 151
Fiscal year ended October 29, 2017	$ 252	$ 1,176	$ (1,251)	$ 177
Other accounts receivable allowances (2)				
Fiscal year ended November 3, 2019	$ 12	$ 99	$ (73)	$ 38
Fiscal year ended November 4, 2018	$ 31	$ 116	$ (135)	$ 12
Fiscal year ended October 29, 2017	$ 40	$ 49	$ (58)	$ 31
Income tax valuation allowances				
Fiscal year ended November 3, 2019	$ 1,347	$ 283	$ (68)	$ 1,562
Fiscal year ended November 4, 2018	$ 1,447	$ 314	$ (414)	$ 1,347
Fiscal year ended October 29, 2017	$ 1,003	$ 460	$ (16)	$ 1,447

(1) Distributor credit allowances relate to price adjustments and other allowances.

(2) Other accounts receivable allowances primarily include sales returns and allowance for doubtful accounts.