ADVANCED MICRO DEVICES INC
Form 10-K
February 21, 2017

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

FORM 10-K

(Mark One)
ý ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.
For the fiscal year ended December 31, 2016
OR
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.
For the transition period from to
Commission File Number 001-07882

ADVANCED MICRO DEVICES, INC.
(Exact name of registrant as specified in its charter)

Delaware	94-1692300
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
One AMD Place, Sunnyvale, California	94085
(Address of principal executive offices)	(Zip Code)

(408) 749-4000
(Registrant’s telephone number, including area code)

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

(Title of each class)	(Name of each exchange on which registered)
Common Stock $0.01 par value per share	The NASDAQ Capital Market

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ý No ¨
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ¨ No ý
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ý No ¨
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files): Yes ý No ¨

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

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

Large accelerated filer ý	Accelerated filer ¨
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company ¨

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

As of June 25, 2016, the aggregate market value of the registrant’s common stock held by non-affiliates of the registrant was approximately $3.9 billion based on the reported closing sale price of $4.88 per share as reported on The NASDAQ Capital Market (NASDAQ) on June 24, 2016, which was the last business day of the registrant’s most recently completed second fiscal quarter.

Indicate the number of shares outstanding of each of the registrant’s classes of common stock, as of the latest practicable date: 940,758,118 shares of common stock, $0.01 par value per share, as of February 10, 2017.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant’s proxy statement for the 2017 Annual Meeting of Stockholders (2017 Proxy Statement) are incorporated into Part III hereof. The 2017 Proxy Statement will be filed with the U.S. Securities and Exchange Commission within 120 days after the registrant’s fiscal year ended December 31, 2016.

Advanced Micro Devices, Inc.
FORM 10-K
For The Fiscal Year Ended December 31, 2016
INDEX

PART I

ITEM 1. BUSINESS

Cautionary Statement Regarding Forward-Looking Statements

The statements in this report include forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current expectations and beliefs and involve numerous risks and uncertainties that could cause actual results to differ materially from expectations. These forward-looking statements speak only as of the date hereof or as of the dates indicated in the statements and should not be relied upon as predictions of future events, as we cannot assure you that the events or circumstances reflected in these statements will be achieved or will occur. You can identify forward-looking statements by the use of forward-looking terminology including "believes," "expects," "may," "will," "should," "seeks," "intends," "plans," "pro forma "estimates," "anticipates," or the negative of these words and phrases, other variations of these words and phrases or comparable terminology. The forward-looking statements relate to, among other things: demand for AMD's products; the growth, change and competitive landscape of the markets in which AMD participates; future restructuring activities; the nature and extent of AMD's future payments to GLOBALFOUNDRIES Inc. (GF) and the materiality of these payments; the materiality of AMD's future purchases from GF; Santa Clara lease commencement date; future patent filings; the level of international sales as compared to total sales; its dependence on a small number of customers for a substantial part of its revenue; receipt of license fees relating to the joint ventures between AMD and Tianjin Haiguang Advanced Technology Investment Co., Ltd. (THATIC) (the THATIC JV); expected royalties of future products from the THATIC JV; AMD's expected completion of its restructuring plan implemented in the third quarter of 2015 (the 2015 Restructuring Plan); AMD's expectation that based on the information presently known to management, the securities class action, the shareholder derivative suit and the patent lawsuit will not have a material adverse effect on its financial condition, cash flows or results of operations; that AMD's cash and cash equivalents and marketable securities balances, the savings from its restructuring plans and the secured revolving line of credit (Secured Revolving Line of Credit) will be sufficient to fund AMD's operations including capital expenditures over the next 12 months; AMD's ability to obtain sufficient external financing on favorable terms, or at all; the monitoring of its exposure to interest rate risks; its hedging strategy; its expenditures related to environmental compliance and conflict minerals disclosure requirements; and AMD does not expect to pay dividends in the future. Material factors that could cause actual results to differ materially from current expectations include, without limitation, the following: Intel Corporation's dominance of the microprocessor market and its aggressive business practices may limit AMD's ability to compete effectively; AMD has a wafer supply agreement with GF with obligations to purchase all of our microprocessor and APU product requirements, and a certain portion of its GPU product requirements, from GF with limited exceptions. If GF is not able to satisfy AMD's manufacturing requirements, its business could be adversely impacted; AMD relies on third parties to manufacture its products, and if they are unable to do so on a timely basis in sufficient quantities and using competitive technologies, AMD's business could be materially adversely affected; failure to achieve expected manufacturing yields for AMD's products could negatively impact its financial results; the success of AMD's business is dependent upon its ability to introduce products on a timely basis with features and performance levels that provide value to its customers while supporting and coinciding with significant industry transitions; if AMD cannot generate sufficient revenue and operating cash flow or obtain external financing, it may face a cash shortfall and be unable to make all of its planned investments in research and development or other strategic investments; the loss of a significant customer may have a material adverse effect on AMD; AMD's receipt of revenue from its semi-custom SoC products is dependent upon its technology being designed into third-party products and the success of those products; global economic uncertainty may adversely impact AMD's business and operating results; the markets in which AMD's products are sold are highly competitive; AMD may not be able to generate sufficient cash to service its debt obligations or meet its working capital requirements; AMD has a substantial amount of indebtedness which could adversely affect its financial position and prevent it from implementing its strategy or fulfilling its contractual obligations; the agreements governing AMD's notes and the Secured Revolving Line of Credit impose restrictions on AMD that may adversely affect its ability to operate its business; uncertainties involving the ordering and shipment of AMD’s products could materially adversely affect it; the demand for AMD’s products depends in part on the market conditions in the industries into which they are sold. Fluctuations in demand for AMD’s products or a market decline in any of these industries could have a material adverse effect on its results of operations; AMD’s ability to design and introduce new products in a timely manner is dependent upon third-party intellectual property; AMD depends on third-party companies for the design, manufacture and supply of motherboards, software and other computer platform components to support its business; if AMD loses Microsoft Corporation’s support for its products or other software vendors do not design and develop software to run on AMD’s products, its ability to sell its products could be materially adversely affected; AMD’s reliance on third-party distributors and AIB partners subjects it to certain risks; AMD’s inability to continue to attract and retain qualified personnel may hinder its business; AMD's issuance to West Coast Hitech L.P. (WCH) of warrants to purchase 75 million shares of its common stock, if and when exercised, will dilute the ownership interests of our existing stockholders, and the conversion of the 2.125% Convertible Senior Notes due 2026 may dilute the ownership interest of its existing stockholders,

1

or may otherwise depress the price of our common stock; in the event of a change of control, AMD may not be able to repurchase its outstanding debt as required by the applicable indentures and its Secured Revolving Line of Credit, which would result in a default under the indentures and its Secured Revolving Line of Credit; the semiconductor industry is highly cyclical and has experienced severe downturns that have materially adversely affected, and may continue to materially adversely affect its business in the future; acquisitions, divestitures and/or joint ventures could disrupt its business, harm its financial condition and operating results or dilute, or adversely affect the price of, its common stock; AMD's business is dependent upon the proper functioning of its internal business processes and information systems and modification or interruption of such systems may disrupt its business, processes and internal controls; data breaches and cyber-attacks could compromise AMD's intellectual property or other sensitive information, be costly to remediate and cause significant damage to its business and reputation; AMD's operating results are subject to quarterly and seasonal sales patterns; if essential equipment, materials or manufacturing processes are not available to manufacture its products, AMD could be materially adversely affected; if AMD's products are not compatible with some or all industry-standard software and hardware, it could be materially adversely affected; costs related to defective products could have a material adverse effect on AMD; if AMD fails to maintain the efficiency of its supply chain as it responds to changes in customer demand for its products, its business could be materially adversely affected; AMD outsources to third parties certain supply-chain logistics functions, including portions of its product distribution, transportation management and information technology support services; the completion and impact of the 2015 Restructuring Plan, its transformation intiatives and any future restructuring actions could adversely affect AMD; AMD may incur future impairments of goodwill; AMD's stock price is subject to volatility; AMD's worldwide operations are subject to political, legal and economic risks and natural disasters, which could have a material adverse effect on it; worldwide political conditions may adversely affect demand for AMD's products; unfavorable currency exchange rate fluctuations could adversely affect AMD; AMD's inability to effectively control the sales of its products on the gray market could have a material adverse effect on it; if AMD cannot adequately protect its technology or other intellectual property in the United States and abroad, through patents, copyrights, trade secrets, trademarks and other measures, it may lose a competitive advantage and incur significant expenses; AMD is a party to litigation and may become a party to other claims or litigation that could cause it to incur substantial costs or pay substantial damages or prohibit it from selling its products; AMD's business is subject to potential tax liabilities; and AMD is subject to environmental laws, conflict minerals-related provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act as well as a variety of other laws or regulations that could result in additional costs and liabilities.

For a discussion of the factors that could cause actual results to differ materially from the forward-looking statements, see "Part I, Item 1A-Risk Factors" and the "Financial Condition" section set forth in "Part II, Item 7-Management's Discussion and Analysis of Financial Condition and Results of Operations," or MD&A, beginning on page 35 below and such other risks and uncertainties as set forth below in this report or detailed in our other Securities and Exchange Commission (SEC) reports and filings. We assume no obligation to update forward-looking statements.

General

We are a global semiconductor company primarily offering:

- x86 microprocessors, as standalone devices or as incorporated into an accelerated processing unit (APU), chipsets,
- discrete graphics processing units (GPUs) and professional graphics; and
- server and embedded processors and semi-custom System-on-Chip (SoC) products and technology for game consoles.

We also license portions of our intellectual property portfolio.

For financial information about geographic areas and for segment information with respect to revenues and operating results, refer to the information set forth in Note 13 of our consolidated financial statements, beginning on page 86 below.

We use a 52 or 53 week fiscal year ending on the last Saturday in December. The years ended December 31, 2016, December 26, 2015 and December 27, 2014 included 53 weeks, 52 weeks and 52 weeks, respectively. References in

this report to 2016, 2015 and 2014 refer to the fiscal year unless explicitly stated otherwise.
Additional Information
Advanced Micro Devices, Inc. (AMD) was incorporated under the laws of Delaware on May 1, 1969 and became a publicly held company in 1972. Our common stock is currently listed on The NASDAQ Capital Market (NASDAQ) under the symbol “AMD”. Our mailing address and executive offices are located at One AMD Place, Sunnyvale, California 94085, and our telephone number is (408) 749-4000. References in this Annual Report on Form 10-K to “AMD,” “we,” “us,” “management,” “our” or the “Company” mean Advanced Micro Devices, Inc. and our consolidated subsidiaries.
AMD, the AMD Arrow logo, Athlon, Opteron, Phenom, Sempron, Turion, FirePro, FreeSync-FX, LiquidVR, Radeon, Geode and combinations thereof are trademarks of Advanced Micro Devices, Inc. Microsoft, Windows, Direct X, Xbox360 and Xbox One are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other jurisdictions.

PlayStation is a registered trademark of Sony Computer Entertainment, Inc. Wii and Wii U are registered trademarks of Nintendo of America, Inc. ARM is a registered trademark of ARM Limited (or its subsidiaries) in the UK and other countries. Vulkan and the Vulkan logo are trademarks of Khronos Group, Inc.

Other names are for informational purposes only and are used to identify companies and products and may be trademarks of their respective owners.

Website Access to Our SEC Filings and Corporate Governance Documents

On the Investor Relations pages of our Website, http://ir.amd.com, we post links to our filings with the SEC, our Principles of Corporate Governance, our Code of Ethics for our executive officers and all other senior finance executives, our Worldwide Standards of Business Conduct, which applies to our Board of Directors and all of our employees, and the charters of the Audit and Finance, Compensation and Leadership Resources, Nominating and Corporate Governance and Innovation and Technology committees of our Board of Directors. Our filings with the SEC are posted as soon as reasonably practical after they are electronically filed with, or furnished to, the SEC. You can also obtain copies of these documents by writing to us at: Corporate Secretary, AMD, 7171 Southwest Parkway, M/S B100.2, Austin, Texas 78735, or emailing us at: Corporate.Secretary@amd.com. All of these documents and filings are available free of charge.

If we make substantive amendments to our Code of Ethics or grant any waiver, including any implicit waiver, to our principal executive officer, principal financial officer, principal accounting officer, controller or persons performing similar functions, we intend to disclose the nature of such amendment or waiver on our Website.

The information contained on our Website is not incorporated by reference in, or considered to be a part of, this report.

Our Industry

We are a global semiconductor company. Semiconductors are components used in a variety of electronic products and systems. An integrated circuit (IC) is a semiconductor device that consists of many interconnected transistors on a single chip. Since the invention of the transistor in 1948, improvements in IC process and design technologies have led to the development of smaller, more complex and more reliable ICs at a lower cost-per-function.

Computing and Graphics

The x86 Microprocessor and Chipset Markets

Central Processing Unit (CPU). A microprocessor is an IC that serves as the CPU of a computer. It generally consists of hundreds of millions or billions of transistors that process data in a serial fashion and control other devices in the system, acting as the “brain” of the computer. The performance of a microprocessor is a critical factor impacting the performance of computing and entertainment platforms, such as desktop PCs, notebooks and workstations. The principal elements used to measure CPU performance are work-per-cycle (or how many instructions are executed per cycle), clock speed (representing the rate at which a CPU’s internal logic operates, measured in units of gigahertz, or billions of cycles per second) and power consumption. Other factors impacting microprocessor performance include the process technology used in its manufacture, the number and type of cores, the bit size of its instruction set (e.g., 32-bit vs 16-bit), memory size and data access speed.

Developments in IC design and manufacturing process technologies have resulted in significant advances in microprocessor performance. Since businesses and consumers require greater performance from their computer systems due to the growth of digital data and increasingly sophisticated software applications, multi-core microprocessors offer enhanced overall system performance and efficiency because computing tasks can be spread across two or more processing cores, each of which can execute a task at full speed. Multi-core microprocessors can simultaneously increase performance of a computer system without greatly increasing the total amount of power consumed and the total amount of heat emitted. Businesses and consumers also require computer systems with improved power management technology, which helps them to reduce the power consumption of their computer systems, enables smaller and more portable form factors, and lowers the total cost of ownership.

Graphics Processing Unit (GPU). A GPU is a programmable logic chip that renders images, animations and video and is increasingly being used to handle general computing tasks. GPUs are located in plug-in cards, as a discrete processor or in a chipset on the motherboard, or in the same chip as the CPU as part of an accelerated processing unit (APU) or System on Chip (SoC). GPUs on stand-alone cards or discrete GPUs on the motherboard typically include

their own memory, while GPUs in the chipset or CPU chip share main memory with the CPU.
GPUs perform parallel operations on data to render images for the screen and are essential to presenting computer generated images on the screen, decoding and rendering animations and video. The more sophisticated the GPU, the higher

3

the resolution and the faster and smoother moving objects can be displayed on the screen or in a virtual environment (virtual and augmented realities).

In addition to graphics processing, the parallel operation of GPUs are used on multiple sets of data, increasingly used in vector processor for non-graphics applications that require repetitive computations such as supercomputing, deep neural networks, artificial and machine intelligence, and various embedded applications.

Accelerated Processing Unit (APU). Consumers increasingly demand computing devices with improved end-user experience, system performance and energy efficiency. Consumers also continue to demand thinner and lighter mobile devices, with better performance and longer battery life. We believe that a computing architecture that optimizes the use of its components can provide these improvements.

An APU is a processing unit that integrates a CPU and a GPU onto one chip (or one piece of silicon), along with, in some cases, other special-purpose components. This integration enhances system performance by “offloading” selected tasks to the best-suited component (i.e., the CPU or the GPU) to optimize component use, increasing the speed of data flow between the CPU and GPU through shared memory and allowing the GPU to function as both a graphics engine and an application accelerator. Having the CPU and GPU on the same chip also typically improves energy efficiency by, for example, eliminating connections between discrete chips.

Heterogeneous System Architecture (HSA) describes an industry standard that is an overarching design for having combinations of CPU and GPU processor cores that operate as a unified, integrated engine that shares system responsibilities and resources. AMD is a founding member of the HSA Foundation, a non-profit organization established to define and promote this open standards-based approach to heterogeneous computing. Heterogeneous computing allows for the elevation of the GPU to the same level of the CPU for memory access, queuing and execution. This capability allows software programmers to develop applications to more fully utilize graphics capabilities.

System-on-Chip (SoC). A SoC is a type of IC with a CPU, GPU and other components, such as a memory controller and peripheral management, comprising a complete computing system on a single chip. By combining all of these elements as a SoC, system performance and energy efficiency is improved, similar to an APU.

Chipset. A chipset is a generic term referring to a collection of system level components that manage data flow among a microprocessor or microprocessors, memory and peripherals (such as CD ROM drives, DVD drives and USB peripherals). Chipsets perform essential logic functions, balance a system’s performance and provide system control and power management functions. Some chipsets have graphics capabilities by including an integrated graphics processor (IGP) within the chipset. A chipset with an IGP is known as an IGP chipset. IGP chipsets can offer a lower cost, reduced power alternative to a discrete GPU, and are often also used in smaller form factors. Systems that are powered by an APU or by a CPU and discrete GPU combination often do not have a chipset and instead use an AMD Controller Hub chip to perform the functions of a chipset. As a result, we believe that either an APU and AMD Controller Hub chip combination or a SoC, which already includes a chipset, will eventually replace the market for IGP chipsets.

Our x86 Microprocessor and Chipset Products

Our microprocessors are incorporated into computing platforms, which are a collection of technologies that are designed to work together to provide a more complete computing solution and to enable and advance the computing components. We believe that integrated, balanced computing platforms consisting of microprocessors, chipsets (either as discrete devices or integrated into an SoC) and GPUs (either as discrete GPUs or integrated into an APU or SoC) that work together at the system level bring end users improved system stability, increased performance and enhanced power efficiency. In addition, we believe our customers also benefit from an all-AMD platform (consisting of an APU or CPU, a discrete GPU, and an AMD Fusion Controller Hub chip when needed), as we are able to optimize interoperability, provide our customers a single point of contact for the key platform components and enable them to bring the platforms to market faster in a variety of client and server system form factors.

We currently base our microprocessors and chipsets on the x86 instruction set architecture and AMD’s Direct Connect Architecture, which connects an on-chip memory controller and input/output (I/O) channels directly to one or more microprocessor cores. We typically integrate two or more processor cores onto a single die, and each core has its own dedicated cache, which is memory that is located on the semiconductor die, permitting quick access to frequently used data and instructions. Some of our microprocessors have additional levels of cache such as L2, or second-level cache, and L3, or third-level cache, to enable faster data access and higher performance.

We focus on continually improving the energy efficiency of our products through our design principles and innovations in power management technology. To that end, we offer CPUs, GPUs, APUs, SoCs and chipsets with multiple low power states that are designed to utilize lower clock speeds and voltages to reduce processor power consumption during active and idle times. The use of intelligent, dynamic power management is designed to create lower energy use by allowing compute applications to be completed quickly and efficiently, enabling a return to the ultra-low power idle state.

Desktop. Our APUs for desktop PCs consist primarily of the AMD A-Series and AMD E-Series APUs. We also offer AMD FX™ CPUs for the enthusiast market. The latest generation of our AMD FX CPUs is based on the “Piledriver” x86 multi-core architecture. Our AMD FX CPUs are designed for multitasking, high resolution gaming and HD media processing and come in eight-, six- and quad-core versions. In March 2016, we announced new additions to our desktop processor family with the AMD A10-7890K APU designed to help enable smooth play of online games and the AMD Athlon™ X4 880K APU that features our "Excavator" x86 architecture.

Notebooks and 2-in-1s. We continue to invest in designing and developing high performing and low power APUs for notebook PC platforms for the consumer market. Our APUs for notebook PCs consist primarily of AMD A-Series APUs and AMD E-Series APUs. These APUs combine discrete-level AMD Radeon™ graphics, and multi-core CPU processors on a single chip and are designed to optimize performance and energy efficiency. In May 2016, we announced our mobile 7th Generation A-Series processors, designed to provide productivity and entertainment performance with maximum mobility for consumers. These mobile 7th Generation AMD FX, A-Series and E-Series APUs are designed to deliver improvement in performance compared to the previous generation processors in gaming, video rendering and file compression performance.

Chipsets. Our portfolio of chipset products includes models with and without integrated graphics features for desktop and notebook PCs and servers, as well as AMD Controller Hub-based chipsets for our APUs. We offer AMD 9-Series chipsets for the Socket AM3/3+ platforms serving desktop PCs, and AMD A-Series Control Hubs for the Socket FM2/2+ and Socket FP4 platforms for desktop, all-in-one and notebook PCs. We also offer AMD 785E, 780E, 780M, 690E, SR5690, SP5100, SB600, SB710, SB850 and M690E chipsets and AMD A-Series Controller Hubs for our embedded products.

Commercial. We offer enterprise-class desktop and notebook PC solutions sold as AMD PRO for the commercial client market. AMD PRO solutions are designed to provide commercial-grade quality, platform longevity and extended image stability, and also include security and manageability features for enterprise customers. In October 2016, we announced the first PCs featuring 7th Generation AMD PRO APUs (formerly codenamed “Bristol Ridge PRO”). These AMD PRO APUs are built for businesses and designed to deliver increased computing and graphics performance and improved energy efficiency, while providing a secure and stable platform to protect customers’ IT investments.

Graphics Market

The semiconductor graphics market addresses the need for improved visual and data processing in various computing devices. Many consumers value a rich visual experience to enable a more compelling and immersive experience, and, for these consumers, the PC has evolved from a traditional data processing and communications device to an entertainment platform. As a result, visual realism and graphical display capabilities are key product differentiation elements among computing devices. This has led to increasing creation and use of processing-intensive multimedia content for computing devices, including playing games, capturing media content, viewing online videos, editing photos and managing digital content. In turn, these trends have contributed to higher consumer demand for performance graphics solutions and to manufacturers designing computing devices with these capabilities.

Our Graphics Products

Graphics processing is a fundamental component of almost everything we create and can be found in an APU, GPU, SoC or a combination of a GPU with one of the other foregoing products working in tandem. Our customers generally use our graphics solutions to increase the speed of rendering images, to help improve image resolution and color definition, and increasingly to process massive data sets for cloud and datacenter applications. We develop our graphics products for use in various computing devices and entertainment platforms, including desktop PCs, notebook PCs, 2-in-1s, All-in-Ones (AIOs), professional workstations, and the datacenter. With each of our graphics products, we have available drivers and supporting software packages that enable the effective use of these products under a variety of operating systems and applications. In addition, our recent Radeon Pro Software Crimson ReLive Edition now supports Linux®. The Linux version of this driver combines an open-source core and AMD Radeon Pro graphics' technologies and performance.

Our APUs deliver visual processing functionality for value and mainstream PCs by integrating a CPU and a GPU on a single chip, while discrete GPUs (which are also known as dGPUs) offer high performance graphics processing across all platforms. AMD Accelerated Parallel Processing or General Purpose GPU (GPGPU) refers to a set of advanced hardware and software technologies that enable discrete AMD GPUs, working in concert with the CPU, to accelerate computational tasks beyond traditional CPU processing by utilizing the vast number of discrete GPU cores while working with the CPU to process information cooperatively. In addition, computing devices with heterogeneous computing features run computationally-intensive tasks more efficiently, which we believe provides a superior application experience to the end user. Moreover, heterogeneous computing allows for the elevation of the GPU to the same level as the CPU for memory access, queuing and execution.

Discrete Desktop and Notebook Graphics. Our discrete GPUs for desktop and notebook PCs are designed to enable next generation application program interface (APIs) like DirectX® 12 and Vulkan™, support new displays using FreeSync™ technology, and are uniquely positioned to help drive the next visual revolution of virtual reality (VR) in PC platforms. In March 2016, we introduced the Radeon Pro Duo GPU with the LiquidVR™ SDK platform designed for many aspects of VR content creation: from entertainment to education, journalism, medicine and cinema. In June 2016, we launched our first GPU featuring our Polaris architecture, the Radeon™ RX 480 GPU. Our Polaris architecture features our latest 4th Generation Graphics Core Next (GCN), along with the latest display technology support and performance per watt capabilities, all based on a FinFET 14 process technology. In July 2016, we revealed our new Radeon Pro SSG GPU with the ability to expand GPU storage up to 1 terabyte (TB) and which is designed for media and entertainment professionals. We also announced our new Radeon Pro WX series GPUs, which are based on our Polaris architecture and are designed for workstation professionals and creators. In August 2016, we introduced the new Radeon RX 470, targeted at high definition (HD) resolutions for gamers. Also in August 2016, we released the new Radeon RX 460 graphics card with an ultra-quiet cooling solution and sub-75W power footprint for mainstream and e-sports gaming.

Professional Graphics. Our AMD FirePro™ family of professional graphics products consists of 3D and 2D multi-view graphics cards and GPUs designed for integration in mobile and desktop workstations, as well as commercial PCs. We designed our AMD FirePro 3D graphics cards for demanding applications, such as those found in the computer aided design (CAD) and digital content creation (DCC) markets, with drivers specifically tuned for maximum performance, stability and reliability across a wide range of software packages. We designed our AMD FirePro 2D graphics cards with dual- and quad-display outputs for financial and corporate environments.

We also provide the AMD FirePro S-Series GPU products for the server market, where we target high performance computing (HPC) primarily focused on artificial and machine intelligence, deep neutral networks (DNN), geosciences, biosciences, academic and government workloads, and virtual desktop infrastructure (VDI) use cases primarily focused on workstation-class virtualization, remote desktop and content streaming workloads. In April 2016, we announced the AMD FirePro W9100 with 32 gigabyte (GB) of memory support designed for large workflows with creative applications. In May 2016, we announced an AMD Multiuser GPU (MxGPU) for blade servers, the AMD FirePro S7100X GPU, designed to provide a “workstation-class” experience for up to 16 users that is practically indistinguishable from a native desktop experience. In November 2016, we announced a new release of Radeon Open Compute Platform (ROCm) featuring software support of the new Radeon GPU hardware, new math libraries, and a rich foundation of modern programming languages, designed to speed development of high-performance, energy efficient heterogeneous computing systems.

Enterprise, Embedded and Semi-Custom

The Enterprise, Embedded and Semi-Custom Markets

Server. A server is a computer system that performs services for connected customers as part of a client-server architecture. Many servers are designed to run an application or applications often for extended periods of time with minimal human intervention. Examples of servers include web servers, e-mail servers and print servers. These servers can run a variety of applications, including business intelligence, enterprise resource planning, customer relationship management and advanced scientific or engineering models to solve advanced computational problems in disciplines ranging from financial modeling to weather forecasting to oil and gas exploration. Servers are also used in cloud computing, which is a computing model where data, applications and services are delivered over the internet or an intranet which can be rapidly provisioned and released with minimal effort. Today’s data centers require new technologies and configuration models to meet the demand driven by the staggering amount of data that needs to be stored, accessed and managed. Servers must be efficient, scalable and adaptable to meet the compute characteristics of new and changing workloads.

Embedded. Embedded products address computing needs in PC-adjacent markets, such as industrial control and automation, digital signage, point-of-sale/self-service kiosks, medical imaging and casino gaming machines as well as enterprise class telecommunications, networking, security, storage systems and thin clients (which are computers that serve as an access device on a network). Typically, our embedded products are used in applications that require high to moderate levels of performance, where key features may include mobility, relatively low power, small form factor, and 24x7 operations. High-performance graphics are increasingly important in many embedded systems. Support for Linux®, Windows® and other operating systems as well as for increasingly sophisticated applications are also critical for some customers. Other requirements may include meeting rigid specifications for industrial temperatures, shock, vibration and reliability. The embedded market has moved from developing proprietary, custom designs to leveraging industry-standard instruction set architectures and processors as a way to help reduce costs and speed time to market.

Semi-Custom. We have leveraged our core IP, including our graphics and processing technologies developed for the gaming, VR, augmented reality (AR) and machine intelligent markets, to develop semi-custom solutions for customers who want differentiation in their products. In this market, semiconductor suppliers work alongside system designers and manufacturers to enhance the performance and overall user experience for semi-custom customers. AMD has used this type of collaborative development approach with today's leading game console manufacturers, and can also address customer needs in many other markets beyond game consoles, leveraging our existing IP to create a variety of products tailored to a specific customer's needs, ranging from complex fully-customized SoCs to more modest adaptations and integrations of existing CPU, APU or GPU products.

Our Enterprise, Embedded and Semi-Custom Products

Server Processors. Our microprocessors for server platforms currently include the AMD Opteron™ X-Series, AMD Opteron™ 6300 Series processors, and AMD Opteron™ A-Series processors.

Embedded Processors. Our embedded processors are increasingly driving intelligence into new areas of our lives, like interactive digital signage, casino gaming, and medical imaging devices. These products are designed to support greater connectivity and productivity, and we believe they are a strong driver for the "internet of things" and "immersive computing" areas in the computing industry. Our processor products for embedded platforms include AMD Embedded R-Series APU and CPUs, AMD Embedded G-Series SoC platform and AMD Embedded Radeon™ GPUs. In February 2016, we announced our 3rd Generation AMD Embedded G-Series SoCs and the Embedded G-Series LX SoC, providing customers a broadened portfolio of performance options. The 3rd Generation AMD Embedded G-Series SoCs, introduced for the first time pin compatibility between the G-Series family and the higher performance AMD Embedded R-Series family. Pin compatibility allows for devices to share the same package and pin-out so that customers can design one board and change the processor on the board without changing the board design. In September 2016, we announced two new AMD Embedded Radeon graphics cards, the AMD Embedded Radeon E9260 and the AMD Embedded Radeon E9550 discrete GPU products. These GPUs bring our Polaris architecture to the embedded markets and are designed elevate the level of GPU processing performance available to embedded customers.

Semi-Custom. Our semi-custom products are tailored, high-performance, customer-specific solutions based on AMD's CPU, GPU and multi-media technologies. We work closely together with our customers to define solutions to precisely match the requirements of the device or application. Historically we have leveraged our core graphics processing technology into the game console market by licensing our graphic technology in game consoles such as the Microsoft® Xbox 360™ and Nintendo Wii and Wii U. More recently, we developed the semi-custom SoC products that power the Sony PlayStation® 4 and new PlayStation® 4 Pro and Microsoft® Xbox One™ and Xbox One S™ game consoles.

Marketing and Sales

We sell our products through our direct sales force and through independent distributors and sales representatives in both domestic and international markets. Our sales arrangements generally operate on the basis of product forecasts provided by the particular customer, but do not typically include any commitment or requirement for minimum product purchases. We primarily use purchase orders, sales order acknowledgments and contractual agreements as evidence of our sales arrangements. Our agreements typically contain standard terms and conditions covering matters such as payment terms, warranties and indemnities for issues specific to our products.

We generally warrant that our products sold to our customers will conform to our approved specifications and be free from defects in material and workmanship under normal use and conditions for one year. Subject to certain exceptions, we also offer a three-year limited warranty to end users for those CPU and AMD A-Series APU products purchased as individually packaged products, commonly referred to as "processors in a box", and for PC workstation products. We have also offered extended limited warranties to certain customers of "tray" microprocessor products and/or workstation graphics products who have written agreements with us and target their computer systems at the commercial and/or embedded markets.

We market and sell our latest products under the AMD trademark. Our desktop PC product brands for microprocessors are AMD A-Series, AMD E-Series, AMD FX CPU, AMD Athlon CPU and APU, AMD Sempron™ APU and CPU and AMD Pro A-Series APU. Our notebook and 2-in-1s for microprocessors are AMD A-Series, AMD

E-Series, AMD C-Series, AMD Z-Series, AMD FX APU, AMD Phenom™, AMD Athlon CPU and APU, AMD Turion™ and AMD Sempron APU and CPU. Our server brand for microprocessors is AMD Opteron™. We also sell low-power versions of our AMD Opteron, AMD Athlon and AMD Sempron, as well as AMD Geode™, AMD R-Series and G-Series processors as embedded processor solutions. Our product brand for the consumer graphics market is AMD Radeon, and AMD Embedded Radeon is our product brand for the embedded graphics market. Our product brand for professional graphics products is AMD FirePro™. We also market and sell our chipsets under the AMD trademark.

We market our products through our direct marketing and co-marketing programs. In addition, we have cooperative advertising and marketing programs with customers and third parties, including market development programs, pursuant to which we may provide product information, training, marketing materials and funds. Under our co-marketing development programs, eligible customers can use market development funds as reimbursement for advertisements and marketing programs related to our products and third-party systems integrating our products, subject to meeting defined criteria.

Customers

Our microprocessor customers consist primarily of original equipment manufacturers (OEMs), original design manufacturers (ODMs), system builders and independent distributors in both domestic and international markets. ODMs provide design and/or manufacturing services to branded and unbranded private label resellers, OEMs and system builders. Our graphics product customers include the foregoing as well as add-in-board manufacturers (AIBs). Customers of our chipset products consist primarily of PC and server OEMs, often through ODMs or other contract manufacturers, who build the OEM motherboards, as well as desktop and server motherboard manufacturers who incorporate chipsets into their channel motherboards.

We work closely with our customers to define product features, performance and timing of new products so that the products we are developing meet our customers' needs. We also employ application engineers to assist our customers in designing, testing and qualifying system designs that incorporate our products. We believe that our commitment to customer service and design support improves our customers' time-to-market and fosters relationships that encourage customers to use the next generation of our products.

We also work with our customers to create differentiated products that leverage our CPU, GPU and APU technology. Customers of our semi-custom products pay us non-recurring engineering fees for design and development services and a purchase price for the resulting semi-custom products.

Our major customers, Sony Corporation, Microsoft Corporation and HP Inc., each accounted for more than 10% of our consolidated net revenue for the year ended December 31, 2016. Sales to Sony and Microsoft consisted of products from our Enterprise, Embedded and Semi-Custom segment and sales to HP Inc. consisted primarily of products from our Computing and Graphics segment. A loss of any of these customers would have a material adverse effect on our business.

Original Equipment Manufacturers

We focus on three types of OEM customers: multi-nationals, selected regional accounts and target market customers. Large multi-nationals and regional accounts are our core OEM customers. Our OEM customers include numerous foreign and domestic manufacturers of servers and workstations, desktops, notebooks, PC motherboards and game consoles.

Third-Party Distributors

Our authorized channel distributors resell to sub-distributors and mid-sized and smaller OEMs and ODMs. Typically, distributors handle a wide variety of products, and may include those that compete with our products. Distributors typically maintain an inventory of our products. In most instances, our agreements with distributors protect their inventory of our products against price reductions and provide return rights with respect to any product that we have removed from our price book that is not more than 12 months older than the manufacturing code date. In addition, some agreements with our distributors may contain standard stock rotation provisions permitting limited levels of product returns.

Add-in-Board (AIB) Manufacturers and System Integrators

We offer component-level graphics and chipset products to AIB manufacturers who in turn build and sell board-level products using our technology to system integrators (SIs), retail buyers and sub distributors. Our agreements with AIBs protect their inventory of our products against price reductions. We also sell directly to our SI customers. SIs typically sell from positions of regional or product-based strength in the market. They usually operate on short design cycles and can respond quickly with new technologies. SIs often use discrete graphics solutions as a means to differentiate their products and add value to their customers.

Competition

Generally, the IC industry is intensely competitive. Products typically compete on timely product introductions, product quality (including enabling state-of-the art visual experiences), power consumption (including battery life), reliability, processor clock speed, performance, size (or form factor), selling price, cost, adherence to industry standards (and the creation of open industry standards), level of integration, software and hardware compatibility and stability, brand recognition and availability. Technological advances in the industry can result in frequent product introductions, regular price reductions and short product life cycles for some products, and increased product capabilities that may result in significant performance improvements. Our ability to compete depends on our ability to develop, introduce and sell new products or enhanced versions of existing products on a timely basis and at competitive prices with competitive costs.

Competition in the Microprocessor and Chipset Market

Intel Corporation has been the market share leader for microprocessors for many years. Intel's market share, margins and significant financial resources enable it to market its products aggressively, to target our customers and our channel partners with special incentives and to influence customers who do business with us. These aggressive activities have in the past resulted in lower unit sales and a lower average selling price for many of our products and adversely affected our margins and profitability.

Intel exerts substantial influence over computer manufacturers and their channels of distribution through various brand and other marketing programs. As a result of Intel's position in the microprocessor market, Intel has been able to control x86 microprocessor and computer system standards and benchmarks and to dictate the type of products the microprocessor market requires of us. Intel also dominates the computer system platform, which includes core logic chipsets, graphics chips, motherboards and other components necessary to assemble a computer system. OEMs that purchase microprocessors for computer systems are highly dependent on Intel, which can make them less innovative on their own and, to a large extent, can become distributors of Intel technology. Additionally, Intel is able to drive de facto standards and specifications for x86 microprocessors that could cause us and other companies to have delayed access to such standards.

As long as Intel remains in this dominant position, we may be materially adversely affected by Intel's:

- business practices, including rebating and allocation strategies and pricing actions which may limit our market share and margins;
- product mix and introduction schedules;
- product bundling, marketing and merchandising strategies;
- exclusivity payments to its current and potential customers and channel partners that require or result in exclusive product arrangements;
- de facto control over industry standards, and heavy influence on PC manufacturers and other PC industry participants, including motherboard, memory, chipset and basic input/output system, or BIOS, suppliers and software companies as well as the graphics interface for Intel platforms; and
- marketing and advertising expenditures in support of positioning the Intel brand over the brand of its OEM customers.

Intel has substantially greater financial resources than we do and accordingly spends substantially greater amounts on marketing and research and development than we do. We expect Intel to maintain its market position and to continue to invest heavily in marketing, research and development, new manufacturing facilities and other technology companies. To the extent Intel manufactures a significantly larger portion of its microprocessor products using more advanced process technologies, or introduces competitive new products into the market before we do, we may be more vulnerable to Intel's aggressive marketing and pricing strategies for microprocessor products. For example, Intel has introduced microprocessors for low-cost notebooks, similar to products that we offer for low-cost notebooks. Intel could also take actions that place our discrete GPUs at a competitive disadvantage, including giving one or more of our competitors in the graphics market, such as Nvidia Corporation, preferential access to its proprietary graphics interface or other useful information. Intel's position in the microprocessor market and integrated graphics chipset market, its introduction of competitive new products, its existing relationships with top-tier OEMs and its aggressive marketing and pricing strategies could result in lower unit sales and lower average selling prices for our products, which could have a material adverse effect on us.

Other competitors include a variety of companies providing or developing ARM-based designs at relatively low cost and low power processors for the computing market including tablets and thin-client form factors, as well as dense servers, set-top boxes and gaming consoles. ARM Holdings designs and licenses its ARM architecture to third parties, including us, and offers supporting software and services. Our ability to compete with companies who use ARM-based solutions depends on our ability to timely design and bring to market energy-efficient, high-performing products at an attractive price point.

In the chipset market, our competitors include suppliers of IGP chipsets. PC manufacturers use IGP chipsets because they typically cost less than traditional discrete GPUs while offering acceptable graphics performance for most mainstream

PC users. Intel also leverages its dominance in the microprocessor market to sell its IGP chipsets. Intel manufactures and sells IGP chipsets bundled with their microprocessors and is our main competitor in this market.

Competition in the Graphics Markets

In the graphics market, our competitors include suppliers of discrete graphics, embedded graphics processors and IGP chipsets. Intel manufactures and sells embedded graphics processors and IGP chipsets, and is a dominant competitor with respect to this portion of our business. Higher unit shipments of our APUs and Intel's integrated graphics may drive computer manufacturers to reduce the number of systems they build paired with discrete graphics components, particularly for notebooks, because they may offer satisfactory graphics performance for most mainstream PC users, at a lower cost. Intel could take actions that place our discrete GPUs and IGP chipsets at a competitive disadvantage such as giving one or more of our competitors in the graphics market, such as Nvidia Corporation, preferential access to its proprietary graphics interface or other useful information.

Our principal competitor in the graphics market is Nvidia. AMD and Nvidia are the two principal companies offering discrete graphics solutions. Other competitors include a number of smaller companies, which may have greater flexibility to address specific market needs, but less financial resources to do so, especially as we believe that the growing complexity of graphics processors and the associated research and development costs represent an increasingly higher barrier to entry in this market.

In the semi-custom game console products, where graphics performance is critical, we compete primarily against Nvidia.

Research and Development

We focus our research and development activities on improving product performance and enhancing product design. Our main area of focus is on delivering the next generation of CPU and GPU IP, and designing that IP into our SoCs for our next generation of products, with, in each case, improved system performance and performance-per-watt characteristics. For example, we are focusing on improving the battery life of our APU products for notebooks, the power efficiency of our microprocessors for servers and the performance and power efficiency of our discrete GPUs. We are also focusing on delivering a range of low-power integrated platforms to serve key markets, including commercial clients, mobile computing and gaming. We believe that these platforms will bring customers increased performance and energy efficiency. We also work with industry leaders on process technology, software and other functional intellectual property and with others in the industry and industry consortia to conduct early stage research and development.

Our research and development expenses for 2016, 2015 and 2014 were approximately $1.0 billion, $0.9 billion and $1.1 billion, respectively. For more information, see "Part II, Item 7-Management's Discussion and Analysis of Financial Condition and Results of Operations," below.

We conduct product and system research and development activities for our products in the United States with additional design and development engineering teams located in China, Canada, India, Singapore and Taiwan.

Manufacturing Arrangements and Assembly and Test Facilities

Third-Party Wafer Foundry Facilities

GLOBALFOUNDRIES Inc. On March 2, 2009, we entered into a Wafer Supply Agreement (WSA) with GLOBALFOUNDRIES Inc. (GF). The WSA governs the terms by which we purchase products manufactured by GF, a related party to us. Pursuant to the WSA, we are required to purchase all of our microprocessor and APU product requirements, and a certain portion of our GPU product requirements from GF with limited exceptions. For more information about the WSA, see "Part II, Item 7-Management's Discussion and Analysis of Financial Condition and Results of Operations-GLOBALFOUNDRIES," below.

Taiwan Semiconductor Manufacturing Company. We also have foundry arrangements with Taiwan Semiconductor Manufacturing Company (TSMC) for the production of wafers for certain products.

Other Third-Party Manufacturers. We outsource board-level graphics product manufacturing to third-party manufacturers.

Assembly, Test, Mark and Packaging Facilities

Wafers for our products are delivered from third-party foundries to our test, assembly and packaging partners located in the Asia-Pacific region who package and test our final semiconductor products.

On April 29, 2016, we and certain of our subsidiaries completed the sale of a majority of the equity interests in two of our assembly, test, mark and packaging facilities, Suzhou TF-AMD Semiconductor Co., Ltd. (formerly, AMD Technologies (China) Co., Ltd.) and TF AMD Microelectronics (Penang) Sdn. Bhd. (formerly, Advanced Micro Devices Export Sdn. Bhd.) to affiliates of Tongfu Fujitsu Microelectronics, Co., Ltd., or TFME (formerly, Nantong Fujitsu Microelectronics Co., Ltd.) to form two joint ventures (each an “ATMP JV”). As a result of the sale, TFME’s affiliates own 85% of the equity interests in each ATMP JV while certain of our subsidiaries own the remaining 15%.

Intellectual Property and Licensing

We rely on contracts and intellectual property rights to protect our products and technologies from unauthorized third-party copying and use. Intellectual property rights include copyrights, patents, patent applications, trademarks, trade secrets and mask work rights. As of December 31, 2016, we had approximately 5,033 patents in the United States and approximately 913 patent applications pending in the United States. In certain cases, we have filed corresponding applications in foreign jurisdictions. Including United States and foreign matters, we have approximately 10,767 patent matters worldwide consisting of approximately 7,814 issued patents and 2,953 patent applications pending. We expect to file future patent applications in both the United States and abroad on significant inventions, as we deem appropriate. We do not believe that any individual patent, or the expiration of any patent, is or would be material to our business.

As is typical in the semiconductor industry, we have numerous cross-licensing and technology exchange agreements with other companies under which we both transfer and receive technology and intellectual property rights. One such agreement is the cross-license agreement that we entered into with Intel on November 11, 2009. Under the cross-license agreement, we granted to Intel and Intel granted to us, non-exclusive, royalty-free licenses to all of each other’s patents that were first filed no later than November 11, 2014 and each party can exploit these patents anywhere in the world for making and selling certain semiconductor- and electronic-related products. Under the cross-license agreement, Intel has rights to make semiconductor products for third parties, but the third-party product designs are not licensed as a result of such manufacture. We have rights to perform assembly and testing for third parties but not rights to make semiconductor products for third parties. The term of the cross-license agreement continues until the expiration of the last to expire of the licensed patents, unless earlier terminated. A party can terminate the cross-license agreement or the rights and licenses of the other party if the other party materially breaches the cross-license agreement and does not correct the noticed material breach within 60 days. Upon such termination, the terminated party’s license rights terminate but the terminating party’s license rights continue, subject to that party’s continued compliance with the terms of the cross-license agreement. The cross-license agreement will automatically terminate if a party undergoes a change of control (as defined in the cross license agreement), and both parties’ licenses will terminate. Upon the bankruptcy of a party, that party may assume, but may not assign, the cross-license agreement, and in the event that the cross-license agreement cannot be assumed, the cross-license agreement and the licenses granted will terminate.

Backlog

Sales are made primarily pursuant to purchase orders for current delivery or agreements covering purchases over a period of time. Some of these orders or agreements may be revised or canceled without penalty. Generally, in light of current industry practice, we do not believe that such orders or agreements provide meaningful backlog figures or are necessarily indicative of actual sales for any succeeding period.

Seasonality

Our operating results tend to vary seasonally. For example, historically, first quarter PC product sales are generally lower than fourth quarter sales. In addition, with respect to our semi-custom SoC products for game consoles, we expect sales patterns to follow the seasonal trends of a consumer business with sales in the first half of the year being lower than sales in the second half of the year.

Employees

As of December 31, 2016, we had approximately 8,200 employees.

Environmental Regulations

Our operations and properties have in the past been and continue to be subject to various United States and foreign environmental laws and regulations, including those relating to materials used in our products and manufacturing processes, discharge of pollutants into the environment, the treatment, transport, storage and disposal of solid and hazardous wastes and remediation of contamination. These laws and regulations require us to obtain permits for our operations, including the discharge of air pollutants and wastewater. Although our management systems are designed to maintain compliance, we cannot assure you that we have been or will be at all times in complete compliance with such laws, regulations and permits. If we violate or fail to comply with any of them, a range of consequences could result, including fines, suspension of production, alteration of manufacturing processes, import/export restrictions, sales limitations, criminal and civil liabilities or other sanctions. We could also be held liable for any and all consequences arising out of exposure to hazardous materials used, stored, released, disposed of by us or located at, under or emanating from our facilities or other environmental or natural resource damage. While we have budgeted for foreseeable associated expenditures, we cannot assure you that future environmental legal requirements will not become more stringent or costly in the future. Therefore, we cannot assure you that our costs of complying with current and future environmental and health and safety laws, and our liabilities arising from past and future releases of, or exposure to, hazardous substances will not have a material adverse effect on us.

Environmental laws are complex, change frequently and have tended to become more stringent over time. For example, the European Union (EU) and China are two among a growing number of jurisdictions that have enacted restrictions on the use of lead and other materials in electronic products. These regulations affect semiconductor devices and packaging. As regulations restricting materials in electronic products continue to increase around the world, there is a risk that the cost, quality and manufacturing yields of products that are subject to these restrictions, may be less favorable compared to products that are not subject to such restrictions, or that the transition to compliant products may not meet customer roadmaps, or produce sudden changes in demand, which may result in excess inventory. A number of jurisdictions including the EU, Australia and China are developing or have finalized market entry or public procurement regulations for computers and servers based on ENERGY STAR specifications as well as additional energy consumption limits. There is the potential for certain of our products being excluded from some of these markets which could materially adversely affect us.

Certain environmental laws, including the U.S. Comprehensive, Environmental Response, Compensation and Liability Act of 1980, or the Superfund Act, impose strict or, under certain circumstances, joint and several liability on current and previous owners or operators of real property for the cost of removal or remediation of hazardous substances and impose liability for damages to natural resources. These laws often impose liability even if the owner or operator did not know of, or was not responsible for, the release of such hazardous substances. These environmental laws also assess liability on persons who arrange for hazardous substances to be sent to disposal or treatment facilities when such facilities are found to be contaminated. Such persons can be responsible for cleanup costs even if they never owned or operated the contaminated facility. We have been named as a responsible party at three Superfund sites in Sunnyvale, California. Although we have not yet been, we could be named a potentially responsible party at other Superfund or contaminated sites in the future. In addition, contamination that has not yet been identified could exist at our other facilities.

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the Securities and Exchange Commission (“SEC”) adopted disclosure and reporting requirements for companies that use “conflict” minerals originating from the Democratic Republic of Congo or adjoining countries. We continue to incur additional costs associated with complying with these requirements, such as costs related to developing internal controls for the due diligence process, determining the source of any conflict minerals used in our products, auditing the process and reporting to our customers and the SEC. Also, since our supply chain is complex, we may face reputational challenges if we are unable to sufficiently verify the origins of the subject minerals. Moreover, we are likely to encounter challenges to satisfy those customers who require that all of the components of our products are certified as “conflict free.” If we cannot satisfy these customers, they may choose a competitor’s products.

ITEM 1A. RISK FACTORS

The risks and uncertainties described below are not the only ones we face. If any of the following risks actually occurs, our business, financial condition or results of operations could be materially adversely affected. In addition, you should consider the interrelationship and compounding effects of two or more risks occurring simultaneously.

Intel Corporation's dominance of the microprocessor market and its aggressive business practices may limit our ability to compete effectively.

Intel Corporation has been the market share leader for microprocessors for many years. Intel's market share, margins and significant financial resources enable it to market its products aggressively, to target our customers and our channel partners with special incentives and to influence customers who do business with us. These aggressive activities have in the past and are likely in the future to result in lower unit sales and a lower average selling price for many of our products and adversely affect our margins and profitability.

Intel exerts substantial influence over computer manufacturers and their channels of distribution through various brand and other marketing programs. As a result of Intel's position in the microprocessor market, Intel has been able to control x86 microprocessor and computer system standards and benchmarks and to dictate the type of products the microprocessor market requires of us. Intel also dominates the computer system platform, which includes core logic chipsets, graphics chips, motherboards and other components necessary to assemble a computer system. OEMs that purchase microprocessors for computer systems are highly dependent on Intel, less innovative on their own and, to a large extent, are distributors of Intel technology. Additionally, Intel is able to drive de facto standards and specifications for x86 microprocessors that could cause us and other companies to have delayed access to such standards.

As long as Intel remains in this dominant position, we may be materially adversely affected by Intel's:

- business practices, including rebating and allocation strategies and pricing actions, designed to limit our market share and margins;
- product mix and introduction schedules;
- product bundling, marketing and merchandising strategies;
- exclusivity payments to its current and potential customers and channel partners;
- de facto control over industry standards, and heavy influence on PC manufacturers and other PC industry participants, including motherboard, memory, chipset and basic input/output system, or BIOS, suppliers and software companies as well as the graphics interface for Intel platforms; and
- marketing and advertising expenditures in support of positioning the Intel brand over the brand of its original equipment manufacturer OEM customers.

Intel has substantially greater financial resources than we do and accordingly spends substantially greater amounts on marketing and research and development than we do. We expect Intel to maintain its market position and to continue to invest heavily in marketing, research and development, new manufacturing facilities and other technology companies. To the extent Intel manufactures a significantly larger portion of its microprocessor products using more advanced process technologies, or introduces competitive new products into the market before we do, we may be more vulnerable to Intel's aggressive marketing and pricing strategies for microprocessor products. For example, Intel has introduced microprocessors for low-cost notebooks, similar to products that we offer for low-cost notebooks.

Intel could also take actions that place our discrete GPUs at a competitive disadvantage, including giving one or more of our competitors in the graphics market, such as Nvidia Corporation, preferential access to its proprietary graphics interface or other useful information. Intel's position in the microprocessor market and integrated graphics chipset market, its introduction of competitive new products, its existing relationships with top-tier OEMs and its aggressive marketing and pricing strategies could result in lower unit sales and a lower average selling price for our products, which could have a material adverse effect on us.

We have a wafer supply agreement with GF with obligations to purchase all of our microprocessor and APU product requirements, and a certain portion of our GPU product requirements from GF, with limited exceptions. If GF is not able to satisfy our manufacturing requirements, our business could be adversely impacted.

The WSA governs the terms by which we purchase products manufactured by GF. The WSA is in place until 2024. Pursuant to the WSA, we are required to purchase all of our microprocessor and APU product requirements, and a portion of our GPU product requirements from GF with limited exceptions. If GF is unable to achieve anticipated manufacturing yields, remain competitive using or implementing advanced leading-edge process technologies needed to manufacture future generations of our products, manufacture our products on a timely basis at competitive prices or meet our capacity requirements, then we may experience delays in product launches, supply shortages for certain products or increased costs and our business could be materially adversely affected. Moreover, if GF is unable to satisfy our manufacturing requirements and we are unable to secure from GF additional exceptions allowing us to contract with another wafer foundry to satisfy those requirements, then our business could be materially adversely affected.

In August 2016, we entered into the sixth amendment to the WSA (Sixth Amendment) pursuant to which we agreed to certain annual wafer purchase targets through 2020, and if we fail to meet the agreed wafer purchase target during a calendar year we will be required to pay to GF a portion of the difference between our actual wafer purchases and the applicable annual purchase target. If our actual wafer requirements are less than the number of wafers required to meet the applicable annual wafer purchase target, we could have excess inventory or higher inventory unit costs, both of which may adversely impact our gross margin and our results of operations.

In addition, GF has relied on Mubadala Technology Investments LLC (Mubadala Tech) for its funding needs. If Mubadala Tech fails to adequately fund GF on a timely basis, or at all, GF’s ability to manufacture products for us could be materially adversely affected.

We rely on third parties to manufacture our products, and if they are unable to do so on a timely basis in sufficient quantities and using competitive technologies, our business could be materially adversely affected.

We rely on third-party wafer foundries to fabricate the silicon wafers for all of our products. We also rely on third-party manufacturers to assemble, test, mark and pack (ATMP) our products. It is important to have reliable relationships with all of these third-party manufacturing suppliers to ensure adequate product supply to respond to customer demand.

We cannot guarantee that these manufacturers or our other third-party manufacturing suppliers will be able to meet our near-term or long-term manufacturing requirements. If we experience supply constraints from our third-party manufacturing suppliers, we may be required to allocate the affected products amongst our customers, which could have a material adverse effect on our relationships with these customers and on our financial condition. In addition, if we are unable to meet customer demand due to fluctuating or late supply from our manufacturing suppliers, it could result in lost sales and have a material adverse effect on our business.

We do not have long-term commitment contracts with some of our third-party manufacturing suppliers. We obtain some of these manufacturing services on a purchase order basis and these manufacturers are not required to provide us with any specified minimum quantity of product beyond the quantities in an existing purchase order. Accordingly, we depend on these suppliers to allocate to us a portion of their manufacturing capacity sufficient to meet our needs, to produce products of acceptable quality and at acceptable manufacturing yields and to deliver those products to us on a timely basis and at acceptable prices. The manufacturers we use also fabricate wafers and assemble, test and package products for other companies, including certain of our competitors. They could choose to prioritize capacity for other customers, increase the prices that they charge us on short notice or reduce or eliminate deliveries to us, which could have a material adverse effect on our business.

Other risks associated with our dependence on third-party manufacturers include limited control over delivery schedules and quality assurance, lack of capacity in periods of excess demand, misappropriation of our intellectual property, dependence on several small undercapitalized subcontractors and limited ability to manage inventory and parts. Moreover, if any of our third-party manufacturers suffer any damage to facilities, lose benefits under material agreements, experience power outages, lack sufficient capacity to manufacture our products, encounter financial difficulties, are unable to secure necessary raw materials from their suppliers or suffer any other disruption or reduction in efficiency, we may encounter supply delays or disruptions. If we are unable to secure sufficient or reliable supplies of products, our ability to meet customer demand may be adversely affected and this could materially affect our business.

If we transition the production of some of our products to new manufacturers, we may experience delayed product introductions, lower yields or poorer performance of our products. If we experience problems with product quality or are unable to secure sufficient capacity from a particular third-party manufacturer, or if we for other reasons cease utilizing one of those suppliers, we may be unable to secure an alternative supply for any specific product in a short time frame. We could experience significant delays in the shipment of our products if we are required to find alternative third-party manufacturers, which could have a material adverse effect on our business.

In April 2016, we consummated a transaction with Tongfu Fujitsu Microelectronics Co., Ltd. (formerly, Nantong Fujitsu Microelectronics Co., Ltd.) (TFME), under which we sold to TFME 85% of the equity interests in our ATMP facilities consisting of Suzhou TF-AMD Semiconductor Co., Ltd. (formerly AMD Technologies (China) Co., Ltd.) and TF-AMD Microelectronics (Penang) Sdn. Bhd. (formerly Advanced Micro Devices Export Sdn. Bhd.) thereby forming two joint ventures (collectively, the JVs). The majority of our ATMP services will be provided by the JVs and there is no guarantee that the JVs will be able to adequately fulfill our ATMP requirements as we continue to transition operations to the JVs, nor is there any guarantee that the JVs will be able to fulfill our long-term ATMP requirements. If we are unable to meet customer demand due to fluctuating or late supply from the JVs, it could result in lost sales and have a material adverse effect on our business.

Failure to achieve expected manufacturing yields for our products could negatively impact our financial results.

Semiconductor manufacturing yields are a result of both product design and process technology, which is typically proprietary to the manufacturer, and low yields can result from design failures, process technology failures or a combination of both. Our third-party foundries, including GF, are responsible for the process technologies used to fabricate silicon wafers. If our third-party foundries experience manufacturing inefficiencies or encounter disruptions, errors or difficulties during production, we may fail to achieve acceptable yields or experience product delivery delays. We cannot be certain that our third-party foundries will be able to develop, obtain or successfully implement leading-edge process technologies needed to manufacture future generations of our products profitably or on a timely basis or that our competitors will not develop new technologies, products or processes earlier. Moreover, during periods when foundries are implementing new process technologies, their manufacturing facilities may not be fully productive. A substantial delay in the technology transitions to smaller process technologies could have a material adverse effect on us, particularly if our competitors transition to more cost effective technologies before us. Any decrease in manufacturing yields could result in an increase in per unit costs, which would adversely impact our gross margin and/or force us to allocate our reduced product supply amongst our customers, which could harm our relationships and reputation with our customers and materially adversely affect our business.

The success of our business is dependent upon our ability to introduce products on a timely basis with features and performance levels that provide value to our customers while supporting and coinciding with significant industry transitions.

Our success depends to a significant extent on the development, qualification, implementation and acceptance of new product designs and improvements that provide value to our customers. Our ability to develop, qualify and distribute, and have manufactured, new products and related technologies to meet evolving industry requirements, at prices acceptable to our customers and on a timely basis are significant factors in determining our competitiveness in our target markets. For example, a large portion of our Computing and Graphics revenue is focused on consumer desktop PC and notebook. While overall growth in Computing and Graphics is stabilizing, the areas within Computing and Graphics are changing. Our ability to take advantage of the opportunities within the areas of Computing and Graphics is based on foreseeing those changes and making timely investments in the form factors that serve those areas. As consumers adopt new form factors, have new product feature preferences or have different requirements than those consumers in the PC market, PC sales could be negatively impacted, which could adversely impact our business. Our product roadmap includes a new x86 processor core codenamed “Zen” to help drive our re-entry into high-performance and server computing. We cannot assure you that our efforts to execute our product roadmap and address markets beyond our core PC market will result in innovative products and technologies that provide value to our customers. If we fail to or are delayed in developing, qualifying or shipping new products or technologies that provide value to our customers and address these new trends or if we fail to predict which new form factors consumers will adopt and adjust our business accordingly, we may lose competitive positioning, which could cause us to lose market share and require us to discount the selling prices of our products. Although we make substantial investments in research and development, we cannot be certain that we will be able to develop, obtain or successfully implement new products and technologies on a timely basis or that they will be well-received by our customers. Moreover, our investments in new products and technologies involve certain risks and uncertainties and could disrupt our ongoing business. New investments may not generate sufficient revenue, may incur unanticipated liabilities and may divert our limited resources and distract management from our current operations. We cannot be certain that our ongoing investments in new products and technologies will be successful, will meet our expectations and will not adversely affect our reputation, financial condition and operating results.

Delays in developing, qualifying or shipping new products can also cause us to miss our customers' product design windows or, in some cases, breach contractual obligations or cause us to pay penalties. If our customers do not include our products in the initial design of their computer systems or products, they will typically not use our products in their systems or products until at least the next design configuration. The process of being qualified for inclusion in a customer's system or product can be lengthy and could cause us to further miss a cycle in the demand of end-users, which also could result in a loss of market share and harm our business. In addition, market demand requires that products incorporate new features and performance standards on an industry-wide basis. Over the life of a specific product, the sale price is typically reduced over time. The introduction of new products and enhancements to existing products is necessary to maintain the overall corporate average selling price. If we are unable to introduce new products with sufficiently high sale prices or to increase unit sales volumes capable of offsetting the reductions in the sale prices of existing products over time, our business could be materially adversely affected.

If we cannot generate sufficient revenue and operating cash flow or obtain external financing, we may face a cash shortfall and be unable to make all of our planned investments in research and development or other strategic investments.

Our ability to fund research and development expenditures depends on generating sufficient revenue and cash flow from operations and the availability of external financing, if necessary. Our research and development expenditures, together with ongoing operating expenses, will be a substantial drain on our cash flow and may decrease our cash balances. If new competitors, technological advances by existing competitors or other competitive factors require us to invest significantly greater resources than anticipated in our research and development efforts, our operating expenses would increase. If we are required to invest significantly greater resources than anticipated in research and development efforts without an increase in revenue, our operating results could decline.

We regularly assess markets for external financing opportunities, including debt and equity financing. Additional debt or equity financing may not be available when needed or, if available, may not be available on satisfactory terms. The health of the credit markets may adversely impact our ability to obtain financing when needed. Any downgrades from credit rating agencies such as Moody's or Standard & Poor's may adversely impact our ability to obtain external financing or the terms of such financing. Credit agency downgrades or concerns regarding our credit worthiness may impact relationships with our suppliers, who may limit our credit lines. Our inability to obtain needed financing or to generate sufficient cash from operations may require us to abandon projects or curtail planned investments in research and development or other strategic initiatives. If we curtail planned investments in research and development or abandon projects, our products may fail to remain competitive and our business would be materially adversely affected.

The loss of a significant customer may have a material adverse effect on us.
Collectively, Sony Corporation, Microsoft Corporation and HP Inc. accounted for approximately 59% of our consolidated net revenue for the year ended December 31, 2016. Sales to Sony and Microsoft consisted of products from our Enterprise, Embedded and Semi-Custom segment and sales to HP Inc. consisted primarily of products from our Computing and Graphics segment. We expect that a small number of customers will continue to account for a substantial part of revenue of our businesses in the future. If one of our key customers decides to stop buying our products, or if one of these customers materially reduces or reorganizes its operations or its demand for our products, our business would be materially adversely affected.

Our receipt of revenue from our semi-custom SoC products is dependent upon our technology being designed into third-party products and the success of those products.

The revenue that we receive from our semi-custom SoC products is in the form of non-recurring engineering fees charged to third parties for design and development services and revenue received in connection with sales of our semi-custom SoC products to these third parties. As a result, our ability to generate revenue from our semi-custom products depends on our ability to secure customers for our semi-custom design pipeline, our customers' desire to pursue the project, and our semi-custom SoC products being incorporated into those customer's products. Any revenue from sales of our semi-custom SoC products is directly related to sales of the third-party's products and reflective of their success in the market. Moreover, we have no control over the marketing efforts of these third parties, and we cannot make any assurances that sales of their products will be successful in current or future years. Consequently, the semi-custom SoC product revenue expected by us may not be fully realized and our operating results may be adversely affected.

Global economic uncertainty may adversely impact our business and operating results.

Uncertain global economic conditions have in the past and may in the future adversely impact our business, including, without limitation, a slowdown in the Chinese economy, one of the largest global markets for desktop and notebook PCs. Uncertainty in the worldwide economic environment may negatively impact consumer confidence and spending causing our customers to postpone purchases. In addition, during challenging economic times, our current or potential future customers may experience cash flow problems and as a result may modify, delay or cancel plans to purchase our products. Additionally, if our customers are not successful in generating sufficient revenue or are unable to secure financing, they may not be able to pay, or may delay payment of, accounts receivable that they owe us. The risk related to our customers' potentially defaulting on or delaying payments to us is increased because we expect that a small number of customers will continue to account for a substantial part of our revenue. Any inability of our current or potential future customers to pay us for our products may adversely affect our earnings and cash flow. Moreover, our key suppliers may reduce their output or become insolvent, thereby adversely impacting our ability to manufacture our products. In addition, uncertain economic conditions may make it more difficult for us to raise funds through borrowings or private or public sales of debt or equity securities.

The markets in which our products are sold are highly competitive.

The markets in which our products are sold are very competitive and delivering the latest and best products to market on a timely basis is critical to achieving revenue growth. We believe that the main factors that determine our product competitiveness are timely product introductions, product quality, product features and capabilities (including enabling state-of-the-art visual and virtual reality experience), energy efficiency (including power consumption and battery life), reliability, processor clock speed, performance, size (or form factor), selling price, cost, adherence to industry standards (and the creation of open industry standards), level of integration, software and hardware compatibility, security and stability, brand recognition and availability.

We expect that competition will continue to be intense due to rapid technological changes, frequent product introductions by our competitors or new competitors of products that may provide better performance/experience or may include additional features that render our products uncompetitive. We may also face aggressive pricing by competitors, especially during challenging economic times. Some competitors may have greater access or rights to complementary technologies, including interface, processor and memory technical information. For instance, with the introduction of our APU products and other competing solutions with integrated graphics, we believe that demand for additional discrete graphics chips and cards may decrease in the future due to improvements in the quality and performance of integrated graphics. In addition, our competitors have significant marketing and sales resources which could increase the competitive environment in such a declining market, leading to lower prices and margins. If competitors introduce competitive new products into the market before us, demand for our products could be adversely impacted and our business could be adversely affected.

In addition, we are entering markets with current and new competitors who may be able to adapt more quickly to customer requirements and emerging technologies. We cannot assure you that we will be able to compete successfully against current or new competitors who may have stronger positions in these new markets or superior ability to anticipate customer requirements and emerging industry trends. We may face delays or disruptions in research and development efforts, or we may be required to invest significantly greater resources in research and development than anticipated.

We may not be able to generate sufficient cash to service our debt obligations or meet our working capital requirements.

Our ability to make payments on and to refinance our debt will depend on our financial and operating performance, which may fluctuate significantly from quarter to quarter, and is subject to prevailing economic conditions and financial, business and other factors, many of which are beyond our control. We cannot assure you that we will be able to generate cash flow or that we will be able to borrow funds, including under our secured revolving line of credit for a principal amount up to $500 million (our Secured Revolving Line of Credit), in amounts sufficient to enable us to service our debt or to meet our working capital requirements. If we are not able to generate sufficient cash flow from operations or to borrow sufficient funds to service our debt, we may be required to sell assets or equity, reduce expenditures, refinance all or a portion of our existing debt or obtain additional financing. We cannot assure you that we will be able to refinance our debt, sell assets or equity, borrow funds under our Secured Revolving Line of Credit or borrow more funds on terms acceptable to us, if at all.

We have a substantial amount of indebtedness which could adversely affect our financial position and prevent us from implementing our strategy or fulfilling our contractual obligations.

Our total debt as of December 31, 2016 was $1.4 billion, net of unamortized debt issuance costs and unamortized debt discount associated with the 2.125% Notes. Our substantial indebtedness may:

- make it difficult for us to satisfy our financial obligations, including making scheduled principal and interest payments;
- limit our ability to borrow additional funds for working capital, capital expenditures, acquisitions and general corporate and other purposes;
- limit our ability to use our cash flow or obtain additional financing for future working capital, capital expenditures, acquisitions or other general corporate purposes;
- require us to use a substantial portion of our cash flow from operations to make debt service payments;
- place us at a competitive disadvantage compared to our competitors with relatively less debt; and
- increase our vulnerability to the impact of adverse economic and industry conditions.

We enter into interest rate swap agreements from time to time to manage our exposure to interest rate risk. These swap agreements involve risks, such as the risk that counterparties may fail to honor their obligations under these arrangements, the risk that these arrangements may not be effective in reducing our exposure to changes in interest rates and the risk that our exposure to interest rates may increase if interest rates increase.

We also enter into sale and factoring arrangements from time to time with respect to certain of our accounts receivables, which arrangements are non-recourse to us in the event that an account debtor fails to pay for credit-related reasons, and are not included in our indebtedness. We could become obligated to repurchase such accounts receivables or otherwise incur liability to the counterparties under these arrangements under certain circumstances, such as where a commercial dispute arises between us and an account debtor.

The agreements governing our notes and our Secured Revolving Line of Credit impose restrictions on us that may adversely affect our ability to operate our business.

The indentures governing our 6.75% Senior Notes due 2019 (6.75% Notes), 7.50% Senior Notes due 2022 (7.50% Notes), 7.00% Senior Notes due 2024 (7.00% Notes) and 2.125% Notes contain various covenants which limit our ability to, among other things:

- incur additional indebtedness;
- pay dividends and make other restricted payments;
- make certain investments, including investments in our unrestricted subsidiaries;
- create or permit certain liens;
- create or permit restrictions on the ability of certain restricted subsidiaries to pay dividends or make other distributions to us;
- use the proceeds from sales of assets;
- enter into certain types of transactions with affiliates; and
- consolidate or merge or sell our assets as an entirety or substantially as an entirety.

In addition, the Amended and Restated Loan Agreement restricts our ability to make cash payments on the notes to the extent that, on the date of such payment, a default or event of default exists under the Amended and Restated Loan Agreement, or we have not had at all times during the 45 consecutive days immediately preceding such payment, or would not have, on a pro forma basis after giving effect to such payment, Excess Cash Availability (as defined in the Amended and Restated Loan Agreement) of at least $100 million. Any of our future debt agreements may contain similar restrictions. If we fail to make any cash payment on a series of notes when required by the applicable indenture, it would constitute an event of default under such indenture, which, in turn, would constitute an event of default under the agreements governing our other indebtedness.

Our Secured Revolving Line of Credit also contains various covenants which limit our ability to, among other things, make certain investments, merge or consolidate with other entities and permit certain subsidiaries from incurring indebtedness. In addition, further restrictions apply when certain payment conditions (the Payment Conditions) are not satisfied with respect to specified transactions, events or payments. The Payment Conditions include that (i) no default or event of default exists and (ii) at all times during the 45 consecutive days immediately prior to such transaction, event or payment and on a pro forma basis after giving effect to such transaction, event or payment and any incurrence or repayment of indebtedness in connection therewith, the Loan Parties’ Excess Cash Availability (as defined in the Amended and Restated Loan Agreement) available cash is greater than the greater of 20% of the total commitment amount and $100 million. If Payment Conditions are not satisfied under certain circumstances, we will become subject to various additional covenants which limit our ability to, among other things:

- create liens upon any of the Loan Parties’ property (other than customary permitted liens and liens in respect of up to $1.5 billion of secured credit facilities debt (which amount includes our Secured Revolving Line of Credit));
- declare or make cash distributions;
- create any encumbrance on the ability of a subsidiary to make any upstream payments;
- make asset dispositions other than certain ordinary course dispositions and certain supply chain finance arrangements;
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make certain loans, make payments with respect to subordinated debt or certain borrowed money prior to its due date; and

• enter into any non-arm's-length transaction with an affiliate (except for certain customary exceptions).

The agreements governing our notes and our Secured Revolving Line of Credit contain cross-default provisions whereby a default under one agreement would likely result in cross defaults under agreements covering other borrowings. For example, the occurrence of a default with respect to any indebtedness or any failure to repay debt when due in an amount in excess of $50 million would cause a cross default under the indentures (to the extent such default would result in the acceleration of such indebtedness) governing our 6.75% Notes, 7.50% Notes, 7.00% Notes and 2.125% Notes, as well as under our Secured Revolving Line of Credit. The occurrence of a default under any of these borrowing arrangements would permit the applicable note holders or the lenders under our Secured Revolving Line of Credit to declare all amounts outstanding under those borrowing arrangements to be immediately due and payable. If the note holders or the trustee under the indentures governing our 6.75% Notes, 7.50%

Notes, 7.00% Notes or 2.125% Notes or the lenders under our Secured Revolving Line of Credit accelerate the repayment of borrowings, we cannot assure you that we will have sufficient assets to repay those borrowings.

Uncertainties involving the ordering and shipment of our products could materially adversely affect us.

We typically sell our products pursuant to individual purchase orders. We generally do not have long-term supply arrangements with our customers or minimum purchase requirements except that orders generally must be for standard pack quantities. Generally, our customers may cancel orders for standard products more than 30 days prior to shipment without incurring significant fees. We base our inventory levels in part on customers' estimates of demand for their products, which may not accurately predict the quantity or type of our products that our customers will want in the future or ultimately end up purchasing. Our ability to forecast demand is even further complicated when our products are sold indirectly through downstream channel distributors and customers, as our forecasts for demand are then based on estimates provided by multiple parties throughout the downstream channel.

PC and consumer markets are characterized by short product lifecycles, which can lead to rapid obsolescence and price erosion. In addition, our customers may change their inventory practices on short notice for any reason. We may build inventories during periods of anticipated growth, and the cancellation or deferral of product orders or overproduction due to failure of anticipated orders to materialize, could result in excess or obsolete inventory, which could result in write-downs of inventory and an adverse effect on gross margins.

Factors that may result in excess or obsolete inventory, which could result in write-downs of the value of our inventory, a reduction in the average selling price or a reduction in our gross margin include:

- a sudden or significant decrease in demand for our products;
- a production or design defect in our products;
- a higher incidence of inventory obsolescence because of rapidly changing technology and customer requirements;
- a failure to accurately estimate customer demand for our products, including for our older products as our new products are introduced; or
- our competitors introducing new products or taking aggressive pricing actions.

The demand for our products depends in part on the market conditions in the industries into which they are sold. Fluctuations in demand for our products or a market decline in any of these industries could have a material adverse effect on our results of operations.

Industry-wide fluctuations in the computer marketplace have materially adversely affected us in the past and may materially adversely affect us in the future. A large portion of our Computing and Graphics revenue is focused on the consumer desktop PC and notebook segments, which have experienced and continue to experience a decline driven by, among other factors, the adoption of smaller and other form factors, increased competition and changes in replacement cycles. The success of our semi-custom SoC products is dependent on securing customers for our semi-custom design pipeline and consumer market conditions, including the success of the new Sony PlayStation®4 and Microsoft Xbox One game console systems worldwide.

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

In the design and development of new and enhanced products, we rely on third-party intellectual property such as software development tools and hardware testing tools. Furthermore, certain product features may rely on intellectual property acquired from third parties. The design requirements necessary to meet customer demand for more features and greater functionality from semiconductor products may exceed the capabilities of the third-party intellectual property or development tools available to us. If the third-party intellectual property that we use becomes unavailable, is not available with required functionality and performance in the time frame or price point needed for our new products or fails to produce designs that meet customer demands, our business could be materially adversely affected.

We depend on third-party companies for the design, manufacture and supply of motherboards, software and other computer platform components to support our business.

We depend on third-party companies for the design, manufacture and supply of motherboards, software (e.g. BIOS, operating systems) and other components that our customers utilize to support our microprocessor, GPU and APU offerings. We also rely on AIBs to support our GPU and APU products. In addition, our microprocessors are not designed to function with motherboards and chipsets designed to work with Intel microprocessors. If the designers, manufacturers, AIBs and suppliers of motherboards,

19

software and other components decrease their support for our product offerings, our business could be materially adversely affected.

If we lose Microsoft Corporation’s support for our products or other software vendors do not design and develop software to run on our products, our ability to sell our products could be materially adversely affected.

Our ability to innovate beyond the x86 instruction set controlled by Intel depends partially on Microsoft designing and developing its operating systems to run on or support our x86-based microprocessor products. With respect to our graphics products, we depend in part on Microsoft to design and develop its operating system to run on or support our graphics products. Similarly, the success of our products in the market, such as our APU products, is dependent on independent software providers designing and developing software to run on our products. If Microsoft does not continue to design and develop its operating systems so that they work with our x86 instruction sets or does not continue to develop and maintain their operating systems to support our graphics products, independent software providers may forego designing their software applications to take advantage of our innovations and customers may not purchase PCs with our products. In addition, some software drivers sold with our products are certified by Microsoft. If Microsoft did not certify a driver, or if we otherwise fail to retain the support of Microsoft or other software vendors, our ability to market our products would be materially adversely affected.

Our reliance on third-party distributors and AIB partners subjects us to certain risks.

We market and sell our products directly and through third-party distributors and AIB partners pursuant to agreements that can generally be terminated for convenience by either party upon prior notice to the other party. These agreements are non-exclusive and permit both our distributors and AIBs to offer our competitors’ products. We are dependent on our distributors and AIBs to supplement our direct marketing and sales efforts. If any significant distributor or AIB or a substantial number of our distributors or AIBs terminated their relationship with us, decided to market our competitors’ products over our products or decided not to market our products at all, our ability to bring our products to market would be impacted and we would be materially adversely affected. If we are unable to manage the risks related to the use of our third-party distributors and AIB partners or offer appropriate incentives to focus them on the sale of our products, our business could be materially adversely affected.

Additionally, distributors and AIBs typically maintain an inventory of our products. In most instances, our agreements with distributors protect their inventory of our products against price reductions, as well as provide return rights for any product that we have removed from our price book and that is not more than 12 months older than the manufacturing code date. Some agreements with our distributors also contain standard stock rotation provisions permitting limited levels of product returns. Our agreements with AIBs protect their inventory of our products against price reductions. We defer the gross margins on our sales to distributors and AIBs, resulting from both our deferral of revenue and related product costs, until the applicable products are re-sold by the distributors or the AIBs. However, in the event of a significant decline in the price of our products, the price protection rights we offer would materially adversely affect us because our revenue and corresponding gross margin would decline.

Our inability to continue to attract and retain qualified personnel may hinder our business.

Much of our future success depends upon the continued service of numerous qualified engineering, marketing, sales and executive personnel. Competition for highly skilled employees and executives in the technology industry is intense. If we are not able to continue to attract, train and retain qualified personnel necessary for our business, the progress of our product development programs could be hindered, and we could be materially adversely affected. To help attract, retain and motivate qualified personnel, we use share-based incentive awards such as employee stock options and non-vested share units (restricted stock units). If the value of such stock awards does not appreciate as measured by the performance of the price of our common stock, or if our share-based compensation otherwise ceases to be viewed as a valuable benefit, our ability to attract, retain and motivate personnel could be weakened, which could harm our results of operations. Also, if the value of our stock awards increases substantially, this could potentially create great personal wealth for our employees and affect our ability to retain these employees. In addition, our current and any future restructuring plans may adversely impact our ability to attract and retain key employees.

Our issuance to West Coast Hitech L.P. (WCH) of warrants to purchase 75 million shares of our common stock, if and when exercised, will dilute the ownership interests of our existing stockholders, and the conversion of the 2.125% Notes may dilute the ownership interest of our existing stockholders, or may otherwise depress the price of our common stock.

In consideration for the limited waiver and rights under the Sixth Amendment, we issued warrants to WCH to purchase 75 million shares of our common stock. Any issuance by us of common shares to WCH upon exercise of the warrants will dilute the ownership interests of our existing stockholders. Any sales in the public market by WCH of any shares owned by WCH could

adversely affect prevailing market prices of our common stock, and the anticipated exercise by WCH of the warrants could depress the price of our common stock.
Also, the conversion of some or all of the 2.125% Notes may dilute the ownership interests of our existing stockholders. Such 2.125% Notes may become convertible at the option of their holders prior to their scheduled term under certain circumstances. Any sales in the public market of our common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the 2.125% Notes may encourage short selling by market participants because the conversion thereof could be used to satisfy short positions, or the anticipated conversion of the 2.125% Notes into cash and/or shares of our common stock could depress the price of our common stock.

In the event of a change of control, we may not be able to repurchase our outstanding debt as required by the applicable indentures and our Secured Revolving Line of Credit, which would result in a default under the indentures and our Secured Revolving Line of Credit.

Upon a change of control, we will be required to offer to repurchase all of our 6.75% Notes, 7.50% Notes, 7.00% Notes and 2.125% Notes then outstanding at 101% of the principal amount thereof, plus accrued and unpaid interest, if any, up to, but excluding, the repurchase date. In addition, a change of control would be an event of default under our Secured Revolving Line of Credit. As of December 31, 2016, no borrowings were outstanding under the Secured Revolving Line of Credit, $19 million related to letters of credit under the Secured Revolving Line of Credit remained outstanding and $1.43 billion was outstanding under our notes. Future debt agreements may contain similar provisions. We may not have the financial resources to repurchase our outstanding notes and prepay all of our outstanding obligations under our Secured Revolving Line of Credit.

The semiconductor industry is highly cyclical and has experienced severe downturns that have materially adversely affected, and may continue to materially adversely affect, our business in the future.

The semiconductor industry is highly cyclical and has experienced significant downturns, often in conjunction with constant and rapid technological change, wide fluctuations in supply and demand, continuous new product introductions, price erosion and declines in general economic conditions. We have incurred substantial losses in recent downturns, due to:

- substantial declines in average selling prices;
- the cyclical nature of supply and demand imbalances in the semiconductor industry;
- a decline in demand for end-user products (such as PCs) that incorporate our products; and
- excess inventory levels.

Industry-wide fluctuations in the computer marketplace have materially adversely affected us in the past and may materially adversely affect us in the future. For example, a large portion of our Computing and Graphics revenue is focused on consumer desktop PC and notebook segments. While the overall growth in these segments is stabilizing, the sub-segments of these markets are changing. Our ability to take advantage of the growth in these sub-segments is based on foreseeing those changes and making timely investments in the form factors that serve those growing sub-segments.

Global economic uncertainty and weakness have also impacted the semiconductor market as consumers and businesses have deferred purchases, which negatively impacted demand for our products. Our financial performance has been, and may in the future be, negatively affected by these downturns.

The growth of our business is also dependent on continued demand for our products from high-growth adjacent emerging global markets. Our ability to be successful in such markets depends in part on our ability to establish adequate local infrastructure, as well as our ability to cultivate and maintain local relationships in these markets. If demand from these markets is below our expectations, sales of our products may decrease, which would have a material adverse effect on us.

Acquisitions, divestitures and/or joint ventures could disrupt our business, harm our financial condition and operating results or dilute, or adversely affect the price of, our common stock.

Our success will depend, in part, on our ability to expand our product offerings and grow our business in response to changing technologies, customer demands and competitive pressures. In some circumstances, we may pursue growth through the acquisition of complementary businesses, solutions or technologies or through divestitures or joint ventures rather than through internal development. The identification of suitable acquisition or joint venture candidates can be difficult, time-consuming and costly, and we may not be able to successfully complete identified acquisitions or joint ventures. Moreover, if such acquisitions or joint ventures require us to seek additional debt or equity financing, we may not be able to obtain such financing on terms favorable to us or at all. Even if we successfully complete an acquisition or a joint venture, we may not be able to assimilate and integrate effectively or efficiently the acquired business, technologies, solutions, assets, personnel or operations, particularly if key personnel of the acquired company decide not to work for us. Acquisitions and joint ventures may also involve the entry into geographic or business markets in which we have little or no prior experience. Consequently, we may not achieve anticipated benefits of the acquisitions or joint ventures which could harm our operating results. In addition, to complete an acquisition, we may issue equity securities, which would dilute our stockholders' ownership and could adversely affect the price of our common stock, as well as incur debt, assume contingent liabilities or have amortization expenses and write-downs of acquired assets, which could adversely affect our results of operations. Acquisitions and joint ventures may also reduce our cash available for operations and other uses, which could harm our business. Also, any failure on our part to effectively evaluate and execute new business initiatives could adversely affect our business. We may not adequately assess the risk of new business initiatives and subsequent events may arise that alter the risks that were initially considered.

Furthermore, we may not achieve the objectives and expectations with respect to future operations, products and services. On April 2016, we consummated the transaction with TFME, under which we sold to TFME 85% of the equity interests in our JVs. Going forward, we expect the majority of our ATMP services will be provided by the JVs and there is no guarantee that the JVs will be able to adequately fulfill our ATMP requirements as we continue to transition operations to TFME, nor is there any guarantee that the JVs will be able to fulfill our long-term ATMP requirements. If we are unable to meet customer demand due to fluctuating or late supply from the JVs, it could result in lost sales and have a material adverse effect on our business.

In addition, we may not realize the anticipated benefits from any new business initiatives. For example, in connection with our strategy of licensing portions of our intellectual property portfolio, in the first quarter of 2016, we entered into a joint venture with Tianjin Haiguang Advanced Technology Investment Co., Ltd. (THATIC), comprised of two separate legal entities, China JV1 and China JV2 (collectively, the THATIC JV). The primary purpose of the THATIC JV is to support our expansion into the server and workstation product market in China. We also licensed certain of our intellectual property (Licensed IP) to the THATIC JV for license fees payable over several years contingent upon achievement of certain milestones. We also expect to receive a royalty based on the sales of the THATIC JV's products to be developed on the basis of such Licensed IP. We may not realize the expected benefits from this joint venture, including the THATIC JV's expected future performance, the receipt of any future milestone payments from the Licensed IP, and the receipt of any royalty payments from future sales of products by the THATIC JV.

Our business is dependent upon the proper functioning of our internal business processes and information systems and modification or interruption of such systems may disrupt our business, processes and internal controls.

We rely upon a number of internal business processes and information systems to support key business functions, and the efficient operation of these processes and systems is critical to our business. Our business processes and information systems need to be sufficiently scalable to support the growth of our business and may require modifications or upgrades that expose us to a number of operational risks. As such, our information systems will continually evolve and adapt in order to meet our business needs. These changes may be costly and disruptive to our operations and could impose substantial demands on management time.

These changes may also require changes in our information systems, modification of internal control procedures and significant training of employees and third-party resources. We continuously work on simplifying our information systems and applications through consolidation and standardization efforts. There can be no assurance that our business and operations will not experience any disruption in connection with this transition. Our information technology systems, and those of third-party information technology providers or business partners, may also be vulnerable to damage or disruption caused by circumstances beyond our control including catastrophic events, power anomalies or outages, natural disasters, viruses or malware, cyber-attacks, data breaches and computer system or network failures, exposing us to significant cost, reputational harm and disruption or damage to our business.

In addition, as our IT environment continues to evolve, we are embracing new ways of communicating and sharing data internally and externally with customers and partners using methods such as mobility and the cloud that can promote business efficiency. However, these practices can also result in a more distributed IT environment, making it more difficult for us to maintain visibility and control over internal and external users, and meet scalability and administrative requirements. If our security controls cannot keep pace with the speed of these changes, or if we are not able to meet regulatory and compliance requirements, our business would be materially adversely affected.

Data breaches and cyber-attacks could compromise our intellectual property or other sensitive information, be costly to remediate and cause significant damage to our business and reputation.

In the ordinary course of our business, we maintain sensitive data on our networks, including our intellectual property and proprietary or confidential business information relating to our business and that of our customers and business partners. The secure maintenance of this information is critical to our business and reputation. We believe that companies have been increasingly subject to a wide variety of security incidents, cyber-attacks, hacking and phishing attacks, and other attempts to gain unauthorized access. These threats can come from a variety of sources, all ranging in sophistication from an individual hacker to a state-sponsored attack. Cyber threats may be generic, or they may be custom-crafted against our information systems. Over the past year, cyber-attacks have become more prevalent and much harder to detect and defend against. Our network and storage applications may be subject to unauthorized access by hackers or breached due to operator error, malfeasance or other system disruptions. It is often difficult to anticipate or immediately detect such incidents and the damage caused by such incidents. These data breaches and any unauthorized access or disclosure of our information or intellectual property could compromise our intellectual property and expose sensitive business information. Cyber-attacks could also cause us to incur significant remediation costs, result in product development delays, disrupt key business operations and divert attention of management and key information technology resources. These incidents could also subject us to liability, expose us to significant expense and cause significant harm to our reputation and business. In addition, we could be subject to potential claims for damages resulting from loss of data from alleged vulnerabilities in the security of our processors. We also maintain confidential and personally identifiable information about our workers. The integrity and protection of our worker data is critical to our business and our workers have a high expectation that we will adequately protect their personal information. We anticipate an increase in costs related to:

- implementing new data security procedures, including costs related to upgrading computer and network security;
- training workers to maintain and monitor our security measures;
- remediating any data security breach and addressing the related litigation; and
- mitigating reputational harm.

We often partner with third-party providers for certain worker services and we may provide certain limited worker information to such third parties based on the scope of the services provided to us. However, if these third parties fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, our workers' data may be improperly accessed, used or disclosed. A breach of data privacy is likely to cause significant disruption of our business operations. Failure to adequately maintain and update our security systems could materially adversely affect our operations and our ability to maintain worker confidence. Failure to prevent unauthorized access to electronic and other confidential information and data breaches could materially adversely affect our financial condition, our competitive position and operating results.

Our operating results are subject to quarterly and seasonal sales patterns.

A large portion of our quarterly sales have historically been made in the last month of the quarter. This uneven sales pattern makes prediction of revenue for each financial period difficult and increases the risk of unanticipated variations in quarterly results and financial condition. In addition, our operating results tend to vary seasonally with the markets in which our products are sold. For example, historically, first quarter PC product sales are generally lower than fourth quarter sales. In addition, with respect to our semi-custom SoC products for game consoles, we expect sales patterns to follow the seasonal trends of a consumer business with sales in the first half of the year being lower than sales in the second half of the year. Many of the factors that create and affect quarterly and seasonal trends are beyond our control.

If essential equipment, materials or manufacturing processes are not available to manufacture our products, we could be materially adversely affected.

We may purchase equipment and materials for our back-end manufacturing operations from a number of suppliers and our operations depend upon obtaining deliveries of adequate supplies of equipment and materials on a timely basis. Our third-party suppliers also depend on the same timely delivery of adequate quantities of equipment and materials in the manufacture of our products. In addition, as many of our products increase in technical complexity, we rely on our third-party suppliers to update their processes in order to continue meeting our back-end manufacturing needs. Certain equipment and materials that are used in the manufacture of our products are available only from a limited number of suppliers, or in some cases, a sole supplier. We also depend on a limited number of suppliers to provide the majority of certain types of integrated circuit packages for our microprocessors, including our APU products. Similarly, certain non-proprietary materials or components such as memory, printed circuit boards (PCBs), interposers, substrates and capacitors used in the manufacture of our products are currently available from only a limited number of sources. Because some of the equipment and materials that we and our third-party manufacturing suppliers purchase are complex, it is sometimes difficult to substitute one supplier for another.

From time to time, suppliers may extend lead times, limit supply or increase prices due to capacity constraints or other factors. Also, some of these materials and components may be subject to rapid changes in price and availability. Interruption of supply or increased demand in the industry could cause shortages and price increases in various essential materials. Dependence on a sole supplier or a limited number of suppliers exacerbates these risks. If we are unable to procure certain of these materials for our back-end manufacturing operations, or our third-party foundries or manufacturing suppliers are unable to procure materials for manufacturing our products, our business would be materially adversely affected.

If our products are not compatible with some or all industry-standard software and hardware, we could be materially adversely affected.

Our products may not be fully compatible with some or all industry-standard software and hardware. Further, we may be unsuccessful in correcting any such compatibility problems in a timely manner. If our customers are unable to achieve compatibility with software or hardware, we could be materially adversely affected. In addition, the mere announcement of an incompatibility problem relating to our products could have a material adverse effect on our business.

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

Products as complex as those we offer may contain defects or failures when first introduced or when new versions or enhancements to existing products are released. We cannot assure you that, despite our testing procedures, errors will not be found in new products or releases after commencement of commercial shipments in the future, which could result in loss of or delay in market acceptance of our products, material recall and replacement costs, delay in recognition or loss of revenue, writing down the inventory of defective products, the diversion of the attention of our engineering personnel from product development efforts, defending against litigation related to defective products or related property damage or personal injury and damage to our reputation in the industry and could adversely affect our relationships with our customers. In addition, we may have difficulty identifying the end customers of the defective products in the field. As a result, we could incur substantial costs to implement modifications to correct defects. Any of these problems could materially adversely affect our business.

We could be subject to potential product liability claims if one of our products causes, or merely appears to have caused, an injury. Claims may be made by consumers or others selling our products, and we may be subject to claims against us even if an alleged injury is due to the actions of others. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could have a material adverse effect on our business.

If we fail to maintain the efficiency of our supply chain as we respond to changes in customer demand for our products, our business could be materially adversely affected.

Our ability to meet customer demand for our products depends, in part, on our ability to deliver the products our customers want on a timely basis. Accordingly, we rely on our supply chain for the manufacturing, distribution and fulfillment of our products. As we continue to grow our business, expand to high-growth adjacent markets, acquire new customers and strengthen relationships with existing customers, the efficiency of our supply chain will become increasingly important because many of our customers tend to have specific requirements for particular products, and specific time-frames in which they require delivery of these products. If we are unable to consistently deliver the right products to our customers on a timely basis in the right locations, our customers may reduce the quantities they order from us, which could have a material adverse effect on our business.

We outsource to third parties certain supply-chain logistics functions, including portions of our product distribution, transportation management and information technology support services.

We rely on third-party providers to operate our regional product distribution centers and to manage the transportation of our work-in-process and finished products among our facilities, to our manufacturing suppliers and to our customers. In addition, we rely on third parties to provide certain information technology services to us, including help desk support, desktop application services, business and software support applications, server and storage administration, data center operations, database administration and voice, video and remote access. We cannot guarantee that these providers will fulfill their respective responsibilities in a timely manner in accordance with the contract terms, in which case our internal operations and the distribution of our products to our customers could be materially adversely affected. Also, we cannot guarantee that our contracts with these third-party providers will be renewed, in which case we would have to transition these functions in-house or secure new providers, which could have a material adverse effect on our business if the transition is not executed appropriately.

The completion and impact of the 2015 Restructuring Plan, our transformation initiatives and any future restructuring actions could adversely affect us.

In the third quarter of 2015, we implemented a restructuring plan (2015 Restructuring Plan) focused on our ongoing efforts to simplify our business and better align resources around our priorities and business outlook. The 2015 Restructuring Plan largely involved a reduction of global headcount by approximately 5% and includes organizational actions such as outsourcing certain IT services and application development. We expect the 2015 Restructuring Plan will be completed by the end of the first quarter of 2017. These restructuring actions and any future restructuring actions could have an adverse impact on our business as a result of decreases in employee morale and the failure to meet operational targets due to the loss of employees. We cannot be sure that we will realize operational savings or any other anticipated benefits from the 2015 Restructuring Plan or any future restructuring actions. Any operating savings are subject to assumptions, estimates and significant economic, competitive and other uncertainties, some of which are beyond our control. If these estimates and assumptions are incorrect, if we experience delays or if other unforeseen events occur, our business and financial results could be adversely affected.

Any transformation initiatives or future restructuring actions we undertake may fail to achieve the anticipated results and may materially adversely affect our business and financial results.

We may incur future impairments of goodwill.

We perform our annual goodwill impairment analysis as of the first day of the fourth quarter of each year. Subsequent to our annual goodwill impairment analysis, we monitor for any events or changes in circumstances, such as significant adverse changes in business climate or operating results, changes in management's business strategy, an inability to successfully introduce new products in the marketplace, an inability to successfully achieve internal forecasts or significant declines in our stock price, which may represent an indicator of impairment. The occurrence of any of these events may require us to record future goodwill impairment charges.

Our stock price is subject to volatility.

Our stock price has experienced price and volume fluctuations and could be subject to wide fluctuations in the future. During 2016, the closing price of our stock price ranged from $1.80 to $12.07. The trading price of our stock may fluctuate widely due to various factors including, actual or anticipated fluctuations in our financial conditions and operating results, changes in financial estimates by us or securities analysts, changes in our capital structure, including issuance of additional debt or equity to the public, interest rate changes, and broad market and industry fluctuations. Stock price fluctuations could impact the value of our equity compensation, which could affect our ability to recruit and retain employees. In addition, volatility in our stock price could adversely affect our business and financing opportunities.

Our worldwide operations are subject to political, legal and economic risks and natural disasters, which could have a material adverse effect on us.

We maintain operations around the world, including in the United States, Canada, Europe and Asia. We rely on third-party wafer foundries in Europe and Asia. Nearly all product assembly and final testing of our products is performed at manufacturing facilities, operated by third-party manufacturing facilities, in China, Malaysia and Taiwan. We also have international sales operations. International sales, as a percent of net revenue, were 78% in 2016. We expect that international sales will continue to be a significant portion of total sales in the foreseeable future.

The political, legal and economic risks associated with our operations in foreign countries include, without limitation:

- expropriation;
- changes in a specific country's or region's political or economic conditions;
- changes in tax laws, trade protection measures and import or export licensing requirements;
- difficulties in protecting our intellectual property;
- difficulties in managing staffing and exposure to different employment practices and labor laws;
- changes in foreign currency exchange rates;
- restrictions on transfers of funds and other assets of our subsidiaries between jurisdictions;

- changes in freight and interest rates;
- disruption in air transportation between the United States and our overseas facilities;
- loss or modification of exemptions for taxes and tariffs; and
- compliance with U.S. laws and regulations related to international operations, including export control and economic sanctions laws and regulations and the Foreign Corrupt Practices Act.

In addition, our worldwide operations (or those of our business partners) could be subject to natural disasters such as earthquakes, tsunamis, flooding, typhoons and volcanic eruptions that disrupt manufacturing or other operations. For example, our Sunnyvale operations are located near major earthquake fault lines in California. Any conflict or uncertainty in the countries in which we operate, including public health issues (for example, an outbreak of a contagious disease such as Avian Influenza, measles or Ebola), safety issues, natural disasters, fire, disruptions of service from utilities, nuclear power plant accidents or general economic or political factors. For example, the United Kingdom's recent referendum, commonly referred to as “Brexit,” has created economic and political uncertainty in the European Union. Also the new U.S. administration has called for changes to domestic and foreign policy. We cannot predict the impact, if any, of the policies adopted by the new administration will have on our business. Until we know what changes are enacted, we will not know whether in total we benefit from, or are negatively affected by, the changes. Any of the above risks, should they occur, could result in an increase in the cost of components, production delays, general business interruptions, delays from difficulties in obtaining export licenses for certain technology, tariffs and other barriers and restrictions, longer payment cycles, increased taxes, restrictions on the repatriation of funds and the burdens of complying with a variety of foreign laws, any of which could ultimately have a material adverse effect on our business.

Worldwide political conditions may adversely affect demand for our products.

Worldwide political conditions may create uncertainties that could adversely affect our business. The United States has been and may continue to be involved in armed conflicts that could have a further impact on our sales and our supply chain. The consequences of armed conflict, political instability or civil or military unrest are unpredictable, and we may not be able to foresee events that could have a material adverse effect on us. Terrorist attacks or other hostile acts may negatively affect our operations, or adversely affect demand for our products, and such attacks or related armed conflicts may impact our physical facilities or those of our suppliers or customers. Furthermore, these attacks or hostile acts may make travel and the transportation of our products more difficult and more expensive, which could materially adversely affect us. Any of these events could cause consumer spending to decrease or result in increased volatility in the United States economy and worldwide financial markets.

Unfavorable currency exchange rate fluctuations could adversely affect us.

We have costs, assets and liabilities that are denominated in foreign currencies. As a consequence, movements in exchange rates could cause our foreign currency denominated expenses to increase as a percentage of revenue, affecting our profitability and cash flows. Whenever we believe appropriate, we hedge a portion of our short-term foreign currency exposure to protect against fluctuations in currency exchange rates. We determine our total foreign currency exposure using projections of long-term expenditures for items such as payroll. We cannot assure you that these activities will be effective in reducing foreign exchange rate exposure. Failure to do so could have an adverse effect on our business, financial condition, results of operations and cash flow. In addition, the majority of our product sales are denominated in U.S. dollars. Fluctuations in the exchange rate between the U.S. dollar and the local currency can cause increases or decreases in the cost of our products in the local currency of such customers. An appreciation of the U.S. dollar relative to the local currency could reduce sales of our products.

Our inability to effectively control the sales of our products on the gray market could have a material adverse effect on us.

We market and sell our products directly to OEMs and through authorized third-party distributors. From time to time, our products are diverted from our authorized distribution channels and are sold on the "gray market." Gray market products result in shadow inventory that is not visible to us, thus making it difficult to forecast demand accurately. Also, when gray market products enter the market, we and our distribution channels compete with these heavily discounted gray market products, which adversely affects demand for our products and negatively impact our margins. In addition, our inability to control gray market activities could result in customer satisfaction issues because any time products are purchased outside our authorized distribution channels there is a risk that our customers are buying counterfeit or substandard products, including products that may have been altered, mishandled or damaged, or are used products represented as new.

If we cannot adequately protect our technology or other intellectual property in the United States and abroad, through patents, copyrights, trade secrets, trademarks and other measures, we may lose a competitive advantage and incur significant expenses.

We rely on a combination of protections provided by contracts, including confidentiality and nondisclosure agreements, copyrights, patents, trademarks and common law rights, such as trade secrets, to protect our intellectual property. However, we cannot assure you that we will be able to adequately protect our technology or other intellectual property from third-party infringement or from misappropriation in the United States and abroad. Any patent licensed by us or issued to us could be challenged, invalidated or circumvented or rights granted there under may not provide a competitive advantage to us.

Furthermore, patent applications that we file may not result in issuance of a patent or, if a patent is issued, the patent may not be issued in a form that is advantageous to us. Despite our efforts to protect our intellectual property rights, others may independently develop similar products, duplicate our products or design around our patents and other rights. In addition, it is difficult to monitor compliance with, and enforce, our intellectual property on a worldwide basis in a cost-effective manner. In jurisdictions where foreign laws provide less intellectual property protection than afforded in the United States and abroad, our technology or other intellectual property may be compromised, and our business would be materially adversely affected.

We are party to litigation and may become a party to other claims or litigation that could cause us to incur substantial costs or pay substantial damages or prohibit us from selling our products.

From time to time, we are a defendant or plaintiff in various legal actions. For example, on January 15, 2014, March 20, 2014, April 27, 2015 and September 29, 2015, complaints were filed against us seeking damages for alleged securities law violations which are described in Note 17 of our consolidated financial statements. Our products are purchased by and/or used by consumers, which could increase our exposure to consumer actions such as product liability claims and consumer class action claims. On occasion, we receive claims that individuals were allegedly exposed to substances used in our former semiconductor wafer manufacturing facilities and that this alleged exposure caused harm. Litigation can involve complex factual and legal questions, and its outcome is uncertain. Any claim that is successfully asserted against us, including the claims filed against us on January 15, 2014, March 20, 2014, April 27, 2015 and September 29, 2015, may result in the payment of damages that could be material to our business.

With respect to intellectual property litigation, from time to time, we have been notified of, or third parties may bring or have brought, actions against us and/or against our customers based on allegations that we are infringing the intellectual property rights of others, contributing to or inducing the infringement of the intellectual property rights of others, improperly claiming ownership of intellectual property or otherwise improperly using the intellectual property of others. If any such claims are asserted, we may seek to obtain a license under the third parties' intellectual property rights. We cannot assure you that we will be able to obtain all of the necessary licenses on satisfactory terms, if at all. These parties may file lawsuits against us or our customers seeking damages (potentially up to and including treble damages) or an injunction against the sale of products that incorporate allegedly infringed intellectual property or against the operation of our business as presently conducted, which could result in our having to stop the sale of some of our products or to increase the costs of selling some of our products or which could damage our reputation. The award of damages, including material royalty payments, or other types of damages, or the entry of an injunction against the manufacture and sale of some or all of our products could have a material adverse effect on us. We could decide, in the alternative, to redesign our products or to resort to litigation to challenge such claims. Such challenges could be extremely expensive and time-consuming regardless of their merit, could cause delays in product release or shipment and/or could have a material adverse effect on us. We cannot assure you that litigation related to our intellectual property rights or the intellectual property rights of others can always be avoided or successfully concluded.

Even if we were to prevail, any litigation could be costly and time-consuming and would divert the attention of our management and key personnel from our business operations, which could have a material adverse effect on us.

Our business is subject to potential tax liabilities.

We are subject to income taxes in the United States, Canada and other foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Although we believe our tax estimates are reasonable, we cannot assure you that the final determination of any tax audits and litigation will not be materially different from that which is reflected in historical income tax provisions and accruals. Should additional taxes be assessed as a result of an audit, assessment or litigation, there could be a material adverse effect on our cash, income tax provision and net income in the period or periods for which that determination is made.

We are subject to environmental laws, conflict minerals-related provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act as well as a variety of other laws or regulations that could result in additional costs and liabilities.

Our operations and properties have in the past been and continue to be subject to various United States and foreign laws and regulations, including those relating to materials used in our products and manufacturing processes, discharge of pollutants into the environment, the treatment, transport, storage and disposal of solid and hazardous wastes and remediation of contamination. These laws and regulations require our suppliers to obtain permits for operations making our products, including the discharge of air pollutants and wastewater. Although our management systems are designed to oversee our suppliers' compliance, we cannot assure you that our suppliers have been or will be at all times in complete compliance with such laws, regulations and permits. If our suppliers violate or fail to comply with any of them, a range of consequences could result, including fines, suspension of production, alteration of manufacturing processes, import/export restrictions, sales limitations, criminal and civil liabilities or other sanctions. Such non-compliance from our manufacturing suppliers could result in disruptions in supply, higher sourcing costs, and/or reputational damage for us.

Environmental laws are complex, change frequently and have tended to become more stringent over time. For example, the European Union (EU) and China are two among a growing number of jurisdictions that have enacted restrictions on the use of lead and other materials in electronic products. These regulations affect semiconductor devices and packaging. As regulations restricting materials in electronic products continue to increase around the world, there is a risk that the cost, quality and manufacturing yields of products that are subject to these restrictions, may be less favorable compared to products that are not subject to such restrictions, or that the transition to compliant products may not meet customer roadmaps, or produce sudden changes in demand, which may result in excess inventory. A number of jurisdictions including the EU, Australia and China are developing or have finalized market entry or public procurement regulations for computers and servers based on ENERGY STAR specifications as well as additional energy consumption limits. There is the potential for certain of our products being excluded from some of these markets which could materially adversely affect us.

Certain environmental laws, including the U.S. Comprehensive, Environmental Response, Compensation and Liability Act of 1980, or the Superfund Act, impose strict or, under certain circumstances, joint and several liability on current and previous owners or operators of real property for the cost of removal or remediation of hazardous substances and impose liability for damages to natural resources. These laws often impose liability even if the owner or operator did not know of, or was not responsible for, the release of such hazardous substances. These environmental laws also assess liability on persons who arrange for hazardous substances to be sent to disposal or treatment facilities when such facilities are found to be contaminated. Such persons can be responsible for cleanup costs even if they never owned or operated the contaminated facility. We have been named as a responsible party at three Superfund sites in Sunnyvale, California. Although we have not yet been, we could be named a potentially responsible party at other Superfund or contaminated sites in the future. In addition, contamination that has not yet been identified could exist at our other facilities.

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC adopted disclosure and reporting requirements for companies that use “conflict” minerals originating from the Democratic Republic of Congo or adjoining countries. We continue to incur additional costs associated with complying with these requirements, such as costs related to developing internal controls for the due diligence process, determining the source of any conflict minerals used in our products, auditing the process and reporting to our customers and the SEC. In addition to the SEC regulation, the European Union, China and other jurisdictions are developing new policies focused on conflict minerals that may impact and increase the cost of our compliance program. Also, since our supply chain is complex, we may face reputational challenges if we are unable to sufficiently verify the origins of the subject minerals. Moreover, we are likely to encounter challenges to satisfy those customers who require that all of the components of our products are certified as “conflict free.” If we cannot satisfy these customers, they may choose a competitor’s products.

Recently, the U.S. federal government has issued new policies for federal procurement focused on eradicating the practice of forced labor and human trafficking. In addition, the United Kingdom and the State of California have issued laws that require us to disclose our policy and practices for identifying and eliminating forced labor and human trafficking in our supply chain. Several customers as well as the Electronic Industry Citizenship Coalition (EICC) have also issued expectations to eliminate these practices that may impact us. While we have a policy and management systems to identify and avoid these practices in our supply chain, we cannot guarantee that our suppliers will always be in conformance to these laws and expectations. We may face enforcement liability and reputational challenges if we are unable to sufficiently meet these expectations. Moreover, we are likely to encounter challenges with customers if we cannot satisfy their forced and trafficked labor polices and they may choose a competitor’s products.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

As of December 31, 2016, we leased approximately 2.23 million square feet of space for research and development, engineering, administrative and warehouse use, including our headquarters in Sunnyvale, California, our principal administrative facilities in Austin, Texas, our main facility with respect to graphics and chipset products located in Markham, Ontario, Canada and a number of smaller regional sales offices located in commercial centers near customers, principally in the United States, Latin America, Europe and Asia. These leases expire at varying dates through 2028, although some of these leases include optional renewals. During the second quarter of 2016, we signed an amendment to the lease agreement associated with our headquarters in Sunnyvale, California so that the lease expires a year earlier, in December 2017. During the third quarter of 2016, we entered into a 10-year operating lease to occupy 220,156 square feet of new office space in Santa Clara, California. We estimate this lease to commence in August 2017. We have the option to extend the term of the lease for two additional 5-year periods. The lease for our principal administrative facilities in Austin, Texas expires in March 2025, and provides for one 10-year optional renewal. The lease for our facilities in Markham, Ontario, Canada expires in February 2028, and provides for one 5-year optional renewal.

We currently do not anticipate difficulty in either retaining occupancy of any of our facilities through lease renewals prior to expiration or through month-to-month occupancy, or replacing them with equivalent facilities.
We also have approximately 101,000 square feet of building space that is currently vacant. We continue to have lease obligations with respect to portions of this space that expire at various dates through 2017.
We believe that our existing facilities are suitable and adequate for our present purposes, and that, except as discussed above, the productive capacity of such facilities is substantially being utilized or we have plans to utilize such capacity.

ITEM 3. LEGAL PROCEEDINGS

Securities Class Action

On January 15, 2014, a class action lawsuit captioned Hatamian v. AMD, et al., C.A. No. 3:14-cv-00226 (the Hatamian Lawsuit) was filed against us in the United States District Court for the Northern District of California. The complaint purports to assert claims against us and certain individual officers for alleged violations of Section 10(b) of the Securities Exchange Act of 1934, as amended (the Exchange Act), and Rule 10b-5 of the Exchange Act. The plaintiffs seek to represent a proposed class of all persons who purchased or otherwise acquired our common stock during the period April 4, 2011 through October 18, 2012. The complaint seeks damages allegedly caused by alleged materially misleading statements and/or material omissions by us and the individual officers regarding our 32nm technology and “Llano” product, which statements and omissions, the plaintiffs claim, allegedly operated to artificially inflate the price paid for our common stock during the period. The complaint seeks unspecified compensatory damages, attorneys’ fees and costs. On July 7, 2014, we filed a motion to dismiss plaintiffs’ claims. On March 31, 2015, the Court denied the motion to dismiss. On May 14, 2015, we filed our answer to plaintiffs’ corrected amended complaint. On September 4, 2015, plaintiffs filed their motion for class certification, and on March 16, 2016, the Court granted plaintiffs' motion. A court-ordered mediation held in January 2016 did not result in a settlement of the lawsuit. The discovery process is ongoing.
Based upon information presently known to management, we believe that the potential liability, if any, will not have a material adverse effect on our financial condition, cash flows or results of operations.

Shareholder Derivative Lawsuits

On March 20, 2014, a purported shareholder derivative lawsuit captioned Wessels v. Read, et al., Case No. 1:14 cv-262486 (Wessels) was filed against us (as a nominal defendant only) and certain of our directors and officers in the Santa Clara County Superior Court of the State of California. The complaint purports to assert claims against us and certain individual directors and officers for breach of fiduciary duty, waste of corporate assets and unjust enrichment. The complaint seeks damages allegedly caused by alleged materially misleading statements and/or material omissions by us and the individual directors and officers regarding our 32nm technology and “Llano” product, which statements and omissions, the plaintiffs claim, allegedly operated to artificially inflate the price paid for our common stock during the period. On April 27, 2015, a similar purported shareholder derivative lawsuit captioned Christopher Hamilton and David Hamilton v. Barnes, et al., Case No. 5:15-cv-01890 (Hamilton) was filed against us (as a nominal defendant only) and certain of our directors and officers in the United States District Court for the Northern District of California. The case was transferred to the judge handling the Hatamian Lawsuit and is now Case No. 4:15-cv-01890. On September 29, 2015, a similar purported shareholder derivative lawsuit captioned Jake Ha v Caldwell, et al., Case No. 3:15-cv-04485 (Ha) was filed against us (as a nominal defendant only) and certain of our directors and officers in the United States District Court for the Northern District of California. The lawsuit also seeks a court order voiding the stockholder vote on our 2015 proxy. The case was transferred to the judge handling the Hatamian Lawsuit and is now Case No. 4:15-cv-04485. The Wessels, Hamilton and Ha shareholder derivative lawsuits are currently stayed.
Based upon information presently known to management, we believe that the potential liability, if any, will not have a material adverse effect on our financial condition, cash flows or results of operations.

ZiiLabs Litigation

On December 16, 2016, a patent lawsuit captioned ZiiLabs v. AMD, C.A. No. 2:16-cv-1418 in the United States District Court for Eastern District of Texas (the “ZiiLabs Lawsuit”) was filed against us in the United States District Court for the Eastern District of Texas. The complaint alleges that we infringed four patents related generally to graphics processors and memory controllers. The complaint seeks damages, interest, and attorneys’ fees. ZiiLabs filed several similar lawsuits against other companies on the same day. On the same date, ZiiLabs also filed a complaint with the United States International Trade Commission (“USITC”) pursuant to Section 337 of the Tariff Act of 1930 against us and several other companies asserting the same four patents.

The complaint seeks a limited exclusion order barring the importation of certain products that contain AMD memory controllers and graphics processors. One of our customers is also a named respondent. On January 18, 2017, the USITC announced that it would institute the investigation, entitled 337-TA-1037, In the Matter of Certain Graphics Processors, DDR Memory Controllers, and Products Containing the Same.

Based upon information presently known to management, we believe that the potential liability, if any, will not have a material adverse effect on our financial condition, cash flows or results of operations.

Environmental Matters

We are named as a responsible party on Superfund clean-up orders for three sites in Sunnyvale, California that are on the National Priorities List. Since 1981, we have discovered hazardous material releases to the groundwater from former underground tanks and proceeded to investigate and conduct remediation at these three sites. The chemicals released into the groundwater were commonly used in the semiconductor industry in the United States in the wafer fabrication process prior to 1979.

In 1991, we received Final Site Clean-up Requirements Orders from the California Regional Water Quality Control Board relating to the three sites. We have entered into settlement agreements with other responsible parties on two of the orders. During the term of such agreements, other parties have agreed to assume most of the foreseeable costs as well as the primary role in conducting remediation activities under the orders. We remain responsible for additional costs beyond the scope of the agreements as well as all remaining costs in the event that the other parties do not fulfill their obligations under the settlement agreements.

To address anticipated future remediation costs under the orders, we have computed and recorded an estimated environmental liability of approximately $4 million and have not recorded any potential insurance recoveries in determining the estimated costs of the cleanup. Costs could also increase as a result of additional test and remediation obligations imposed by the Environmental Protection Agency or California Regional Water Quality Control Board. The progress of future remediation efforts cannot be predicted with certainty and these costs may change. We believe that the potential liability, if any, in excess of amounts already accrued, will not have a material adverse effect on our financial condition, cash flows or results of operations.

Other Matters

We are a defendant or plaintiff in various actions that arose in the normal course of business. With respect to these matters, based on our management’s current knowledge, we believe that the amount or range of reasonably possible loss, if any, will not, either individually or in the aggregate, have a material adverse effect on our business, financial position, results of operations or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

PART II

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

Our common stock is listed on The NASDAQ Capital Market (NASDAQ) under the symbol "AMD". On February 10, 2017, there were 6,150 registered holders of our common stock, and the closing price of our common stock was $13.58 per share as reported on NASDAQ.

The following table sets forth on a per share basis the high and low intra-day sales prices on NASDAQ and the New York Stock Exchange for our common stock for the periods indicated:

	High	Low
Fiscal Year 2016 Quarters Ended:		
March 26, 2016	$3.06	$1.75
June 25, 2016	$5.52	$2.60
September 24, 2016	$8.00	$4.65
December 31, 2016	$12.42	$6.22
	High	Low
Fiscal Year 2015 Quarters Ended:		
March 28, 2015	$3.37	$2.14
June 27, 2015	$2.94	$2.20
September 26, 2015	$2.63	$1.61
December 26, 2015	$3.00	$1.65

Currently, we do not have any plans to pay dividends on our common stock. Under the terms of our indentures for our 6.75% Senior Notes due 2019 (6.75% Notes), 7.50% Senior Notes due 2022 (7.50% Notes) and 7.00% Senior Notes due 2024 (7.00% Notes), we are prohibited from paying cash dividends if the aggregate amount of dividends and other restricted payments made by us since entering into each indenture would exceed the sum of specified financial measures including fifty percent of consolidated net income as that term is defined in the indentures. We are prohibited from paying cash dividends on our common stock when certain payment conditions (Payment Conditions) are not satisfied. The Payment Conditions include that (i) no default or event of default exists and (ii) at all times during the 45 consecutive days immediately prior to such transaction, event or payment and on a pro forma basis after giving effect to such transaction, event or payment and any incurrence or repayment of indebtedness in connection therewith, the Loan Parties'(as defined in the Amended and Restated Loan Agreement) excess available cash is greater than the greater of 20% of the total commitment amount and $100 million.

For information about our equity compensation plans, see Part III, Item 11, below.

Performance Graph
Comparison of Five-Year Cumulative Total Returns
Advanced Micro Devices and the S&P 400 and S&P 400 Semiconductor Indices
The following graph shows a five-year comparison of cumulative total return on our common stock and the S&P 400 and S&P 400 Semiconductor Indices from December 31, 2011 through December 31, 2016. The past performance of our common stock is no indication of future performance.

	Base Period	Years Ending				
Company / Index	12/31/2011	12/29/2012	12/28/2013	12/27/2014	12/26/2015	12/31/2016
Advanced Micro Devices, Inc.	100	42.22	70.00	49.07	54.07	210.00
S&P 400 Index	100	116.02	156.60	174.49	171.01	204.03
S&P 400 Semiconductors Index	100	100.93	133.01	187.72	199.93	268.67

32

ITEM 6. SELECTED FINANCIAL DATA
Five Years Ended December 31, 2016
(In millions except per share amounts)

	2016[1]	2015[1]	2014[1]	2013[1]	2012[1]
Net revenue	$4,272	$3,991	$5,506	$5,299	$5,422
Net loss [2][3][4][5][6][7][8]	(497)	(660)	(403)	(83)	(1,183)
Net loss per common share					
Basic	$(0.60)	$(0.84)	$(0.53)	$(0.11)	$(1.60)
Diluted	$(0.60)	$(0.84)	$(0.53)	$(0.11)	$(1.60)
Shares used in per share calculation					
Basic	835	783	768	754	741
Diluted	835	783	768	754	741
Long-term debt, net and other long term liabilities [9][10]	$1,559	$2,093	$2,110	$2,153	$2,039
Total assets [10]	$3,321	$3,084	$3,737	$4,315	$3,974

(1) 2016 consisted of 53 weeks, whereas 2015, 2014, 2013 and 2012 each consisted of 52 weeks.

(2) In 2013, we entered into licenses and settlements regarding patent-related matters. Pursuant to these licenses and settlements, we received in aggregate, $48 million, net, which we recorded within net legal settlements in 2013.

(3) During the first quarter of 2012, we entered into a second amendment to the WSA with GF. The primary effect of this amendment was to modify certain pricing and other terms of the WSA applicable to wafers for our microprocessor and APU products, to be delivered by GF to us during 2012. As a result of the amendment, we recorded a $703 million charge during the first quarter of 2012. During the fourth quarter of 2012, we entered into a third amendment to the WSA. Pursuant to the third amendment, we modified our wafer purchase commitments for the fourth quarter of 2012 made pursuant to the second amendment to the WSA. In addition, we agreed to certain pricing and other terms of the WSA applicable to wafers for our microprocessor and APU products, to be delivered by GF to us from the fourth quarter of 2012 through December 31, 2013. Pursuant to the third amendment, GF agreed to waive a portion of our production wafer purchase commitments for the fourth quarter of 2012. In consideration for this waiver, we agreed to pay GF a fee of $320 million, which resulted in a $273 million lower of cost or market charge recorded in the fourth quarter of 2012. During the third quarter of 2016, we entered into a sixth amendment to the WSA to modify certain terms of the WSA applicable to wafers for our microprocessor, graphics processor and semi-custom products for a five-year period from January 1, 2016 to December 31, 2020. Pursuant to the sixth amendment, GF agreed to provide us a limited waiver with rights to contract with another wafer foundry with respect to certain products in the 14nm and 7nm technology nodes and gives us greater flexibility in sourcing foundry services across our product portfolio. In consideration for these rights, we agreed to pay GF $100 million in installments starting in the fourth fiscal quarter of 2016 through the third fiscal quarter of 2017. In addition, in consideration for the limited waiver and rights under the sixth amendment, we entered into a warrant agreement (the Warrant Agreement) with West Coast Hitech L.P. (WCH), a wholly-owned subsidiary of Mubadala Development Company PJSC. Accordingly, in 2016, we recorded a charge of $340 million in Cost of sales, consisting of the $100 million payment under the sixth amendment and the $240 million value of the warrant under the Warrant Agreement issued in consideration of the sixth amendment.

(4) In 2015, 2014, and 2012, we implemented restructuring plans and incurred net charges of $53 million, $58 million, $6 million and $100 million in 2015, 2014, 2013 and 2012, respectively, which primarily consisted of severance and related employee benefits.

(5) In 2015, we exited the dense server systems business, formerly SeaMicro resulting in a charge of $76 million in restructuring and other special charges, net. In 2014, we incurred other special charges of $13 million primarily related to the departure of our former CEO. In 2013, we sold and leased back buildings in various locations and land in Austin, Texas, for which we recorded a net charge of $24 million in other special charges.

(6)

In 2014, we recorded a goodwill impairment charge of $233 million related to our Computing and Graphics segment. Also in 2014, we recorded a $58 million lower of cost or market inventory adjustment related to our second generation APU products. In 2015, we recorded an inventory write-down of $65 million, which was primarily the result of lower anticipated demand for older-generation APUs, and a technology node transition charge of $33 million.

(7) In 2016, we and certain of our subsidiaries completed the sale of a majority of the equity interests in Suzhou TF-AMD Semiconductor Co., Ltd., (formerly AMD Technologies (China) Co., Ltd.), and TF AMD Microelectronics (Penang) Sdn. Bhd. (formerly Advanced Micro Devices Export Sdn. Bhd.), to affiliates of Tongfu Microelectronics Co., Ltd. (formerly Nantong Fujitsu Microelectronics Co., Ltd.) (TFME), a Chinese joint stock company, to form two joint ventures (collectively, the ATMP JV). As a result of the sale, TFME’s affiliates own 85% of the equity interests in each ATMP JV

while certain of our subsidiaries own the remaining 15%. We have no obligations to fund the ATMP JV. As the result of the transaction, we recorded a cumulative pre-tax gain on the sale of our 85% equity interest in ATMP JV of $146 million which was recognized in Other income (expense), net on our consolidated statements of operations. In addition, during 2016, we recorded a $10 million of loss in Equity in income (loss) of ATMP JV on our consolidated statements of operations, which includes certain expenses incurred by us on behalf of the ATMP JV.

(8) In 2016, we recognized $88 million of licensing gain related to the licensing of certain of our intellectual property (Licensed IP) to two joint ventures formed with Tianjin Haiguang Advanced Technology Investment Co., Ltd. (collectively, the THATIC JV)

(9) Total long-term debt, net and other long term liabilities increased by $114 million from 2012 to 2013, primarily due to obligations associated with the license of $157 million of new technology and software, partially offset by the repurchase of $50 million in principal amount of our 6.00% Notes (which is a portion of our outstanding 6.00% Notes). Total long-term debt and other long term liabilities decreased by $534 million from 2015 to 2016, primarily due to $1,048 million of net debt reduction, partially offset by the issuance of $805 million in principal amount of 2.125% Notes net of unamortized discount of $308 million and unamortized financing cost of $14 million, and $38 million increase in other long-term liabilities mainly due to higher technology licenses payable. See Note 11 of our consolidated financial statements for additional information.

(10) Amounts retrospectively reflected adoption of Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) 2015-03, Simplifying the Presentation of Debt Issuance Costs beginning in the first quarter of 2016. We reclassified debt issuance costs from long-term assets to long-term debt, net by $25 million, $30 million, $22 million and $26 million for 2015, 2014, 2013 and 2012, respectively, on our consolidated balance sheets.

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

The following discussion should be read in conjunction with the consolidated financial statements as of December 31, 2016 and December 26, 2015 and for each of the three years in the period ended December 31, 2016 and related notes, which are included in this Annual Report on Form 10-K as well as with the other sections of this Annual Report on Form 10-K, including "Part I, Item 1: Business," "Part II, Item 6: Selected Financial Data" and "Part II, Item 8: Financial Statements and Supplementary Data."

Introduction

We are a global semiconductor company primarily offering:

(i) x86 microprocessors, as standalone devices or as incorporated into an accelerated processing unit (APU), chipsets, discrete graphics processing units (GPUs) and professional graphics; and

(ii) server and embedded processors, semi-custom System-on-Chip (SoC) products and technology for game consoles. We also license portions of our intellectual property portfolio.

In this MD&A, we will describe the results of operations and the financial condition for us and our consolidated subsidiaries, including a discussion of our results of operations for 2016 compared to 2015 and 2015 compared to 2014, an analysis of changes in our financial condition and a discussion of our contractual obligations and off balance sheet arrangements.

Overview

As we continued to focus on our strategy to improve our business, we made progress towards strengthening our competitive position and improving our financial performance in 2016. Net revenue for 2016 was $4.3 billion, an increase of 7% compared to 2015 net revenue of $4.0 billion. The increase in net revenue from 2015 was due to a 9% increase in Computing and Graphics segment revenue and a 5% increase in Enterprise, Embedded and Semi-Custom segment revenue. Computing and Graphics segment revenue increased year-over-year primarily due to higher GPU sales, offset by lower microprocessor sales. Embedded and Semi-Custom segment revenue increased year-over-year primarily due to higher semi-custom SoC sales.

Gross margin, as a percentage of net revenue for 2016, was 23% compared to 27% in 2015. The decrease in gross margin in 2016 as compared to 2015 was primarily due to a $340 million charge taken in the third quarter of 2016 (the WSA Charge) related to the sixth amendment to the wafer supply agreement (the Sixth Amendment) with GLOBALFOUNDRIES Inc. (GF). Operating loss for 2016 was $372 million compared to a $481 million for 2015. This improvement in operating performance in 2016 compared to 2015 was due to an increase in net revenue described above, a reduction in restructuring and other special charges, net and a licensing gain related to an intellectual property license agreement in connection with the joint ventures in China that we formed with Tianjin Haiguang Advanced Technology Investment Co. Ltd. (THATIC), partially offset by an increase in cost of sales due to the WSA Charge. During 2016, we continued to closely manage our operating expenses. Our operating expenses in 2016 decreased to $1.5 billion, compared to $1.6 billion in 2015, due to the absence of restructuring charges in 2016, partially offset by increased R&D expenses.

In 2016, we continued to improve our balance sheet by reducing our debt and extending our debt maturities. During the third quarter of 2016, we issued $690 million of common stock and $805 million aggregate principal amount of 2.125% Convertible Senior Notes due 2026 (2.125% Notes). We used the net proceeds from the issuance of our common stock and the 2.125% Notes to pay $230 million of our secured revolving line of credit and repurchase an aggregate principal amount of $796 million of our outstanding 6.75% Senior Notes due 2019 (6.75% Notes), 7.75% Senior Notes due 2020 (7.75% Notes), 7.50% Senior Notes due 2022 (7.50% Notes) and 7.00% Senior Notes due 2024 (7.00% Notes). In the fourth quarter of 2016, we redeemed the remaining $208 million in aggregate principal amount of our 7.75% Notes and as a result, we no longer have any 7.75% Notes outstanding. Total debt as of the end of the fourth quarter of 2016 was $1.4 billion, compared to $2.2 billion at the end of the fourth quarter of 2015. Our cash and cash equivalents as of December 31, 2016 were $1.3 billion compared to $785 million at December 26, 2015.

During 2016, we continued to execute our roadmap by delivering a number of new products and technologies across our two business segments. In March 2016, we announced new additions to our desktop processor family, with the

AMD A10-7890K APU designed to help enable smooth play of online games and the AMD Athlon X4 880K APU that features our "Excavator" x86 architecture. Also in March, we introduced the Radeon Pro Duo GPU with the LiquidVR SDK platform designed for many aspects of VR content creation: from entertainment to education, journalism, medicine and cinema. In May 2016, we introduced our mobile 7th Generation A-Series processors. Our 7th Generation A-Series processors are designed to provide productivity and entertainment performance with maximum mobility for consumers. Also in May, we introduced an AMD Multiuser GPU (MxGPU) for blade servers, the AMD FirePro S7100X GPU, designed to provide a “workstation-class” experience for up to 16 users. We launched our first GPU featuring our Polaris architecture, the Radeon™ RX 480 GPU, in June 2016. Our Polaris architecture features our latest 4th Gen Graphics Core Next (GCN), along with the latest display technology support and performance per watt capabilities, all based on a FinFET 14 process technology. In July 2016, we revealed our new Radeon Pro SSG GPU with the ability to expand GPU storage up to 1 terabyte (TB) and which is designed for media and entertainment professionals. We also announced our new Radeon Pro WX series GPUs, which are based on our Polaris architecture and designed for workstation professionals and creators. In August 2016, we introduced the new Radeon RX 470, targeted at high definition (HD) resolutions for gamers. Also in August 2016, we released the new Radeon RX 460 graphics card with an ultra-quiet cooling solution and sub-75W power footprint for mainstream and e-sports gaming. We announced two new AMD Embedded Radeon graphics cards, the AMD Embedded Radeon E9260 and the AMD Embedded Radeon E9550 discrete GPU products in September 2016. These GPUs bring our Polaris architecture to the embedded markets and are designed to elevate the level of GPU processing performance available to embedded customers. In October 2016, we announced the first PCs featuring 7th Generation AMD PRO APUs. These APUs are built for businesses and designed to deliver increased computing and graphics performance and improved energy efficiency.

In connection with our plans to further sharpen our focus and operations on designing high-performance products, we entered into a definitive agreement to form two joint ventures with Tongfu Fujitsu Microelectronics Co., Ltd. (formerly, Nantong Fujitsu Microelectronics Co., Ltd.) (TFME) in the third quarter of 2015. In April 2016, we completed the sale of a majority of the equity interests in Suzhou TF AMD Semiconductor Co., Ltd. (formerly, AMD Technologies (China) Co., Ltd.) and TF AMD Microelectronics (Penang) Sdn. Bhd. (formerly, Advanced Micro Devices Export Sdn. Bhd.), to affiliates of TFME to form two joint ventures (collectively, ATMP JV). As a result of the sale, TFME's affiliates own 85% of the equity interests in the ATMP JV while certain of our subsidiaries own the remaining 15%. We received approximately $342 million, including purchase price adjustments, in net cash proceeds for selling 85% of the equity interest in the ATMP JV.

In February 2016, as part of our IP monetization strategy, we and THATIC formed a joint venture comprised of two separate legal entities, China JV1 and China JV2 (collectively, the THATIC JV). Our equity share in China JV1 and China JV2 is a majority and minority interest, respectively, funded by our contribution of certain of our patents. The THATIC JV's primary purpose is to support our expansion into the server product market in China. We also licensed certain of our intellectual property (Licensed IP) to the THATIC JV for a total of approximately $293 million in license fees payable over several years contingent upon achievement of certain milestones. We also expect to receive a royalty based on the sales of the THATIC JV's products to be developed on the basis of such Licensed IP. We will also provide certain engineering and technical support to the THATIC JV in connection with the product development.

In addition, we entered into a Sixth Amendment with GF during the third quarter of 2016. The Sixth Amendment modifies certain terms of the wafer supply agreement applicable to wafers for our microprocessor, graphics processor and semi-custom products for a five-year period from January 1, 2016 to December 31, 2020. Also, in connection with and in consideration for the limited waiver and rights under the Sixth Amendment, we entered into a warrant agreement (the Warrant Agreement) with West Coast Hitech L.P. (WCH), a wholly-owned subsidiary of Mubadala Development Company PJSC (Mubadala) pursuant to which WCH received the right to purchase up to 75 million shares of our common stock.

We intend the discussion of our financial condition and results of operations that follows to provide information that will assist in understanding our financial statements, the changes in certain key items in those financial statements from period to period, the primary factors that resulted in those changes, and how certain accounting principles, policies and estimates affect our financial statements.

GLOBALFOUNDRIES

Formation and Accounting

On March 2, 2009, we consummated the transactions contemplated by the Master Transaction Agreement among us, Mubadala Technology Investments LLC, or Mubadala Tech, (formerly, Advanced Technology Investment Company LLC) and West Coast Hitech L.P. (WCH), pursuant to which we formed GF. In connection with the consummation of the transactions contemplated by the Master Transaction Agreement, AMD, Mubadala Tech and GF entered into a Wafer Supply Agreement (the WSA), a Funding Agreement (the Funding Agreement) and a Shareholders' Agreement (the Shareholders' Agreement) on March 2, 2009.

On March 4, 2012, as partial consideration for certain rights received under a second amendment to the WSA, we transferred to GF all of the remaining capital stock of GF that we owned. In addition, as of March 4, 2012, the Funding Agreement was terminated, and we were no longer party to the Shareholders' Agreement. As a result of these transactions, we no longer owned any GF capital stock as of March 4, 2012.

GF continues to be a related party of us because Mubadala Development Company PJSC (Mubadala) and Mubadala Tech are affiliated with WCH, our largest stockholder. WCH and Mubadala Tech are wholly-owned subsidiaries of Mubadala.

Wafer Supply Agreement

The WSA governs the terms by which we purchase products manufactured by GF. Pursuant to the WSA, we are required to purchase all of our microprocessor and APU product requirements, and a certain portion of our GPU product requirements from GF with limited exceptions. If we acquire a third-party business that manufactures microprocessor and APU products, we will have up to two years to transition the manufacture of such microprocessor and APU products to GF.

The WSA terminates no later than March 2, 2024. GF has agreed to use commercially reasonable efforts to assist us to transition the supply of products to another provider and to continue to fulfill purchase orders for up to two years following the termination or expiration of the WSA. During the transition period, pricing for microprocessor and APU products will remain as set forth in the WSA, but our purchase commitments to GF will no longer apply.

Sixth Amendment to Wafer Supply Agreement. On August 30, 2016, we entered into a sixth amendment (the Sixth Amendment) to the WSA. The Sixth Amendment modifies certain terms of the WSA applicable to wafers for our microprocessor, graphics processor and semi-custom products for a five-year period from January 1, 2016 to December 31, 2020. AMD and GF agreed to establish a comprehensive framework for technology collaboration for the 7nm technology node.

The Sixth Amendment also provides us a limited waiver with rights to contract with another wafer foundry with respect to certain products in the 14nm and 7nm technology nodes and gives us greater flexibility in sourcing foundry services across our product portfolio. In consideration for these rights, we agreed to pay GF $100 million in installments starting in the fourth fiscal quarter of 2016 through the third fiscal quarter of 2017. During the fourth quarter of fiscal 2016, we paid GF $25 million. Starting in 2017 and continuing through 2020, we also agreed to make quarterly payments to GF based on the volume of certain wafers purchased from another wafer foundry.

Further, for each calendar year during the term of the Sixth Amendment, AMD and GF agreed to annual wafer purchase targets that increase from 2016 through 2020. If we do not meet the annual wafer purchase target for any calendar year, we will be required to pay to GF a portion of the difference between our actual wafer purchases and the wafer purchase target for that year. The annual targets were established based on our current business and market expectations and take into account the limited waiver we have received for certain products.

AMD and GF also agreed on fixed pricing for wafers purchased during 2016 and established a framework to agree on annual wafer pricing for the years 2017 to 2020.

Our total purchases from GF related to wafer manufacturing and research and development activities were approximately $0.7 billion for 2016, $0.9 billion for 2015 and $1.0 billion for 2014.

Warrant Agreement. Also on August 30, 2016, in consideration of the limited waiver and rights under the Sixth Amendment, we entered into a warrant agreement (the Warrant Agreement) with WCH, a wholly-owned subsidiary of Mubadala. Under the Warrant Agreement, WCH and its permitted assigns are entitled to purchase 75 million shares of our common stock (the Warrant Shares) at a purchase price of $5.98 per share. The warrant under the Warrant Agreement is exercisable in whole or in part until February 29, 2020, provided that the maximum number of Warrant Shares that may be exercised prior to the one-year anniversary of the Warrant Agreement shall not exceed 50 million. Notwithstanding the foregoing, the Warrant Agreement will only be exercisable to the extent that Mubadala does not beneficially own, either directly through any other entities directly and indirectly owned by Mubadala or its subsidiaries, an aggregate of more than 19.99% of our outstanding capital stock after any such exercise.

During 2016, we recorded a charge of $340 million, consisting of the $100 million payment under the Sixth Amendment and the $240 million value of the warrant under the Warrant Agreement issued in consideration of the Sixth Amendment.

Equity Interest Purchase Agreement - ATMP Joint Venture

On April 29, 2016, we and certain of our subsidiaries completed the sale of a majority of the equity interests in Suzhou TF-AMD Semiconductor Co., Ltd. (formerly, AMD Technologies (China) Co., Ltd.), and TF AMD Microelectronics (Penang) Sdn. Bhd. (formerly, Advanced Micro Devices Export Sdn. Bhd.), to affiliates of Tongfu Microelectronics Co., Ltd. (formerly, Nantong Fujitsu Microelectronics Co., Ltd.) (TFME), a Chinese joint stock company, to form two joint ventures (collectively, the ATMP JV). As a result of the sale, TFME’s affiliates own 85% of the equity interests in the ATMP JV while certain of our subsidiaries own the remaining 15%. We have no obligations to fund the ATMP JV.

As a result of the transaction, we received approximately $342 million, including purchase price adjustments, in net cash proceeds for selling 85% of the equity interest in each of Suzhou TF-AMD Semiconductor Co., Ltd. and TF AMD Microelectronics (Penang) Sdn. Bhd. These proceeds, net of certain transaction costs, were included in investing activities on our consolidated statements of cash flows for the year ended December 31, 2016.

We recognized a net pre-tax gain on the sale of the 85% equity interest in ATMP JV of $146 million for the year ended December 31, 2016, which was recognized in Other income (expense), net on our consolidated statements of operations. The net pre-tax gain reflects the excess of the sum of net cash proceeds and fair value of our retained 15% equity interests in the ATMP JV over the sum of the net book values of our former subsidiaries and other closing costs directly attributed to the divestiture. The above gain includes $11 million in excess of fair value of our retained interest over the corresponding net book values.

In determining the fair value of our retained 15% equity interests in the ATMP JV, we used quoted prices from comparable bids for this transaction. We also considered other factors including the control premium and the amount of consideration received for the portion sold.

We account for our equity interests in the ATMP JV under the equity method of accounting due to our significant influence over the ATMP JV. As of December 31, 2016, the carrying value of our investment in the ATMP JV was approximately $59 million.

Following the deconsolidation, the ATMP JV is our related party. The ATMP JV provides assembly, test, mark and packaging (ATMP) services to us. We currently pay the ATMP JV for ATMP services on a cost-plus basis. Our total purchases from the ATMP JV during the year ended December 31, 2016 amounted to approximately $265 million. Our payable to the ATMP JV, as of December 31, 2016, was $128 million.

During the year ended December 31, 2016, we recorded a $10 million loss in Equity in income (loss) of ATMP JV on our consolidated statements of operations, which included certain expenses incurred by us on behalf of the ATMP JV.

Equity Joint Venture - Intellectual Property Licensing Agreement

In February 2016, we and THATIC, a third-party Chinese entity (JV Partner), formed a joint venture comprised of two separate legal entities, China JV1 and China JV2 (collectively, the THATIC JV). Our equity share in China JV1 and China JV2 is a majority and minority interest, respectively, funded by our contribution of certain of our patents. The JV Partner is responsible for the initial and on-going financing of the THATIC JV’s operations. We have no obligations to fund the THATIC JV. The THATIC JV’s primary purpose is to support our expansion into the server and workstation product market in China. We licensed certain of our intellectual property (Licensed IP) to the THATIC JV for a total of approximately $293 million in license fees payable over several years contingent upon achievement of certain milestones. We also expect to receive a royalty based on the sales of the THATIC JV’s products to be developed on the basis of such Licensed IP. We will also provide certain engineering and technical support to the THATIC JV in connection with the product development.

We concluded the China JV1 and China JV2 are not operating joint ventures and are variable interest entities due to their reliance on on-going financing by JV Partner. We determined that we are not the primary beneficiary of either China JV1 or China JV2, as we do not have unilateral power to direct selling and marketing activities, manufacturing and product development activities related to the THATIC JV's products. Accordingly we will not consolidate either of these entities and therefore account for our investments in the THATIC JV under the equity method of accounting. THATIC JV is our related party.

Income related to the Licensed IP will be recognized over the period commencing upon delivery of the first Licensed IP milestone through the date of the milestone that requires our continuing involvement in the product development process. Royalty payments will be recognized in income once earned. We will classify Licensed IP income and royalty income as other operating income. During the year ended December 31, 2016, we recognized $88 million of licensing gain associated with the THATIC JV as part of operating income.

Our total exposure to losses through our investment in the THATIC JV is limited to our investments in the THATIC JV, which was zero as of December 31, 2016. Our share in the net losses of the THATIC JV for the year ended December 31, 2016 was not material and is not recorded in our consolidated statement of operations since we are not obligated to fund the THATIC JV's losses in excess of our investment in the THATIC JV.

As of December 31, 2016, the total assets and liabilities of the THATIC JV were not material.

Critical Accounting Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP). The preparation of our financial statements requires us to make estimates and judgments that affect the reported amounts in our consolidated financial statements. We evaluate our estimates on an on-going basis, including those related to our revenue, inventories, goodwill impairments and income taxes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Although actual results have historically been reasonably consistent with management's expectations, the actual results may differ from these estimates or our estimates may be affected by different assumptions or conditions.

Management believes the following critical accounting estimates are the most significant to the presentation of our financial statements and require the most difficult, subjective and complex judgments.

Revenue Allowances. We record a provision for estimated sales returns and allowances on product sales for estimated future price reductions and other customer incentives in the same period that the related revenues are recorded. We base these estimates on actual historical sales returns, historical allowances, historical price reductions, market activity and other known or anticipated trends and factors. These estimates are subject to management's judgment and actual provisions could be different from our estimates and current provisions, resulting in future adjustments to our revenue and operating results.

Inventory Valuation. At each balance sheet date, we evaluate our ending inventories for excess quantities and obsolescence based on projected sales outlook. This evaluation includes analysis of historical sales levels by product and projections of future demand. These projections assist us in determining the carrying value of our inventory. In addition, we write off inventories that we consider obsolete. We adjust the remaining specific inventory balances to approximate the lower of our standard manufacturing cost or market value. Among other factors, management considers forecasted demand in relation to the inventory on hand, competitiveness of product offerings, market conditions and product life cycles when determining obsolescence and market value. If, in any period, we anticipate future demand or market conditions to be less favorable than our previous estimates, additional inventory write-downs may be required and would be reflected in cost of sales in the period the revision is made. This would have a negative impact on our gross margin in that period. If in any period we are able to sell inventories that were not valued or that had been written down in a previous period, related revenues would be recorded without any offsetting charge to cost of sales, resulting in a net benefit to our gross margin in that period.

Goodwill. Goodwill represents the excess of the purchase price over the fair value of net tangible and identifiable intangible assets acquired. Goodwill is not amortized, but rather is tested for impairment at least annually, or more frequently if there are indicators of impairment present.

We perform an annual goodwill impairment analysis as of the first day of the fourth quarter of each year. In assessing impairment on goodwill, we first analyze qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test. The qualitative factors we assess include long-term prospects of our performance, share price trends, market capitalization and Company-specific events. If we conclude it is more likely than not that the fair value of a reporting unit exceeds its carrying amount, we do not need to perform the two-step impairment test. If based on that assessment, we believe it is more likely than not that the fair value of the reporting unit is less than its carrying value, a two-step goodwill impairment test will be performed.

The first step measures for impairment by applying fair value-based tests at the reporting unit level. We evaluate whether goodwill has been impaired at the reporting unit level by first determining whether the estimated fair value of the reporting unit is less than its carrying value and, if so, by determining whether the implied fair value of goodwill within the reporting unit is less than the carrying value. The implied fair value of a reporting unit is determined through the application of one or more valuation models common to our industry, including the income, market and cost approaches. While market valuation data for comparable companies is gathered and analyzed, we believe that there has not been sufficient comparability between the peer groups and the specific reporting units to allow for the derivation of reliable indications of value using a market approach. Therefore, we have ultimately employed the income approach which requires estimates of present value of estimated future cash flows. Cash flow projections are based on management's estimates of revenue growth rates and operating margins, taking into consideration industry and market condition. The discount rate used is based on the weighted-average cost of capital adjusted for the relevant risk associated with business-specific characteristics and the uncertainty related to the reporting unit's ability to execute on the projected cash flows. A variance in the discount rate could have a significant impact on the amount of the goodwill impairment charge recorded, if any. The second step (if necessary) measures the amount of impairment by applying fair value-based tests to the individual assets and liabilities within each reporting unit.

Based on the results of our annual qualitative analysis of goodwill in 2016, we determined that it was more likely than not that the fair value of our reporting unit exceeded its carrying amount and, as such, we did not need to perform the two-step impairment test and there was no goodwill impairment.

Based on the results of our annual analysis of goodwill in 2015, each reporting unit’s fair value exceeded its carrying value, indicating that there was no goodwill impairment.

Based on the results of our annual goodwill impairment analysis in 2014, we determined that the carrying value of the Computing and Graphics reporting unit exceeded its estimated fair value and accordingly an impairment charge of $233 million was recorded, which represented the entire goodwill balance within this reporting unit. The remaining two reporting units' estimated fair values exceeded their carrying value, ranging from approximately 156% to approximately 209%. In estimating the fair value of our reporting units, we took into consideration the challenging industry and market trends that existed as of September 28, 2014, the date of the annual goodwill impairment test for each respective reporting unit.

Estimates of fair value for all of our reporting units can be affected by a variety of external and internal factors. Potential events or circumstances that could reasonably be expected to negatively affect the key assumptions we used in estimating the fair value of our reporting units include adverse changes in our industry, increased competition, an inability to successfully introduce new products in the marketplace or to achieve internal forecasts, and a decline in our stock price. If the estimated fair value of our reporting units declines due to any of these factors, we may be required to record future goodwill impairment.

Income Taxes. In determining taxable income for financial statement reporting purposes, we must make certain estimates and judgments. These estimates and judgments are applied in the calculation of certain tax liabilities and in the determination of the recoverability of deferred tax assets, which arise from temporary differences between the recognition of assets and liabilities for tax and financial statement reporting purposes.

We must assess the likelihood that we will be able to recover our deferred tax assets. If recovery is not likely, we must increase our charge to income tax expense, in the form of a valuation allowance, for the deferred tax assets that we estimate will not ultimately be recoverable. We consider past performance, future expected taxable income and prudent and feasible tax planning strategies in determining the need for a valuation allowance.

In addition, the calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax rules and the potential for future adjustment of our uncertain tax positions by the Internal Revenue Service or other taxing authority. If our estimates of these taxes are greater or less than actual results, an additional tax benefit or charge will result. We recognize the interest and penalties related to unrecognized tax benefits as interest expense and income tax expense, respectively.

Results of Operations

Management, including the Chief Operating Decision Maker, who is our Chief Executive Officer, reviews and assesses our operating performance using segment net revenue and operating income (loss) before interest, other income (expense), net, income taxes and equity in income (loss) of ATMP JV. These performance measures include the allocation of expenses to the operating segments based on management's judgment. We have the following two reportable segments:

- the Computing and Graphics segment, which primarily includes desktop and notebook processors and chipsets, discrete GPUs and professional graphics; and
- the Enterprise, Embedded and Semi-Custom segment, which primarily includes server and embedded processors, semi-custom SoC products, development services, technology for game consoles and licensing portions of our intellectual property portfolio.

In addition to these reportable segments, we have an All Other category, which is not a reportable segment. This category primarily includes certain expenses and credits that are not allocated to any of the reportable segments because management does not consider these expenses and credits in evaluating the performance of the reportable segments. Included in this category are employee stock-based compensation expense, the charge related to the Sixth Amendment to the WSA with GF, restructuring and other special charges, net, amortization of acquired intangible assets, workforce rebalancing severance charges, goodwill impairment charge and significant or unusual lower of cost or market inventory adjustments. We also reported the results of former businesses in the All Other category because the operating results were not material.

We intend the discussion of our financial condition and results of operations that follows to provide information that will assist you in understanding our financial statements, the changes in certain key items in those financial statements from year to year, the primary factors that resulted in those changes and how certain accounting principles, policies

and estimates affect our financial statements.
We use a 52 or 53 week fiscal year ending on the last Saturday in December. The years ended December 31, 2016, December 26, 2015 and December 27, 2014 included 53 weeks, 52 weeks and 52 weeks, respectively. The extra week in 2016 did not have a material impact on our results of operations. References in this report to 2016, 2015 and 2014 refer to the fiscal year unless explicitly stated otherwise.
The following table provides a summary of net revenue and operating income (loss) by segment and income (loss) before income taxes and equity in income (loss) of ATMP JV for 2016, 2015 and 2014.

	2016	2015	2014
	(In millions)		
Net revenue:			
Computing and Graphics	$1,967	$1,805	$3,132
Enterprise, Embedded and Semi-Custom	2,305	2,186	2,374
Total net revenue	$4,272	$3,991	$5,506
Operating income (loss):			
Computing and Graphics	$(238)	$(502)	$(76)
Enterprise, Embedded and Semi-Custom	283	215	399
All Other	(417)	(194)	(478)
Total operating loss	$(372)	$(481)	$(155)
Interest expense	(156)	(160)	(177)
Other income (expense), net	80	(5)	(66)
Loss before income taxes and equity income (loss) of ATMP JV	$(448)	$(646)	$(398)

Computing and Graphics
Computing and Graphics net revenue of $2.0 billion in 2016 increased by 9% compared to $1.8 billion in 2015 as a result of a 9% increase in unit shipments, partially offset by a 2% decrease in average selling price. The increase in unit shipments was primarily attributable to higher unit shipments of our GPU products, partially offset by lower unit shipments of our microprocessor products. The increase of unit shipments of our GPU products was primarily driven by demand for our Polaris architecture-based GPU products. The decrease in unit shipments of our microprocessor products was primarily due to lower unit shipments of our desktop microprocessor products due to lower demand, partially offset by higher shipments of notebook microprocessor products driven by higher demand for our 7th Generation A-Series notebook processors. The decrease in average selling price was primarily attributable to a decrease in average selling price of our desktop microprocessor and notebook GPU products due to a shift in our product mix, partially offset by an increase in average selling price of our channel GPU products primarily due to strong demand for our Polaris architecture-based GPU products.
Computing and Graphics net revenue of $1.8 billion in 2015 decreased by 42% compared to $3.1 billion in 2014 as a result of a 44% decrease in unit shipments, partially offset by a 3% increase in average selling price. Unit shipments of all our Computing and Graphics products decreased. The decrease in unit shipments of all categories of products was due to lower demand caused by challenging global macro-economic conditions, especially in the Greater China region, in addition to increased competitive pressures and reduced demand from our OEM customers in advance of the Microsoft Windows® 10 operating system. The increase in average selling price was primarily attributable to an increase in average selling price of our notebook GPU products and channel GPU products due to a shift in our product mix, partially offset by a decrease in average selling price of our notebook microprocessor products and chipset products.
Computing and Graphics operating loss was $238 million in 2016 compared to an operating loss of $502 million in 2015. The improvement in operating results was primarily due to the increase in net revenue referenced above and a decrease in operating expenses, partially offset by an increase in cost of sales primarily due to higher sales in 2016 compared to 2015. In 2015, cost of sales included an inventory write-down of $52 million as a result of lower than anticipated demand for primarily older-generation APU products. Operating expenses decreased for the reasons set forth under “Expenses” below.
Computing and Graphics operating loss was $502 million in 2015 compared to an operating loss of $76 million in 2014. The decline in operating results was primarily due to the decrease in net revenue referenced above, partially offset by a $696 million decrease in cost of sales and a decrease in operating expenses. Cost of sales decreased

primarily due to lower unit shipments in 2015 compared to 2014, partially offset by an inventory write-down of $52 million as a result of lower anticipated demand for primarily older-generation APU products. Operating loss in 2014 included a $19 million benefit from technology licensing revenue. Operating expenses decreased for the reasons set forth under “Expenses” below.

Enterprise, Embedded and Semi-Custom

Enterprise, Embedded and Semi-Custom net revenue of $2.3 billion in 2016 increased by 5% compared to net revenue of $2.2 billion in 2015. The increase in net revenue was primarily due to an increase in unit shipments of our semi-custom SoC products and non-recurring engineering (NRE) revenue. The increase in unit shipments was primarily driven by increased demand.

Enterprise, Embedded and Semi-Custom net revenue of $2.2 billion in 2015 decreased by 8% compared to net revenue of $2.4 billion in 2014. The decrease was primarily due to a decrease in net revenue received in connection with lower unit shipments of our server and embedded products due primarily to increased competitive pressures, as well as a decrease in net revenue from certain royalty arrangements and a decrease in NRE revenue. The decrease in net revenue was partially offset by an increase in net revenue received in connection with higher unit shipments of our semi-custom SoC products.

Enterprise, Embedded and Semi-Custom operating income was $283 million in 2016 compared to $215 million in 2015. The improvement in operating results was primarily due to the increase in net revenue referenced above, an $88 million licensing gain recorded in 2016 related to the Licensed IP to the THATIC JV, and a decrease in cost of sales, in part due to the absence of a technology node transition charge of $33 million recorded in 2015, partially offset by an increase in operating expenses. Operating expenses increased for the reasons set forth under "Expenses" below.

Enterprise, Embedded and Semi-Custom operating income was $215 million in 2015 compared to $399 million in 2014. The decline in operating results was primarily due to the decrease in net revenue referenced above, partially offset by a decrease in operating expenses and a decrease in cost of sales. The decrease in cost of sales was primarily due to a decrease in unit shipments of our server and embedded products in 2015 compared to 2014, largely offset by a technology node transition charge of $33 million and an inventory write-down of $13 million. Operating expenses decreased for the reasons set forth under "Expenses" below.

All Other

All Other operating loss of $417 million in 2016 included a charge of $340 million, which was comprised of the $100 million payment under the Sixth Amendment and the $240 million value of the warrant under the Warrant Agreement, and stock-based compensation expense of $86 million, partially offset by restructuring reversals of $10 million.

All Other operating loss of $194 million in 2015 included restructuring and other special charges, net of $129 million and stock-based compensation expense of $63 million. Restructuring and other special charges, net of $129 million included $76 million related to our decision to exit from the dense server systems business, $37 million related to our 2015 Restructuring Plan and $16 million related to our 2014 Restructuring Plan.

All Other operating loss of $478 million in 2014 included a goodwill impairment charge of $233 million, stock-based compensation expense of $81 million, restructuring and other special charges, net of $71 million, lower of cost or market inventory adjustment of $58 million, workforce rebalancing severance charges of $14 million, amortization of acquired intangible assets of $14 million and other expenses of $7 million.

Comparison of Gross Margin, Expenses, Interest Expense, Other Income (Expense), Net Income Taxes and Equity in Income (Loss) of ATMP JV

The following is a summary of certain consolidated statement of operations data for 2016, 2015 and 2014.

	2016	2015	2014
	(In millions, except for percentages)		
Cost of sales	$ 3,274	$ 2,911	$ 3,667
Gross margin	998	1,080	1,839
Gross margin percentage	23 %	27 %	33 %
Research and development	1,008	947	1,072
Marketing, general and administrative	460	482	604
Amortization of acquired intangible assets	—	3	14
Restructuring and other special charges, net	(10)	129	71
Licensing gain	(88)	—	—
Goodwill impairment charge	—	—	233
Interest expense	(156)	(160)	(177)
Other income (expense), net	80	(5)	(66)
Provision for income taxes	39	14	5
Equity in income (loss) of ATMP JV	$ (10)	$ —	$ —

Gross Margin
Gross margin as a percentage of net revenue was 23% in 2016 compared to 27% in 2015. Gross margin in 2016 was adversely impacted by a charge of $340 million, which is comprised of a $100 million payment under the Sixth Amendment and the value of the warrant of $240 million under the Warrant Agreement. The impact of the charge accounted for eight gross margin percentage points. Gross margin in 2015 was adversely impacted by an inventory write-down of $65 million, which was primarily the result of lower anticipated demand for older-generation APUs and a technology node transition charge of $33 million. The impact of the inventory write-down and the technology node transition charge accounted for approximately two gross margin percentage points. In the absence of these charges, the gross margin would have increased by two percentage points, primarily driven by improved product mix.
Gross margin as a percentage of net revenue was 27% in 2015 compared to 33% in 2014. Gross margin in 2015 was adversely impacted by an inventory write-down of $65 million, which was primarily the result of lower anticipated demand for older-generation APUs and a technology node transition charge of $33 million. The impact of the write-down and the technology node transition charge accounted for approximately two gross margin percentage points. Gross margin in 2015 was also adversely impacted by a lower proportion of revenue from the Computing and Graphics segment due to lower sales which has a higher average gross margin than our Enterprise, Embedded and Semi-Custom segment and also by lower game console royalties. Gross margin in 2014 included a $58 million lower of cost or market inventory adjustment, which accounted for one gross margin percentage point, and a $27 million benefit from technology licensing revenue, which accounted for less than one gross margin percentage point.
Expenses
Research and Development Expenses
Research and development expenses of $1.0 billion in 2016 increased by $61 million, or 6%, compared to $0.9 billion in 2015. The increase was primarily due to a $138 million increase in research and development expenses attributable to our Enterprise, Embedded and Semi-Custom segment and a $13 million increase attributable to our All Other category, partially offset by a $90 million decrease in research and development expenses attributable to our Computing and Graphics segment. Research and development expenses attributable to our Enterprise, Embedded and Semi-Custom segment increased primarily due to a $128 million increase in product engineering and design costs. Research and development expenses attributable to our All Other category increased primarily due to a $13 million increase in stock-based compensation expense. Research and development expenses attributable to our Computing and Graphics segment decreased primarily due to a $108 million decrease in product engineering and design costs.
Research and development expenses of $947 million in 2015 decreased by $125 million, or 12%, compared to $1.1 billion in 2014. The decrease was primarily due to a $120 million decrease in research and development expenses attributable to our Computing and Graphics segment and a $21 million decrease in the All Other category primarily related to a $9 million workforce rebalancing severance charge recorded in 2014 and an $8 million decrease in stock-based compensation expenses. The decrease was partially offset by a $16 million increase in research and development expenses attributable to our Enterprise, Embedded and Semi-Custom segment. Research and development expenses attributable to our Computing and Graphics segment decreased primarily due to a $116 million decrease in product engineering and design costs and a $4 million decrease in other employee compensation and benefit expenses. Research and development expenses attributable to our Enterprise, Embedded and Semi-Custom segment increased primarily due to a $17 million increase in product engineering and design costs.
Marketing, General and Administrative Expenses
Marketing, general and administrative expenses of $460 million in 2016 decreased by $22 million, or 5%, compared to $482 million in 2015. The decrease was primarily due to a $40 million decrease in marketing, general and administrative expenses attributable to our Computing and Graphics segment primarily due to an $18 million decrease in sales and marketing activities and a $22 million decrease in other general and administrative expenses, partially offset by a $6 million increase in other general and administrative expenses attributable to our Enterprise, Embedded and Semi-Custom segment and a $12 million increase attributable to our All Other category primarily due to an $11 million increase in stock-based compensation expense.
Marketing, general and administrative expenses of $482 million in 2015 decreased by $122 million, or 20%, compared to $604 million in 2014. The decrease was primarily due to an $84 million decrease in marketing, general and administrative expenses attributable to our Computing and Graphics segment, a $19 million decrease in marketing, general and administrative expenses attributable to our Enterprise, Embedded and Semi-Custom segment

and a $19 million decrease in the All Other category primarily related to a $5 million workforce rebalancing severance charge recorded in 2014 and a $10 million decrease in stock-based compensation expenses. Marketing, general and administrative expenses attributable to our Computing and Graphics segment decreased primarily due to a $62 million decrease in sales and marketing expenses and a $22 million decrease in other general and administrative expenses. Marketing, general and administrative expenses attributable to our Enterprise, Embedded and Semi-Custom segment decreased primarily due to a $5 million decrease in sales and marketing expenses and a $14 million decrease in other general and administrative expenses.

Legal Settlements

As of December 26, 2015, the Italian tax authorities had concluded their audit of our subsidiaries' activities in Italy for the years 2003 through 2013. We entered into a settlement for $11 million in taxes and penalties, which was reflected in full in the 2015 tax provision and $2 million in interest.

Amortization of Acquired Intangible Assets

Amortization of acquired intangible assets was $0 million in 2016, $3 million in 2015 and $14 million in 2014. The decrease from 2014 to 2015 was due to the impairment of intangible assets as a result of our exit from the dense server systems business in the first quarter of 2015. The related intangible assets were fully amortized as of December 26, 2015.

Restructuring and Other Special Charges, Net

Effects of Restructuring Plans

2015 Restructuring Plan

In the third quarter of 2015, we implemented a restructuring plan (2015 Restructuring Plan) focused on our ongoing efforts to simplify our business and better align resources around our priorities and business outlook. The 2015 Restructuring Plan involved a reduction of global headcount by approximately 5% and included organizational actions such as outsourcing certain IT services and application development. During 2015, we recorded a $37 million restructuring charge, which consisted of $27 million for severance and benefit costs, $1 million for facilities-related costs and $9 million for intangible asset-related charges. The actions associated with the 2015 Restructuring Plan will be completed by the end of the first quarter of 2017.

The following table provides a summary of the restructuring activities during 2016 and the related liabilities recorded in Other current liabilities and Other long-term liabilities on our consolidated balance sheets as of December 31, 2016:

	Severance and related benefits	Other exit related costs	Total
	(In millions)		
Balance as of December 26, 2015	$ 14	$ —	$ 14
Charges (reversals), net	(1)	—	(1)
Cash payments	(10)	—	(10)
Balance as of December 31, 2016	$ 3	$ —	$ 3

2014 Restructuring Plan

In the fourth quarter of 2014, we implemented a restructuring plan (2014 Restructuring Plan) designed to improve operating efficiencies. The 2014 Restructuring Plan involved a reduction of global headcount by approximately 6% and an alignment of our real estate footprint with our reduced headcount. We recorded a $57 million restructuring charge in the fourth quarter of 2014, which consisted of $44 million for severance and costs related to the continuation of certain employee benefits, $6 million for contract or program termination costs, $1 million for facilities-related costs and $6 million for asset impairments, a non-cash charge. During 2015, we recorded a $16 million restructuring charge, which consisted of $5 million non-cash charge related to asset impairments, $2 million for severance and related benefits and $9 million for facilities-related costs. The 2014 Restructuring Plan was completed during the third quarter of 2015.

The following table provides a summary of the restructuring activities during 2016 and the related liabilities recorded in "Other current liabilities" and "Other long-term liabilities" on our consolidated balance sheets as of December 31, 2016:

	Severance and related benefits	Other exit related costs	Total
	(In millions)		

Balance as of December 26, 2015	$5	$ 15	$20
Charges (reversals), net	(2)	(7)	(9)
Cash payments	(1)	(6)	(7)
Balance as of December 31, 2016	$2	$ 2	$4

Dense Server Systems Business Exit

As a part of our strategy to simplify and sharpen our investment focus, we exited the dense server systems business, formerly SeaMicro, in the first quarter of 2015. As a result, we recorded a charge of $76 million in “Restructuring and other special charges, net” on our consolidated statements of operations during 2015. This charge consisted of an impairment charge of $62 million related to the acquired intangible assets. We concluded that the carrying value of the acquired intangible assets associated with our dense server systems business was fully impaired as we did not have plans to utilize the related freedom fabric technology in any of our future products nor did we have any plans at that time to monetize the associated intellectual property. In addition, the exit charge consisted of a $7 million non-cash charge related to asset impairments, $4 million of severance and related benefits and $3 million for contract or program termination costs. We substantially completed this exit activity during the second quarter of 2016.

Executive Officer Separation

In the fourth quarter of 2014, we recorded other special charges of $13 million. The amount primarily included $10 million due to the departure of our former CEO, of which $5 million was related to cash and $5 million was related to stock-based compensation expense. The amount is recorded under “Restructuring and other special charges, net” on the consolidated statements of operations.

Interest Expense

Interest expense of $156 million in 2016 decreased by $4 million compared to $160 million in 2015, primarily due to the repurchases of debt bearing higher interest rates and issuance of new debt at a lower interest rate in late 2016.

Interest expense of $160 million in 2015 decreased by $17 million compared to $177 million in 2014, primarily due to timing of issuances of new debt and repurchases of other debt in 2014.

Other Income (Expense), Net

In 2016, we recognized $80 million of other income, net, primarily due to the net gain on sale of equity interests in the ATMP JV of $146 million, partially offset by the $68 million total loss on debt repurchases.

In 2015, we recognized $5 million of other expense, net, primarily due to a loss from foreign currency exchange rate fluctuations.

In 2014, we recognized $66 million of other expense, net, primarily due to a $61 million loss from debt repurchases and a $7 million loss from foreign currency exchange rate fluctuations, partially offset by $3 million of interest income.

Income Taxes

We recorded an income tax provision of $39 million, $14 million and $5 million in 2016, 2015 and 2014, respectively.

The income tax provision in 2016 was primarily due to $41 million of foreign taxes in profitable locations including $27 million attributable to gain on the sale of 85% of the ownership interest in the subsidiary operating a factory in Suzhou and $9 million of withholding taxes on cross-border transactions where no foreign tax credit is expected to be available, offset by $2 million of tax benefits for Canadian tax credits and the monetization of certain U.S. tax credits.

The income tax provision in 2015 was primarily due to $16 million of foreign taxes in profitable locations, offset by $2 million of tax benefits for Canadian tax credits and the monetization of certain U.S. tax credits.

The income tax provision in 2014 was primarily due to $7 million of foreign taxes in profitable locations, offset by $2 million of tax benefits for Canadian tax credits and the monetization of certain U.S. tax credits.

As of December 31, 2016, substantially all of our U.S. and foreign deferred tax assets, net of deferred tax liabilities, continued to be subject to a valuation allowance. The realization of these assets is dependent on substantial future taxable income which, at December 31, 2016, in management’s estimate, is not more likely than not to be achieved.

As of December 26, 2015, the Italian tax authorities had concluded their audit of our subsidiaries’ activities in Italy for the years 2003 through 2013. We entered into a settlement for $11 million in taxes and penalties, which was reflected in full in the 2015 tax provision, and $2 million in interest.

Stock-Based Compensation Expense

We allocated stock-based compensation expense related to employee stock options and restricted stock units for the years ended December 31, 2016, December 26, 2015 and December 27, 2014 in our consolidated statements of operations as follows:

	2016	2015	2014
	(In millions)		
Cost of sales	$2	$ 3	$ 3
Research and development	49	36	44
Marketing, general and administrative	35	24	34
Total stock-based compensation expense, net of tax of $0	$86	$ 63	$ 81

During 2016, 2015 and 2014, we did not realize any excess tax benefits related to stock-based compensation and therefore we did not record any effects relating to financing cash flows.

Stock-based compensation expense of $86 million in 2016 increased by $23 million as compared to $63 million in 2015. The increase was primarily due to a higher weighted average grant date fair value and higher number of shares related to restricted stock units granted in 2016, compared to the restricted stock units granted in 2013, which became fully amortized in 2016. The increase was also driven by performance-based restricted stock units with market conditions granted in 2015 and 2016.

Stock-based compensation expense of $63 million in 2015 decreased by $18 million as compared to $81 million in 2014. The decrease was primarily due to a lower weighted average grant date fair value and the effect of the 2015 and 2014 Restructuring Plans.

International Sales

International sales as a percentage of net revenue were 78% in 2016, 75% in 2015 and 81% in 2014. The increase in international sales as a percentage of net revenue in 2016 compared to 2015 was primarily driven by a higher proportion of revenue from international sales of our semi-custom SoC products.

The decrease in international sales as a percentage of net revenue in 2015 compared to 2014 was primarily driven by a decrease in sales in China. We expect that international sales will continue to be a significant portion of total sales in the foreseeable future. Substantially all of our sales transactions were denominated in U.S. dollars.

FINANCIAL CONDITION

Liquidity

As of December 31, 2016, our cash and cash equivalents consisted of cash, government money market funds and commercial paper. Our cash and cash equivalents as of December 31, 2016 were $1.3 billion compared to $785 million as of December 26, 2015. The increase during the year was due to net cash provided by our operating, investing and financing activities discussed below. The percentage of cash and cash equivalents held domestically was 98% as of December 31, 2016, and 88% as of December 26, 2015.

Our cash flows for fiscal 2016, 2015 and 2014 were as follows:

	2016	2015	2014
	(In millions)		
Net cash provided by (used in):			
Operating activities	$90	$(226)	$(98)
Investing activities	267	147	(12)
Financing activities	122	59	46
Net increase (decrease) in cash and cash equivalents	$479	$(20)	$(64)

Our debt obligations of $1.4 billion net of unamortized debt discount of $308 million associated with the 2.125% Notes as of December 31, 2016 decreased compared to $2.2 billion as of December 26, 2015.

We believe our cash and cash equivalents balance along with our Secured Revolving Line of Credit will be sufficient to fund operations, including capital expenditures, over the next 12 months. We believe that in the event we decide to obtain external funding, we may be able to access the capital markets on terms and in amounts adequate to meet our objectives.

Should we require additional funding, such as to meet payment obligations of our long-term debt when due, we may need to raise the required funds through borrowings or public or private sales of debt or equity securities, which may be issued from time to time under an effective registration statement, through the issuance of securities in a transaction exempt from registration under the Securities Act of 1933, as amended, or a combination of one or more of the foregoing. Uncertain global economic conditions have in the past adversely impacted, and may in the future adversely impact, our business. If market conditions deteriorate, we may be limited in our ability to access the capital markets to meet liquidity needs on favorable terms or at all, which could adversely affect our liquidity and financial condition, including our ability to refinance maturing liabilities.

Operating Activities

Net cash provided by operating activities was $90 million in 2016 compared to net cash used in operating activities of $226 million in 2015. The improvement in cash flows from operating activities was primarily due to lower operating expenses, including lower labor costs and lower restructuring-related payments, receipt of $97 million associated with the licensing agreement with THATIC JV and higher sales and timing of related collections, partially offset by timing of accounts payable payments.

Net cash used in operating activities was $226 million in 2015 compared to $98 million in 2014. The increase in cash used in operating activities was primarily due to lower cash collections during 2015 compared 2014 driven by lower sales compared to 2014, partially offset by lower other operating expenses and labor cost as a result of restructuring actions and the absence of the final $200 million cash payment made in the first quarter of 2014 related to GF's waiver of a portion of our obligations for wafer purchase commitments.

Investing Activities

Net cash provided by investing activities was $267 million in 2016, which consisted of a net cash inflow of $342 million from sale of equity interests in the ATMP JV, partially offset by a cash outflow of $77 million for purchases of property, plant and equipment.
Net cash provided by investing activities was $147 million in 2015, which consisted of a net cash inflow of $235 million from purchases, sales and maturities of available for sale securities, partially offset by a net cash outflow of $88 million for purchases and sales of property, plant and equipment.
Net cash used in investing activities was $12 million in 2014, which consisted of a cash outflow of $95 million for purchases of property, plant and equipment, offset by a net cash inflow of $83 million from purchases, sales and maturities of available for sale securities.

Financing Activities

Net cash provided by financing activities was $122 million in 2016, primarily due to the $782 million net proceeds from the issuance of our 2.125% Notes, the $667 million net proceeds from selling 115 million shares of our common stock and the $20 million proceeds from issuance of common stock under stock-based compensation equity plans, partially offset by the repurchases of an aggregate principal amount of $1.1 billion of our outstanding 6.75% Notes, 7.75% Notes, 7.50% Notes and 7.00% Notes for $1.1 billion in cash and repayments in aggregate of $230 million of our Secured Revolving Line of Credit.
Net cash provided by financing activities was $59 million in 2015, primarily due to net proceeds from borrowings pursuant to our Secured Revolving Line of Credit of $100 million, of which $42 million was used to repay the remaining aggregate principal amount of our 6.00% Convertible Senior Notes due 2015 (6.00% Notes) during the second quarter of 2015. In addition, during 2015, we received $5 million from the exercise of employee stock options.
Net cash provided by financing activities was $46 million in 2014, primarily due to net proceeds from borrowings pursuant to our 6.75% Notes of $589 million, our 7.00% Notes of $491 million and our Secured Revolving Line of Credit of $75 million, partially offset by $518 million in payments to repurchase a portion of our 6.00% Notes, $522 million in payments to repurchase our 8.125% Senior Notes due 2017 (8.125% Notes), $48 million in payments to repurchase a portion of our 7.75% Notes, $24 million in payments to repurchase a portion of our 7.50% Notes and $3 million in payments for capital lease obligations. During 2014, we also received $4 million from the exercise of employee stock options.
During 2016, 2015 and 2014, we did not realize any excess tax benefit related to stock-based compensation. Therefore, we did not record any effects relating to financing cash flows for these periods.

Contractual Obligations

The following table summarizes our consolidated principal contractual cash obligations, as of December 31, 2016, and is supplemented by the discussion following the table:

	Payment due by period						
(In millions)	Total	2017	2018	2019	2020	2021	2022 and thereafter
6.75% Notes	$196	$—	$—	$196	$—	$—	$ —
7.50% Notes	350	—	—	—	—	—	350
7.00% Notes	416	—	—	—	—	—	416
2.125% Notes	805	—	—	—	—	—	805
Other long-term liabilities	93	—	49	36	6	—	2
Aggregate interest obligation (1)	601	88	88	81	73	72	199
Operating leases	388	49	51	46	43	64	135
Purchase obligations (2)	447	391	37	15	3	1	—
Obligations to GF (3)	3,256	964	748	764	780	—	—
Total contractual obligations (4)	$6,552	$1,492	$973	$1,138	$905	$137	$ 1,907

(1)

Represents estimated aggregate interest obligations for our outstanding debt obligations that are payable in cash, excluding non-cash amortization of debt issuance costs.

(2) We have purchase obligations for goods and services where payments are based, in part, on the volume or type of services we acquire. In those cases, we only included the minimum volume of purchase obligations in the table above. Purchase orders for goods and services that are cancelable upon notice and without significant penalties are not included in the amounts above.

In addition, we have included in the table above obligations for software technology and licenses and IP licenses where payments are fixed and non-cancelable.

(3) These minimum purchase obligations are our contractual minimums and do not necessarily reflect our actual expected expenditures, which could be significantly different. We cannot meaningfully quantify or estimate our future purchase obligations to GF beyond 2020 but expect that our future purchases from GF will continue to be material.

(4) Total amount excludes contractual obligations already recorded on our condensed consolidated balance sheets except for debt obligations and other long-term liabilities.

6.75% Senior Notes Due 2019

On February 26, 2014, we issued $600 million of our 6.75% Notes. Our 6.75% Notes are our general unsecured senior obligations. Interest is payable on March 1 and September 1 of each year beginning September 1, 2014 until the maturity date of March 1, 2019. Our 6.75% Notes are governed by the terms of an indenture (the 6.75% Indenture) dated February 26, 2014 between us and Wells Fargo Bank, N.A., as trustee.

During 2016, we repurchased $404 million in aggregate principal amount of our 6.75% Notes. As of December 31, 2016, the outstanding aggregate principal amount of our 6.75% Notes was $196 million.

At any time before March 1, 2019, we may redeem some or all of our 6.75% Notes at a price equal to 100% of the principal amount, plus accrued and unpaid interest and a “make whole” premium (as set forth in the 6.75% Indenture). See Note 11 of “Notes to Consolidated Financial Statements” below, for additional information regarding our 6.75% Notes.

7.75% Senior Notes Due 2020

On August 4, 2010, we issued $500 million of our 7.75% Notes. Our 7.75% Notes were our general unsecured senior obligations. Interest was payable on February 1 and August 1 of each year beginning February 1, 2011 until the maturity date of August 1, 2020. Our 7.75% Notes were governed by the terms of an indenture dated August 4, 2010 between us and Wells Fargo Bank, N.A., as trustee.

In 2014, we repurchased $50 million in aggregate principal amount of our 7.75% Notes. During 2016, we paid off the remaining aggregate principal amount of our 7.75% Notes. As of December 31, 2016, we did not have any 7.75% Notes outstanding.

See Note 11 of “Notes to Consolidated Financial Statements” below, for additional information regarding our 7.75% Notes.

7.50% Senior Notes Due 2022

On August 15, 2012, we issued $500 million of our 7.50% Notes. Our 7.50% Notes are our general unsecured senior obligations. Interest is payable on February 15 and August 15 of each year beginning February 15, 2013 until the maturity date of August 15, 2022. The 7.50% Notes are governed by the terms of an indenture (the 7.50% Indenture) dated August 15, 2012 between us and Wells Fargo Bank, N.A., as trustee.

Prior to August 15, 2022, we may redeem some or all of our 7.50% Notes at a price equal to 100% of the principal amount, plus accrued and unpaid interest and a “make whole” premium (as set forth in the 7.50% Indenture).

In 2014, we repurchased $25 million in aggregate principal amount of our 7.50% Notes.

During 2016, we repurchased $125 million in aggregate principal amount of our 7.50% Notes. As of December 31, 2016, the outstanding aggregate principal amount of our 7.50% Notes was $350 million.

See Note 11 of “Notes to Consolidated Financial Statements” below, for additional information regarding our 7.50% Notes.

7.00% Senior Notes Due 2024

On June 16, 2014, we issued $500 million of our 7.00% Notes. The 7.00% Notes are our general unsecured senior obligations. Interest is payable on January 1 and July 1 of each year beginning January 1, 2015 until the maturity date of July 1, 2024. The 7.00% Notes are governed by the terms of an indenture (the 7.00% Indenture) dated June 16, 2014 between us and Wells Fargo Bank, N.A., as trustee.

At any time before July 1, 2017, we may redeem up to 35% of the aggregate principal amount of the 7.00% Notes within 90 days of the closing of an equity offering with the net proceeds thereof at a redemption price equal to

107.000% of the principal amount thereof, together with accrued and unpaid interest to but excluding the date of redemption. Prior to July 1, 2019, we may redeem some or all of the 7.00% Notes at a price equal to 100% of the principal amount, plus accrued and unpaid interest and a “make whole” premium (as set forth in the 7.00% Indenture).

Starting July 1, 2019, we may redeem our 7.00% Notes for cash at the following specified prices plus accrued and unpaid interest:

Period	Price as Percentage of Principal Amount
Beginning on July 1, 2019 through June 30, 2020	103.500%
Beginning on July 1, 2020 through June 30, 2021	102.333%
Beginning on July 1, 2021 through June 30, 2022	101.167%
On July 1, 2022 and thereafter	100.000%

During 2016, we repurchased $84 million in aggregate principal amount of our 7.00% Notes. As of December 31, 2016, the outstanding aggregate principal amount of our 7.00% Notes was $416 million.

See Note 11 of "Notes to Consolidated Financial Statements" below, for additional information regarding our 7.00% Notes.

2.125% Convertible Senior Notes Due 2026

On September 14, 2016, we issued $700 million in aggregate principal amount of our 2.125% Notes. We also granted an option to the underwriters to purchase up to an additional $105 million aggregate principal amount of our 2.125% Notes. On September 28, 2016, this option was exercised in full and we issued an additional $105 million aggregate principal amount of our 2.125% Notes.

Our 2.125% Notes are our general unsecured senior obligations and will mature on September 1, 2026, unless earlier repurchased or converted. Interest is payable in arrears on March 1 and September 1 of each year beginning on March 1, 2017. Our 2.125% Notes are governed by the terms of a base indenture and a supplemental indenture (together the 2.125% Indentures) dated September 14, 2016 between us and Wells Fargo Bank, N.A., as trustee.

Holders may convert their notes at their option at any time prior to the close of business on the business day immediately preceding June 1, 2026 only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on September 30, 2016 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (2) during the five business day period after any 10 consecutive trading day period (the "measurement period") in which the trading price per $1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day; or (3) upon the occurrence of specified corporate events. On or after June 1, 2026 until the close of business on the business day immediately preceding the maturity date, holders may convert their notes at any time, regardless of the foregoing circumstances. Upon conversion, we will pay or deliver, as the case may be, cash, shares of our common stock or a combination of cash and shares of the our common stock, at our election.

We may not redeem the notes prior to the maturity date, and no sinking fund is provided for the notes.

The conversion rate will initially be 125.0031 shares of common stock per $1,000 principal amount of notes (equivalent to an initial conversion price of approximately $8.00 per share of common stock). The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date, we will increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate event in certain circumstances.

If we undergo a fundamental change prior to the maturity date of the notes, holders may require us to repurchase for cash all or any portion of their notes at a fundamental change repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

As of December 31, 2016, the outstanding aggregate principal amount of our 2.125% Notes was $805 million.

Potential Repurchase of Outstanding Notes

We may elect to purchase or otherwise retire all or a portion of our 6.75% Notes, 7.50% Notes, 7.00% Notes and 2.125% Notes with cash, stock or other assets from time to time in open market or privately negotiated transactions, either directly or through intermediaries, or by tender offer when we believe the market conditions are favorable to do so.

Secured Revolving Line of Credit

Loan and Security Agreement

We and our subsidiary, AMD International Sales & Service, Ltd. (together, the Borrowers), entered into a loan and security agreement on November 12, 2013, as amended on December 11, 2014 (the Loan Agreement) for our secured revolving line of credit for a principal amount of up to $500 million (the Secured Revolving Line of Credit), with up to $75 million available for issuance of letters of credit, with a group of lenders and Bank of America, N.A., acting as agent for the lenders (the Agent). Our Secured Revolving Line of Credit had a maturity date of November 12, 2018. Borrowings under our Secured Revolving Line of Credit were limited to up to 85% of eligible account receivable minus certain reserves and may be used for general corporate purposes, including working capital needs.

Amended and Restated Loan and Security Agreement

On April 14, 2015, the Borrowers and ATI Technologies ULC (collectively, the Loan Parties), amended and restated the Loan Agreement (the Amended and Restated Loan Agreement) by and among the Loan Parties, the financial institutions party thereto from time to time as lenders (the Lenders) and the Agent.

The Amended and Restated Loan Agreement provides for a Secured Revolving Line of Credit for a principal amount up to $500 million with up to $75 million available for issuance of letters of credit, which remained unchanged from the Loan Agreement. Borrowings under the Secured Revolving Line of Credit are limited to up to 85% of eligible accounts receivable (90% for certain qualified eligible accounts receivable), minus specified reserves. The size of the commitments under the Secured Revolving Line of Credit may be increased by up to an aggregate amount of $200 million.

The Secured Revolving Line of Credit matures on April 14, 2020 and is secured by a first priority security interest in the Loan Parties' accounts receivable, inventory, deposit accounts maintained with the Agent and other specified assets, including books and records.

During 2016, we repaid an aggregate of $230 million of the Secured Revolving Line of Credit. At December 31, 2016, we did not have any borrowings outstanding under the Secured Revolving Line of Credit. At December 26, 2015, the Secured Revolving Line of Credit had an outstanding loan balance of $230 million, at an interest rate of 4.00%. At December 31, 2016, the Secured Revolving Line of Credit had $19 million related to outstanding letters of credit and up to $121 million available for future borrowings. We report our intra-period changes in our revolving credit balance on a net basis in our condensed consolidated statement of cash flows as we intend the period of the borrowings to be brief, repaying borrowed amounts within 90 days. As of December 31, 2016, we were in compliance with all required covenants stated in the Amended and Restated Loan Agreement.

The agreements governing our 6.75% Notes, 7.50% Notes, 7.00% Notes, 2.125% Notes and our Secured Revolving Line of Credit contain cross-default provisions whereby a default under one agreement would likely result in cross defaults under agreements covering other borrowings. The occurrence of a default under any of these borrowing arrangements would permit the applicable note holders or the lenders under the Secured Revolving Line of Credit to declare all amounts outstanding under those borrowing arrangements to be immediately due and payable.

First Amendment to the Amended and Restated Loan and Security Agreement

On June 10, 2015, the Loan Parties entered into a first amendment to the Amended and Restated Loan and Security Agreement (the First Amendment) by and among the Loan Parties, the Lenders and the Agent, which modifies the Amended and Restated Loan and Security Agreement. Amendments to the Amended and Restated Loan Agreement effected by the First Amendment included the addition of exceptions to the liens and asset sale covenants to permit the Loan Parties to enter into certain supply chain finance arrangements, as well as the addition of certain definitions related thereto.

Second Amendment to the Amended and Restated Loan and Security Agreement

On April 29, 2016, the Loan Parties entered into a second amendment to the Amended and Restated Loan and Security Agreement (the Second Amendment) by and among the Loan Parties, the Lenders and the Agent, which modifies the Amended and Restated Loan and Security Agreement. The primary amendment to the Amended and Restated Loan Agreement effected by the Second Amendment related to the expansion of the definition of permitted asset dispositions to include the sale or transfer of inventory to the ATMP JV pursuant to the Equity Interest Purchase Agreement between us and TFME.

Third Amendment to the Amended and Restated Loan and Security Agreement

On June 21, 2016, the Loan Parties entered into a third amendment to the Amended and Restated Loan and Security Agreement (the Third Amendment) by and among the Loan Parties, the Lenders and the Agent, which modifies the Amended and Restated Loan and Security Agreement. Amendments to the Amended and Restated Loan Agreement effected by the Third Amendment included the further expansion of the asset sale covenants to permit the Loan Parties to enter into certain supply chain finance arrangements.

Fourth Amendment to the Amended and Restated Loan and Security Agreement

On September 7, 2016, the Loan Parties entered into a fourth amendment to the Amended and Restated Loan and Security Agreement (the Fourth Amendment) by and among the Loan Parties, the Lenders and the Agent, which modifies the Amended and Restated Loan and Security Agreement. The primary amendment to the Amended and Restated Loan agreement effected by the Fourth Amendment was to increase the dollar limit as set forth the definition related to certain supply chain finance arrangements.

Other Long-Term Liabilities

Other long-term liabilities in the contractual obligations table above primarily consisted of $91 million of payments due under certain software and technology licenses that will be paid through 2020.

Other long-term liabilities in the contractual obligations table above exclude amounts recorded on our consolidated balance sheet that do not require us to make cash payments, which, as of December 31, 2016, primarily consisted of $13 million of deferred gains resulting from certain real estate transactions that occurred in Markham, Ontario, Canada in 2015 and 2008 and in Singapore in 2013, partially offset by $10 million of interest accretion for future payments related to software and technology licenses. Operating lease accruals of $6 million and deferred rent related to our facilities in Sunnyvale, California of $4 million are excluded from other long-term liabilities in the contractual obligations table above as they are included in the operating leases obligations. Also excluded from other long-term liabilities in the contractual obligations table above are $11 million of deferred tax liabilities, $3 million of environmental reserves and $3 million of non-current unrecognized tax benefits, which represent potential cash payments that could be payable by us upon settlements with the related authorities. We have not included these amounts in the contractual obligations table above because we cannot make reasonably reliable estimates regarding the timing of the settlements with the related authorities, if any.

Operating Leases

We lease certain of our facilities and, in some jurisdictions, we lease the land on which our facilities are built under non-cancelable lease agreements that expire at various dates through 2028. We lease certain office equipment for terms ranging from one to five years. Total future non-cancelable lease obligations as of December 31, 2016 were $388 million, including $328 million of future lease payments and estimated operating costs related to the real estate transactions that occurred in Austin, Texas, Sunnyvale and Santa Clara, California, Markham, Canada, and Singapore. During the second quarter of 2016, we signed an amendment to the lease agreement associated with our headquarters in Sunnyvale, California so that the lease expires in December 2017. In connection with the amendment, the lease payments were reduced for 2017. During the third quarter of 2016, we entered into a 10-year operating lease to occupy 220,000 square feet of new office space in Santa Clara. Base rent obligation is estimated to commence in August 2017 and the total estimate base rent payments over the life of the lease are approximately $125 million. In addition to the base rent payments we will be obligated to pay certain customary amounts for our share of operating expenses and tax obligation. We will also incur costs for capital projects on the new office space. We have the option to extend the term of the lease for an additional two five-year periods.

Purchase Obligations

Our purchase obligations primarily include our obligations to purchase wafers and substrates from third parties, excluding our wafer purchase commitments to GF under the WSA. As of December 31, 2016, total non-cancelable purchase obligations were $447 million.

Obligations to GF

As of December 31, 2016, our minimum wafer purchase obligations for the years 2017 through 2020 are approximately $3.3 billion. We cannot meaningfully quantify or estimate our future purchase obligations to GF beyond this amount but expect that our future purchases from GF will continue to be material.

Off-Balance Sheet Arrangements

As of December 31, 2016, we had no off-balance sheet arrangements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Interest Rate Risk. Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and long-term debt. We usually invest our cash in investments with short maturities or with frequent interest reset terms. Accordingly, our interest income fluctuates with short-term market conditions. As of December 31, 2016, our investment portfolio consisted primarily of commercial paper. These investments were highly liquid. Due to the relatively short, weighted-average maturity of our investment portfolio and the current low interest rate environment, our exposure to interest rate risk is minimal.

As of December 31, 2016, all of our outstanding debt had fixed interest rates. Consequently, our exposure to market risk for changes in interest rates on reported interest expense and corresponding cash flows is minimal.

We will continue to monitor our exposure to interest rate risk.

Default Risk. We mitigate default risk in our investment portfolio by investing in only high credit quality securities and by constantly positioning our portfolio to respond to a significant reduction in a credit rating of any investment issuer or guarantor. Our portfolio includes investments in debt and marketable equity securities with active secondary or resale markets to ensure portfolio liquidity. We are averse to principal loss and strive to preserve our invested funds by limiting default risk and market risk.

We actively monitor market conditions and developments specific to the securities and security classes in which we invest. We believe that we take a conservative approach to investing our funds in that we invest only in highly-rated debt securities with relatively short maturities and do not invest in securities we believe involve a higher degree of risk. As of December 31, 2016, substantially all of our investments in debt securities were A rated by at least one of the rating agencies. While we believe we take prudent measures to mitigate investment related risks, such risks cannot be fully eliminated as there are circumstances outside of our control.

There were no sales of available-for-sale securities during 2016.

The following table presents the cost basis, fair value and related weighted-average interest rates by year of maturity for our investment portfolio and debt obligations as of December 31, 2016:

	2017	2018	2019	2020	2021	2022 and thereafter	Total	2016 Fair Value
	(In millions, except for percentages)							
Investment Portfolio								
Cash equivalents:								
Fixed rate amounts	$1,147	$ —	$—	$ —	$ —	$—	$1,147	$1,147
Weighted-average rate	0.68 %	—	—	—	—	—	0.68 %	0.68 %
Variable rate amounts	$50	$ —	$—	$ —	$ —	$—	$50	$50
Weighted-average rate	0.42 %	—	—	—	—	—	0.42 %	0.42 %
Total Investment Portfolio	$1,197	$ —	$—	$ —	$ —	$—	$1,197	$1,197
Debt Obligations								
Fixed rate amounts	$—	$ —	$196	$ —	$ —	$1,571	$1,767	$2,313
Weighted-average effective interest rate	— %	—%	6.75 %	—%	—%	7.62 %	7.53 %	5.75 %
Variable rate amounts	$—	$ —	$—	$ —	$ —	$—	$—	$—
Weighted-average effective interest rate	— %	—%	— %	—%	—%	— %	— %	— %
Total Debt Obligations	$—	$ —	$196	$ —	$ —	$1,571	$1,767	$2,313

Foreign Exchange Risk. As a result of our foreign operations, we incur costs and we carry assets and liabilities that are denominated in foreign currencies, while sales of products are primarily denominated in U.S. dollars.

We maintain a foreign currency hedging strategy, which uses derivative financial instruments to mitigate the risks associated with changes in foreign currency exchange rates. This strategy takes into consideration all of our exposures. We do not use derivative financial instruments for trading or speculative purposes.

In applying our strategy, from time to time, we use foreign currency forward contracts to hedge certain forecasted expenses denominated in foreign currencies. We designate these contracts as cash flow hedges of forecasted expenses, to the extent eligible under the accounting rules, and evaluate hedge effectiveness prospectively and retrospectively. As such, the effective portion of the gain or loss on these contracts is reported as a component of accumulated other comprehensive income (loss) and reclassified to earnings in the same line item as the associated forecasted transaction and in the same period during which the hedged transaction affects earnings. Any ineffective portion is immediately recorded in earnings.

We also use, from time to time, foreign currency forward contracts to economically hedge recognized foreign currency exposures on the balance sheets of various subsidiaries. We do not designate these forward contracts as hedging instruments. Accordingly, the gain or loss associated with these contracts is immediately recorded in earnings.

The following table provides information about our foreign currency forward contracts as of December 31, 2016 and December 26, 2015. All of our foreign currency forward contracts mature within 12 months.

	December 31, 2016			December 26, 2015		
	Notional Amount	Average Contract Rate	Estimated Fair Value Gain (Loss)	Notional Amount	Average Contract Rate	Estimated Fair Value Gain (Loss)
	(In millions except contract rates)					
Foreign currency forward contracts:						
Canadian Dollar	$77	1.3189	$ (1.2)	$77	1.2941	$ (4.9)
Malaysian Ringgit	—	—	—	17	4.0581	(1.1)
Indian Rupee	25	69.8639	0.1	25	68.8560	0.2
Singapore Dollar	18	1.3740	(0.9)	24	1.4033	(0.1)
Taiwan Dollar	16	31.9829	—	13	31.8680	(0.4)
Chinese Renminbi	2	6.9904	—	—	—	—
Total	$138		$ (2.0)	$156		$ (6.3)

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA
Advanced Micro Devices, Inc.
Consolidated Statements of Operations

	Year Ended December 31, 2016	December 26, 2015	December 27, 2014
	(In millions, except per share amounts)		
Net revenue	$ 4,272	$ 3,991	$ 5,506
Cost of sales	3,274	2,911	3,667
Gross margin	998	1,080	1,839
Research and development	1,008	947	1,072
Marketing, general and administrative	460	482	604
Amortization of acquired intangible assets	—	3	14
Restructuring and other special charges, net	(10)	129	71
Licensing gain	(88)	—	—
Goodwill impairment charge	—	—	233
Operating loss	(372)	(481)	(155)
Interest expense	(156)	(160)	(177)
Other income (expense), net	80	(5)	(66)
Loss before equity loss and income taxes	(448)	(646)	(398)
Provision for income taxes	39	14	5
Equity in income (loss) of ATMP JV	(10)	—	—
Net loss	$ (497)	$ (660)	$ (403)
Net loss per share			
Basic	$ (0.60)	$ (0.84)	$ (0.53)
Diluted	$ (0.60)	$ (0.84)	$ (0.53)
Shares used in per share calculation			
Basic	835	783	768
Diluted	835	783	768

See accompanying notes to consolidated financial statements.

Advanced Micro Devices, Inc.
Consolidated Statements of Comprehensive Loss

	Year Ended December 31, 2016	December 26, 2015	December 27, 2014
	(In millions)		
Net loss	$ (497)	$ (660)	$ (403)
Other comprehensive income (loss):			
Unrealized gains (losses) on available-for-sale securities:			
Unrealized gains (losses) arising during period, net of tax effects of $1, $0 and $0	—	(2)	—
Unrealized gains (losses) on cash flow hedges:			
Unrealized gains (losses) arising during period, net of tax effects of $2, $0 and $0	1	(22)	(9)
Reclassification adjustment for (gains) losses realized and included in net loss, net of tax effect of $0	2	21	6
Total change in unrealized gains (losses) on cash flow hedges, net of tax	3	(1)	(3)
Total other comprehensive income (loss)	3	(3)	(3)
Total comprehensive loss	$ (494)	$ (663)	$ (406)

See accompanying notes to consolidated financial statements.

Advanced Micro Devices, Inc.
Consolidated Balance Sheets [1] [2]

	December 31, 2016	December 26, 2015
	(In millions, except par value amounts)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,264	$ 785
Accounts receivable, net	311	533
Inventories, net	751	678
Prepayment and other - GLOBALFOUNDRIES	32	33
Prepaid expenses	63	43
Other current assets	109	248
Total current assets	2,530	2,320
Property, plant and equipment, net	164	188
Goodwill	289	278
Investment in ATMP JV	59	—
Other assets	279	298
Total assets	$ 3,321	$ 3,084
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Short-term debt	$ —	$ 230
Accounts payable	440	279
Payable to GLOBALFOUNDRIES	255	245
Payable to ATMP JV	128	—
Accrued liabilities	391	472
Other current liabilities	69	124
Deferred income on shipments to distributors	63	53
Total current liabilities	1,346	1,403
Long-term debt, net	1,435	2,007
Other long-term liabilities	124	86
Commitments and contingencies (see Notes 16 and 17)		
Stockholders' equity (deficit):		
Capital stock:		
Common stock, par value $0.01; 1,500 shares authorized on December 31, 2016 and December 26, 2015; shares issued: 949 shares on December 31, 2016 and 806 shares on December 26, 2015; shares outstanding: 935 shares on December 31, 2016 and 792 shares on December 26, 2015	9	8
Additional paid-in capital	8,334	7,017
Treasury stock, at cost (14 shares on December 31, 2016 and December 26, 2015)	(119)	(123)
Accumulated deficit	(7,803)	(7,306)
Accumulated other comprehensive loss	(5)	(8)
Total stockholders' equity (deficit)	416	(412)
Total liabilities and stockholders' equity (deficit)	$ 3,321	$ 3,084

[1] Amounts reflected adoption of FASB ASU 2015-17, Balance Sheet Classification of Deferred Taxes beginning in the first quarter of 2016.

(2) Amounts reflected adoption of FASB ASU 2015-03, Simplifying the Presentation of Debt Issuance Costs beginning in the first quarter of 2016.

See accompanying notes to consolidated financial statements.

Advanced Micro Devices, Inc.
Consolidated Statements of Stockholders' Equity (Deficit)
Three Years Ended December 31, 2016
(In millions)

	Number of shares	Common Stock	Additional paid-in capital	Treasury stock	Accumulated deficit	Accumulated other comprehensive loss	Total stockholders' equity (deficit)
December 28, 2013	725	$ 7	$ 6,894	$ (112)	$ (6,243)	$ (2)	$ 544
Net loss	—	—	—	—	(403)	—	(403)
Other comprehensive loss	—	—	—	—	—	(3)	(3)
Common stock issued under stock-based compensation plans, net of tax withholding	16	—	4	(6)	—	—	(2)
Common stock issued by exercise of warrants	35	1	—	(1)			—
Stock-based compensation	—	—	81	—	—	—	81
Stock-based compensation related to restructuring and other special charges, net	—	—	5	—	—	—	5
Adjustment to equity component of the 6.00% Notes resulting from debt buyback	—	—	(35)	—	—	—	(35)
December 27, 2014	776	8	6,949	(119)	(6,646)	(5)	187
Net loss	—	—	—	—	(660)	—	(660)
Other comprehensive loss	—	—	—	—	—	(3)	(3)
Common stock issued under stock-based compensation plans, net of tax withholding	16	—	5	(4)	—	—	1
Stock-based compensation	—	—	63	—	—	—	63
December 26, 2015	792	8	7,017	(123)	(7,306)	(8)	(412)
Net loss	—	—	—	—	(497)	—	(497)
Other comprehensive income	—	—	—	—	—	3	3
Common stock issued under stock-based compensation plans, net of tax withholding	27	—	20	(4)	—	—	16
Stock-based compensation	—	—	86	—	—	—	86
Equity component of the 2.125% Notes, net	—	—	305	—	—	—	305
Warrant issued related to sixth amendment to the WSA	—	—	240	—	—	—	240
Issuance of common stock, net of issuance costs	115	1	666	—	—	—	667
Issuance of common stock to partially settle the 7.00% Notes	1	—	—	8	—	—	8
December 31, 2016	935	$ 9	$ 8,334	$ (119)	$ (7,803)	$ (5)	$ 416

See accompanying notes to consolidated financial statements.

Advanced Micro Devices, Inc.
Consolidated Statements of Cash Flows

	Year Ended December 31, 2016 (In millions)	December 26, 2015	December 27, 2014
Cash flows from operating activities:			
Net loss	$ (497)	$ (660)	$ (403)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Net gain on sale of equity interests in ATMP JV	(146)	—	—
Equity in loss of ATMP JV	2	—	—
Depreciation and amortization	133	167	203
Provision for deferred income taxes	11	—	—
Stock-based compensation expense	86	63	81
Non-cash interest expense	21	11	17
Goodwill impairment charge	—	—	233
Restructuring and other special charges, net	—	83	14
Net loss on debt redemption	68	—	61
Fair value of warrant issued related to sixth amendment to the WSA	240	—	—
Other	(8)	(3)	(13)
Changes in operating assets and liabilities:			
Accounts receivable	222	280	7
Inventories	(73)	(11)	199
Prepayment and other - GLOBALFOUNDRIES	1	84	(113)
Prepaid expenses and other assets	(166)	(111)	(7)
Payable to ATMP JV	128	—	—
Payable to GLOBALFOUNDRIES	10	27	(146)
Accounts payables, accrued liabilities and other	58	(156)	(231)
Net cash provided by (used in) operating activities	90	(226)	(98)
Cash flows from investing activities:			
Net Proceeds from sale of equity interests in ATMP JV	342	—	—
	—	(227)	(790)

Purchases of available-for-sale securities			
Purchases of property, plant and equipment	(77)	(96)	(95)
Proceeds from maturities of available-for-sale securities	—	462	873
Proceeds from sale of property, plant and equipment	—	8	—
Other	2	—	—
Net cash provided by (used in) investing activities	267	147	(12)
Cash flows from financing activities:			
Proceeds from (repayments of) borrowings, net	(230)	100	75
Proceeds from issuance of senior notes, net of issuance costs	782	—	1,080
Proceeds from issuance of common stock, net of issuance costs	667	—	—
Proceeds from issuance of common stock under stock-based compensation equity plans	20	5	4
Repayments of long-term debt and capital lease obligations	(1,113)	(44)	(1,115)
Other	(4)	(2)	2
Net cash provided by financing activities	122	59	46
Net increase (decrease) in cash and cash equivalents	479	(20)	(64)
Cash and cash equivalents at beginning of year	785	805	869
Cash and cash equivalents at end of year	$ 1,264	$ 785	$ 805
Supplemental disclosures of cash flow information:			
Cash paid during the year for:			
Interest	$ 149	$ 149	$ 138
Income taxes	$ 20	$ 3	$ 7
Non-cash financing activity:			
Issuance of common stock to partially settle the 7.00% Notes	$ 8	$ —	$ —

See accompanying notes to consolidated financial statements.

53

Advanced Micro Devices, Inc.
Notes to Consolidated Financial Statements
December 31, 2016, December 26, 2015 and December 27, 2014
NOTE 1: Nature of Operations
Advanced Micro Devices, Inc. is a global semiconductor company. References herein to AMD or the Company mean Advanced Micro Devices, Inc. and its consolidated subsidiaries. The Company primarily offers:

(i) x86 microprocessors, as standalone devices or as incorporated into an accelerated processing unit (APU), chipsets, discrete graphics processing units (GPUs) and professional graphics; and
(ii) server and embedded processors and semi-custom System-on-Chip (SoC) products and technology for game consoles. We also license portions of our intellectual property portfolio.

NOTE 2: Summary of Significant Accounting Policies
Fiscal Year. The Company uses a 52 or 53 week fiscal year ending on the last Saturday in December. Fiscal 2016, 2015 and 2014 ended December 31, 2016, December 26, 2015 and December 27, 2014, respectively. Fiscal 2016, 2015 and 2014 consisted of 53, 52 and 52 weeks, respectively.
Principles of Consolidation. The consolidated financial statements include the Company’s accounts and those of its wholly-owned subsidiaries. Upon consolidation, all significant inter-company accounts and transactions are eliminated.
Use of Estimates. The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles (U.S. GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of commitments and contingencies at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results are likely to differ from those estimates, and such differences may be material to the financial statements. Areas where management uses subjective judgment include, but are not limited to, revenue allowances, inventory valuation, valuation and impairment of goodwill, valuation of investments in marketable securities, deferred income taxes and restructuring charges.
Revenue Recognition. The Company recognizes revenue from products sold directly to customers, including original equipment manufacturers (OEMs), when persuasive evidence of an arrangement exists, the price is fixed or determinable, delivery has occurred and collectability is reasonably assured. Estimates of product returns, allowances and future price reductions, based on actual historical experience and other known or anticipated trends and factors, are recorded at the time revenue is recognized. The Company sells to distributors under terms allowing the majority of distributors certain rights of return and price protection on unsold merchandise held by them. The distributor agreements, which may be cancelled by either party upon specified notice, generally contain a provision for the return of those of the Company’s products that the Company has removed from its price book and that are not more than 12 months older than the manufacturing code date. In addition, some agreements with distributors may contain standard stock rotation provisions permitting limited levels of product returns. Therefore, the Company is unable to estimate the product returns and pricing when the product is sold to the distributors. Accordingly, the Company defers the gross margin resulting from the deferral of both revenue and related product costs from sales to distributors with agreements that have the aforementioned terms until the merchandise is resold by the distributors and reports such deferred amounts as “Deferred income on shipments to distributors” on its consolidated balance sheet. Products are sold to distributors at standard published prices that are contained in price books that are broadly provided to the Company’s various distributors. Distributors are then required to pay for these products within the Company’s standard contractual terms, which are typically net 60 days. The Company records allowances for price protection given to distributors and customer rebates in the period of distributor re-sale. The Company determines these allowances based on specific contractual terms with its distributors. Price reductions generally do not result in sales prices that are less than the Company’s product cost. Deferred income on shipments to distributors is revalued at the end of each period based on the change in inventory units at distributors, latest published prices and latest product costs.
The Company records estimated reductions to revenue under distributor and customer incentive programs, including certain cooperative advertising and marketing promotions and volume based incentives and special pricing arrangements, at the time the related revenues are recognized. For transactions where the Company reimburses a

customer for a portion of the customer's cost to perform specific product advertising or marketing and promotional activities, such amounts are recorded as a reduction of revenue unless they qualify for expense recognition. Shipping and handling costs associated with product sales are included in cost of sales.

Deferred revenue and related product costs were as follows:

	December 31, 2016	December 26, 2015
	(In millions)	
Deferred revenue	$ 124	$ 94
Deferred cost of sales	(61)	(41)
Deferred income on shipments to distributors	$ 63	$ 53

Inventories. Inventories are stated at standard cost adjusted to approximate the lower of actual cost (first-in, first-out method) or market. The Company adjusts inventory carrying value for estimated obsolescence equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. The Company fully reserves for inventories and noncancelable purchase orders for inventory deemed obsolete. The Company performs periodic reviews of inventory items to identify excess inventories on hand by comparing on-hand balances to anticipated usage using recent historical activity as well as anticipated or forecasted demand. If estimates of customer demand diminish further or market conditions become less favorable than those projected by the Company, additional inventory adjustments may be required.

Goodwill. Goodwill represents the excess of the purchase price over the fair value of net tangible and identifiable intangible assets acquired. In accordance with Accounting Standards Codification (ASC) 350, “Goodwill and Other Intangible Assets,” goodwill is not amortized, but rather is tested for impairment at least annually or more frequently if indicators of impairment present. The Company performs its annual goodwill impairment analysis as of the first day of the fourth quarter of each year and, if certain events or circumstances indicate that an impairment loss may have been incurred, on an interim basis. In assessing impairment on goodwill, the Company first analyzes qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test. The qualitative factors the Company assesses include long-term prospects of its performance, share price trends and market capitalization, and Company-specific events. If the Company concludes it is more likely than not that the fair value of a reporting unit exceeds its carrying amount, the Company does not need to perform the two-step impairment test. If based on that assessment, the Company believes it is more likely than not that the fair value of the reporting unit is less than its carrying value, a two-step goodwill impairment test will be performed. The first step of the impairment test is to compare the fair value of each reporting unit to its carrying value. If step one indicates that impairment potentially exists, the second step is performed to measure the amount of impairment, if any. Goodwill impairment exists when the estimated fair value of goodwill is less than its carrying value.

Commitments and Contingencies. From time to time the Company is a defendant or plaintiff in various legal actions that arise in the normal course of business. The Company is also a party to environmental matters, including local, regional, state and federal government clean-up activities at or near locations where the Company currently or has in the past conducted business. The Company is required to assess the likelihood of any adverse judgments or outcomes to these matters as well as potential ranges of reasonably possible losses. A determination of the amount of reserves required for these commitments and contingencies, if any, that would be charged to earnings, includes assessing the probability of adverse outcomes and estimating the amount of potential losses. The required reserves, if any, may change in the future due to new developments in each matter or changes in circumstances such as a change in settlement strategy. Changes in required reserves could increase or decrease the Company’s earnings in the period the changes are made (See Notes 16 and 17).

Restructuring Charges. Restructuring charges are primarily comprised of severance costs, contract and program termination costs, asset impairments and costs of facility consolidation and closure. Restructuring charges are recorded upon approval of a formal management plan and are included in the operating results of the period in which such plan is approved and the expense becomes estimable. To estimate restructuring charges, management utilizes assumptions of the number of employees that would be involuntarily terminated and of future costs to operate and eventually vacate duplicate facilities. Severance and other employee separation costs are accrued when it is probable that benefits will be paid and the amount is reasonably estimable. The rates used in determining severance accruals are based on the Company’s policies and practices and negotiated settlements.

Cash Equivalents. Cash equivalents consist of financial instruments that are readily convertible into cash and have original maturities of three months or less at the time of purchase.

Accounts Receivable. The Company maintains an allowance for doubtful accounts based on its assessment of the collectability of amounts owned by customers. The allowance consists of known specific troubled accounts as well as an amount based on overall estimated potential uncollectible accounts receivable based on historical experience.

Investments in Certain Debt and Equity Securities. The Company classifies its investments in debt and marketable equity securities at the date of acquisition as available-for-sale. Available-for-sale securities are reported at fair value with the related unrealized gains and losses included, net of tax, in accumulated other comprehensive loss, a component of stockholders' equity. Realized gains and losses and declines in the value of available-for-sale securities determined to be other than temporary are included in other income (expense), net. The cost of securities sold is determined based on the specific identification method.

The Company classifies investments in debt securities with maturities of more than three months at the time of purchase as marketable securities on its consolidated balance sheet. Classification of these securities as current is based on the Company's intent and belief in its ability to sell these securities and use the proceeds from sale in operations within 12 months.

Derivative Financial Instruments. The Company maintains a foreign currency hedging strategy which uses derivative financial instruments to mitigate the risks associated with changes in foreign currency exchange rates. This strategy takes into consideration all of the Company's consolidated exposures. The Company does not use derivative financial instruments for trading or speculative purposes.

In applying its strategy, the Company used foreign currency forward contracts to hedge certain forecasted expenses denominated in foreign currencies. The Company designated these contracts as cash flow hedges of forecasted expenses, to the extent eligible under the accounting rules, and evaluates hedge effectiveness prospectively and retrospectively. As such, the effective portion of the gain or loss on these contracts is reported as a component of accumulated other comprehensive loss and reclassified to earnings in the same line item as the associated forecasted transaction and in the same period during which the hedged transaction affects earnings. Any ineffective portion is immediately recorded in earnings.

The Company also uses, from time to time, foreign currency forward contracts to economically hedge recognized foreign currency exposures on the balance sheets of various subsidiaries. The Company does not designate these forward contracts as hedging instruments. Accordingly, the gain or loss associated with these contracts is immediately recorded in earnings.

Property, Plant and Equipment. Property, plant and equipment are stated at cost. Depreciation and amortization are provided on a straight-line basis over the estimated useful lives of the assets for financial reporting purposes. Estimated useful lives for financial reporting purposes are as follows: equipment, two to six years; buildings and building improvements, up to 40 years; and leasehold improvements, measured by the shorter of the remaining terms of the leases or the estimated useful economic lives of the improvements.

Assets Held for Sale. Assets held for sale represents components that meet accounting requirements to be classified as held for sale and presented as single asset and liability amounts in the Company's financial statements at lower of carrying value or fair value, less cost to sell. The determination of fair value involves significant judgments and assumptions. In determining the fair value less cost to sell, the Company considered factors including, among others, the nature of the sales transaction, the composition of assets and/or businesses in the disposal group, current sales prices for comparable assets and/or businesses and negotiations with third party purchaser(s).

As of December 26, 2015, the Company's assets and liabilities related to the assets held for sale amounted to $183 million and $79 million and were recorded in other current assets and other current liabilities, respectively. These assets held for sale were related to the divestiture of the Company's subsidiaries in Suzhou and Penang. See Note 4 "Equity Interest Purchase Agreement" below, for additional information.

Product Warranties. The Company generally warrants that its products sold to its customers will conform to the Company's approved specifications and be free from defects in material and workmanship under normal use and conditions for one year. Subject to certain exceptions, the Company also offers a three-year limited warranty to end users for those central processing unit (CPU) and AMD A-Series accelerated processing unit (APU) products purchased as individually packaged products commonly referred to as "processors in a box", and for PC workstation products. The Company also offered extended limited warranties to certain customers of "tray" microprocessor products and/or workstation graphics products who have written agreements with the Company and target their computer systems at the commercial and/or embedded markets. The Company accrues warranty costs at the time of sale of warranted products.

Foreign Currency Translation/Transactions. The functional currency of all of the Company's foreign subsidiaries is the U.S. dollar. Assets and liabilities denominated in non-U.S. dollars have been remeasured into U.S. dollars at current exchange rates for monetary assets and liabilities and historical exchange rates for non-monetary assets and liabilities. Non-U.S. dollar denominated transactions have been remeasured at average exchange rates in effect during each period, except for those cost of sales and expense transactions related to non-monetary balance sheet amounts, which have been remeasured at historical exchange rates. The gains or losses from foreign currency remeasurement are included in earnings.

Foreign Subsidies. The Company received investment grants in connection with the construction and operation of certain facilities in Asia. Generally, such grants are subject to forfeiture in declining amounts over the life of the agreement if the Company does not maintain certain levels of employment or meet other conditions specified in the relevant grant documents. Accordingly, amounts granted are initially recorded as a receivable until cash proceeds are received. In the period the grant receivable is recorded, a current and long-term liability is also recorded which is subsequently amortized as a reduction to cost of sales.

The Company also received grants relating to certain research and development projects. These research and development funds are generally recorded as a reduction of research and development expenses when all conditions and requirements set forth in the underlying grant agreement are met.

Marketing, Communications and Advertising Expenses. Marketing, communications and advertising expenses for 2016, 2015 and 2014 were approximately $131 million, $154 million and $194 million, respectively. Cooperative advertising funding obligations under customer incentive programs are accrued and the costs are recorded upon agreement with customers and vendor partners. Cooperative advertising expenses are recorded as marketing, general and administrative expense to the extent the cash paid does not exceed the estimated fair value of the advertising benefit received. Any excess of cash paid over the estimated fair value of the advertising benefit received is recorded as a reduction of revenue.

Net Loss Per Share. Basic net loss per share is computed based on the weighted-average number of shares outstanding and shares issuable upon exercise of the warrants issued by the Company to West Coast Hitech L.P. (WCH), in connection with the GLOBALFOUNDRIES, Inc. (GF) transaction in 2009. On March 7, 2014, the Company issued 35 million shares of common stock pursuant to the cashless exercise in full by WCH of its warrant to purchase up to 35 million shares of the Company’s common stock at an exercise price of $0.01 per share. As a result, the warrant is no longer outstanding. The issuance of the common stock did not have any effect on basic and dilutive earnings per share amounts because the full 35 million shares of common stock issuable to WCH had already been included in the denominator for calculating basic and dilutive earnings per share for all periods presented.

Diluted net loss per share is computed based on the weighted average number of shares outstanding plus any potentially dilutive shares outstanding. Potentially dilutive shares include stock options and restricted stock units and potentially dilutive shares issuable upon conversion of the 2.125% Convertible Senior Notes due 2026 (2.125% Notes) and the exercise of the warrant under the warrant agreement (the Warrant Agreement) with WCH, a wholly-owned subsidiary of Mubadala Development Company PJSC (Mubadala).

The following table sets forth the components of basic and diluted loss per share:

	2016	2015	2014
	(In millions, except per share amounts)		
Numerator—Net loss:			
Numerator for basic and diluted net loss per share	$ (497)	$ (660)	$ (403)
Denominator—Weighted-average shares:			
Denominator for basic and diluted net loss per share	835	783	768
Net loss per share:			
Basic	$ (0.60)	$ (0.84)	$ (0.53)
Diluted	$ (0.60)	$ (0.84)	$ (0.53)

Potential shares from outstanding stock options, restricted stock units, the 2.125% Notes and the warrants under the Warrant Agreement totaling 231 million for 2016 and potential shares from outstanding stock options and restricted stock units totaling approximately 52 million and 48 million for 2015 and 2014, respectively, were not included in the net loss per share calculations as their inclusion would have been anti-dilutive.

Accumulated Other Comprehensive Loss. Unrealized holding gains or losses on the Company’s available-for-sale securities and unrealized holding gains and losses on derivative financial instruments qualifying as cash flow hedges are included in other comprehensive loss.

The table below summarizes the changes in accumulated other comprehensive loss by component for the years ended December 31, 2016 and December 26, 2015:

	December 31, 2016			December 26, 2015		
	Unrealized gains (losses) on available-for-sale securities	Unrealized gains (losses) on cash flow hedges	Total	Unrealized gains (losses) on available-for-sale securities	Unrealized gains (losses) on cash flow hedges	Total
	(In millions)					
Beginning balance	$ (1)	$ (7)	$ (8)	$ 1	$ (6)	$ (5)
Unrealized gains (losses) arising during the period, net of tax effects	—	1	1	(2)	(22)	(24)
Reclassification adjustment for (gains) losses realized and included in net loss, net of tax effects	—	2	2	—	21	21
Total other comprehensive income (loss)	—	3	3	(2)	(1)	(3)
Ending balance	$ (1)	$ (4)	$ (5)	$ (1)	$ (7)	$ (8)

Stock-Based Compensation. The Company estimates stock-based compensation cost for stock options at the grant date based on the option's fair-value as calculated by the lattice-binomial option-pricing model. For restricted stock units, including performance-based restricted stock units (PRSUs), fair value is based on the closing price of the Company's common stock on the grant date. The Company estimates the grant-date fair value of restricted stock units that involve a market condition using a Monte Carlo simulation model. Compensation expense is recognized over the vesting period of the applicable award using the straight-line method, except for the compensation expense related to PRSUs, which are recognized ratably for each vesting tranche from the service inception date to the end of the requisite service period.

The application of the lattice-binomial option-pricing model requires the use of extensive actual employee exercise behavior data and the use of a number of complex assumptions including expected volatility of the Company's common stock, risk-free interest rate and expected dividends. Significant changes in any of these assumptions could materially affect the fair value of stock options granted in the future.

Forfeiture rates are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates in order to derive the Company's best estimate of awards ultimately expected to vest.

Recently Adopted Accounting Standards

Income Taxes. In November 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2015-17, Balance Sheet Classification of Deferred Taxes (ASU 2015-17), which simplifies the presentation of deferred income taxes by requiring all deferred tax assets and liabilities be classified as non-current on the consolidated balance sheet. The Company early adopted ASU 2015-17 in the first quarter of 2016 and elected prospective application. As a result of the adoption, the Company netted $31 million of deferred tax assets and deferred tax liabilities and reclassified $8 million of current deferred tax assets and $6 million of current deferred tax liabilities to non-current deferred tax assets and liabilities, respectively, on its condensed consolidated balance sheet as of March 26, 2016.

Interest—Imputation of Interest. In April 2015, the FASB issued ASU No. 2015-03, Simplifying the Presentation of Debt Issuance Costs (ASU 2015-03), which requires an entity to present debt issuance costs related to a recognized liability in the balance sheet as a direct deduction from the carrying amount of that related liability rather than as an asset. Amortization of the costs will continue to be reported as interest expense. In August 2015, the FASB issued ASU 2015-15, which clarified that debt issuance costs related to line-of-credit arrangements could continue to be presented as an asset and be subsequently amortized over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the arrangement. The Company retrospectively adopted ASU 2015-03 and 2015-15 in the first quarter of 2016 and reclassified debt issuance costs from long-term assets to long-term debt by $23 million and $25 million as of March 26, 2016 and December 26, 2015, respectively, on its consolidated balance sheets.

Disclosure of Going Concern Uncertainties. In August 2014, the FASB issued ASU No. 2014-15, Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern (ASU 2014-15), which provides guidance on management's responsibility in evaluating whether there is substantial doubt about a company's ability to continue as a going concern and to provide related footnote disclosures. The Company adopted ASU 2014-15 in the fourth quarter of 2016. The Company did not identify any conditions that raised substantial doubt about its ability to continue as a going concern as of the date of issuance of its consolidated financial statements, and accordingly no further disclosures are required.

Recently Issued Accounting Standards

Inventory. In July 2015, the FASB issued ASU No. 2015-11, Simplifying the Measurement of Inventory (ASU 2015-11), which requires entities to measure inventory at the lower of cost or net realizable value. Current guidance requires inventory to be measured at the lower of cost or market, with market defined as replacement cost, net realizable value, or net realizable value less a normal profit margin. This ASU simplifies the subsequent measurement of inventory by replacing the lower of cost or market test with a lower of cost or net realizable value test. The Company will adopt this guidance in the first quarter of 2017 and does not expect an impact on its consolidated financial statements.
Revenue Recognition. In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers: Topic 606 (ASU 2014-09), which creates a single source of revenue guidance under U.S. GAAP for all companies in all industries and replaces most existing revenue recognition guidance in U.S. GAAP. Under the new standard, revenue is recognized when a customer obtains control of promised goods or services and is recognized in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. In addition, the new standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The FASB has issued several amendments to the new standard, including clarification on accounting for licenses of intellectual property and identifying performance obligations.

The new standard is effective for annual reporting periods beginning after December 15, 2017. The new standard permits companies to early adopt the new standard, but not before annual reporting periods beginning after December 15, 2016. The Company will not early adopt the new standard and therefore the new standard will be effective for the Company in the first quarter of its fiscal 2018.

The guidance permits two methods of adoption: retrospectively to each prior reporting period presented (full retrospective method), or prospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application and providing additional disclosures comparing results to the previous rules in the year of adoption of the new standard (the modified retrospective method or the cumulative catchup method). The Company currently anticipates adopting the standard using the full retrospective method to restate each prior reporting period presented. The Company’s ability to adopt utilizing the full retrospective method is dependent upon system readiness and the completion of its analysis of information necessary to restate prior period financial statements.

In 2016, the Company established a cross-functional team consisting of representatives across both of its business segments. While the Company is continuing to assess all potential impacts of the standard, it currently believes the most significant impact relates to accelerated revenue recognition for sales to its distributors. This is due to a change in revenue recognition from the point of resale by its distributors to their end customers, to the initial point of sales to the Company’s distributors. The Company currently expects other revenue streams to remain substantially unchanged.

As part of the Company’s assessment and implementation plan, the Company is evaluating and implementing changes to its policies, procedures and controls.

Financial Instruments. In January 2016, the FASB issued ASU No. 2016-01, Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities (ASU 2016-01), which requires that most equity investments be measured at fair value, with subsequent changes in fair value recognized in net income. The ASU also impacts financial liabilities under the fair value option and the presentation and disclosure requirements for financial instruments. In addition, the FASB clarified guidance related to the valuation allowance assessment when recognizing deferred tax assets resulting from unrealized losses on available-for-sale debt securities. Entities will have to assess the realizability of such deferred tax assets in combination with the entities other deferred tax assets. ASU 2016-01 is effective for fiscal years beginning after December 15, 2017 and for interim periods within that reporting period. The Company is currently evaluating the impact of its pending adoption of ASU 2016-01 on its consolidated financial statements.

Leases. In February 2016, the FASB issued ASU No. 2016-02, Leases (ASU 2016-02), which increases transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, with early application permitted. Upon adoption, lessees must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The Company is currently evaluating the impact of its pending adoption of ASU 2016-02 on its consolidated financial statements.

Investments. In March 2016, the FASB issued ASU No. 2016-07, Investments – Equity Method and Joint Ventures (Topic 323): Simplifying the Transition to the Equity Method of Accounting (ASU 2016-07), which requires the equity method investor to add the cost of acquiring the additional interest in the investee to the current basis of the investor’s previously held interest and adopt the equity method of accounting as of the date the investment qualifies for equity method accounting. ASU 2016-07 is effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years with early application permitted. The Company is not expecting any material impact from its adoption of ASU 2016-07 on its consolidated financial statements.

Stock Compensation. In March 2016, the FASB issued ASU No. 2016-09, Compensation-Stock Compensation (Topic 718) Improvements to Employee Share-Based Payment Accounting (ASU 2016-09), which is intended to simplify several aspects of the accounting for share-based payment award transactions. ASU 2016-09 is effective for fiscal years beginning after December 15, 2016, including interim periods. The Company will adopt this guidance in the first quarter of 2017 and will elect to continue to estimate forfeitures expected to occur to determine the amount of compensation cost to be recognized in each period. In the first quarter of 2017 the Company will record a $95 million cumulative-effect adjustment increase in retained earnings and an offsetting increase in deferred tax assets for previously unrecognized excess tax benefits that existed as of December 31, 2016. Since substantially all of the Company’s U.S. and foreign deferred tax assets, net of deferred tax liabilities, are subject to a valuation allowance and the realization of these assets is not more likely than not to be achieved, the Company will record a $95 million valuation allowance against these deferred tax assets with an offsetting decrease in retained earnings. The Company will elect to report cash flows related to excess tax benefits on a prospective basis. The presentation requirement for cash flows related to employee taxes paid for withheld shares will not impact the statements of cash flows since such cash flows have historically been presented as a financing activity.

Financial Instruments. In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments (ASU 2016-13). The standard changes the methodology for measuring credit losses on financial instruments and the timing of when such losses are recorded. ASU 2016-13 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019. Early adoption is permitted for fiscal years, and interim periods within those years, beginning after December 15, 2018. The Company is currently evaluating the timing of adoption and impact of this new standard on its consolidated financial statements.

Statement of Cash Flows. In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (ASU 2016-15), which is intended to reduce the existing diversity in practice in how certain cash receipts and cash payments are classified in the statement of cash flows. ASU 2016-15 is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years with early adoption permitted, provided that all of the amendments are adopted in the same period. The Company is currently evaluating the impact of its pending adoption of ASU 2016-15 on its consolidated financial statements.

Income Taxes. In October 2016, the FASB issued ASU No. 2016-16, Income Taxes (Topic 740), Intra-Entity Transfers of Assets Other Than Inventory (ASU 2016-16), which requires entities to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. This amends current GAAP which prohibits recognition of current and deferred income taxes for all types of intra-entity asset transfers until the asset has been sold to an outside party. ASU 2016-16 is effective for fiscal years beginning after December 15, 2017, including interim periods therein with early application permitted. Upon adoption, the Company must apply a modified retrospective transition approach through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption. The Company is currently evaluating the impact of this new standard on its consolidated financial statements, as well as its planned adoption date.

Although there are several other new accounting pronouncements issued or proposed by the FASB, which the Company has adopted or will adopt, as applicable, the Company does not believe any of these accounting pronouncements has had or will have a material impact on its consolidated financial position, operating results or statements of cash flows.

NOTE 3: GLOBALFOUNDRIES

Formation and Accounting

On March 2, 2009, the Company consummated the transactions contemplated by the Master Transaction Agreement among the Company, Mubadala Technology Investments LLC, or Mubadala Tech (formerly, Advanced Technology Investment Company LLC) and WCH, pursuant to which the Company formed GLOBALFOUNDRIES Inc. (GF). In connection with the consummation of the transactions contemplated by the Master Transaction Agreement, the Company, Mubadala Tech and GF entered into a Wafer Supply Agreement (the WSA), a Funding Agreement (the Funding Agreement) and a Shareholders' Agreement (the Shareholders' Agreement) on March 2, 2009.

On March 4, 2012, as partial consideration for certain rights received under a second amendment to the WSA, the Company transferred to GF all of the remaining capital stock of GF that the Company owned. In addition, as of March 4, 2012, the Funding

Agreement was terminated, and the Company was no longer party to the Shareholders' Agreement. As a result of these transactions, the Company no longer owned any GF capital stock as of March 4, 2012.

GF continues to be a related party of the Company because Mubadala and Mubadala Tech are affiliated with WCH, the Company's largest stockholder. WCH and Mubadala Tech are wholly-owned subsidiaries of Mubadala.

Wafer Supply Agreement

The WSA governs the terms by which the Company purchases products manufactured by GF. Pursuant to the WSA, the Company is required to purchase all of its microprocessor and APU product requirements and a certain portion of its GPU product requirements from GF with limited exceptions. If the Company acquires a third party business that manufactures microprocessor and APU products, the Company will have up to two years to transition the manufacture of such microprocessor and APU products to GF.

The WSA terminates no later than March 2, 2024. GF has agreed to use commercially reasonable efforts to assist the Company to transition the supply of products to another provider and to continue to fulfill purchase orders for up to two years following the termination or expiration of the WSA. During the transition period, pricing for microprocessor and APU products will remain as set forth in the WSA, but the Company's purchase commitments to GF will no longer apply.

Sixth Amendment to Wafer Supply Agreement. On August 30, 2016, the Company entered into a sixth amendment (the Sixth Amendment) to the WSA. The Sixth Amendment modifies certain terms of the WSA applicable to wafers for the Company's microprocessor, graphics processor and semi-custom products for a five-year period from January 1, 2016 to December 31, 2020. The Company and GF agreed to establish a comprehensive framework for technology collaboration for the 7nm technology node.

The Sixth Amendment also provides the Company a limited waiver with rights to contract with another wafer foundry with respect to certain products in the 14nm and 7nm technology nodes and gives the Company greater flexibility in sourcing foundry services across its product portfolio. In consideration for these rights, the Company agreed to pay GF $100 million in installments starting in the fourth fiscal quarter of 2016 through the third fiscal quarter of 2017. During the fourth quarter of fiscal 2016, the Company paid GF $25 million. Starting in 2017 and continuing through 2020, the Company also agreed to make quarterly payments to GF based on the volume of certain wafers purchased from another wafer foundry.

Further, for each calendar year during the term of the Sixth Amendment, the Company and GF agreed to annual wafer purchase targets that increase from 2016 through 2020. If the Company does not meet the annual wafer purchase target for any calendar year, the Company will be required to pay to GF a portion of the difference between the Company's actual wafer purchases and the wafer purchase target for that year. The annual targets were established based on the Company's current business and market expectations and take into account the limited waiver it has received for certain products.

The Company and GF also agreed on fixed pricing for wafers purchased during 2016 and established a framework to agree on annual wafer pricing for the years 2017 to 2020.

The Company's total purchases from GF related to wafer manufacturing and research and development activities were approximately $0.7 billion for 2016, $0.9 billion for 2015 and $1 billion for 2014.

Warrant Agreement. Also on August 30, 2016, in consideration of the limited waiver and rights under the Sixth Amendment, the Company entered into a warrant agreement (the Warrant Agreement) with WCH, a wholly-owned subsidiary of Mubadala. Under the Warrant Agreement, WCH and its permitted assigns are entitled to purchase 75 million shares of the Company's common stock (the Warrant Shares) at a purchase price of $5.98 per share. The warrant under the Warrant Agreement is exercisable in whole or in part until February 29, 2020, provided that the maximum number of Warrant Shares that may be exercised prior to the one-year anniversary of the Warrant Agreement shall not exceed 50 million. Notwithstanding the foregoing, the Warrant Agreement will only be exercisable to the extent that Mubadala does not beneficially own, either directly through any other entities directly and indirectly owned by Mubadala or its subsidiaries, an aggregate of more than 19.99% of the Company's outstanding capital stock after any such exercise.

During 2016, the Company recorded a charge of $340 million, consisting of the $100 million payment under the Sixth Amendment and the $240 million value of the warrant under the Warrant Agreement issued in consideration of the

Sixth Amendment. The warrant, which was recorded as additional paid-in capital, was valued using the Black-Scholes Model, which considers the assumptions of 47.1% implied volatility and 0.99% risk-free rate based on the 3.5-year warrant term, the Company's stock price of $7.49 per share on August 30, 2016 and the $5.98 strike price.

NOTE 4: Equity Interest Purchase Agreement - ATMP Joint Venture

On April 29, 2016, the Company and certain of its subsidiaries completed the sale of a majority of the equity interests in Suzhou TF-AMD Semiconductor Co., Ltd. (formerly, AMD Technologies (China) Co., Ltd.), and TF AMD Microelectronics (Penang) Sdn. Bhd. (formerly, Advanced Micro Devices Export Sdn. Bhd.), to affiliates of Tongfu Microelectronics Co., Ltd (formerly, Nantong Fujitsu Microelectronics Co., Ltd.) (TFME), a Chinese joint stock company, to form two joint ventures (collectively, the ATMP JV). As a result of the sale, TFME’s affiliates own 85% of the equity interests in the ATMP JV while certain of the Company’s subsidiaries own the remaining 15%. The Company has no obligations to fund the ATMP JV.

As the result of the transaction, the Company received approximately $342 million, including purchase price adjustments, in net cash proceeds for selling 85% of the equity interest in each of Suzhou TF-AMD Semiconductor Co., Ltd. and TF AMD Microelectronics (Penang) Sdn. Bhd. These proceeds, net of certain transaction costs, were included in investing activities on the Company's consolidated statements of cash flows for the year ended December 31, 2016.

The Company recognized a net pre-tax gain on the sale of its 85% equity interest in ATMP JV of $146 million for the year ended December 31, 2016, which was recognized in Other income (expense), net on the Company's consolidated statements of operations. The net pre-tax gain reflects the excess of the sum of net cash proceeds and fair value of the Company's retained 15% equity interests in the ATMP JV over the sum of the net book values of the Company's former subsidiaries and other closing costs directly attributed to the divestiture. The above gain includes $11 million of excess of fair value of the Company's retained interest over the corresponding net book values.

In determining the fair value of the Company's retained 15% equity interests in the ATMP JV, the Company used quoted prices from comparable bids for this transaction. The Company also considered other factors including the control premium and the amount of consideration received for the portion sold.

The Company accounts for its equity interests in the ATMP JV under the equity method of accounting due to its significant influence over the ATMP JV. As of December 31, 2016, the carrying value of the Company's investment in the ATMP JV was $59 million.

Following the deconsolidation, the ATMP JV is a related party of the Company. The ATMP JV provides assembly, test, mark and packaging (ATMP) services to the Company. The Company currently pays the ATMP JV for ATMP services on a cost-plus basis. The Company's total purchases from the ATMP JV during the year ended December 31, 2016 amounted to approximately $265 million. The Company’s payable to the ATMP JV, as of December 31, 2016, was $128 million.

During the year ended December 31, 2016, the Company recorded a $10 million loss in Equity in income (loss) of ATMP JV on its consolidated statements of operations, which included certain expenses incurred by the Company on behalf of the ATMP JV.

NOTE 5. Equity Joint Venture - Intellectual Property Licensing Agreement

In February 2016, the Company and Tianjin Haiguang Advanced Technology Investment Co., Ltd. (THATIC), a third-party Chinese entity (JV Partner), formed a joint venture comprised of two separate legal entities, China JV1 and China JV2 (collectively, the THATIC JV). The Company’s equity share in China JV1 and China JV2 is a majority and minority interest, respectively, funded by the Company’s contribution of certain of its patents. The JV Partner is responsible for the initial and on-going financing of the THATIC JV’s operations. The Company has no obligations to fund the THATIC JV. The THATIC JV’s primary purpose is to support the Company’s expansion into the server and workstation product market in China. The Company licensed certain of its intellectual property (Licensed IP) to the THATIC JV for a total of approximately $293 million in license fees payable over several years contingent upon achievement of certain milestones. The Company also expects to receive a royalty based on the sales of the THATIC JV’s products to be developed on the basis of such Licensed IP. The Company will also provide certain engineering and technical support to the THATIC JV in connection with the product development.

The Company concluded the China JV1 and China JV2 are not operating joint ventures and are variable interest entities due to their reliance on on-going financing by JV Partner. The Company determined that it is not the primary beneficiary of either China JV1 or China JV2, as the Company does not have unilateral power to direct selling and marketing activities, manufacturing and product development activities related to the THATIC JV's products. Accordingly the Company will not consolidate either of these entities and therefore accounts for its investments in the

THATIC JV under the equity method of accounting. THATIC JV is a related party of the Company.

Income related to the Licensed IP will be recognized over the period commencing upon delivery of the first Licensed IP milestone through the date of the milestone that requires the Company's continuing involvement in the product development process. Royalty payments will be recognized in income once earned. The Company will classify Licensed IP income and royalty income as other operating income. During the year ended December 31, 2016, the Company recognized $88 million licensing gain associated with the THATIC JV as part of operating income.

The Company's total exposure to losses through its investment in the THATIC JV is limited to the Company's investments in the THATIC JV, which was zero as of December 31, 2016. The Company's share in the net losses of the THATIC JV for the year ended December 31, 2016 was not material and is not recorded in the Company's consolidated statement of operations since the Company is not obligated to fund the THATIC JV's losses in excess of the Company's investment in the THATIC JV.

As of December 31, 2016, the total assets and liabilities of the THATIC JV were not material.

NOTE 6: Supplemental Balance Sheet Information

Inventories

	December 31, 2016	December 26, 2015
	(In millions)	
Raw materials	$11	$ 16
Work in process	564	482
Finished goods	176	180
Total inventories, net	$751	$ 678

Other current assets

	December 31, 2016	December 26, 2015
	(In millions)	
Assets held-for-sale	$—	$ 183
Other current assets	109	65
Total other current assets	$109	$ 248

Property, plant and equipment

	December 31, 2016	December 26, 2015
	(In millions)	
Leasehold improvements	$148	$ 146
Equipment	714	821
Construction in progress	19	17
Property, plant and equipment, gross	881	984
Accumulated depreciation and amortization	(717)	(796)
Total property, plant and equipment, net	$164	$ 188

Depreciation expense for 2016, 2015 and 2014 was $71 million, $94 million and $115 million, respectively.

Other assets

	December 31, 2016	December 26, 2015
	(In millions)	
Software and technology licenses, net	$232	$ 189
Other	47	109
Total other assets	$279	$ 298

Accrued liabilities

	December 31, 2016	December 26, 2015
	(In millions)	
Accrued compensation and benefits	$116	$ 95
Marketing programs and advertising expenses	102	109
Software technology and licenses payable	24	50
Other accrued and current liabilities	149	218
Total accrued liabilities	$391	$ 472

Other current liabilities

	December 31, 2016	December 26, 2015
	(In millions)	
Liabilities related to assets held-for-sale	$—	$ 79
Other current liabilities	69	45
Total other current liabilities	$69	$ 124

NOTE 7: Goodwill and Acquired Intangible Assets

Goodwill

The carrying amounts of goodwill as of December 31, 2016 and December 26, 2015 were as follows:

	Computing and Graphics	Enterprise, Embedded and Semi-Custom	All Other	Total
	(In millions)			
Initial goodwill due to ATI acquisition	$1,194	$ 255	$ 745	$2,194
Initial goodwill due to SeaMicro acquisition	165	65	—	230
	1,359	320	745	2,424
Accumulated impairment losses	(1,359)	—	(745)	(2,104)
Balance as of December 27, 2014	—	320	—	320
Assets held-for-sale (sold to ATMP JV during 2016)		(42)		(42)
Balance as of December 26, 2015	—	278	—	278
Adjustment to assets sold to ATMP JV	—	11	—	11
Balance as of December 31, 2016	—	289	—	289
Goodwill, gross	1,359	289	745	2,424
Accumulated impairment losses	$(1,359)	$ —	$ (745)	$(2,104)

As a result of the decision to form the JVs with TFME, the balance sheet as of December 26, 2015 reflects held-for-sale accounting of the ATMP assets and liabilities which requires reclassification of such financial amounts to current assets and current liabilities. Asset balances reclassified into other current assets included goodwill of $42 million. During 2016, the formation of ATMP JV was completed and the actual goodwill assigned to ATMP JV was approximately $31 million.

During the fourth quarter of 2014, the Company conducted its annual impairment test of goodwill. In step one of the impairment test, the Company compared the fair value of each of the reporting units to its carrying value. The Company determined that the carrying value of the Computing and Graphics reporting unit exceeded its fair value, indicating potential goodwill impairment existed based on a combination of factors such as a decline in stock price. Therefore, the Company performed the second step of the impairment test, in which the fair value of the reporting unit is allocated to all of the assets and liabilities of the reporting unit on a fair value basis, including any unrecognized intangible assets, with any excess representing the implied fair value of goodwill. The fair value was determined using an income approach, which estimates the present value of future cash flows based on management's forecast of revenue growth rates and operating margins. Based on this analysis, the implied fair value of the goodwill of the Computing and Graphics reporting unit was zero. The Company concluded that the carrying amount of goodwill assigned to the Computing and Graphics segment exceeded the implied fair values and recorded an impairment charge of $233 million, which is included in “Goodwill impairment charge” on the Company’s consolidated statement of operations.

The Company determined that the estimated fair value exceeded the carrying value of the remaining two reporting units, indicating that there was no goodwill impairment with respect to these reporting units. In connection with completing the goodwill impairment analysis, the Company reviewed its long-lived tangible and intangible assets within the Computing and Graphics reporting unit under ASC 360, “Accounting for the Impairment or Disposal of Long-Lived Assets.” The Company determined that the forecasted undiscounted cash flows related to these assets or asset groups were in excess of their carrying values, and therefore these assets were not impaired.

In the fourth quarters of 2016 and 2015, the Company conducted its annual impairment tests of goodwill. Based on the results of the Company’s analysis of goodwill, each reporting unit’s fair value exceeded its carrying value, indicating that there was no goodwill impairment in 2016 and 2015.

Acquisition-related intangible assets

As a part of the Company’s strategy to simplify and sharpen its investment focus, the Company decided to exit the dense server systems business, formerly SeaMicro, in the first quarter of 2015. As a result, the Company recorded a charge of $76 million in “Restructuring and other special charges, net” on the Company’s consolidated statements of operations during 2015. This charge consisted of an impairment charge of $62 million related to the acquired intangible assets. The Company concluded that the carrying value of the acquired intangible assets associated with its dense server systems business was fully impaired as the Company did not have plans to utilize the related freedom fabric technology in any of its future products nor did it have any plans at that time to monetize the associated intellectual property.

There were no unamortized balances of acquisition-related intangible assets as of December 31, 2016 and December 26, 2015.

The following table summarizes amortization expense associated with acquisition-related intangible assets:

	2016	2015	2014
	(In millions)		
Developed technology	$ —	$ 3	$ 13
Customer relationships	—	—	1
Total	$ —	$ 3	$ 14

NOTE 8: Financial Instruments

Cash and Cash Equivalents

Cash and financial instruments measured and recorded at fair value on a recurring basis as of December 31, 2016 and December 26, 2015 are summarized below:

	December 31, 2016	December 26, 2015
	(In millions)	
Cash and cash equivalents		
Cash	$ 67	$ 409
Level 1[(1) (2)]		
Government money market funds	50	—
Total level 1	50	—
Level 2[(1) (3)]		
Commercial paper	1,147	376
Total level 2	1,147	376
Total	$ 1,264	$ 785

(1) The Company did not have any transfers between Level 1 and Level 2 of the fair value hierarchy during 2016 and 2015.

(2) The Company's Level 1 assets are valued using quoted prices for identical instruments in active markets.

(3) The Company's Level 2 assets are valued using broker reports that utilize quoted market prices for identical or comparable instruments. Brokers gather observable inputs for all of the Company's fixed income securities from a variety of industry data providers and other third-party sources.

In addition to those amounts presented above, as of December 31, 2016 and December 26, 2015, the Company had approximately $2 million and $1 million, respectively, of investments in money market funds, used as collateral for letters of credit deposits, which were included in Other current assets and Other assets, respectively, on the Company's consolidated balance sheets. These money market funds are classified within Level 1 because they are valued using quoted prices for identical instruments in active markets. Their amortized costs are the same as the fair value for all periods presented. The Company is restricted from accessing these deposits.

Also in addition to those amounts presented above, at December 31, 2016 and December 26, 2015, the Company had approximately $15 million of investments in mutual funds held in a Rabbi trust established for the Company's deferred compensation plan, which were also included in Other assets on the Company's consolidated balance sheets. These mutual funds are classified within Level 1 because they are valued using quoted prices for identical instruments in active markets. Their amortized cost approximates the fair value for all periods presented. The Company is restricted from accessing these investments.

Financial Instruments Not Recorded at Fair Value on a Recurring Basis. The Company carries its financial instruments at fair value with the exception of its debt. Financial instruments that are not recorded at fair value are measured at fair value on a quarterly basis for disclosure purposes. The carrying amounts and estimated fair values of financial instruments not recorded at fair value are as follows:

	December 31, 2016		December 26, 2015	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
	(In millions)			
Short-term debt	$—	$ —	$230	$ 230
Long-term debt, net[1]	$1,434	$ 2,313	$2,000	$ 1,372

(1) Carrying amounts of long-term debt are net of unamortized debt issuance costs of $25 million as of December 31, 2016 and December 26, 2015, based on the adoption of ASU 2015-03, and net of $308 million unamortized debt discount associated with the 2.125% Notes as of December 31, 2016.

The Company's short-term and long-term debt, net are classified within Level 2. The fair value of the debt was estimated based on the quoted market prices for the same or similar issues or on the current rates offered to the Company for debt of the same remaining maturities. The fair value of the Company's accounts receivable, accounts payable and other short-term obligations approximate their carrying value based on existing payment terms.

Hedging Transactions and Derivative Financial Instruments

Cash Flow Hedges

The following table shows the amount of gain (loss) included in accumulated other comprehensive loss, the amount of gain (loss) reclassified from accumulated other comprehensive loss and included in earnings related to the foreign currency forward contracts designated as cash flow hedges and the amount of gain (loss) included in other income (expense), net, related to contracts not designated as hedging instruments, which was allocated in the consolidated statements of operations:

	2016	2015
	(In millions)	
Foreign Currency Forward Contracts - gains (losses)		
Contracts designated as cash flow hedging instruments		
Other comprehensive income (loss)	$4	$(1)
Cost of sales	—	(4)
Research and development	(1)	(10)
Marketing, general and administrative	—	(7)

Contracts not designated as hedging instruments		
Other income (expense), net	$3	$(3)

The Company's foreign currency derivative contracts are classified within Level 2 because the valuation inputs are based on quoted prices and market observable data of similar instruments in active markets, such as currency spot and forward rates.

The following table shows the fair value amounts included in Other current assets should the foreign currency forward contracts be in a gain position or included in Other current liabilities should these contracts be in a loss position. These amounts were recorded in the Company's consolidated balance sheets as follows:

	December 31, 2016	December 26, 2015
	(In millions)	
Foreign Currency Forward Contracts - gains (losses)		
Contracts designated as cash flow hedging instruments	$(2)	$ (6)

For the foreign currency contracts designated as cash flow hedges, the ineffective portions of the hedging relationship and the amounts excluded from the assessment of hedge effectiveness were immaterial.

As of December 31, 2016 and December 26, 2015, the notional values of the Company's outstanding foreign currency forward contracts were $138 million and $156 million, respectively. All the contracts mature within 12 months, and, upon maturity, the amounts recorded in accumulated other comprehensive income (loss) are expected to be reclassified into earnings. The Company hedges its exposure to the variability in future cash flows for forecasted transactions over a maximum of 12 months.

Fair Value Hedges

In the third quarter of 2014, the Company entered into fixed-to-floating interest rate swaps on a notional amount of $250 million to hedge a portion of the Company's 6.75% Senior Notes due 2019 (6.75% Notes). The purpose of these swaps was to manage a portion of the Company's exposure to interest rate risk by converting fixed rate interest payments to floating rate interest payments. The swaps effectively converted a portion of the fixed interest payments payable on the 6.75% Notes into variable interest payments based on LIBOR. The interest rate swaps were designated as a fair value hedge. Because the specific terms and notional amount of the swaps were intended to match the portion of the 6.75% Notes being hedged, it was assumed to be a highly effective hedge. Accordingly, changes in the fair value of the interest rate swaps were exactly offset by changes in the fair value of the 6.75% Notes. All changes in fair value of the swaps were recorded on the Company's consolidated balance sheets with no net impact to the Company's consolidated statements of operations.

During 2016, the Company terminated the above fair value hedges. In connection with the repurchase of a portion of the principal amount of the 6.75% Notes during the third quarter of 2016, the Company canceled one of its interest rate swap contracts and recorded a gain of approximately $2 million in Other income (expense), net on the Company's consolidated statement of operations. Additionally, during the fourth quarter of 2016, the Company canceled its remaining interest rate swap contract on the remaining portion of the outstanding 6.75% Notes. For this cancellation, the Company recorded a deferred gain, which is recognized as interest income over the remaining life of the 6.75% Notes. The total amount of interest income recognized from the deferred gain during 2016 was immaterial. As of December 31, 2016, the balance of the deferred gain included in Long-term debt, net on the Company's consolidated balance sheet was approximately $1 million.

The Company's fair value hedge derivative contracts were classified within Level 2 because the valuation inputs were based on quoted prices and market observable data of similar instruments in active markets.

The following table shows the fair value amounts included in Other assets should the fair value hedge derivative contracts be in a gain position or included in Other long-term liabilities should these contracts be in a loss position. These amounts were recorded in the Company's consolidated balance sheets as follows:

	December 31, 2016	December 26, 2015
	(In millions)	
Interest Rate Swap Contracts - gains (losses)		
Contracts designated as fair value hedging instruments	$ —	$ 7

NOTE 9: Concentrations of Credit and Operation Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of investments in debt securities, trade receivables and derivative financial instruments used in hedging activities.
The Company places its investments with high credit quality financial institutions and, by policy, limits the amount of credit exposure with any one financial institution. The Company invests in time deposits and certificates of deposit from banks having combined capital, surplus and undistributed profits of not less than $200 million. At the time an investment is made, investments in commercial paper of industrial firms and financial institutions are rated A1, P1 or better. The Company invests in tax-exempt

securities, including municipal notes and bonds that are rated A, A2 or better and repurchase agreements, each of which have securities of the type and quality listed above as collateral.

The Company believes that concentrations of credit risk with respect to trade receivables are limited because a large number of geographically diverse customers make up the Company's customer base, thus diluting the trade credit risk. Accounts receivable from the Company's top three customers accounted for approximately 12%, 11% and 10% of the total consolidated accounts receivable balance as of December 31, 2016 and 26%, 17% and 11% of the total consolidated accounts receivable balance as of December 26, 2015. However, the Company does not believe the receivable balance from these customers represents a significant credit risk based on past collection experience, and review of their current credit quality. The Company manages its exposure to customer credit risk through credit limits, credit lines, ongoing monitoring procedures and credit approvals. Furthermore, the Company performs in-depth credit evaluations of all new customers and, at intervals, for existing customers. From this, the Company may require letters of credit, bank or corporate guarantees or advance payments, if deemed necessary.

The Company's existing derivative financial instruments are with large international financial institutions of investment grade credit rating. The Company does not believe that there is significant risk of nonperformance by these counterparties because the Company monitors their credit rating on an ongoing basis. By using derivative instruments, the Company is subject to credit and market risk. If a counterparty fails to fulfill its performance obligations under a derivative contract, the Company's credit risk will equal the fair value of the derivative instrument. Generally, when the fair value of a derivative contract is positive, the counterparty owes the Company, thus creating a receivable risk for the Company. Based upon certain factors, including a review of the credit default swap rates for the Company's counterparties, the Company determined its counterparty credit risk to be immaterial. At December 31, 2016, the Company's obligations under the contracts exceeded the counterparties' obligations by $2 million.

The Company is dependent on certain equipment and materials from a limited number of suppliers and relies on a limited number of foreign companies to supply the majority of certain types of integrated circuit packages for its internal back-end manufacturing operations. Similarly, certain non-proprietary materials or components such as memory, PCBs, substrates and capacitors used in the manufacture of the Company's graphics products are currently available from only a limited number of sources. Interruption of supply or increased demand in the industry could cause shortages and price increases in various essential materials. If the Company or its third-party manufacturing suppliers are unable to procure certain of these materials, or its foundries are unable to procure materials for manufacturing its products, its business would be materially adversely affected.

NOTE 10: Income Taxes

The provision for income taxes consists of:

	2016	2015	2014
	(In millions)		
Current:			
U.S. Federal	$(2)	$(1)	$(1)
U.S. State and Local	—	—	—
Foreign National and Local	21	16	6
Total	19	15	5
Deferred:			
U.S. Federal	(1)	—	—
Foreign National and Local	21	(1)	—
Total	20	(1)	—
Provision for income taxes	$39	$14	$5

Loss before income taxes consists of the following:

	2016	2015	2014
	(In millions)		
U.S.	$(604)	$(1,100)	$(621)
Foreign	146	454	223
Total pre-tax loss including ATMP JV equity loss	$(458)	$(646)	$(398)

Deferred income taxes reflect the net tax effects of tax carryovers and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the balances for income tax purposes. Significant components of the Company's deferred tax assets and liabilities as of December 31, 2016 and December 26, 2015 are as follows:

	December 31, 2016	December 26, 2015
	(In millions)	
Deferred tax assets:		
Net operating loss carryovers	$2,480	$ 2,342
Deferred distributor income	26	20
Inventory valuation	26	39
Accrued expenses not currently deductible	65	74
Acquired intangibles	213	257
Tax deductible goodwill	146	192
Federal and state tax credit carryovers	427	400
Foreign capitalized research and development costs	—	60
Foreign research and development ITC credits	341	231
Discount of convertible notes	2	1
Other	83	119
Total deferred tax assets	3,809	3,735
Less: valuation allowance	(3,633)	(3,669)
Total deferred tax assets, net of valuation allowance	176	66
Deferred tax liabilities:		
Undistributed foreign earnings	(158)	(33)
Other	(18)	(23)
Total deferred tax liabilities	(176)	(56)
Net deferred tax assets	$—	$ 10

The breakdown between current and non-current deferred tax assets and deferred tax liabilities as of December 31, 2016 and December 26, 2015 is as follows:

	December 31, 2016	December 26, 2015
	(In millions)	
Current deferred tax assets	$ —	$ 8
Non-current deferred tax assets	11	48
Current deferred tax liabilities	—	(46)
Non-current deferred tax liabilities	$ (11)	$ —
Net deferred tax assets	$ —	$ 10

Current deferred tax assets and current deferred tax liabilities are included in captions Other current assets and Accrued liabilities, respectively, on the consolidated balance sheets. Non-current deferred tax assets are included in the caption “Other assets” on the consolidated balance sheets.

As of December 31, 2016, substantially all of the Company’s U.S. and foreign deferred tax assets, net of deferred tax liabilities, continued to be subject to a valuation allowance. The realization of these assets is dependent on substantial future taxable income which, at December 31, 2016, in management’s estimate, is not more likely than not to be achieved. In 2016, the net valuation allowance decreased by $36 million primarily for decreases in deferred tax assets related to foreign capitalized research costs, acquired intangibles and goodwill. In 2015, the net valuation allowance increased by $174 million primarily for increases in deferred tax assets related to the net operating losses generated from pre-tax book losses in the U.S. In 2014, the net valuation allowance increased by $120 million primarily for increases in deferred tax assets related to net operating losses generated from pre-tax book losses in the U.S.

As of December 31, 2016 and December 26, 2015, the Company had $95 million and $118 million, respectively, of deferred tax assets subject to a valuation allowance that related to excess stock option deductions, which are not presented in the deferred tax asset balances.

The following is a summary of the various tax attribute carryforwards the Company had as of December 31, 2016. The amounts presented below include amounts related to excess stock option deductions, as discussed above.

Carryforward	Federal	State / Provincial	Expiration
	(In millions)		
U.S.-net operating loss carryovers	$6,973	$ 348	2017 to 2036
U.S.-credit carryovers	$398	$ 209	2017 to 2036
Canada-net operating loss carryovers	$13	$ 13	2027 to 2028
Canada-credit carryovers	$331	$ 39	2021 to 2036
Barbados-net operating loss carryovers	$29	N/A	2017
Other foreign net operating loss carryovers	$36	N/A	various

Utilization of $10 million of the Company’s U.S. federal net operating loss carryforwards are subject to annual limitations as a result of the ATI Technologies ULC (ATI) acquisition.

The table below displays reconciliation between statutory federal income taxes and the total provision (benefit) for income taxes.

	2016	2015	2014
	(In millions)		
Statutory federal income tax benefit at 35% rate	$(160)	$(226)	$(139)
State taxes, net of federal benefit	1	1	1
Foreign (income) expense at other than U.S. rates	(1)	9	1
U.S. valuation allowance generated	201	232	144
Credit monetization	(2)	(2)	(2)
Provision for income taxes	$39	$14	$5

The Company has made no provision for U.S. income taxes on approximately $37 million of cumulative undistributed earnings of certain foreign subsidiaries through December 31, 2016 because it is the Company's intention to indefinitely reinvest such earnings (2015: approximately $307 million). If such earnings were distributed, the Company would incur additional income taxes of approximately $13 million (after an adjustment for foreign tax credits). These additional income taxes may not result in income tax expense or a cash payment to the Internal Revenue Service, but may result in the utilization of deferred tax assets that are currently subject to a valuation allowance.

The year-on-year reduction in cumulative undistributed earnings for which no provision for U.S. income taxes has been provided is primarily due to a combination of dividend distributions, other US federal income tax return inclusions, and changes in circumstances in certain subsidiaries such that their undistributed earnings are no longer considered indefinitely reinvested in full or in part. Significant movements in previously undistributed earnings of foreign subsidiaries are discussed below.

The Company recognized the U.S. income tax effect of undistributed earnings within certain subsidiaries in China and Malaysia of $83 million through December 31, 2016. In addition, dividends and other U.S. federal income tax return inclusions of $198 million were recognized in U.S. taxable income through December 31, 2016. The tax effect of the total recognition of $281 million distributed and undistributed by these subsidiaries is the utilization of deferred tax assets and an equivalent reduction in valuation allowances over those assets. These movements arise because the Company closed the transaction to sell 85% of the ownership interest in the subsidiaries operating factories in Suzhou and Penang.

The Company recognized the U.S. income tax effect of undistributed earnings within a subsidiary in Bermuda and its subsidiaries of $127 million through December 31, 2016 because of a simplification plan which resulted in the relocation of certain activities between entities within the Company group. On completion these initiatives will allow a merger of two operating subsidiaries and reduce their role within the group's operating activities. This causes the Company to modify its judgment that the associated undistributed earnings of these subsidiaries remain indefinitely reinvested. The tax effect of this recognition is the utilization of deferred tax assets and an equivalent reduction in valuation allowances over those assets.

The Company partially recognized undistributed earnings within certain subsidiaries in China of $56 million through December 26, 2015 because the announcement in October 2015 of an agreement to sell 85% of the ownership interest in the subsidiary operating a factory in Suzhou caused the Company to modify its judgment that associated undistributed earnings of that subsidiary's holding company in China will remain indefinitely reinvested. A future distribution of these earnings will give rise to an associated future withholding tax of $6 million. This is recognized as an income tax expense within the 2015 income tax provision. The same event results in the Chinese holding company recognizing the future benefit of tax losses available to offset taxable gains when the deal closes. The future benefit of those losses is $7 million and is a reduction in the 2015 income tax provision. The net effect of this event in the 2015 income tax provision is a reduction of $1 million.

The Company's operations in Malaysia currently operate under a tax holiday, which will expire in 2018. This tax holiday may be extended if specific conditions are met. The net impact of the tax holiday did not decrease the Company's net loss in 2016 because the Company's operations in Malaysia operated at a net loss. The net impact of tax holidays did not decrease the Company's net loss in 2015 because the Company's operations in Malaysia operated at a loss. The net impact of tax holidays decreased the Company's net loss by $2 million in 2014, less than $.01 per share, diluted.

A reconciliation of the gross unrecognized tax benefits is as follows:

	2016	2015	2014
	(In millions)		
Balance at beginning of year	$38	$28	$52
Increases for tax positions taken in prior years	3	11	1
Decreases for tax positions taken in prior years	—	(1)	—
Increases for tax positions taken in the current year	2	2	2
Decreases for settlements with taxing authorities	—	(2)	(27)
Decreases for lapsing of the statute of limitations	(1)	—	—
Balance at end of year	$42	$38	$28

The amount of unrecognized tax benefits that would impact the effective tax rate was $4 million, $4 million and $3 million as of December 31, 2016, December 26, 2015 and December 27, 2014, respectively. The Company had no or immaterial amounts of accrued interest and no accrued penalties related to unrecognized tax benefits as of December 31, 2016, December 26, 2015 and December 27, 2014. The Company recognizes the accrued interest and penalties to unrecognized tax benefits as interest expense and income tax expense, respectively.

During the 12 months beginning January 1, 2017, the Company expects to reduce its unrecognized tax benefits by $1 million primarily as a result of the lapse of statue with certain tax authorities. The Company does not believe it is reasonably possible that other unrecognized tax benefits will materially change in the next 12 months. However, the resolutions and/or closure of open audits are highly uncertain.

As of December 27, 2014, the Canada Revenue Agency, or CRA, had completed its audit of ATI for the years 2005 through 2010 and issued its final Notice of Assessment, which the Company has reviewed and agreed to. As of December 26, 2015, the Italian tax authorities had concluded their audit of the Company's subsidiaries' activities in Italy for the years 2003 through 2013. The Company entered into a settlement for $11 million in taxes and penalties and $2 million in interest. The Company and its subsidiaries have several foreign, foreign provincial, and U.S. state audits in process at any one point in time. The Company has provided for uncertain tax positions that require a liability under the adopted method to account for uncertainty in income taxes. The Company has not recognized any current or long-term deferred tax assets under a valuation allowance as a result of the application of uncertainty in income taxes in ASC 740 for unrecognized tax benefits as of December 31, 2016.

NOTE 11: Debt and Other Obligations

Total Debt

The Company's total debt as of December 31, 2016 and December 26, 2015 consisted of:

	December 31, 2016	December 26, 2015
	(In millions)	
6.75% Notes	$196	$ 600
6.75% Notes, interest rate swap	—	7
7.75% Notes	—	450
7.50% Notes	350	475
7.00% Notes	416	500
2.125% Notes	805	—
Secured Revolving Line of Credit	—	230
Other	1	—
Total debt (principal amount)	1,768	2,262
Unamortized debt discount associated with 2.125% Notes	(308)	—
Unamortized debt issuance costs	(25)	(25)
Total debt (net)	1,435	2,237
Less: current portion	—	230
Total debt, less current portion	$1,435	$ 2,007

2.125% Convertible Senior Notes Due 2026

On September 14, 2016, the Company issued $700 million in aggregate principal amount of 2.125% Convertible Senior Notes due 2026 (2.125% Notes). The Company also granted an option to the underwriters to purchase an additional $105 million aggregate principal amount of the 2.125% Notes. On September 28, 2016, this option was exercised in full and the Company issued an additional $105 million aggregate principal amount of the 2.125% Notes. The 2.125% Notes are general unsecured senior obligations of the Company and will mature on September 1, 2026, unless earlier repurchased or converted. Interest is payable in arrears on March 1 and September 1 of each year beginning on March 1, 2017. The 2.125% Notes are governed by the terms of a base indenture and a supplemental indenture (together the 2.125% Indentures) dated September 14, 2016 between the Company and Wells Fargo Bank, N.A., as trustee.

Holders may convert their notes at their option at any time prior to the close of business on the business day immediately preceding June 1, 2026 only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on September 30, 2016 (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (2) during the five business day period after any ten consecutive trading day period (the “measurement period”) in which the trading price per $1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such trading day; or (3) upon the occurrence of specified corporate events. On or after June 1, 2026 until the close of business on the business day immediately preceding the maturity date, holders may convert their notes at any time, regardless of the foregoing circumstances. Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of the Company's common stock or a combination of cash and shares of the Company's common stock, at the Company's election.

The Company may not redeem the notes prior to the maturity date, and no sinking fund is provided for the notes.

The conversion rate will initially be 125.0031 shares of common stock per $1,000 principal amount of notes (equivalent to an initial conversion price of approximately $8.00 per share of common stock). The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date, the Company will increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate event in certain circumstances.

If the Company undergoes a fundamental change prior to the maturity date of the notes, holders may require the Company to repurchase for cash all or any portion of their notes at a fundamental change repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

In accounting for the issuance of the 2.125% Notes, the Company separated the 2.125% Notes into liability and equity components. The carrying amounts of the liability component was calculated by measuring the fair value of a similar liability that does not have associated conversion features. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the par value of the 2.125% Notes as a whole. The excess of the principal amount of the liability component over its book value (debt discount) is accreted to interest expense over the term of the 2.125% Notes. The equity component is not remeasured as long as it continues to meet the conditions for equity classification.

In accounting for the issuance costs related to the 2.125% Notes, the Company allocated the total amount of issuance costs incurred to the liability and equity components based on their relative fair values. Issuance costs attributable to the liability component are being amortized to interest expense over the term of the 2.125% Notes, and the issuance costs attributable to the equity component are netted against the equity component in additional paid-in capital. The Company recorded issuance costs of $15 million and $9 million, respectively, for the liability and equity portions.

The 2.125% Notes consisted of the following:

	December 31, 2016 (In millions)
Principal amounts:	
Principal	$ 805
Unamortized debt discount[1]	(308)
Unamortized debt issuance costs	(14)
Net carrying amount	$ 483
Carrying amount of the equity component, net[2]	$ 305

(1) Included in the consolidated balance sheets within Long-term debt, net and amortized over the remaining life of the notes using the effective interest rate method.

(2) Included in the consolidated balance sheets within additional paid-in capital, net of $9 million in equity issuance costs.

As of December 31, 2016, the remaining life of the 2.125% Notes was approximately 117 months.

Based on the closing price of the Company's common stock of $11.34 on December 30, 2016, the last business day of the 2016, the if-converted value of the 2.125% Notes exceeded its principal amount by approximately $336 million.

The effective interest rate of the liability component of the 2.125% Notes is 8%. This interest rate was based on the interest rates of similar liabilities at the time of issuance that did not have associated conversion features. The following table sets forth total interest expense recognized related to the 2.125% Notes for the year ended December 31, 2016:

	December 31, 2016 (In millions)
Contractual interest expense	$ 5
Interest cost related to amortization of debt issuance costs	—
Interest cost related to amortization of the debt discount	$ 6

6.75% Senior Notes Due 2019

On February 26, 2014, the Company issued $600 million of its 6.75% Senior Notes due 2019 (6.75% Notes). The 6.75% Notes are general unsecured senior obligations of the Company. Interest is payable on March 1 and September 1 of each year beginning September 1, 2014 until the maturity date of March 1, 2019. The 6.75% Notes are governed by the terms of an indenture (the 6.75% Indenture) dated February 26, 2014 between the Company and Wells Fargo Bank, N.A., as trustee.

During 2016, the Company repurchased $404 million in aggregate principal amount of its 6.75% Notes pursuant to a partial tender offer for $442 million, which included payment of accrued and unpaid interest of $2 million. The Company incurred a total loss of $41 million in connection with the foregoing repurchase of the 6.75% Notes. As of December 31, 2016, the outstanding aggregate principal amount of the 6.75% Notes was $196 million.

At any time before March 1, 2019, the Company may redeem some or all of the 6.75% Notes at a price equal to 100% of the principal amount, plus accrued and unpaid interest and a “make whole” premium (as set forth in the 6.75% Indenture).

Holders have the right to require the Company to repurchase all or a portion of the 6.75% Notes in the event that the Company undergoes a change of control, as defined in the 6.75% Indenture, at a price of 101% of the principal amount plus accrued and unpaid interest. Additionally, an event of default (as defined in the 6.75% Indenture) may result in the acceleration of the maturity of the 6.75% Notes.

The 6.75% Indenture contains certain covenants that limit, among other things, the Company's ability and the ability of its subsidiaries, to:

- incur additional indebtedness, except specified permitted debt;
- pay dividends and make other restricted payments;
- make certain investments if an event of a default exists, or if specified financial conditions are not satisfied;
- create or permit certain liens;
- create or permit restrictions on the ability of its subsidiaries to pay dividends or make other distributions to the Company;
- use the proceeds from sales of assets;
- enter into certain types of transactions with affiliates; and
- consolidate, merge or sell its assets as entirety or substantially as an entirety.

On February 10, 2017, the Company settled $5 million in aggregate principal amount of its 6.75% Notes with treasury stock.

7.75% Senior Notes Due 2020

On August 4, 2010, the Company issued $500 million of its 7.75% Senior Notes Due 2020 (7.75% Notes). The 7.75% Notes were general unsecured senior obligations of the Company. Interest was payable on February 1 and August 1 of each year beginning February 1, 2011 until the maturity date of August 1, 2020. The 7.75% Notes were governed by the terms of an indenture (the 7.75% Indenture) dated August 4, 2010 between the Company and Wells Fargo Bank, N.A., as trustee.

In 2014, the Company repurchased $50 million in aggregate principal amount of its 7.75% Notes in open market transactions for $49 million, which included payment of accrued and unpaid interest of $1 million. The Company recorded a total gain of $2 million in connection with the foregoing repurchase of the 7.75% Notes.

During 2016, the Company paid off the remaining $450 million in aggregate principal amount of its 7.75% Notes for $467 million, which included payment of accrued and unpaid interest of $5 million. The Company incurred a total loss of $16 million in connection with the foregoing repurchase of the 7.75% Notes. As of December 31, 2016, the Company did not have any 7.75% Notes outstanding.

7.50% Senior Notes Due 2022

On August 15, 2012, the Company issued $500 million of its 7.50% Senior Notes due 2022 (7.50% Notes). The 7.50% Notes are general unsecured senior obligations of the Company. Interest is payable on February 15 and August 15 of each year beginning February 15, 2013 until the maturity date of August 15, 2022. The 7.50% Notes are governed by the terms of an indenture (the 7.50% Indenture) dated August 15, 2012 between the Company and Wells Fargo Bank, N.A., as trustee.

During 2014, the Company repurchased $25 million in aggregate principal amount of its 7.50% Notes in open market transactions for $24 million. The payment of accrued and unpaid interest included in the purchase price was immaterial. The Company incurred a total gain of $1 million in connection with the foregoing repurchase of the 7.50% Notes.

During 2016, the Company repurchased $125 million in aggregate principal amount of its 7.50% Notes) pursuant to a partial tender offer for $135 million, which included payment of accrued and unpaid interest of $1 million. The Company incurred a total loss of $10 million in connection with the foregoing repurchase of the 7.50% Notes. As of December 31, 2016, the outstanding aggregate principal amount of the 7.50% Notes was $350 million.

Prior to August 15, 2022, the Company may redeem some or all of the 7.50% Notes at a price equal to 100% of the principal amount, plus accrued and unpaid interest and a "make whole" premium (as defined in the 7.50% Indenture). Holders have the right to require the Company to repurchase all or a portion of the 7.50% Notes in the event that the Company undergoes a change of control, as defined in the 7.50% Indenture, at a repurchase price of 101% of the principal amount plus accrued and unpaid interest. Additionally, an event of default (as defined in the 7.50%

Indenture) may result in the acceleration of the maturity of the 7.50% Notes.

74

The 7.50% Indenture contains certain covenants that limit, among other things, the Company’s ability and the ability of its subsidiaries, to:

- incur additional indebtedness, except specified permitted debt;
- pay dividends and make other restricted payments;
- make certain investments if an event of a default exists, or if specified financial conditions are not satisfied;
- create or permit certain liens;
- create or permit restrictions on the ability of its subsidiaries to pay dividends or make other distributions to the Company;
- use the proceeds from sales of assets;
- enter into certain types of transactions with affiliates; and
- consolidate, merge or sell its assets as entirety or substantially as an entirety.

On February 10, 2017, the Company settled $3 million in aggregate principal amount of its 7.50% Notes with treasury stock.

7.00% Senior Notes Due 2024

On June 16, 2014, the Company issued $500 million of its 7.00% Senior Notes due 2024 (7.00% Notes). The 7.00% Notes are general unsecured senior obligations of the Company. Interest is payable on January 1 and July 1 of each year beginning January 1, 2015 until the maturity date of July 1, 2024. The 7.00% Notes are governed by the terms of an indenture (the 7.00% Indenture) dated June 16, 2014 between the Company and Wells Fargo Bank, N.A., as trustee.

During 2016, the Company settled $84 million in aggregate principal amount of its 7.00% Notes, which included payment of accrued and unpaid interest of $1 million, for $77 million in cash and $8 million in treasury stock. The Company incurred a total loss of $1 million in connection with the foregoing repurchase of the 7.00% Notes. As of December 31, 2016, the outstanding aggregate principal amount of the 7.00% Notes was $416 million.

At any time before July 1, 2017, the Company may redeem up to 35% of the aggregate principal amount of the 7.00% Notes within 90 days of the closing of an equity offering with the net proceeds thereof at a redemption price equal to 107.000% of the principal amount thereof, together with accrued and unpaid interest to but excluding the date of redemption. Prior to July 1, 2019, the Company may redeem some or all of the 7.00% Notes at a price equal to 100% of the principal amount, plus accrued and unpaid interest and a “make whole” premium (as set forth in the 7.00% Indenture).

Starting July 1, 2019, the Company may redeem the 7.00% Notes for cash at the following specified prices plus accrued and unpaid interest:

Period	Price as Percentage of Principal Amount	
Beginning on July 1, 2019 through June 30, 2020	103.500	%
Beginning on July 1, 2020 through June 30, 2021	102.333	%
Beginning on July 1, 2021 through June 30, 2022	101.167	%
On July 1, 2022 and thereafter	100.000	%

Holders have the right to require the Company to repurchase all or a portion of the 7.00% Notes in the event that the Company undergoes a change of control, as defined in the 7.00% Indenture, at a repurchase price of 101% of the principal amount plus accrued and unpaid interest. Additionally, an event of default (as defined in the 7.00% Indenture) may result in the acceleration of the maturity of the 7.00% Notes.

The 7.00% Indenture contains certain covenants that limit, among other things, the Company’s ability and the ability of its subsidiaries, to:

- incur additional indebtedness, except specified permitted debt;
- pay dividends and make other restricted payments;
- make certain investments if an event of a default exists, or if specified financial conditions are not satisfied;
- create or permit certain liens;

- create or permit restrictions on the ability of its subsidiaries to pay dividends or make other distributions to the Company;

75

- use the proceeds from sales of assets;
- enter into certain types of transactions with affiliates; and
- consolidate, merge or sell its assets as entirety or substantially as an entirety.

On February 10, 2017, the Company settled $26 million in aggregate principal amount of its 7.00% Notes with treasury stock.

The 6.75% Notes, 7.50% Notes, 7.00% Notes and 2.125% Notes rank equally with the Company's existing and future senior debt and are senior to all of the Company's future subordinated debt. The 6.75% Notes, 7.50% Notes, 7.00% Notes and 2.125% Notes rank junior to all of the Company's future senior secured debt to the extent of the collateral securing such debt and are structurally subordinated to all existing and future debt and liabilities of the Company's subsidiaries.

Potential Repurchase of Outstanding Notes

The Company may elect to purchase or otherwise retire the 6.75% Notes, 7.50% Notes, 7.00% Notes and 2.125% Notes with cash, stock or other assets from time to time in open market or privately negotiated transactions, either directly or through intermediaries, or by tender offer when the Company believes the market conditions are favorable to do so.

Secured Revolving Line of Credit

Loan and Security Agreement

The Company and its subsidiary, AMD International Sales & Service, Ltd. (together, the Borrowers), entered into a loan and security agreement on November 12, 2013, as amended on December 11, 2014 (the Loan Agreement), for a secured revolving line of credit for a principal amount of up to $500 million (the Secured Revolving Line of Credit), with up to $75 million available for issuance of letters of credit, with a group of lenders and Bank of America, N.A., acting as agent for the lenders (the Agent). The Secured Revolving Line of Credit had a maturity date of November 12, 2018. Borrowings under the Secured Revolving Line of Credit were limited to up to 85% of eligible account receivable minus certain reserves. The borrowings of the Secured Revolving Line of Credit may be used for general corporate purposes, including working capital needs.

Amended and Restated Loan and Security Agreement

On April 14, 2015, the Borrowers and ATI Technologies ULC (collectively, the Loan Parties) amended and restated the Loan Agreement (the Amended and Restated Loan Agreement) by and among the Loan Parties, the financial institutions party thereto from time to time as lenders (the Lenders) and the Agent.

The Amended and Restated Loan Agreement provides for a Secured Revolving Line of Credit for a principal amount of up to $500 million with up to $75 million available for issuance of letters of credit, which remained unchanged from the Loan Agreement. Borrowings under the Secured Revolving Line of Credit are limited to up to 85% of eligible accounts receivable (90% for certain qualified eligible accounts receivable), minus specified reserves. The size of the commitments under the Secured Revolving Line of Credit may be increased by up to an aggregate amount of $200 million.

The Secured Revolving Line of Credit matures on April 14, 2020 and is secured by a first priority security interest in the Loan Parties' accounts receivable, inventory, deposit accounts maintained with the Agent and other specified assets, including books and records.

The Borrowers may elect a per annum interest rate equal to (a) the London Interbank Offered Rate (LIBOR) plus the applicable margin set forth in the chart below (the Applicable Margin) as determined by the average availability under the Secured Revolving Line of Credit and the fixed charge coverage ratio for the most recently ended four-fiscal-quarter period; or (b) (i) the greatest of (x) the Agent's prime rate, (y) the federal funds rate, as published by the Federal Reserve Bank of New York plus 0.50%, and (z) LIBOR for a one-month period plus 1.00%, plus (ii) the Applicable Margin.

Applicable Margin, if average availability is equal to or greater than 66.66% of the total commitment amount and the fixed charge coverage ratio for the most recently ended four-fiscal quarter period is greater than or equal to 1.25 to 1.00, is 0.25% for Base Rate Revolver Loans and 1.25% for LIBOR Revolver Loans. Otherwise, Applicable Margin is determined in accordance with the below table:

Level	Average Availability for Last Fiscal Month	Base Rate Revolver Loans: Applicable Margin	LIBOR Revolver Loans: Applicable Margin
I	greater than or equal to 66.66% of the Revolver Commitment	0.5%	1.5%
II	greater than or equal to 33.33% of the Revolver Commitment, less than 66.66%	0.75%	1.75%
III	less than 33.33% of the Revolver Commitment	1%	2%

The Secured Revolving Line of Credit may be optionally prepaid or terminated, and unutilized commitments may be reduced at any time, in each case without premium or penalty. In connection with the Secured Revolving Line of Credit, the Borrowers will pay an unused line fee equal to 0.375% per annum, payable monthly on the unused amount of the commitments under the Secured Revolving Line of Credit. The unused line fee decreases to 0.25% per annum when 35% or more of the Secured Revolving Line of Credit is utilized. The Borrowers will pay (i) a monthly fee on all letters of credit outstanding under the Secured Revolving Line of Credit equal to the applicable LIBOR margin and (ii) a fronting fee to the Agent equal to 0.125% of all such letters of credit, payable monthly in arrears.

The Amended and Restated Loan Agreement contains covenants that place certain restrictions on the Loan Parties' ability to, among other things, allow certain of the Company's subsidiaries that manufacture or process inventory for the Loan Parties to borrow secured debt or unsecured debt beyond a certain amount, amend or modify certain terms of any debt of $50 million or more or subordinated debt, create or suffer to exist any liens upon accounts or inventory, sell or transfer any of Loan Parties' accounts or inventory other than certain ordinary-course transfers and certain supply chain finance arrangements, make certain changes to any Loan Party's name or form or state of organization without notifying the Agent, liquidate, dissolve, merge, amalgamate, combine or consolidate, or become a party to certain agreements restricting the Loan Parties' ability to incur or repay debt, grant liens, make distributions, or modify loan agreements.

Further restrictions apply when certain payment conditions (the Payment Conditions) are not satisfied with respect to specified transactions, events or payments. The Payment Conditions include that (i) no default or event of default exists and (ii) at all times during the 45 consecutive days immediately prior to such transaction, event or payment and on a pro forma basis after giving effect to such transaction, event or payment and any incurrence or repayment of indebtedness in connection therewith, the Loan Parties' Excess Cash Availability (as defined in the Amended and Restated Loan Agreement) is greater than the greater of 20% of the total commitment amount and $100 million. Such restrictions limit the Loan Parties' ability to, among other things, create any liens upon any of the Loan Parties' property other than customary permitted liens and liens on up to $1.5 billion of secured credit facilities debt (which amount includes the Secured Revolving Line of Credit), declare or make cash distributions, create any encumbrance on the ability of a subsidiary to make any upstream payments, make asset dispositions other than certain ordinary course dispositions and certain supply chain finance arrangements, make certain loans, make payments with respect to subordinated debt or certain borrowed money prior to its due date or become a party to certain agreements restricting the Loan Parties' ability to enter into any non-arm's-length transaction with an affiliate.

The Loan Parties are required to repurchase, redeem, defease, repay, create a segregated account for the repayment of, or request Agent to reserve a sufficient available amount under the Secured Revolving Line of Credit for the repayment of, all debt for borrowed money exceeding $50 million, by no later than 60 days prior to its maturity date (not including the Secured Revolving Line of Credit). Any reserved funds for this purpose would not be included in domestic cash calculations.

In addition, if at any time the Loan Parties' Excess Cash Availability is less than the greater of 15% of the total commitment amount and $75 million, the Loan Parties must maintain a minimum fixed charge coverage ratio of 1.00 to 1.00 until (i) no event of default exists and (ii) the Loan Parties' Excess Cash Availability is greater than the greater of 15% of the total commitment amount and $75 million for 45 consecutive days.

The events of default under the Amended and Restated Loan Agreement include, among other things, payment defaults, the inaccuracy of representations or warranties, defaults in the performance of affirmative and negative covenants, bankruptcy and insolvency related defaults, a cross-default related to indebtedness in an aggregate amount in excess of $50 million, judgments entered against a Loan Party in an amount that exceeds cumulatively $50 million, certain ERISA events and events related to Canadian defined benefits plans and a change of control. When a Payment Condition has not been satisfied, additional events of default include, among other things, a loss, theft damage or destruction with respect to any collateral if the amount not covered by insurance exceeds $50 million.

During 2016, the Company repaid an aggregate of $230 million of the Secured Revolving Line of Credit. As of December 31, 2016, the Company did not have any borrowings outstanding under the Secured Revolving Line of Credit. At December 26, 2015, the Secured Revolving Line of Credit had an outstanding loan balance of $230 million at an interest rate of 4.00%. At December 31, 2016, the Secured Revolving Line of Credit had $19 million related to outstanding letters of credit and up to $121 million available for future borrowings. The Company reports its intra-period changes in its revolving credit balance on a net basis in its condensed consolidated statement of cash flows as the Company intends the period of the borrowings to be brief, repaying borrowed amounts within 90 days. As of December 31, 2016, the Company was in compliance with all required covenants stated in the Loan Agreement.

The agreements governing the 6.75% Notes, 7.50% Notes, 7.00% Notes, 2.125% Notes and the Secured Revolving Line of Credit contain cross-default provisions whereby a default under one agreement would likely result in cross defaults under agreements covering other borrowings. The occurrence of a default under any of these borrowing arrangements would permit the applicable note holders or the lenders under the Secured Revolving Line of Credit to declare all amounts outstanding under those borrowing arrangements to be immediately due and payable.

First Amendment to the Amended and Restated Loan and Security Agreement

On June 10, 2015, the Loan Parties entered into a first amendment to the Amended and Restated Loan and Security Agreement (the First Amendment) by and among the Loan Parties, the Lenders and the Agent, which modifies the Amended and Restated Loan and Security Agreement. Amendments to the Amended and Restated Loan Agreement effected by the First Amendment included the addition of exceptions to the liens and asset sale covenants to permit the Loan Parties to enter into certain supply chain finance arrangements, as well as the addition of certain definitions related thereto.

Second Amendment to the Amended and Restated Loan and Security Agreement

On April 29, 2016, the Loan Parties entered into a second amendment to the Amended and Restated Loan and Security Agreement (the Second Amendment) by and among the Loan Parties, the Lenders and the Agent, which modifies the Amended and Restated Loan and Security Agreement. The primary amendment to the Amended and Restated Loan Agreement effected by the Second Amendment related to the expansion of the definition of permitted asset dispositions to include the sale or transfer of inventory to the ATMP JV pursuant to the Equity Interest Purchase Agreement between AMD and TFME.

Third Amendment to the Amended and Restated Loan and Security Agreement

On June 21, 2016, the Loan Parties entered into a third amendment to the Amended and Restated Loan and Security Agreement (the Third Amendment) by and among the Loan Parties, the Lenders and the Agent, which modifies the Amended and Restated Loan and Security Agreement. Amendments to the Amended and Restated Loan Agreement effected by the Third Amendment included the further expansion of the asset sale covenants to permit the Loan Parties to enter into certain supply chain finance arrangements.

Fourth Amendment to the Amended and Restated Loan and Security Agreement

On September 7, 2016, the Loan Parties entered into a fourth amendment to the Amended and Restated Loan and Security Agreement (the Fourth Amendment) by and among the Loan Parties, the Lenders and the Agent, which modifies the Amended and Restated Loan and Security Agreement. The primary amendment to the Amended and Restated Loan agreement effected by the Fourth Amendment was to increase the dollar limit as set forth the definition related to certain supply chain finance arrangements.

Capital Lease Obligations

The Company terminated its capital lease obligations and entered into a non-cancelable operating lease agreement related to one of its facilities in Markham, Ontario, Canada during 2015. As of December 31, 2016 and December 26, 2015, the Company did not have any capital lease obligations outstanding.

Future Payments on Total Debt

As of December 31, 2016, the Company’s future debt payment obligations for the respective fiscal years were as follows:

	Long Term Debt (Principal only) (In millions)
2017	$ —
2018	—
2019	196
2020	—
2021	—
2022 and thereafter	1,571
Total	$ 1,767

NOTE 12: Other Income (expense), Net

The following table summarizes the components of other income (expense), net:

	2016	2015	2014
	(In millions)		
Interest income	$2	$—	$—
Gain on sale of 85% ATMP JV	146	—	—
Loss on debt redemption	(68)	—	(61)
Other	—	(5)	(5)
Other income (expense), net	$80	$(5)	$(66)

NOTE 13: Segment Reporting

Management, including the Chief Operating Decision Maker, who is the Company's Chief Executive Officer, reviews and assesses operating performance using segment net revenues and operating income (loss) before interest, other income (expense), net, and income taxes. These performance measures include the allocation of expenses to the operating segments based on management's judgment. The Company has the following two reportable segments:

- the Computing and Graphics segment, which primarily includes desktop and notebook processors and chipsets, discrete graphics processing units (GPUs) and professional graphics; and
- the Enterprise, Embedded and Semi-Custom segment, which primarily includes server and embedded processors, semi-custom System-on-Chip (SoC) products, development services, technology for game consoles and licensing portions of its intellectual property portfolio.

In addition to these reportable segments, the Company has an All Other category, which is not a reportable segment. This category primarily includes certain expenses and credits that are not allocated to any of the reportable segments because management does not consider these expenses and credits in evaluating the performance of the reportable segments. Also included in this category are employee stock-based compensation expense, the charge related to the Sixth Amendment to the WSA with GF, restructuring and other special charges, net, amortization of acquired intangible assets, workforce rebalancing severance charges, goodwill impairment charge and significant or unusual lower of cost or market inventory adjustments. The Company also reported the results of former businesses in the All Other category because the operating results were not material.

The following table provides a summary of net revenue and operating income (loss) by segment for 2016, 2015 and 2014. The results prior to July 1, 2014 have been recast to reflect the Company's new reportable segments.

	2016	2015	2014
	(In millions)		
Net revenue:			
Computing and Graphics	$1,967	$1,805	$3,132
Enterprise, Embedded and Semi-Custom	2,305	2,186	2,374
Total net revenue	$4,272	$3,991	$5,506
Operating income (loss):			
Computing and Graphics	$(238)	$(502)	$(76)
Enterprise, Embedded and Semi-Custom	283	215	399
All Other	(417)	(194)	(478)
Total operating loss	$(372)	$(481)	$(155)

The following table provides major items included in All Other category:

	2016	2015	2014
	(In millions)		
Operating loss:			
Stock-based compensation expense	$(86)	$(63)	$(81)
Restructuring and other special charges, net	10	(129)	(71)
Amortization of acquired intangible assets	—	(3)	(14)
Charge related to the Sixth Amendment to the WSA with GF	(340)	—	—
Goodwill impairment	—	—	(233)
Lower of cost or market inventory adjustment	—	—	(58)
Workforce rebalancing severance charges	—	—	(14)
Other	(1)	1	(7)
Total operating loss	$(417)	$(194)	$(478)

The Company does not discretely allocate assets to its operating segments, nor does management evaluate operating segments using discrete asset information.

The Company’s operations outside the United States include research and development activities; assembly, test, mark and packaging activities; and sales, marketing and administrative activities. The Company conducts product and system research and development activities for its products in the United States, with additional design and development engineering teams located in China, Canada, India, Singapore, and Taiwan. The Company’s ATMP facilities located in Malaysia and China were sold in the second quarter of 2016 (see NOTE 4). The Company’s material sales and marketing offices are located in the United States, Latin America, Europe and Asia.
The following table summarizes sales to external customers by country, which is based on the billing location of the customer:

	2016	2015	2014
	(In millions)		
United States	$923	$984	$1,030
Europe	155	168	325
China	1,108	1,145	2,324
Singapore	571	356	371
Japan	1,443	1,254	1,324
Other countries	72	84	132
Total sales to external customers	$4,272	$3,991	$5,506

The following table summarizes sales to major customers that accounted for at least 10% of the Company’s consolidated net revenue for the respective years:

	2016	2015	2014
Customer A	33%	31%	23%
Customer B	16%	18%	13%
Customer C	10%	8 %	13%

Sales to customers A and B consisted of products from the Company's Enterprise, Embedded and Semi-Custom segment and sales to customer C consisted primarily of products from the Company's Computing and Graphics segment.
The following table summarizes long-lived assets by geographic areas:

	2016	2015
	(In millions)	
United States	$104	$123
Malaysia	9	11
China	7	5
Singapore	24	25
Other countries	20	24
Total long-lived assets	$164	$188

NOTE 14: Common Stock and Stockholders’ Equity (Deficit)

Common stock

During the third quarter of 2016, the Company completed its registered underwritten public offering of 115 million shares of the Company’s common stock, par value $0.01 per share, at a public offering price of $6.00 per share, pursuant to an underwriting agreement with J.P. Morgan Securities LLC, Barclays Capital Inc. and Credit Suisse Securities (USA) LLC, as representatives of the several underwriters named therein. The resulting aggregate net proceeds to the Company from the common stock offering were approximately $667 million, after deducting underwriting discounts and offering expenses totaling approximately $23 million. As of December 31, 2016, there were 935 million shares of common stock outstanding.

Stock-Based Incentive Compensation Plans

The Company's stock-based incentive programs are intended to attract, retain and motivate highly qualified employees. On April 29, 2004, the Company's stockholders approved the 2004 Equity Incentive Plan (the 2004 Plan). As of December 31, 2016, the Company also has stock options outstanding under equity compensation plans that the Company assumed as part of its SeaMicro acquisition. Shares reserved for future grants under the Company's prior equity compensation plans were consolidated into the 2004 Plan; none of the reserved shares under the SeaMicro plan were consolidated into the 2004 Plan. As of December 31, 2016, the Company had 31.5 million shares of common stock that were available for future grants and 72.1 million shares reserved for issuance upon the exercise of outstanding stock options or the vesting of unvested restricted stock units.

Under the 2004 Plan, stock options generally vest and become exercisable over a three-year period from the date of grant and expire within ten years after the grant date. Unvested shares that are reacquired by the Company from forfeited outstanding equity awards become available for grant and may be reissued as new awards.

Under the 2004 Plan, the Company can grant fair market value awards or full value awards. Fair market value awards are awards granted at or above the fair market value of the Company's common stock on the date of grant. Full value awards are awards granted at less than the fair market value of the Company's common stock on the date of grant. Awards can consist of (i) stock options and stock appreciation rights granted at the fair market value of the Company's common stock on the date of grant and (ii) restricted stock or restricted stock units, as full value awards. The following is a description of the material terms of the awards that may be granted under the 2004 Plan.

Stock Options. A stock option is the right to purchase shares of the Company's common stock at a fixed exercise price for a fixed period of time. Under the 2004 Plan, nonstatutory and incentive stock options may be granted. The exercise price of the shares subject to each nonstatutory stock option and incentive stock option cannot be less than 100% of the fair market value of the Company's common stock on the date of the grant. The exercise price of each option granted under the 2004 Plan must be paid in full at the time of the exercise.

Stock Appreciation Rights. Awards of stock appreciation rights may be granted pursuant to the 2004 Plan. Stock appreciation rights may be granted to employees and consultants. No stock appreciation right may be granted at less than fair market value of the Company's common stock on the date of grant or have a term of over ten years from the date of grant. Upon exercising a stock appreciation right, the holder of such right is entitled to receive payment from the Company in an amount determined by multiplying (i) the difference between the closing price of a share of the Company's common stock on the date of exercise and the exercise price by (ii) the number of shares with respect to which the stock appreciation right is exercised. The Company's obligation arising upon the exercise of a stock appreciation right may be paid in shares or in cash, or any combination thereof.

Restricted Stock. Restricted stock can be granted to any employee, director or consultant. The purchase price for an award of restricted stock is $0.00 per share.

Restricted Stock Units. Restricted stock units (RSUs) are awards that can be granted to any employee, director or consultant and that obligate the Company to issue a specific number of shares of the Company's common stock in the future if the vesting terms and conditions are satisfied. The purchase price for the shares is $0.00 per share.

Performance-based Restricted Stock Units. Performance-based Restricted Stock Units (PRSUs) can be granted to certain of the Company's senior executives. The performance metrics can be financial performance, non-financial performance and/or market condition. Each PRSU award reflects a target number of shares (Target Shares) that may be issued to an award recipient before adjusting based on the Company's financial performance, non-financial performance and/or market conditions. The actual number of shares that a grant recipient receives at the end of the period may range from 0% to 250% of the Target Shares granted, depending upon the degree of achievement of the performance target designated by each individual award.

Stock options, stock appreciation rights, restricted stock, RSUs and PRSUs granted after April 29, 2015, generally may not vest in less than one year following the date of grant.

Valuation and Expense Information

Stock-based compensation expense related to employee stock options and restricted stock units, including PRSUs, was allocated in the consolidated statements of operations as follows:

	2016	2015	2014
	(In millions)		
Cost of sales	$ 2	$	3