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

(Mark One)

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

For the fiscal year ended December 31, 2018

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) 000-30419

ON SEMICONDUCTOR CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

36-3840979
(I.R.S. Employer
Identification No.)

5005 E. McDowell Road
Phoenix, AZ 85008
(602) 244-6600

(Address, zip code and telephone number, including area code, of principal executive offices)

Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value \$0.01 per share	The Nasdaq Stock Market LLC (Nasdaq Global Select Market)

Securities Registered Pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).
Emerging growth company If emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was \$9,369,083,794 as of June 29, 2018, based on the closing sales price of such stock on the Nasdaq Global Select Market. Shares held by executive officers, directors and persons owning directly or indirectly more than 10% of the outstanding common stock (as applicable) have been excluded from the preceding number because such persons may be deemed to be affiliates of the registrant.

The number of shares of the registrant's common stock outstanding at February 15, 2019 was 409,710,366.

Documents Incorporated by Reference

Portions of the registrant's Definitive Proxy Statement relating to its 2019 Annual Meeting of Stockholders, which is expected to be filed pursuant to Regulation 14A within 120 days after the registrant's fiscal year ended December 31, 2018, are incorporated by reference into Part III of this Form 10-K.

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(See the glossary immediately following this table of contents for definitions of certain abbreviated terms)

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GLOSSARY OF SELECTED ABBREVIATED TERMS*

Abbreviated Term	Defined Term
1.00% Notes	1.00% Convertible Senior Notes due 2020
1.625% Notes	1.625% Convertible Senior Notes due 2023
2.625% Notes, Series B	2.625% Convertible Senior Subordinated Notes due 2026, Series B
ADAS	Advanced driver assistance systems
AEC	Automotive Electronics Council
AI	Artificial intelligence
Aptina	Aptina, Inc.
Amended and Restated SIP	ON Semiconductor Corporation 2010 Amended and Restated Stock Incentive Plan, as amended
AMIS	AMIS Holdings, Inc.
AR/VR	Augmented Reality/Virtual Reality
ASC	Accounting Standards Codification
ASIC	Application specific integrated circuits
ASSP	Application specific standard product
ASU	Accounting Standards Update
AXSEM	AXSEM A.G.
CCD	Charge-coupled device
CMOS	Complementary metal oxide semiconductor
CSP	Chip scale package
DFN	Dual-flat no-leads
DSP	Digital signal processing
ECL	Emitter coupled logic
EDI	Electronic data interface
EE	Electrically erasable
EEPROM	Electrically erasable programmable read-only memory
ESD	Electrostatic discharge
ESPP	ON Semiconductor Corporation 2000 Employee Stock Purchase Plan, as amended
EV/HEV	Electric Vehicles/Hybrid Electric Vehicles
Exchange Act	Securities Exchange Act of 1934, as amended
Fairchild	Fairchild Semiconductor International Inc.
FASB	Financial Accounting Standards Board
FDA	U.S. Food and Drug Administration
Freescale	Freescale Semiconductor, Inc.
GaN	Gallium nitride
GFCI	Ground Fault Circuit Interrupter
HD	Hyper Device
IC	Integrated circuit
IGBT	Insulated-gate bipolar transistor
IoT	Internet-of-Things
IP	Intellectual property
IPD	Integrated passive devices
IPRD	In-process research and development

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Abbreviated Term	Defined Term
IPM	Intelligent power module
LDOs	Low drop out regulator controllers
LED	Light-emitting diode
LIBO Rate	A base rate per annum equal to the London Interbank Offered Rate as administered by the Intercontinental Exchange Benchmark Administration
LiDAR	Light detection and ranging
LSI	Large scale integration
MCU	Microcontroller Unit
MOS	Metal oxide semiconductor
MOSFET	Metal oxide semiconductor field effect transistor
Motorola	Motorola Inc.
OEM	Original equipment manufacturers
PC	Personal computer
PIM	Power integrated module
RF	Radio frequency
RSU	Restricted Stock Unit
SANYO Electric	SANYO Electric Co., Ltd.
SCI LLC	Semiconductor Components Industries, LLC, a wholly-owned subsidiary of ON Semiconductor Corporation
SEC	Securities and Exchange Commission
Securities Act	Securities Act of 1933, as amended
SensL	SensL Technologies Ltd.
SiC	Silicon carbide
SiPM	Silicon photomultipliers
SMBC	Sumitomo Mitsui Banking Corporation
SoC	System on chip
SPAD	Single photon avalanche diode arrays
TMOS	T-metal oxide semiconductor
UPS	Uninterruptible power supplies
VCORE	Voltage core
VREG	Voltage regulator
WBG	Wide band gap
WSTS	World Semiconductor Trade Statistics
X4DFN 01005	Dual-flat no-leads 0.445 x 0.24 x 0.18 mm package

* Terms used, but not defined, within the body of the Form 10-K are defined in this Glossary.

PART I

Item 1. Business

Business Overview

ON Semiconductor Corporation, together with its subsidiaries (“we,” “us,” “our,” “ON Semiconductor,” or the “Company”), was incorporated under the laws of the state of Delaware in 1992 under the name Motorola Energy Systems, Inc. Immediately prior to our August 4, 1999 recapitalization, we were a wholly-owned subsidiary of Motorola, Inc.

ON Semiconductor is driving innovation in energy-efficient electronics. Our extensive portfolio of sensors, power management, connectivity, custom and SoC, analog, logic, timing and discrete devices helps customers efficiently solve their design challenges in advanced electronic systems and products. Our power management and motor driver semiconductor components control, convert, protect and monitor the supply of power to the different elements within a wide variety of electronic devices. Our custom ASICs and SoC devices use analog, MCU, DSP, mixed-signal and advanced logic capabilities to enable the application and uses of many of our automotive, medical, aerospace/defense, consumer and industrial customers’ products. Our signal management semiconductor components provide high-performance clock management and data flow management for precision computing, communications and industrial systems. Our growing portfolio of sensors, including image sensors, radar and LiDAR, provide advanced solutions for automotive, industrial and IoT applications. Our standard semiconductor components serve as “building blocks” within virtually all types of electronic devices. These various products fall into the logic, analog, discrete, image sensors, IoT and memory categories used by the WSTS group.

We serve a broad base of end-user markets, including automotive, communications, computing, consumer, medical, industrial, networking, telecom and aerospace/defense. Our devices are found in a wide variety of end products, including automobiles, smartphones, data center and enterprise servers, wearable medical devices, personal computers, industrial building and home automation systems, factory automation, consumer white goods, security and surveillance systems, machine vision and robotics, LED lighting, power supplies, networking and telecom equipment, medical diagnostics, imaging and hearing health.

Our portfolio of devices enables us to offer advanced ICs and the “building block” components that deliver system level functionality and design solutions. We shipped approximately 75.7 billion units in 2018, as compared to 72.8 billion units in 2017. We offer micro packages, which provide increased performance characteristics while reducing the critical board space inside today’s ever shrinking electronic devices and power modules, delivering improved energy efficiency and reliability for a wide variety of medium and high power applications. We believe that our ability to offer a broad range of products, combined with our applications and global manufacturing and logistics network, provides our customers with single source purchasing on a cost-effective and timely basis.

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From time to time, we reassess the alignment of our product families and devices to our operating segments and may move product families or individual devices from one operating segment to another. As of December 31, 2018, we were organized into the following three operating and reporting segments: the Power Solutions Group, the Analog Solutions Group and the Intelligent Sensing Group. During 2018, we changed the name of one of our operating and reporting segments from the Image Sensor Group to the Intelligent Sensing Group. The following table illustrates the product technologies under each of our segments based on our operating strategy:

Power Solutions Group	Analog Solutions Group	Intelligent Sensing Group
Analog products	Analog products	LSI products
Discrete products	ASIC products	Sensors
HD products	ECL products	
IPM products	Foundry products / services	
Memory products	LSI products	
PIM products	Standard logic products	
Sensors	TMOS products	
Standard logic products		
TMOS products		
WBG products		

We currently have domestic design operations in Arizona, California, Idaho, New York, Oregon, Pennsylvania, Rhode Island, Texas and Utah. We also have foreign design operations in Belgium, Canada, China, the Czech Republic, France, Germany, India, Ireland, Israel, Italy, Japan, Korea, Philippines, Romania, Singapore, Slovakia, Slovenia, Switzerland, Taiwan and the United Kingdom. Additionally, we currently operate domestic manufacturing facilities in Idaho, Maine, Pennsylvania, New York and Oregon and have foreign manufacturing facilities in Belgium, Canada, China, the Czech Republic, Japan, Korea, Malaysia, the Philippines and Vietnam. We also have global distribution centers in China, the Philippines and Singapore.

Company Highlights for the year ended December 31, 2018

- Total revenue of \$5,878.3 million
- Gross margin of 38.1%
- Net income of \$1.44 per diluted share
- Cash and cash equivalents of \$1,069.6 million

Completed Acquisitions

On May 8, 2018, we acquired 100% of the outstanding shares of SensL, a company specializing in silicon photomultipliers, single photon avalanche diode and LiDAR sensing products for the automotive, medical, industrial and consumer markets for \$71.6 million, funded with cash on hand. This acquisition positions us to extend our products in automotive sensing applications for ADAS and autonomous driving by adding LiDAR capabilities to our existing capabilities in imaging and radar.

On September 19, 2016, we completed our acquisition of Fairchild pursuant to the Agreement and Plan of Merger with each of Fairchild and Falcon Operations Sub, Inc., a Delaware corporation and our wholly-owned subsidiary, pursuant to which Fairchild became our wholly-owned subsidiary (the "Fairchild Transaction"). The aggregate purchase price of the Fairchild Transaction was approximately \$2,532.2 million and was funded with cash on hand and by borrowings under a Credit Agreement, dated as of April 15, 2016, by and among the Company, as borrower, the several lenders party thereto, Deutsche Bank AG, New York Branch, as administrative agent and collateral agent, and certain other parties (as subsequently amended, the "Amended Credit Agreement") which, as subsequently amended, provides for a \$1.0 billion revolving credit facility (the "Revolving Credit Facility") and a \$2.4 billion term loan "B" facility (the "Term Loan "B" Facility").

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See Note 5: "Acquisitions, Divestitures and Licensing Transactions" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

Products and Technology

The following provides certain information regarding the products and technologies by each of our operating segments. See "Business Overview" above and Note 3: "Revenue and Segment Information" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for other information regarding our segments and their revenue and property, plant and equipment and the income derived from each segment.

Power Solutions Group

The Power Solutions Group offers a wide array of discrete, module and integrated semiconductor products that perform multiple application functions, including power switching, power conversion, signal conditioning, circuit protection, signal amplification and voltage reference functions. The trends driving growth within our end-user markets are primarily higher power efficiency and power density in power applications, the demand for greater functionality in small handheld devices, and faster data transmission rates in all communications. The advancement of existing volt electrical infrastructure, electrification of power train in the form of EV/HEV, higher trench density enabling lower losses in power efficient packages and lower capacitance and integrated signal conditioning products to support faster data transmission rates significantly increase the use of high power semiconductor solutions. Certain of the Power Solutions Group's broad portfolio of products and solutions are summarized below:

- *Automotive Electronics*

AEC qualified products, covering the spectrum from discrete to integrated, as well as automotive modules and known good die to support automotive modules.

- *Industrial Electronics*

Advanced power technologies to support high performance power conversion for high-end power supply/UPS, alternative energy and industrial motors.

- *Computing*

MOSFETs and protection devices supporting the latest chipsets. Multichip power solutions and advanced LDOs to support power efficiency requirements in new computing platforms. GaN technology enables drastic reduction in power adaptor size.

- *Communications*

Our smallest packages: DFN MOSFETs, CSP (MOSFET/EEPROMs), EEPROMs and LDOs, and X4DFN 01005 for small signal devices and protection. Low capacitance ESD and common mode filters for high speed serial interface protection.

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Analog Solutions Group

The Analog Solutions Group designs and develops analog, mixed-signal and advanced logic ASICs and ASSPs, and power solutions for a broad base of end-users in the automotive, consumer, computing, industrial, communications, medical and aerospace/defense markets. Our product solutions enable industry leading active mode and standby mode efficiency now being demanded by regulatory agencies around the world. Additionally, the Analog Solutions Group offers trusted foundry and design services for certain of our government customers as well as manufacturing services and IPD products technology, which leverage the Company's broad range of manufacturing, IC design, packaging, and silicon technology offerings to provide turn-key solutions for our customers. Certain of the Analog Solutions Group's broad portfolio of products and solutions are summarized below:

- Automotive Electronics

Energy efficient solutions that reduce emissions, improve fuel economy and safety, enhance lighting and make possible an improved driving experience.

- Industrial Electronics

Power efficient communication and sensor interface products and motor control products. Wired and low power RF wireless connectivity for IoT applications. Residential and commercial grade circuit breaking products for GFCI & AFCI applications. FDA-compliant assembly and packaging manufacturing services.

- Computing

Solutions for a wide range of voltage and current options ranging from multi-phase 30 volt power for VCORE processors, power stage and single cell battery point of load. Thermal and battery charging solutions as well as high density power conversion solutions are also supported.

- Communications

High efficiency mixed-signal, power management and RF products that enable our customers to maximize the performance of their products while preserving critical battery life. RF Tuning solutions to enhance radio performance. Fast charging (wall-to-battery including wireless charging), multi-media and ambient awareness system solutions to address increasing customer desire for innovation.

Intelligent Sensing Group

The Intelligent Sensing Group designs and develops CMOS and CCD image sensors, as well as proximity sensors, image signal processors, single photon detectors, including SiPM and SPAD arrays, as well as actuator drivers for autofocus and image stabilization for a broad base of end-users in the automotive, industrial, consumer, wireless, medical and aerospace/defense markets. Our broad range of product offerings delivers excellent pixel performance, sensor functionality and camera systems capabilities in which high quality visual imagery is becoming increasingly important to our customers and their end-users, particularly in applications powered by AI. Certain of the Intelligent Sensing Group's broad portfolio of products and solutions are summarized below:

- Automotive Imaging

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A broad portfolio of automotive sensing technologies spanning ultrasonic, imaging, radar and LiDAR paving the way to high levels of driver assistance (ADAS) and automated driving with built in functional safety and cybersecurity processing.

- Industrial Imaging

A broad range of CMOS, CCD and SiPM sensors with an emphasis on machine vision for factory automation, robotics and logistics, intelligent transportation systems, agriculture, medical, cinematography, scientific and aerospace/defense applications.

- Wireless and Consumer Electronics

A broad range of CMOS sensors and driver actuators for high performance AR/VR, drones, mobile phones, PCs, tablets, high-speed video cameras, and various unique consumer applications. Our solutions offer superior image quality, fast frame rates, high definition and low light sensitivity to provide customers with a compelling visual experience, especially in emerging applications in IoT markets for security, surveillance and internet protocol cameras.

Customers

In general, we have maintained long-term relationships with our key customers. Sales agreements with customers are renewable periodically and contain certain terms and conditions with respect to payment, delivery, warranty and supply, but generally do not require minimum purchase commitments. Most of our OEM customers negotiate pricing terms with us on an annual basis near the end of the calendar year, our distributors generally negotiate pricing terms on a quarterly basis, and electronic manufacturer service providers negotiate prices periodically during the year. Pricing terms on product development agreements are negotiated at the beginning of a project. We allocate the transaction price to each distinct product based on its relative stand-alone selling price. Our products are ultimately purchased for use in a variety of end-markets, including computing, automotive, consumer, industrial, communications, networking, aerospace/defense and medical.

For the year ended December 31, 2018, aggregate revenue from our five largest customers for our Power Solutions Group, Analog Solutions Group and Intelligent Sensing Group, comprised approximately 44%, 36% and 49%, respectively, of our total consolidated revenue. The loss of certain of these customers may have a material adverse effect on the operations of the respective segment.

We generally warrant that products sold to our customers will, at the time of shipment, be free from defects in workmanship and materials and conform to our approved specifications. Our standard warranty extends for a period of two years from the date of delivery, except in the case of image sensor products, which are warranted for one year from the date of delivery. Our customers may cancel orders 30 days prior to shipment for standard products and, generally prior to start of production for custom products without incurring a penalty. For additional information regarding agreements with our customers, see "End-Markets for Our Products," "Manufacturing and Operations," and "Backlog and Inventory," below, "Risk Factors - Trends, Risks and Uncertainties Related to Our Business" included elsewhere in this Form 10-K and Note 2: "Significant Accounting Policies - Revenue Recognition" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

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End-Markets for Our Products

The following table sets forth our principal end-markets, the estimated percentage (based in part on information provided by our distributors and electronic manufacturing service providers) of our revenue generated from each end-market during 2018, and sample applications for our products. Our Industrial end-market includes the data relating to the Medical, Aerospace and Defense and our Communications end-market includes the data relating to the Networking and Wireless.

	<u>Automotive</u>	<u>Industrial</u>	<u>Communications</u>	<u>Consumer</u>	<u>Computing</u>
Approximate percentage of 2018 Revenue	31%	27%	18%	13%	11%
<i>Sample applications</i>	EV/HEV	Hearing Health	Tablets	Gaming, Home Entertainment Systems, & Set Top Boxes	Notebooks, Ultrabooks, & 2-in-1s
	Power Management	Smart Cities & Buildings	Smart phones	White Goods	Desktop PCs & All-in-Ones
	Powertrain	Security & Surveillance	RF Tuning	USB Type C	USB Type C
	In-Vehicle Networking	Machine Vision	Switches	Power Supplies	Graphics
	Body & Interior	Motor Control	Routers	Drones	Power Supplies
	Lighting	Robotics	Base Stations	AR/VR	AI
	Automated Driving	Power Solutions	Power Supplies	Wearable Devices	Cloud Computing
	Sensors	Industrial Automation		AI	
	AI	AR/VR		Robotics	
		AI			
		Diagnostic, Therapy, & Monitoring			

OEMs Direct sales to OEMs accounted for approximately 34% of our revenue in 2018, 34% of our revenue in 2017 and 38% of our revenue in 2016. OEM customers include a variety of companies in the electronics industry. We focus on three types of OEMs: multi-nationals; selected regional accounts; and target market customers. Large multi-nationals and selected regional accounts, which are significant in specific markets, are our core OEM customers. The target market customers for our end-markets are OEMs that are on the leading edge of specific technologies and provide direction for technology and new product development. Generally, our OEM customers do not have the right to return our products following a sale other than pursuant to our warranty.

Distributors Sales to distributors accounted for approximately 60% of our revenue in 2018, 60% of our revenue in 2017 and 56% of our revenue in 2016, the 2017 increase being attributed to our acquisition of Fairchild, which had a greater distribution mix than our historical business. Our distributors resell to mid-sized and smaller OEMs and to electronic manufacturing service providers and other companies. Sales to distributors are typically made pursuant to agreements that provide return rights and stock rotation provisions permitting limited levels of product returns. We developed our new internal processes and systems which enabled us to reliably estimate upfront the effects of returns and allowances and thus began recognizing revenue at the time of sales to the distributors beginning in the first quarter of 2017. Prior to 2017, for products sold to distributors who are entitled to returns and allowances (generally referred to as “ship and credit rights”), we recognized related revenue and cost of revenue when we were informed by the distributors that they had resold the products to the end-user.

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Electronic Manufacturing Service Providers Direct sales to electronic manufacturing service providers accounted for approximately 6% of our revenue in 2018, 6% of our revenue in 2017 and 6% of our revenue in 2016. These customers are manufacturers who typically provide contract manufacturing services for OEMs. Originally, these companies were involved primarily in the assembly of printed circuit boards, but they now typically provide design, supply management and manufacturing solutions as well. Many OEMs now outsource a large part of their manufacturing to electronic manufacturing service providers in order to focus on their core competencies. We are pursuing a number of strategies to penetrate this increasingly important marketplace. Generally, our electronic manufacturing service customers do not have the right to return our products following a sale other than pursuant to our warranty.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 3: "Revenue and Segment Information" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for revenue by geographic locations.

Manufacturing Operations

We operate front-end wafer fabrication facilities in Belgium, the Czech Republic, Japan, Korea, Malaysia and the United States and back-end assembly and test site facilities in Canada, China, Japan, Malaysia, Philippines, Vietnam and the United States. In addition to these front-end and back-end manufacturing operations, our facility in Rožnov pod Radhoštěm, Czech Republic manufactures silicon wafers that are used by a number of our facilities.

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The table below sets forth information with respect to the manufacturing facilities we operate either directly or pursuant to joint ventures, the reporting segments that use such facilities, and the approximate gross square footage of each site's building, which includes, among other things, manufacturing, laboratory, warehousing, office, utility, support and unused areas.

Location	Reporting Segment	Size (sq. ft.)
<i>Front-end Facilities:</i>		
Gresham, Oregon	Analog Solutions Group, Intelligent Sensing Group and Power Solutions Group	558,457
Pocatello, Idaho	Analog Solutions Group, Intelligent Sensing Group and Power Solutions Group	582,384
Rožnov pod Radhoštěm, Czech Republic	Analog Solutions Group and Power Solutions Group	438,882
Oudenaarde, Belgium	Analog Solutions Group, Intelligent Sensing Group and Power Solutions Group	422,605
Seremban, Malaysia (Site 2) (3)	Analog Solutions Group and Power Solutions Group	133,061
Niigata, Japan	Analog Solutions Group, Intelligent Sensing Group and Power Solutions Group	1,106,779
Rochester, New York (2) (4)	Intelligent Sensing Group	275,642
Bucheon, South Korea	Analog Solutions Group and Power Solutions Group	861,081
South Portland, Maine	Analog Solutions Group and Power Solutions Group	344,588
Mountaintop, Pennsylvania	Analog Solutions Group and Power Solutions Group	437,000
Aizuwakamatsu, Japan	Analog Solutions Group and Power Solutions Group	734,482
<i>Back-end Facilities:</i>		
Burlington, Canada (1)	Analog Solutions Group	95,440
Leshan, China (3)	Analog Solutions Group and Power Solutions Group	416,339
Seremban, Malaysia (Site 1) (3)	Analog Solutions Group and Power Solutions Group	328,275
Carmona, Philippines (3)	Analog Solutions Group, Intelligent Sensing Group and Power Solutions Group	926,367
Tarlac City, Philippines (3)	Analog Solutions Group, Intelligent Sensing Group and Power Solutions Group	381,764
Shenzhen, China (1)	Analog Solutions Group, Intelligent Sensing Group and Power Solutions Group	275,463
Bien Hoa, Vietnam (3)	Analog Solutions Group and Power Solutions Group	294,418
Nampa, Idaho (1) (2)	Intelligent Sensing Group	166,268
Cebu, Philippines (3)	Analog Solutions Group and Power Solutions Group	228,460
Suzhou, China (3)	Analog Solutions Group and Power Solutions Group	452,639
<i>Other Facilities:</i>		
Rožnov pod Radhoštěm, Czech Republic	Analog Solutions Group, Intelligent Sensing Group and Power Solutions Group	11,873
Thuan An District, Vietnam (3)	Analog Solutions Group and Power Solutions Group	30,494

(1) These facilities are leased.

(2) This facility is used for both front-end and back-end operations.

(3) These facilities are located on leased land.

(4) One building owned and a portion of another leased.

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We operate all of our manufacturing facilities directly except our assembly and test operations facility located in Leshan, China, which is owned by Leshan-Phoenix Semiconductor Company Limited, a joint venture company in which we own a majority of the outstanding equity interests ("Leshan"), and our manufacturing facility located in Aizuwakamatsu, Japan, which is owned by ON Semiconductor Aizu Co., Ltd., a joint venture company in which we own a majority of the outstanding equity interests ("OSA"). Our investments in Leshan and OSA have been consolidated in our financial statements.

Our joint venture partner in Leshan, Leshan Radio Company Ltd., is formerly a state-owned enterprise. Pursuant to the joint venture agreement, requests for production capacity are made to the board of directors of Leshan by each shareholder of the joint venture. Each request represents a purchase commitment by the requesting shareholder, provided that the shareholder may elect to pay the cost associated with the unused capacity (which is generally equal to the fixed cost of the capacity) in lieu of satisfying the commitment. We committed to purchase 80% of Leshan's production capacity in each of 2018, 2017 and 2016 and are currently committed to purchase approximately 80% of Leshan's expected production capacity in 2019.

Our joint venture partner in OSA is Fujitsu Semiconductor Limited ("FSL"), a Japanese corporation. Pursuant to a foundry agreement, on a quarterly basis, ON and FSL are required to allocate the capacity of OSA and provide a rolling twenty-four month forecast consistent with the capacity allocated to each joint venture partner. We have committed to purchase approximately 50% of OSA's production capacity, and our committed capacity is scheduled to increase gradually through the second quarter of 2020, when, subject to the fulfillment of certain conditions, we are required to increase our ownership in OSA to 100%.

We use third-party contractors for some of our manufacturing activities, primarily for wafer fabrication and the assembly and testing of finished goods. Our agreements with these contract manufacturers typically require us to forecast product needs and commit to purchase services consistent with these forecasts. In some cases, longer-term commitments are required in the early stages of the relationship. These contract manufacturers collectively accounted for approximately 36% of our manufacturing costs in each of 2018, 2017 and 2016.

For information regarding risks associated with our foreign operations, see "Risk Factors - Trends, Risks and Uncertainties Related to Our Business" included elsewhere in this Form 10-K.

Raw Materials

Our manufacturing processes use many raw materials, including silicon wafers, gold, copper, lead frames, mold compound, ceramic packages and various chemicals and gases as well as other production supplies used in our manufacturing processes. We obtain our raw materials and supplies from a large number of sources, generally on a just-in-time basis, and material agreements with our suppliers that impose minimum or continuing supply obligations are reflected in our contractual obligations table in "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Contractual Obligations" included elsewhere in this Form 10-K. From time to time, suppliers may extend lead times, limit supplies or increase prices due to capacity constraints or other factors. Although we believe that supplies of the raw materials we use are currently and will continue to be available, shortages could occur in various essential materials due to interruption of supply, increased demand in the industry or other factors.

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Sales, Marketing and Distribution

As of December 31, 2018, our sales and marketing organization consisted of approximately 1,800 professionals servicing customers globally. We support our customers through logistics organizations and just-in-time warehouses. Global and regional distribution channels further support our customers' needs for quick response and service. We offer efficient, cost-effective global applications support from our Technical Information Centers and Solution Engineering Centers, allowing for applications which are developed in one region of the world to be instantaneously available throughout all other regions.

Patents, Trademarks, Copyrights and Other Intellectual Property Rights

We market our products primarily under our registered trademark ON Semiconductor® and our ON logo, and, in the United States and internationally, we rely primarily on a combination of patents, trademarks, copyrights, trade secrets, employee and non-disclosure agreements and licensing agreements to protect our IP. We acquired or were licensed or sublicensed to a significant amount of IP, including patents and patent applications, in connection with our acquisitions, and we have numerous U.S. and foreign patents issued, allowed and pending. As of December 31, 2018, we held patents with expiration dates ranging from 2019 to 2038, and none of the patents that expire in the next three years materially affect our business. Our policy is to protect our products and processes by asserting our IP rights where appropriate and prudent and by obtaining patents, copyrights and other IP rights used in connection with our business when practicable and appropriate.

Seasonality

We believe our business today is driven more by content gains within applications and secular growth drivers and not solely by macroeconomic and industry cyclicalities, as was the case historically. However, in the future, we could again experience period-to-period fluctuations in operating results due to general industry or economic conditions. For information regarding risks associated with the cyclicalities and seasonality of our business, see "Risk Factors - Trends, Risks and Uncertainties Related to Our Business" included elsewhere in this Form 10-K.

Backlog and Inventory

Our trade sales are made primarily pursuant to orders that are predominantly booked as far as 26 weeks in advance of delivery. Generally, prices and quantities are fixed at the time of booking. Backlog as of a given date consists of existing orders and forecasted demand from our EDI customers, in each case scheduled to be shipped over the 13-week period following such date. Backlog is influenced by several factors, including market demand, pricing and customer order patterns in reaction to product lead times. During 2018, our backlog at the beginning of each quarter represented between 83% and 89% of actual revenue during such quarter, which is consistent with backlog levels in recent prior periods. As manufacturing capacity utilization in the industry increases, customers tend to order products further in advance and, as a result, backlog at the beginning of a period as a percentage of revenue during such period is likely to increase.

In the semiconductor industry, backlog quantities and shipment schedules under outstanding purchase orders are frequently revised to reflect changes in customer needs. Agreements calling for the sale of specific quantities are either contractually subject to quantity revisions or, as a matter of industry practice, are often not enforced. Therefore, a significant portion of our order backlog may be cancelable. For these reasons, the amount of backlog as of any particular date may not be an accurate indicator of future results.

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We sell products to key customers pursuant to contracts that allow us to schedule production capacity in advance and allow the customers to manage their inventory levels consistent with just-in-time principles while shortening the cycle times required for producing ordered products. However, these contracts are typically amended to reflect changes in customer demands and periodic price renegotiations. We routinely generate inventory based on customers' estimates of end-user demand for their products, which is difficult to predict. See "Risk Factors - Trends, Risks and Uncertainties Related to Our Business" located elsewhere in this Form 10-K for additional information regarding the inventory practices within the semiconductor industry.

Competition

The semiconductor industry, particularly the market for general-purpose semiconductor products like ours, is highly competitive. We face significant competition within each of our product lines from major international semiconductor companies, as well as smaller companies focused on specific market niches. Because some of our components are often building block semiconductors that, in some cases, can be integrated into more complex ICs, we also face competition from manufacturers of ICs, ASICs and fully-customized ICs, as well as customers who develop their own IC products. See "Risk Factors - Trends, Risks and Uncertainties Related to Our Business" included elsewhere in this Form 10-K for additional information.

In comparison, several competitors noted below are larger in scale and size, have substantially greater financial and other resources with which to pursue development, engineering, manufacturing, marketing and distribution of their products and may generally be better situated to withstand adverse economic or market conditions. The semiconductor industry has experienced, and may continue to experience, significant consolidation among companies and vertical integration among customers. The following discusses the effects of competition on our three operating segments:

Power Solutions Group

The Power Solutions Group is a leading provider of power semiconductors to the automotive, industrial, wireless and mass markets. Our competitive strengths include our core competencies of leading edge fabrication technologies, micro packaging expertise, breadth of product line and IP portfolio, high quality cost effective manufacturing and supply chain management which ensures supply to our customers. Our commitment to continual innovation allows us to provide an ever broader range of semiconductor solutions to our customers who differentiate in power density and power efficiency, the key performance characteristics driving our markets.

The principal methods of competition in our discrete, module and integrated semiconductor products are through new products and package innovations enabling enhanced performance over existing products. Of particular importance are our power MOSFETs, IGBTs, rectifiers and power module portfolio for power conversion applications and ESD portfolio for hi-speed serial interface protection products where we believe we have significant performance advantages over our competition. The Power Solutions Group's competitors include: Broadcom Limited, Diodes Incorporated, Infineon Technologies AG, KEC Corporation, Nexperia, Rohm Semiconductor, Semtech Corporation, STMicroelectronics N.V., Texas Instruments Incorporated, Toshiba Corporation and Vishay Intertechnology, Inc.

Analog Solutions Group

The principal bases for competition in the Analog Solutions Group are design experience, manufacturing capability, depth and quality of IP, ability to service customer needs from the design phase to the shipping of a completed product, length of design cycle, longevity of technology support and experience of sales and technical support personnel. Our competitive position is also enhanced by long-standing relationships with leading OEM customers.

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Our ability to compete successfully depends on internal and external variables, both inside and outside of our control. These variables include, but are not limited to, the timeliness with which we can develop new products and technologies, product performance and quality, manufacturing yields and availability of supply, customer service, pricing, industry trends and general economic trends. Competitors for certain of the Analog Solutions Group's products and solutions include: Infineon Technologies AG, Maxim Integrated Products, Inc., NXP Semiconductors N.V., Renesas Electronics Corporation, STMicroelectronics N.V. and Texas Instruments Incorporated.

Intelligent Sensing Group

The Intelligent Sensing Group differentiates itself from the competition through deep technical knowledge and close customer relationships to drive leading edge sensing performance for both human and machine vision applications. The Intelligent Sensing Group has over four decades of imaging experience, was the first to commercialize CMOS active pixel sensors and was also the first to introduce CMOS technology into many of our markets. The Intelligent Sensing Group has leveraged this expertise into market leading positions in automotive and industrial applications, which allows us to offer a wealth of technical and end-user applications knowledge to help customers develop innovative imaging solutions across a broad range of end-user needs. Competitors for certain of the Intelligent Sensing Group's products and solutions include: Sony Semiconductor, Samsung Electronics Co., Ltd. ("Samsung"), Omnivision, STMicroelectronics N.V. and Toshiba Corporation for image sensors; Rohm Semiconductor, Renesas Electronics Corporation and Dongwoon Anatech for actuator drivers; Texas Instruments Incorporated, NXP, and Infineon Technologies for radar; and Hamamatsu, Broadcom and ST Microelectronics for SiPMs and SPADs.

Research and Development

Research and development costs in 2018, 2017 and 2016 were \$650.7 million, \$594.7 million and \$446.8 million, respectively, representing 11% of revenue for each of those years. We seek to maximize the investment of our people and capital in research and development by targeting innovative products and solutions for high growth applications that position the Company to outperform the industry. Our design expertise in analog, digital, mixed signal and imaging ICs, combined with our extensive portfolio of standard products, enable the company to offer comprehensive, value added solutions to our global customers for their electronics systems.

Government Regulation

Our manufacturing operations are subject to environmental and worker health and safety laws and regulations. These laws and regulations include those relating to emissions and discharges into the air and water, the management and disposal of hazardous substances, the release of hazardous substances into the environment at or from our facilities and at other sites and the investigation and remediation of contamination. As with other companies engaged in like businesses, the nature of our operations exposes us to the risk of liabilities and claims, regardless of fault, with respect to such matters, including personal injury claims and civil and criminal fines.

Our headquarters in Phoenix, Arizona are located on property that is a "Superfund" site, which is a property listed on the National Priorities List and subject to clean-up activities under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). Motorola and Freescale (acquired by NXP Semiconductors N.V.) have been involved in the cleanup of on-site solvent-contaminated soil and groundwater and off-site contaminated groundwater pursuant to consent decrees with the State of Arizona. As part of our separation from Motorola in 1999, Motorola retained responsibility for this contamination, and Motorola and Freescale have agreed to indemnify us with respect to remediation costs and other costs or liabilities related to this matter.

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Our former front-end manufacturing location in Aizu, Japan is located on property where soil and ground water contamination was detected. We believe that the contamination originally occurred during a time when the facility was operated by a prior owner. We worked with local authorities to implement a remediation plan and have completed remediation construction. The majority of the cost of remediation was covered by insurance. During 2018, semi-annual groundwater monitoring indicated that the treatment was effective, and accordingly, we ceased such monitoring and have determined that this remediation project is complete. Any costs to us in connection with this matter have not been material.

Our manufacturing facility in the Czech Republic has undergone remediation to respond to releases of hazardous substances that occurred during the years that this facility was operated by government-owned entities. The remediation projects consisted primarily of monitoring groundwater wells located on-site and off-site, with additional action plans developed to respond in the event activity levels are exceeded. The government of the Czech Republic has agreed to indemnify us and our respective subsidiaries, subject to specified limitations, for remediation costs associated with this historical contamination. We have completed remediation on this project, and accordingly, have ceased all related monitoring efforts. Any costs to us in connection with this matter have not been, and, based on the information available, are not expected to be, material.

Our design center in East Greenwich, Rhode Island is located on property that has localized soil contamination. When we purchased the East Greenwich facility, we entered into a Settlement Agreement and Covenant Not To Sue with the State of Rhode Island. This agreement requires that remedial actions be undertaken and a quarterly groundwater monitoring program be initiated by the former owners of the property. Any costs to us in connection with this matter have not been, and, based on the information available, are not expected to be, material.

As a result of the acquisition of AMIS in 2008, we are a "primary responsible party" to an environmental remediation and cleanup at AMIS's former corporate headquarters in Santa Clara, California. Costs incurred by AMIS include implementation of the clean-up plan, operations and maintenance of remediation systems and other project management costs. However, AMIS's former parent company, a subsidiary of Nippon Mining, contractually agreed to indemnify AMIS and us for any obligations relating to environmental remediation and clean-up at this location. Any costs to us in connection with this matter have not been, and, based on the information available, are not expected to be, material.

Through the acquisition of Fairchild, we acquired a facility in South Portland, Maine. The facility has ongoing environmental remediation projects to respond to certain releases of hazardous substances that occurred prior to the leveraged recapitalization of Fairchild from its former parent company, National Semiconductor Corporation, which is now owned by Texas Instruments Incorporated. Although we may incur certain liabilities with respect to the above remediation projects, pursuant to the asset purchase agreement entered into in connection with the Fairchild recapitalization, National Semiconductor Corporation agreed to indemnify Fairchild, without limitation and for an indefinite period of time, for all future costs related to these projects. Under a 1999 asset purchase agreement pursuant to which Fairchild purchased the power device business of Samsung, Samsung agreed to indemnify Fairchild in an amount up to \$150.0 million for remediation costs and other liabilities related to historical contamination at Samsung's Bucheon, South Korea operations. Any costs to us in connection with this matter have not been, and, based on the information available, are not expected to be, material.

Under a 2001 asset purchase agreement pursuant to which Fairchild purchased a manufacturing facility in Mountain Top, Pennsylvania, Intersil Corp. (subsequently acquired by Renesas Electronics Corporation) agreed to indemnify Fairchild for remediation costs and other liabilities related to historical contamination at the facility. Any costs to us incurred to respond to the above conditions and projects have not been, and are not expected to be, material, and any future payments we make in connection with such liabilities are not expected to be material.

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We were notified by the United States Environmental Protection Agency (the "EPA") that we have been identified as a "potentially responsible party" ("PRP") under CERCLA in the Chemetco Superfund matter. Chemetco, a defunct reclamation services supplier that operated in Illinois at what is now a Superfund site, has performed reclamation services for us in the past. The EPA is pursuing Chemetco customers for contribution to the site cleanup activities. We have joined a PRP group which is cooperating with the EPA in the evaluation and funding of the cleanup. Any costs to us in connection with this matter have not been, and, based on the information available, are not expected to be, material.

We believe that our operations are in material compliance with applicable environmental and health and safety laws and regulations. The costs we incurred in complying with applicable environmental regulations for the year ended December 31, 2018 were not material, and we do not expect the cost of complying with existing environmental and health and safety laws and regulations, together with any liabilities for currently known environmental conditions, to have a material adverse effect on the capital expenditures, earnings or competitive position of the Company or its subsidiaries. It is possible, however, that future developments, including changes in laws and regulations, government policies, customer specification, personnel and physical property conditions, including currently undiscovered contamination, could lead to material costs, and such costs may have a material adverse effect on our future business or prospects. See Note 13: "Commitments and Contingencies" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for information on certain environmental matters.

Employees

As of December 31, 2018, we had approximately 35,700 employees worldwide, of which approximately 4,700 employees were in the United States. None of our employees in the United States are covered by collective bargaining agreements, except for approximately 115 of our employees (or approximately 2% of our U.S.-based employees) at the Mountain Top, Pennsylvania manufacturing facility. Certain of our foreign employees are covered by collective bargaining arrangements (e.g., those in China, Korea, Japan and Belgium) or similar arrangements or are represented by workers councils. For information regarding employee risk associated with our international operations, see "Risk Factors - Trends, Risks and Uncertainties Related to Our Business" included elsewhere in this Form 10-K. Of the total number of our employees as of December 31, 2018, approximately 29,700 were engaged in manufacturing, approximately 3,100 were engaged in research and development, approximately 1,800 were engaged in our sales and marketing organization, which includes customer service, and approximately 1,100 were engaged in administration.

Executive Officers of the Registrant

Certain information concerning our executive officers as of February 15, 2019 is set forth below.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Keith D. Jackson	63	President, Chief Executive Officer and Director*
Bernard Gutmann	59	Executive Vice President, Chief Financial Officer and Treasurer*
George H. Cave	61	Executive Vice President, General Counsel, Chief Compliance & Ethics Officer, Chief Risk Officer and Corporate Secretary*
Bernard R. Colpitts, Jr.	44	Chief Accounting Officer and Vice President of Finance and Treasury*
Vincent C. Hopkin	56	Executive Vice President and General Manager, Analog Solutions Group*
Simon Keeton	46	Executive Vice President and General Manager, Power Solutions Group*
Taner Ozcelik	51	Senior Vice President and General Manager, Intelligent Sensing Group*
Paul E. Rolls	56	Executive Vice President, Sales and Marketing*
William A. Schromm	60	Executive Vice President and Chief Operating Officer*

* Executive Officers of both ON Semiconductor and SCI LLC.

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The present term of office for the officers named above will generally expire on the earliest of their retirement, resignation or removal. There is no family relationship among our executive officers.

Keith D. Jackson. Mr. Jackson was elected as a Director of ON Semiconductor and appointed as President and Chief Executive Officer of ON Semiconductor and SCI LLC in November 2002. Mr. Jackson has more than 30 years of semiconductor industry experience. Before joining ON Semiconductor, he was with Fairchild, serving as Executive Vice President and General Manager, Analog, Mixed Signal, and Configurable Products Groups, beginning in 1998, and, more recently, was head of its Integrated Circuits Group. From 1996 to 1998, he served as President and a member of the board of directors of Tritech Microelectronics in Singapore, a manufacturer of analog and mixed signal products. From 1986 to 1996, Mr. Jackson worked for National Semiconductor Corporation, most recently as Vice President and General Manager of the Analog and Mixed Signal division. He also held various positions at Texas Instruments Incorporated, including engineering and management positions, from 1973 to 1986. Mr. Jackson joined the board of directors of Veeco Instruments, Inc. in February 2012 and has served on the board of directors of the Semiconductor Industry Association since 2008. In February of 2014, Mr. Jackson became a National Association of Corporate Directors Board Leadership Fellow, the highest level of credentialing for corporate directors and corporate governance professionals.

Bernard Gutmann. Mr. Gutmann was promoted and appointed Executive Vice President and Chief Financial Officer of ON Semiconductor and SCI LLC in September 2012 and has served as ON Semiconductor's and SCI LLC's Treasurer since January 2013. Before his promotion, he worked with the Company as Vice President, Corporate Analysis & Strategy of SCI LLC, serving in that position from April 2006 to September 2012. In these roles, his responsibilities have included finance integration, financial reporting, restructuring, tax, treasury and financial planning and analysis. From November 2002 to April 2006, Mr. Gutmann served as Vice President, Financial Planning & Analysis and Treasury of SCI LLC. From September 1999 to November 2002, he held the position of Director, Financial Planning & Analysis of SCI LLC. Prior to joining ON Semiconductor, Mr. Gutmann served in various financial positions with Motorola from 1982 to 1999, including controller of various divisions and an off-shore wafer and backend factory, finance and accounting manager, financial planning manager and financial analyst. He holds a Bachelor of Science in Management Engineering from Worcester Polytechnic Institute in Massachusetts (U.S.). Additionally, he is fluent in English, French and Spanish and is conversant in German.

George H. "Sonny" Cave. Mr. Cave is the founding General Counsel and Corporate Secretary of ON Semiconductor, positions he has held since the 1999 spin-out from Motorola. He is also Executive Vice President, Chief Compliance & Ethics Officer and Chief Risk Officer of ON Semiconductor and SCI LLC. His extensive legal and business experience spans over 30 years, including seven years with Motorola. For two years prior to ON Semiconductor's spin-out, he was an ex-patriate stationed in Geneva, Switzerland as Regulatory Affairs Director for Motorola's Semiconductor Components Group. Before that assignment, he spent five years with Motorola's Corporate Law Department in Phoenix, Arizona where he was Senior Counsel for global Environmental Health and Safety. Mr. Cave also practiced law for six years with two large law firms in Denver and Phoenix. He has extensive experience in corporate and commercial law, governance, enterprise risk management and compliance and ethics. He holds a Juris Doctorate degree from the University of Colorado School of Law, a Master of Science degree from Arizona State University and a Bachelor of Science degree *cum laude* from Duke University.

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Bernard R. Colpitts, Jr. Mr. Colpitts was promoted to the position of Chief Accounting Officer of SCI LLC in February 2017 and continues to serve as Vice President of Finance and Treasury, a position he has held since June 2013. In connection with the promotion to Chief Accounting Officer, the Company designated Mr. Colpitts as its Principal Accounting Officer. From August 2011 to June 2017, Mr. Colpitts served as the Controller of SCI LLC. From August 2011 to February 2013, Mr. Colpitts served as Senior Director, Controller of SCI LLC. He was Vice President, Controller and Chief Accounting Officer of Harry & David Holdings, Inc., a premium food and gift producer and retailer, from January 2007 to December 2010. Mr. Colpitts held various positions with SCI LLC related to accounting, finance and financial reporting from 2000 to 2006. Mr. Colpitts is a Certified Public Accountant.

Vincent C. Hopkin. Mr. Hopkin joined the Company in March 2008 and currently serves as Executive Vice President and General Manager of the Analog Solutions Group for ON Semiconductor and SCI LLC. From September 2016 to May 2018, he was Senior Vice President and General Manager of the Digital and DC/DC Solutions Division. He has more than three decades of experience in the electronics industry. During his career, Mr. Hopkin has held various leadership positions within business units, sales and manufacturing. Prior to joining ON Semiconductor in 2008, he successfully managed several businesses including ASIC, military/aerospace, image sensing and foundry services at AMI Semiconductor, Inc. Mr. Hopkin joined AMIS in 1983 and worked in several operations functions. Mr. Hopkin holds a Bachelor of Science degree in management and organizational behavior from Idaho State University.

Simon Keeton. Mr. Keeton joined the Company in July 2007 and is currently the Executive Vice President and General Manager of the Power Solutions Group of ON Semiconductor and SCI LLC. During his career, Mr. Keeton has held various management positions within the Company. Before Mr. Keeton's promotion to his current role on January 1, 2019, he was a Senior Vice President and General Manager of the MOSFET Division. From 2012 to 2016, Mr. Keeton served as Vice President and General Manager of the Integrated Circuit Division under our former Standard Products Group. Prior to that time, he served as Vice President and General Manager of the Consumer Products Division from 2009 to 2012 and as Business Unit Director of our Signals and Interface Business Unit from 2007 to 2009. Before joining the Company, Mr. Keeton served as Strategic Planning Manager of the Digital Enterprise Group of Intel Corporation at Intel and held various marketing and business management roles at Vitesse Semiconductor Corporation.

Taner Ozcelik. Mr. Ozcelik joined ON Semiconductor in August 2014 as the Senior Vice President of the Aptina Imaging Business, and on February 20, 2015, he was named the Senior Vice President and General Manager of the Intelligent Sensing Group of ON Semiconductor and SCI LLC. Mr. Ozcelik has served at the intersection of semiconductors, consumer electronics, computing and automotive industries for more than two decades. Before joining ON Semiconductor in August 2014, he served as Senior Vice President of Aptina's Automotive and Embedded business. Prior to this, Mr. Ozcelik served as Vice President and General Manager of NVIDIA's automotive business from 2012 to 2014, and as General Manager of the Avionics, Automotive and Embedded Business of NVIDIA from 2006 to 2012. While at NVIDIA, he developed several award winning firsts in automotive, which spanned a variety of applications including infotainment systems, digital instrument clusters, automotive tablets and ADAS, which are now featured in cars worldwide. During his career, Mr. Ozcelik has also held positions as President and CEO at MobileSmarts and as Vice President and General Manager at Sony Semiconductor for its Digital Home Platform Division. Mr. Ozcelik holds a Masters of Business Administration degree from the Wharton School of the University of Pennsylvania, a Ph.D. in Electrical Engineering from Northwestern University and a Bachelor of Science in Electrical Engineering from Bogazici University, Turkey. He is listed as an inventor on 23 U.S. patents.

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Paul E. Rolls. Mr. Rolls was promoted and appointed Executive Vice President, Sales and Marketing of ON Semiconductor and SCI LLC in July 2013. Before his promotion, he served as Senior Vice President, Japan Sales and Marketing and Senior Vice President of Global Sales Operations, serving in that position from October 2012 to July 2013. Mr. Rolls has more than 26 years of technology sales, sales management and operations experience, with more than 19 years of sales and sales management experience in the semiconductor industry. Before joining the Company, Mr. Rolls was the Senior Vice President, Worldwide Sales and Marketing at Integrated Device Technology, Inc. from January 2010 to April 2012. From August 1996 to December 2009, he held multiple sales positions at International Rectifier Corp., most recently as Senior Vice President, Global Sales. During his career, he has also held management roles at Compaq Computer Corporation.

William A. Schromm. Mr. Schromm has more than 30 years of semiconductor industry experience, has been with the Company since August 1999 and has served as Executive Vice President and Chief Operating Officer of ON Semiconductor and SCI LLC since August 2014. Prior to becoming Chief Operating Officer, he was a Senior Vice President responsible for quality, external manufacturing, manufacturing under our former System Solutions Group segment, global supply chain, information technology, corporate program management. Prior to this role, Mr. Schromm served as Senior Vice President and General Manager of the Company's former Computing and Consumer Products Group from June 2006 through September 2012. During his tenure with the Company, he has held various positions. From August 2004 through May 2006, he served as the Vice President and General Manager of the Company's former High Performance Analog Division and also led the Company's former Analog Products Group. Beginning in January 2003, he served as Vice President of the Clock and Data Management business and continued in that role with additional product responsibilities when this business became the High Performance Analog Division in August 2004. Prior to that, he served as the Vice President of Tactical Marketing from July 2001 through December 2002, after leading the Company's Standard Logic Division since August 1999. Since April 2015, Mr. Schromm has served on the board of directors of II-VI, Inc. Mr. Schromm earned a Bachelor of Science degree from Boston College and a Master of Business Administration degree from the University of Phoenix.

Geographical Information

For certain geographic operating information, see Note 3: "Revenue and Segment Information" and Note 16: "Income Taxes" in the notes to our audited consolidated financial statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case as included elsewhere in this Form 10-K. For information regarding other risks associated with our foreign operations, see "Risk Factors - Trends, Risks and Uncertainties Related to Our Business" included elsewhere in this Form 10-K.

Available Information

We make our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports available, free of charge, in the "Investor Relations" section of our website as soon as reasonably practicable after we electronically file these materials with, or furnish these materials to the SEC. Our website is www.onsemi.com. Information on or connected to our website is neither part of, nor incorporated by reference into, this Form 10-K or any other report filed with or furnished to the SEC. You will find these materials on the SEC website at www.sec.gov, which contains reports, proxy statements and other information regarding issuers that file electronically with the SEC.

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Item 1A. Risk Factors

Forward-Looking Statements

This Annual Report on Form 10-K includes “forward-looking statements,” as that term is defined in Section 27A of the Securities Act and Section 21E of the Exchange Act. All statements, other than statements of historical facts, included or incorporated in this Form 10-K could be deemed forward-looking statements, particularly statements about our plans, strategies and prospects under the headings “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” Forward-looking statements are often characterized by the use of words such as “believes,” “estimates,” “expects,” “projects,” “may,” “will,” “intends,” “plans,” or “anticipates,” or by discussions of strategy, plans or intentions. All forward-looking statements in this Form 10-K are made based on our current expectations, forecasts, estimates and assumptions, and involve risks, uncertainties and other factors that could cause results or events to differ materially from those expressed in the forward-looking statements. These factors include, among others: our revenue and operating performance; economic conditions and markets (including current financial conditions); risks related to our ability to meet our assumptions regarding outlook for revenue and gross margin as a percentage of revenue; effects of exchange rate fluctuations; the cyclical nature of the semiconductor industry; changes in demand for our products; changes in inventories at our customers and distributors; technological and product development risks; enforcement and protection of our IP rights and related risks; risks related to the security of our information systems and secured network; availability of raw materials, electricity, gas, water and other supply chain uncertainties; our ability to effectively shift production to other facilities when required in order to maintain supply continuity for our customers; variable demand and the aggressive pricing environment for semiconductor products; our ability to successfully manufacture in increasing volumes on a cost-effective basis and with acceptable quality for our current products; risks associated with our acquisition of Fairchild and with other acquisitions and dispositions, including our ability to realize the anticipated benefits of our acquisitions and dispositions; risks that acquisitions or dispositions may disrupt our current plans and operations, the risk of unexpected costs, charges or expenses resulting from acquisitions or dispositions and difficulties arising from integrating and consolidating acquired businesses, our timely filing of financial information with the SEC for acquired businesses and our ability to accurately predict the future financial performance of acquired businesses; competitor actions, including the adverse impact of competitor product announcements; pricing and gross profit pressures; loss of key customers; order cancellations or reduced bookings; changes in manufacturing yields; control of costs and expenses and realization of cost savings and synergies from restructurings; significant litigation; risks associated with decisions to expend cash reserves for various uses in accordance with our capital allocation policy such as debt prepayment, stock repurchases or acquisitions rather than to retain such cash for future needs; risks associated with our substantial leverage and restrictive covenants in our debt agreements that may be in place from time to time; risks associated with our worldwide operations, including changes in trade policies, foreign employment and labor matters associated with unions and collective bargaining arrangements, as well as man-made and/or natural disasters affecting our operations or financial results; the threat or occurrence of international armed conflict and terrorist activities both in the United States and internationally; risks of changes in U.S. or international tax rates or legislation, including the impact of the recent U.S. tax legislation; risks and costs associated with increased and new regulation of corporate governance and disclosure standards; risks related to new legal requirements; and risks involving environmental or other governmental regulation. Additional factors that could affect our future results or events are described from time to time in our SEC reports. Readers are cautioned not to place undue reliance on forward-looking statements. We assume no obligation to update such information, except as may be required by law.

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You should carefully consider the trends, risks and uncertainties described below and other information in this Form 10-K and subsequent reports filed with or furnished to the SEC before making any investment decision with respect to our securities. If any of the following trends, risks or uncertainties actually occurs or continues, our business, financial condition or operating results could be materially adversely affected, the trading prices of our securities could decline, and you could lose all or part of your investment. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by this cautionary statement.

Trends, Risks and Uncertainties Related to Our Business

Downturns or volatility in general economic conditions could have a material adverse effect on our business and results of operations.

In recent years, worldwide semiconductor industry sales have tracked the impact of the financial crisis, subsequent recovery and persistent economic uncertainty. We believe that the state of economic conditions in the United States is particularly uncertain due to recent and expected shifts in legislative and regulatory conditions concerning, among other matters, international trade and taxation, and that an uneven recovery or a renewed global downturn may put pressure on our sales due to reductions in customer demand as well as customers deferring purchases. Volatile and/or uncertain economic conditions can adversely impact sales and profitability and make it difficult for us and our competitors to accurately forecast and plan our future business activities. To the extent we incorrectly plan for favorable economic conditions that do not materialize or take longer to materialize than expected, we may face oversupply of our products relative to customer demand. In the past, reduced customer spending has driven us, and may in the future drive us and our competitors, to reduce product pricing, which results in a negative effect on gross profit. Moreover, volatility in revenue as a result of unpredictable economic conditions may alter our anticipated working capital needs and interfere with our short-term and long-term strategies. To the extent that our sales, profitability and strategies are negatively affected by downturns or volatility in general economic conditions, our business and results of operations may be materially adversely affected.

The loss of one of our largest customers, or a significant reduction in the revenue we generate from these customers, could materially adversely affect our revenue, profitability, and results of operations.

Product sales to our ten largest end-customers, which excludes distributors, have historically accounted for a significant amount of our business. For instance, for the years ended December 31, 2018 and 2017, revenue from our 10 largest end-customers collectively represented approximately 25% and 24%, respectively, of our total revenue for those years. Many of our customers operate in cyclical industries, and, in the past, we have experienced significant fluctuations from period to period in the volume of our products ordered. Generally, our agreements with our customers impose no minimum or continuing obligations to purchase our products. We cannot assure you that our largest customers will not cease purchasing products from us in favor of products produced by other suppliers, significantly reduce orders or seek price reductions in the future, and any such event could have a material adverse effect on our revenue, profitability, and results of operations.

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Because a significant portion of our revenue is derived from customers in the automotive, industrial and communications industries, a downturn or lower sales to customers in either industry could materially adversely affect our business and results of operations.

A significant portion of our sales are to customers within the automotive, industrial (including medical, aerospace and defense) and communications industries (including wireless and networking). Sales into these industries represented approximately 31%, 27%, and 18% of our revenue, respectively, for the year ended December 31, 2018, and those percentages will vary from quarter to quarter. Each of the automotive, industrial and communications industries is cyclical, and, as a result, our customers in these industries are sensitive to changes in general economic conditions, disruptive innovation and end-market preferences, which can adversely affect sales of our products and, correspondingly, our results of operations. Additionally, the quantity and price of our products sold to customers in these industries could decline despite continued growth in their respective end markets. Lower sales to customers in the automotive, industrial or communications industry may have a material adverse effect on our business and results of operations.

The semiconductor industry is highly cyclical, and significant downturns or upturns in customer demand can materially adversely affect our business and results of operations.

The semiconductor industry is highly cyclical and, as a result, is subject to significant downturns and upturns in customer demand for semiconductors and related products. We cannot accurately predict the timing of future downturns and upturns in the semiconductor industry or how severe and prolonged these conditions might be. Significant downturns often occur in connection with, or in anticipation of, maturing product cycles (for semiconductors and for the end-user products in which they are used) or declines in general economic conditions and can result in reduced product demand, production overcapacity, high inventory levels and accelerated erosion of average selling prices, any of which could materially adversely affect our operating results as a result of increased operating expenses outpacing decreased revenue, reduced margins, underutilization of our manufacturing capacity and/or asset impairment charges. On the other hand, significant upturns can cause us to be unable to satisfy demand in a timely and cost efficient manner. In the event of such an upturn, we may not be able to expand our workforce and operations in a sufficiently timely manner, procure adequate resources and raw materials, or locate suitable third-party suppliers to respond effectively to changes in demand for our existing products or to the demand for new products requested by our customers, and our business and results of operations could be materially and adversely affected.

Rapid innovation and short product life cycles in the semiconductor industry can result in price erosion of older products, which may materially adversely affect our business and results of operations.

The semiconductor industry is characterized by rapid innovation and short product life cycles, which often results in price erosion, especially with respect to products containing older technology. Products are frequently replaced by more technologically advanced substitutes and, as demand for older technology falls, the price at which such products can be sold drops, in some cases precipitously. In addition, our and our competitors' excess inventory levels can accelerate general price erosion.

In order to continue to profitably supply older products, we must offset lower prices by reducing production costs, typically through improvements in process technology and production efficiencies. If we cannot advance our process technologies or improve our production efficiencies to a degree sufficient to maintain required margins, we will no longer be able to make a profit from the sale of older products. Moreover, we may not be able to cease production of older products, either due to contractual obligations or for customer relationship reasons and, as a result, may be required to bear a loss on such products for a sustained period of time. If reductions in our production costs fail to keep pace with reductions in market prices for the products we sell, our business and results of operations could be materially adversely affected.

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Shortages or increased prices of raw materials could materially adversely affect our results of operations.

Our manufacturing processes rely on many raw materials, including various chemicals and gases, polysilicon, silicon wafers, aluminum, gold, silver, copper, lead frames, mold compound and ceramic packages. Generally, our agreements with suppliers of raw materials impose no minimum or continuing supply obligations, and we obtain our raw materials and supplies from a large number of sources on a just-in-time basis. From time to time, suppliers of raw materials may extend lead times, limit supplies or increase prices due to capacity constraints or other factors beyond our control. Shortages could occur in various essential raw materials due to interruption of supply or increased demand. If we are unable to obtain adequate supplies of raw materials in a timely manner, the costs of our raw materials increases significantly, their quality deteriorates or they give rise to compatibility or performance issues in our products, our results of operations could be materially adversely affected.

Many of our facilities and processes are interdependent and an operational disruption at any particular facility could have a material adverse effect on our ability to produce many of our products, which could materially adversely affect our business and results of operations.

We utilize an integrated manufacturing platform in which multiple facilities may each produce one or more components necessary for the assembly of a single product. As a result of the necessary interdependence within our network of manufacturing facilities, an operational disruption at a facility toward the front-end of our manufacturing process may have a disproportionate impact on our ability to produce many of our products. For example, our facility in Rožnov pod Radhoštěm, Czech Republic, manufactures silicon wafers used by a number of our facilities, and our Intelligent Sensing Group relies predominantly on one third-party for manufacturing at the front-end of its manufacturing process, and any operational disruption, natural or man-made disaster or other extraordinary event that impacted either of those facilities would have a material adverse effect on our ability to produce a number of our products worldwide. In the event of a disruption at any such facility, we may be unable to effectively source replacement components on acceptable terms from qualified third parties, in which case our ability to produce many of our products could be materially disrupted or delayed. Conversely, many of our facilities are single source facilities that only produce one of our end-products, and a disruption at any such facility would materially delay or cease production of the related product. In the event of any such operational disruption, we may experience difficulty in beginning production of replacement components or products at new facilities (for example, due to construction delays) or transferring production to other existing facilities (for example, due to capacity constraints or difficulty in transitioning to new manufacturing processes), any of which could result in a loss of future revenues and materially adversely affect our business and results of operations.

If our technologies are subject to claims of infringement on the IP rights of third parties, efforts to address such claims could have a material adverse effect on our results of operations.

We may from time to time be subject to claims that we may be infringing third-party IP rights. If necessary or desirable, we may seek licenses under such IP rights. However, we cannot assure you that we will obtain such licenses or that the terms of any offered licenses will be acceptable to us. The failure to obtain a license from a third-party for IP we use could cause us to incur substantial liabilities or to suspend the manufacture or shipment of products or our use of processes requiring such technologies. Further, we may be subject to IP litigation, which could cause us to incur significant expense, materially adversely affect sales of the challenged product or technologies and divert the efforts of our technical and management personnel, whether or not such litigation is resolved in our favor. In the event of an adverse outcome in any such litigation, we may be required to:

- pay substantial damages;
- indemnify customers or distributors;

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- cease the manufacture, use, sale or importation of infringing products;
- expend significant resources to develop or acquire non-infringing technologies;
- discontinue the use of processes; or
- obtain licenses, which may not be available on reasonable terms, to the infringing technologies.

There are several civil litigation proceedings with Power Integrations, Inc. ("PI"), many of which were pending prior to the Fairchild Transaction, and there are also over two dozen outstanding administrative proceedings between the parties at the United States Patent and Trademark Office (the "USPTO") in which each party is challenging the validity of the other party's patents. Please see Note 13: "Commitments and Contingencies" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for a more detailed description of the litigation and related administrative matters with PI and other legal matters we are currently engaged in.

The outcome of IP litigation is inherently uncertain and, if not resolved in our favor, could materially and adversely affect our business, financial condition and results of operations.

We may be unable to successfully integrate new strategic acquisitions, which could materially adversely affect our business, results of operations and financial condition.

We have made, and may continue to make, strategic acquisitions and alliances that involve significant risks and uncertainties. Successful acquisitions and alliances in the semiconductor industry are difficult to accomplish because they require, among other things, efficient integration and aligning of product offerings and manufacturing operations and coordination of sales and marketing and research and development efforts, often in markets or regions in which we have less experience than others. Our decision to pursue an acquisition is based on, among other factors, our estimates of expected future earnings growth and potential cost savings. For example, we may anticipate rationalization of a combined infrastructure and savings through integration of a newly acquired business into our business, and our estimates could turn out to be incorrect. Risks related to successful integration of an acquisition include, but are not limited to: (1) the ability to integrate information technology and other systems; (2) unidentified issues not discovered in our due diligence; (3) customers responding by changing their existing business relationships with us or the acquired company; (4) diversion of management's attention from our day to day operations; and (5) loss of key employees due to uncertainty about positions post-integration. In addition, we may incur unexpected costs, such as operating or restructuring costs (including severance payments to departing employees) or taxes resulting from the acquisition or integration of the newly acquired business. In the past, we have recorded goodwill impairment charges related to certain of our acquisitions as a result of such factors as significant underperformance relative to historical or projected future operating results. Missteps or delays in integrating our acquisitions, which could be caused by factors outside of our control, or our failure to realize the expected benefits of the acquisitions on the timeline we anticipate or at all, could materially adversely affect our results of operations and financial condition.

Depending on the level of our ownership interest in and the extent to which we can exercise control over the acquired business, we may be required by U.S. generally accepted accounting principles ("GAAP") and SEC rules and regulations to consolidate newly acquired businesses into our consolidated financial statements. The acquired businesses may not have independent audited financial statements, such statements may not be prepared in accordance with GAAP or the acquired businesses may have financial controls and systems that are not compatible with our financial controls and systems, any of which could materially impair our ability to properly integrate such businesses into our consolidated financial statements on a timely basis. Any revisions to, inaccuracies in or restatements of our consolidated financial statements due to accounting for our acquisitions could have a material adverse effect our financial condition and results of operations.

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We may be unable to maintain manufacturing efficiency, which could have a material adverse effect on our results of operations.

We believe that our success materially depends on our ability to maintain or improve our current margin levels related to our manufacturing. Semiconductor manufacturing requires advanced equipment and significant capital investment, leading to high fixed costs which include depreciation expense. Manufacturing semiconductor components also involves highly complex processes that we and our competitors are continuously modifying to improve yields and product performance. In addition, impurities, waste or other difficulties in the manufacturing process can lower production yields. Our manufacturing efficiency is and will continue to be an important factor in our future profitability, and we cannot assure you that we will be able to maintain our manufacturing efficiency, increase manufacturing efficiency to the same extent as our competitors, or be successful in our manufacturing rationalization plans. If we are unable to utilize our manufacturing and testing facilities at expected levels, or if production capacity increases while revenue does not, the fixed costs and other operating expenses associated with these facilities will not be fully absorbed, resulting in higher average unit costs and lower gross profits, which could have a material adverse effect on our results of operations.

The failure to successfully implement cost reduction initiatives, including through restructuring activities, could materially adversely affect our business and results of operations.

From time to time, we have implemented cost reduction initiatives in response to significant downturns in our industry, including relocating manufacturing to lower cost regions, transitioning higher-cost external supply to internal manufacturing, working with our material suppliers to lower costs, implementing personnel reductions and voluntary retirement programs, reducing employee compensation, temporary shutdowns of facilities with mandatory vacation and aggressively streamlining our overhead. In the past, we have recorded net restructuring charges to cover costs associated with our cost reduction initiatives. These costs have been primarily composed of employee separation costs (including severance payments) and asset impairments. We also often undertake restructuring activities and programs to improve our cost structure in connection with our business acquisitions, which can result in significant charges, including charges for severance payments to terminated employees and asset impairment charges.

We cannot assure you that our cost reduction and restructuring initiatives will be successfully or timely implemented or that they will materially and positively impact our profitability. Because our restructuring activities involve changes to many aspects of our business, the associated cost reductions could materially adversely impact productivity and sales to an extent we have not anticipated. Even if we fully execute and implement these activities and they generate the anticipated cost savings, there may be other unforeseeable and unintended consequences that could materially adversely impact our profitability and business, including unintended employee attrition or harm to our competitive position. To the extent that we do not achieve the profitability enhancement or other benefits of our cost reduction and restructuring initiatives that we anticipate, our results of operations may be materially adversely effected.

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If we are unable to identify and make the substantial research and development investments required to remain competitive in our business, our business, financial condition and results of operations may be materially adversely affected.

The semiconductor industry requires substantial investment in research and development in order to develop and bring to market new and enhanced technologies and products. The development of new products is a complex and time-consuming process and often requires significant capital investment and lead time for development and testing. We cannot assure you that we will have sufficient resources to maintain the level of investment in research and development that is required to remain competitive. In addition, the lengthy development cycle for our products limits our ability to adapt quickly to changes affecting the product markets and requirements of our customers and end-users. There can be no assurance that we will win competitive bid selection processes, known as “design wins,” for new products. In addition, design wins do not guarantee that we will make customer sales or that we will generate sufficient revenue to recover design and development investments, as expenditures for technology and product development are generally made before the commercial viability for such developments can be assured. There is no assurance that we will realize a return on the capital expended to develop new products, that a significant investment in new products will be profitable or that we will have margins as high as we anticipate at the time of investment or have experienced historically. To the extent that we underinvest in our research and development efforts, or that our investments and capital expenditures in research and development do not lead to sales of new products, we may be unable to bring to market technologies and products that are attractive to our customers, and as a result our business, financial condition and results of operations may be materially adversely affected.

We may be unable to develop new products to satisfy changing customer demands or regulatory requirements, which may materially adversely affect our business and results of operations.

The semiconductor industry is characterized by rapidly changing technologies, evolving regulatory and industry standards and certifications, changing customer needs and frequent new product introductions. Our success is largely dependent on our ability to accurately predict, identify and adapt to changes affecting the requirements of our customers in a timely and cost-effective manner. Additionally, the emergence of new industry or regulatory standards and certification requirements may adversely affect the demand for our products. We focus our independent new product development efforts on market segments and applications that we anticipate will experience growth, but there can be no assurance that we will be successful in identifying high-growth areas or develop products that meet industry standards or certification requirements in a timely manner. A fundamental shift in technologies, the regulatory climate or consumption patterns and preferences in our existing product markets or the product markets of our customers or end-users could make our current products obsolete, prevent or delay the introduction of new products that we planned to make or render our current or new products irrelevant to our customers' needs. If our new product development efforts fail to align with the needs of our customers, including due to circumstances outside of our control like a fundamental shift in the product markets of our customers and end users or regulatory changes, our business and results of operations could be materially adversely affected.

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Uncertainties regarding the timing and amount of customer orders could lead to excess inventory and write-downs of inventory that could materially adversely affect our financial condition and results of operations.

Our sales are typically made pursuant to individual purchase orders or customer agreements, and we generally do not have long-term supply arrangements with our customers requiring a commitment to purchase. Our customers may cancel orders 30 days prior to shipment for standard products and, generally prior to start of production for custom products without incurring a penalty. We routinely generate inventory based on customers' estimates of end-user demand for their products, which is difficult to predict. This difficulty may be compounded when we sell to OEMs indirectly through distributors or contract manufacturers, or both, as our forecasts for demand are then based on estimates provided by multiple parties, which may vary significantly. In times of under supply for certain products, some customers could respond by inflating their demand signals. As markets level off and supply capacity begins to match actual market demands, we could experience an increased risk of inventory write-downs, which may materially adversely affect our results of operations and our financial condition. In addition, our customers may change their inventory practices on short notice for any reason. Furthermore, short customer lead times are standard in the industry due to overcapacity. The cancellation or deferral of product orders, the return of previously sold products, or overproduction of products due to the failure of anticipated orders to materialize could result in excess obsolete inventory, which could result in write-downs of inventory or the incurrence of significant cancellation penalties under our arrangements with our raw materials and equipment suppliers. Unsold inventory, canceled orders and cancellation penalties may materially adversely affect our results of operations, and inventory write-downs, which may materially adversely affect our financial condition.

If we do not have access to capital on favorable terms, on the timeline we anticipate, or at all, our financial condition and results of operations could be materially adversely affected.

We require a substantial amount of capital to meet our operating requirements and remain competitive. We routinely incur significant costs to implement new manufacturing and information technologies, to increase our productivity and efficiency, to upgrade equipment and to expand production capacity, and there can be no assurance that we will realize a return on the capital expended. We have incurred and may continue to incur material amounts of debt to fund these requirements. Significant volatility or disruption in the global financial markets may result in us not being able to obtain additional financing on favorable terms, on the timeline we anticipate, or at all, and we may not be able to refinance, if necessary, any outstanding debt when due, all of which could have a material adverse effect on our financial condition. Any inability to obtain additional funding on favorable terms, on the timeline we anticipate, or at all, may cause us to curtail our operations significantly, reduce planned capital expenditures and research and development, or obtain funds through arrangements that management does not currently anticipate, including disposing of our assets and relinquishing rights to certain technologies, the occurrence of any of which may significantly impair our ability to remain competitive. If our operating results falter, our cash flow or capital resources prove inadequate, or if interest rates increase significantly, we could face liquidity problems that could materially and adversely affect our results of operations and financial condition.

The semiconductor industry is highly competitive, and our inability to compete effectively could materially adversely affect our business and results of operations.

The semiconductor industry is highly competitive, and our ability to compete successfully depends on elements both within and outside of our control. We face significant competition within each of our product lines from major global semiconductor companies as well as smaller companies focused on specific market niches. Because our components are often building block semiconductors that, in some cases, are integrated into more complex ICs, we also face competition from manufacturers of ICs, ASICs and fully customized ICs, as well as from customers who develop their own IC products. In addition, companies not currently in direct competition with us may introduce competing products in the future.

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Our inability to compete effectively could materially adversely affect our business and results of operations. Products or technologies developed by competitors that are larger and have more substantial research and development budgets, or that are smaller and more targeted in their development efforts, may render our products or technologies obsolete or noncompetitive. We also may be unable to market and sell our products if they are not competitive on the basis of price, quality, technical performance, features, system compatibility, customized design, innovation, availability, delivery timing and reliability. If we fail to compete effectively on developing strategic relationships with customers and customer sales and technical support, our sales and revenue may be materially adversely affected. Competitive pressures may limit our ability to raise prices, and any inability to maintain revenue or raise prices to offset increases in costs could have a significant adverse effect on our gross margin. Reduced sales and lower gross margins would materially adversely affect our business and results of operations.

The semiconductor industry has experienced rapid consolidation and our inability to compete with large competitors or failure to identify attractive opportunities to consolidate may materially adversely affect our business.

The semiconductor industry is characterized by the high costs associated with developing marketable products and manufacturing technologies as well as high levels of investment in production capabilities. As a result, the semiconductor industry has experienced, and may continue to experience, significant consolidation among companies and vertical integration among customers. Larger competitors resulting from consolidations may have certain advantages over us, including, but not limited to: substantially greater financial and other resources with which to withstand adverse economic or market conditions and pursue development, engineering, manufacturing, marketing and distribution of their products; longer independent operating histories; presence in key markets; patent protection; and greater name recognition. In addition, we may be at a competitive disadvantage to our peers if we fail to identify attractive opportunities to acquire companies to expand our business. Consolidation among our competitors and integration among our customers could erode our market share, negatively impact our capacity to compete and require us to restructure our operations, any of which would have a material adverse effect on our business.

Natural disasters and other business disruptions could cause significant harm to our business operations and facilities and could adversely affect our supply chain and our customer base, any of which may materially adversely affect our business, results of operation, and financial condition.

Our U.S. and international manufacturing facilities and distribution centers, as well as the operations of our third-party suppliers, are susceptible to losses and interruptions caused by floods, hurricanes, earthquakes, typhoons, and similar natural disasters, as well as power outages, telecommunications failures, industrial accidents, and similar events. The occurrence of natural disasters in any of the regions in which we operate could severely disrupt the operations of our businesses by negatively impacting our supply chain, our ability to deliver products, and the cost of our products. Such events can negatively impact revenue and earnings and can significantly impact cash flow, both from decreased revenue and from increased costs associated with the event. In addition, these events could cause consumer confidence and spending to decrease or result in increased volatility to the U.S. and worldwide economies. Although we carry insurance to generally compensate for losses of the type noted above, such insurance may not be adequate to cover all losses that may be incurred or continue to be available in the affected area at commercially reasonable rates and terms. To the extent any losses from natural disasters or other business disruptions are not covered by insurance, any costs, write-downs, impairments and decreased revenue can materially adversely affect our business, our results of operations and our financial condition.

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We are dependent on the services of third-party suppliers and contract manufacturers, and any disruption in or deterioration of the quality of the services delivered by such third parties could materially adversely affect our business and results of operations.

We use third-party contractors for certain of our manufacturing activities, primarily wafer fabrication and the assembly and testing of final goods. Our agreements with these manufacturers typically require us to commit to purchase services based on forecasted product needs, which may be inaccurate, and, in some cases, require longer-term commitments. We are also dependent upon a limited number of highly specialized third-party suppliers for required components and materials for certain of our key technologies. Arranging for replacement manufacturers and suppliers can be time consuming and costly, and the number of qualified alternative providers can be extremely limited. Our business operations, productivity and customer relations could be materially adversely affected if these contractual relationships were disrupted or terminated, the cost of such services increased significantly, the quality of the services provided deteriorated or our forecasted needs proved to be materially incorrect.

Our global operations subject us to risks inherent in doing business on a global level that could adversely impact our business, financial condition and results of operations.

A significant amount of our total revenue is derived from the Asia/Pacific region and Europe, and we maintain significant operations in these regions. In addition, we rely on a number of contract manufacturers whose operations are primarily located in the Asia/Pacific region. Risks inherent in doing business on a global level include, among others, the following:

- economic and geopolitical instability (including as a result of the threat or occurrence of armed international conflict or terrorist attacks);
- changes in regulatory requirements, international trade agreements, tariffs, customs, duties and other trade barriers;
- licensing requirements for the import or export of certain products;
- exposure to different legal standards, customs, business practices, tariffs, duties and other trade barriers, including changes with respect to price protection, competition practices, IP, anti-corruption and environmental compliance, trade and travel restrictions, pandemics, import and export license requirements and restrictions, and accounts receivable collections;
- transportation and other supply chain delays and disruptions;
- power supply shortages and shutdowns;
- difficulties in staffing and managing foreign operations, including collective bargaining agreements and workers councils, exposure to foreign labor laws and other employment and labor issues;
- currency fluctuations;
- currency convertibility and repatriation;
- taxation of our earnings and the earnings of our personnel;
- limitations on the repatriation of earnings and potential additional taxation of foreign profits in the U.S.;
- potential violations by our international employees or third-party agents of international or U.S. laws relevant to foreign operations (e.g., the Foreign Corrupt Practices Act ("FCPA"));
- difficulty in enforcing intellectual property rights; and
- other risks relating to the administration of or changes in, or new interpretations of, the laws, regulations and policies of the jurisdictions in which we conduct our business.

We cannot assure you that we will be successful in overcoming the risks that relate to or arise from operating in international markets, the materialization of any of which could materially adversely affect our business, financial condition and results of operations.

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We could be subject to changes in tax rates or the adoption of new U.S. or international tax legislation or have exposure to additional tax liabilities, which could adversely affect our results of operations or financial condition.

Changes to income tax laws or regulations in the United States and the jurisdictions in which we operate, or in the interpretation of such laws or regulations, could, under our existing tax structure, significantly increase our effective tax rate and ultimately reduce our cash flow from operating activities, result in us having to restructure and otherwise have a material adverse effect on our financial condition. In addition, other factors or events, including business combinations and investment transactions, changes in the valuation of our deferred tax assets and liabilities, adjustments to income taxes upon finalization of various tax returns or as a result of deficiencies asserted by taxing authorities, increases in expenses not deductible for tax purposes, changes in available tax credits, increasing operations in high tax jurisdictions, and changes in tax rates, could also increase our future effective tax rate.

Our tax filings are subject to review or audit by the Internal Revenue Service (the "IRS") and state, local and foreign taxing authorities. We exercise significant judgment in determining our worldwide provision for income taxes and, in the ordinary course of our business, there may be transactions and calculations where the ultimate tax determination is uncertain. We are also liable for potential tax liabilities of businesses we acquire. The final determination in an audit may be materially different than the treatment reflected in our historical income tax provisions and accruals. An assessment of additional taxes because of an audit could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Further changes in the tax laws of foreign jurisdictions could arise as a result of the base erosion and profit shifting project that was undertaken by the Organization for Economic Co-operation and Development ("OECD"). The OECD, which represents a coalition of member countries, recommended changes to numerous long-standing tax principles. These changes, if adopted by countries, could increase tax uncertainty and may adversely affect our provision for income taxes.

The impact of recent U.S. tax legislation is uncertain and could have a material adverse impact on our cash flows and results of operations.

On December 22, 2017, the U.S. enacted comprehensive tax legislation, H.R.1, commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act made broad and complex changes to the U.S. tax code. Many of the changes require additional guidance, including through the issuance of final Treasury Regulations, which could lessen or increase certain adverse impacts of the Tax Act. Although our accounting under ASC 740 for the provisions of the Tax Act is now complete, our analysis and interpretation of the Tax Act and proposed Treasury Regulations are ongoing and may include judgments and interpretations that could change based on final Treasury Regulations or other guidance or due to actions that the Company may take in response to such regulatory change. As a result, the impact of the Tax Act may differ from our estimates, possibly materially.

The Tax Act could have a material benefit or material adverse impact and could result in volatility in our effective tax rate, tax expense and cash flow. Any benefit associated with the lower U.S. corporate tax rate could be reduced or outweighed by the cost of compliance or other adverse regulatory changes related to the Tax Act or final Treasury Regulations.

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We operate a global business through numerous foreign subsidiaries, and there is a risk that tax authorities will challenge our transfer pricing methodologies and/or legal entity structures, which could adversely affect our operating results and financial condition.

We conduct operations worldwide through our foreign subsidiaries and are, therefore, subject to complex transfer pricing regulations in the jurisdictions in which we operate. Transfer pricing regulations generally require that, for tax purposes, transactions between related parties be priced on a basis that would be comparable to an arm's length transaction between unrelated parties. There is uncertainty and inherent subjectivity in complying with these rules. To the extent that any foreign tax authorities disagree with our transfer pricing policies, we could become subject to significant tax liabilities and penalties. The ultimate outcome of a tax examination could differ materially from our provisions and could have a material adverse effect on our business, financial condition, results or operations and cash flows.

Our legal organizational structure could result in unanticipated unfavorable tax or other consequences which could have a material adverse effect on our financial condition and results of operations. Changes in tax laws, regulations, future jurisdictional profitability of us and our subsidiaries, and related regulatory interpretations in the countries in which we operate may impact the taxes we pay or tax provision we record, which could have a material adverse effect on our results of operations. In addition, any challenges to how our entities are structured or realigned or their business purpose by taxing authorities could result in us becoming subject to significant tax liabilities and penalties which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Currency fluctuations, changes in foreign exchange regulations and repatriation delays and costs could have a material adverse effect on our results of operations and financial condition.

We have sizeable sales and operations in the Asia/Pacific region and Europe and a significant amount of this business is transacted in currency other than U.S. dollars. In addition, while a significant percentage of our cash and cash equivalents is held outside the U.S., many of our liabilities, including our outstanding indebtedness, and certain other cash payments, such as share repurchases, are payable in U.S. dollars. As a result, currency fluctuations and changes in foreign exchange regulations can have a material adverse effect on our liquidity and financial condition.

In addition, repatriation of funds held outside the U.S. could have adverse tax consequences and could be subject to delay due to required local country approvals or local obligations. From time to time, we are required to make cash deposits outside of the U.S. to support bank guarantees of our obligations under certain office leases or amounts we owe to certain vendors and such cash deposits are not available for other uses as long as the related bank guarantees are outstanding. Foreign exchange regulations may also limit our ability to convert or repatriate foreign currency. As a result of having a lower amount of cash and cash equivalents in the U.S., our financial flexibility may be reduced, which could have a material adverse effect on our ability to make interest and principal payments due under our various debt obligations. Restrictions on repatriation or the inability to use cash held abroad to fund our operations in the U.S. may have a material adverse effect on our liquidity and financial condition.

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Changes in tariffs or other government trade policies may materially adversely affect our business and results of operations, including by reducing demand for our products.

The imposition of tariffs and trade restrictions as a result of international trade disputes or changes in trade policies may adversely affect our sales and profitability. For example, in 2018, the U.S. government imposed and proposed, among other actions, new or higher tariffs on specified imported products originating from China in response to what it characterizes as unfair trade practices, and China has responded by imposing and proposing new or higher tariffs on specified products including some semiconductors fabricated in the United States. There can be no assurance that a broader trade agreement will be successfully negotiated between the United States and China to reduce or eliminate these tariffs. These tariffs, and the related geopolitical uncertainty between the United States and China, may cause decreased end-market demand for our products from distributors and other customers, which could have a material adverse effect on our business and results of operations. For example, certain of our foreign customers may respond to the imposition of tariffs or threat of tariffs on products we produce by delaying purchase orders, purchasing products from our competitors or developing their own products. Ongoing international trade disputes and changes in trade policies could also impact economic activity and lead to a general contraction of customer demand. In addition, tariffs on components that we import from China or other nations that have imposed, or may in the future impose, tariffs will adversely affect our profitability unless we are able to exclude such components from the tariffs or we raise prices for our products, which may result in our products becoming less attractive relative to products offered by our competitors. Future actions or escalations by either the United States or China that affect trade relations may also impact our business, or that of our suppliers or customers, and we cannot provide any assurances as to whether such actions will occur or the form that they may take. To the extent that our sales or profitability are negatively affected by any such tariffs or other trade actions, our business and results of operations may be materially adversely affected.

Changes in government trade policies could limit our ability to sell our products to certain customers, which may materially adversely affect our sales and results of operations.

The U.S. Congress or U.S. regulatory authorities may take administrative, legislative or regulatory action that could materially interfere with our ability to make sales to certain of our customers, particularly in China. We could experience unanticipated restrictions on our ability to sell to certain foreign customers where sales of products and the provision of services may require export licenses or are prohibited by government action. For example, the U.S. Department of Commerce could ban the export of U.S. products to foreign customers. The terms and duration of any such restrictions may not be known to us in advance and may be subject to ongoing modifications. Even to the extent such restrictions are subsequently lifted, any financial or other penalties imposed on affected foreign customers could have a negative impact on future orders. Such foreign customers may also respond to sanctions or the threat of sanctions by developing their own solutions or adopting alternative solutions or competitors' solutions. The loss or temporary loss of customers as a result of such future regulatory limitations could materially adversely affect our sales, business and results of operations.

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We may be unable to attract and retain highly skilled personnel.

Our success depends on our ability to attract, motivate and retain highly skilled personnel, including technical, marketing, management and staff personnel, both in the U.S. and internationally. In the semiconductor industry, the competition for qualified personnel, particularly experienced design engineers and other technical employees, is intense, particularly when the business cycle is improving. During such periods, competitors may try to recruit our most valuable technical employees. While we devote a great deal of our attention to designing competitive compensation programs aimed at attracting and retaining personnel, specific elements of our compensation programs may not be competitive with those of our competitors, and there can be no assurance that we will be able to retain our current personnel or recruit the key personnel we require. Loss of the services of, or failure to effectively recruit, qualified personnel, including senior managers, could have a material adverse effect on our competitive position and on our business.

If we must reduce our use of equity awards to compensate our employees, our competitiveness in the employee marketplace could be adversely affected and our results of operations could vary as a result of changes in our stock-based compensation programs.

We have issued in the past, and expect to continue to issue, RSUs with time-based vesting, performance-based awards and common stock options that generally have exercise prices at the market value at the time of the grant and that are subject to vesting over time as compensation tools. While this is a routine practice in many parts of the world, foreign exchange and income tax regulations in some countries make this practice more and more difficult. Such regulations tend to diminish the value of equity compensation to our employees in those countries. Our current practice is to seek stockholder approval of new, or amendments to existing, equity compensation plans. If these proposals do not receive stockholder approval, we may not be able to grant equity awards to employees at the same levels as in the past, which could materially adversely affect our ability to attract, retain and motivate qualified personnel, thereby materially adversely affecting our business. In addition, changes in forecasted stock-based compensation expense could cause our results of operations to vary by impacting our gross margin percentage, research and development expenses, marketing, general and administrative expenses and our tax rate.

Disruptions caused by labor disputes or organized labor activities could materially harm our business and reputation.

Currently, certain of our U.S. employees in Pennsylvania are represented by labor unions. In addition, we may from time to time experience union organizing activities in our non-union facilities. Disputes with the current labor union or new union organizing activities could lead to production slowdowns or stoppages and make it difficult or impossible for us to meet scheduled delivery times for product shipments to our customers, which could result in a loss of business and material damage to our reputation. In addition, union activity and compliance with international labor standards could result in higher labor costs, which could have a material adverse effect on our financial position and results of operations.

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If we are unable to protect the intellectual property we use, our business, results of operations and financial condition could be materially adversely affected.

The enforceability of our patents, trademarks, copyrights, software licenses and other IP is uncertain in certain circumstances. Effective IP protection may be unavailable, limited or not applied for in the U.S. and internationally. The various laws and regulations governing our registered and unregistered IP assets, patents, trade secrets, trademarks, mask works and copyrights to protect our products and technologies are subject to legislative and regulatory change and interpretation by courts. With respect to our IP generally, we cannot assure you that:

- any of the substantial number of U.S. or foreign patents and pending patent applications that we employ in our business will not lapse or be invalidated, circumvented, challenged, abandoned or licensed to others;
- any of our pending or future patent applications will be issued or have the coverage originally sought;
- any of the trademarks, copyrights, trade secrets, know-how or mask works that we employ in our business will not lapse or be invalidated, circumvented, challenged, abandoned or licensed to others; or
- any of our pending or future trademark, copyright, or mask work applications will be issued or have the coverage originally sought.

When we seek to enforce our rights, we are often subject to claims that the IP right is invalid, is otherwise not enforceable or is licensed to the party against whom we are asserting a claim. In addition, our assertion of IP rights often results in the other party seeking to assert alleged IP rights of its own against us, which may materially adversely impact our business. An unfavorable ruling in these sorts of matters could include money damages or an injunction prohibiting us from manufacturing or selling one or more products, which could in turn negatively affect our business, results of operations or cash flows.

In addition, some of our products and technologies are not covered by any patents or pending patent applications. We seek to protect our proprietary technologies, including technologies that may not be patented or patentable, in part by confidentiality agreements and, if applicable, inventors' rights agreements with our collaborators, advisors, employees and consultants. We cannot assure you that these agreements will not be breached, that we will have adequate remedies for any breach or that persons or institutions will not assert rights to IP arising out of our research. Should we be unable to protect our IP, competitors may develop products or technologies that duplicate our products or technologies, benefit financially from innovations for which we bore the costs of development and undercut the sales and marketing of our products, all of which could have a material adverse effect on our business, results of operations and financial condition.

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Environmental and health and safety liabilities and expenditures could materially adversely affect our results of operations and financial condition.

Our manufacturing operations are subject to various environmental laws and regulations relating to the management, disposal and remediation of hazardous substances and the emission and discharge of pollutants into the air, water and ground, and we have been identified as either a primary responsible party or a potentially responsible party at sites where we or our predecessors operated or disposed of waste in the past. Our operations are also subject to laws and regulations relating to workplace safety and worker health, which, among other requirements, regulate employee exposure to hazardous substances. We have indemnities from third parties for certain environmental and health and safety liabilities for periods prior to our operations at some of our current and past sites, and we have also purchased environmental insurance to cover certain claims related to historical contamination and future releases of hazardous substances. However, we cannot assure you that such indemnification arrangements and insurance will cover any or all of our material environmental costs. In addition, the nature of our operations exposes us to the continuing risk of environmental and health and safety liabilities including:

- changes in U.S. and international environmental or health and safety laws or regulations, including, but not limited to, future laws or regulations imposed in response to climate change concerns;
- the manner in which environmental or health and safety laws or regulations will be enforced, administered or interpreted;
- our ability to enforce and collect under indemnity agreements and insurance policies relating to environmental liabilities;
- the cost of compliance with future environmental or health and safety laws or regulations or the costs associated with any future environmental claims, including the cost of clean-up of currently unknown environmental conditions; or
- the cost of fines, penalties or other legal liability, should we fail to comply with environmental or health and safety laws or regulations.

To the extent that we face unforeseen environmental or health and safety compliance costs or remediation expenses or liabilities that are not covered by indemnities or insurance, we may bear the full effect of such costs, expense and liabilities, which could materially adversely affect our results of operations and financial condition.

We are exposed to increased costs and risks associated with complying with increasing and new regulation of corporate governance and disclosure standards.

Like most publicly traded companies, we incur significant cost and spend a significant amount of management time and internal resources to comply with changing laws, regulations and standards relating to corporate governance and public disclosure, which requires management's annual review and evaluation of our internal control over financial reporting and attestations of the effectiveness of these systems by our management and by our independent registered public accounting firm. As we continue to make strategic acquisitions, mergers and alliances, the integration of these businesses increases the complexity of our systems of controls. While we devote significant resources and time to comply with the internal control over financial reporting requirements under Section 404 of the Sarbanes-Oxley Act of 2002 ("SOX"), we cannot be certain that these measures will ensure that we design, implement and maintain adequate control over our financial process and reporting in the future.

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There can be no assurance that we or our independent registered public accounting firm will not identify a material weakness in the combined company's internal control over financial reporting in the future. Failure to comply with SOX, including delaying or failing to successfully integrate our acquisitions into our internal control over financial reporting or the identification and reporting of a material weakness, may cause investors to lose confidence in our consolidated financial statements or even in our ability to recognize the anticipated synergies and benefits of such transactions, and the trading price of our common stock or other securities may decline. In addition, if we fail to remedy any material weakness, our investors and others may lose confidence in our financial statements, our financial statements may be materially inaccurate, our access to capital markets may be restricted and the trading price of our common stock may decline.

Warranty claims, product liability claims and product recalls could harm our business, results of operations and financial condition.

Manufacturing semiconductors is a highly complex and precise process, requiring production in a tightly controlled, clean environment. Minute impurities in our manufacturing materials, contaminants in the manufacturing environment, manufacturing equipment failures, and other defects can cause our products to be non-compliant with customer requirements or otherwise nonfunctional. We face an inherent business risk of exposure to warranty and product liability claims in the event that our products fail to perform as expected or such failure of our products results, or is alleged to result, in bodily injury or property damage (or both). In addition, if any of our designed products are or are alleged to be defective, we may be required to participate in their recall. As suppliers become more integrally involved in electrical design, OEMs are increasingly expecting them to warrant their products and are increasingly looking to them for contributions when faced with product liability claims or recalls. A successful warranty or product liability claim against us in excess of our available insurance coverage, if any, and established reserves, or a requirement that we participate in a product recall, could have material adverse effects on our business, results of operations and financial condition. Additionally, in the event that our products fail to perform as expected or such failure of our products results in a recall, our reputation may be damaged, which could make it more difficult for us to sell our products to existing and prospective customers and could materially adversely affect our business, results of operations and financial condition.

Since a defect or failure in our product could give rise to failures in the goods that incorporate them (and claims for consequential damages against our customers from their customers), we may face claims for damages that are disproportionate to the revenue and profits we receive from the products involved. In certain instances, we attempt to limit our liability through our standard terms and conditions of sale and other customer contracts. There is no assurance that such limitations will be effective, and to the extent that we are liable for damages in excess of the revenue and profits we received from the products involved, our results of operations and financial condition could be materially adversely affected.

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We may be subject to disruptions or breaches of our secured network that could irreparably damage our reputation and our business, expose us to liability and materially adversely affect our results of operations.

We routinely collect and store sensitive data, including IP and other proprietary information about our business and our customers, suppliers and business partners. The secure processing, maintenance and transmission of this information is critical to our operations and business strategy. We may be subject to disruptions or breaches of our secured network caused by computer viruses, illegal hacking, criminal fraud or impersonation, acts of vandalism or terrorism or employee error. Our security measures and/or those of our third-party service providers and/or customers may not detect or prevent such security breaches. The costs to us to reduce the risk of or alleviate cyber security breaches and vulnerabilities could be significant, and our efforts to address these problems may not be successful and could result in interruptions and delays that may materially impede our sales, manufacturing, distribution or other critical functions. Any such compromise of our information security could result in the misappropriation or unauthorized publication of our confidential business or proprietary information or that of other parties with which we do business, an interruption in our operations, the unauthorized transfer of cash or other of our assets, the unauthorized release of customer or employee data or a violation of privacy or other laws. In addition, computer programmers and hackers also may be able to develop and deploy viruses, worms and other malicious software programs that attack our products, or that otherwise exploit any security vulnerabilities, and any such attack, if successful, could expose us to liability to customer claims. Any of the foregoing could irreparably damage our reputation and business, which could have a material adverse effect on our results of operations.

Sales through distributors and other third parties expose us to risks that, if realized, could have a material adverse effect on our results of operations.

We face risks related to our sale of a significant, and increasing, portion of our products through distributors. Distributors may sell products that compete with our products, and we may need to provide financial and other incentives to focus distributors on the sale of our products. We may rely on one or more key distributors for a product, and the loss of these distributors could reduce our revenue. Distributors may face financial difficulties, including bankruptcy, which could harm our collection of accounts receivable and financial results. Violations of the FCPA or similar laws by distributors or other third-party intermediaries could have a material impact on our business. Failure to manage risks related to our use of distributors may reduce sales, increase expenses, and weaken our competitive position, any of which could have a material adverse effect on our results of operations.

The failure to comply with the terms and conditions of our contracts could result in, among other things, damages, fines or other liabilities.

We have a diverse customer base consisting of both private sector clients and public sector clients, including the U.S. government. Sales to our private sector clients are generally based on stated contractual terms, the terms and conditions on our website or terms contained in purchase orders on a transaction-by-transaction basis. Sales to our public sector clients are generally derived from sales to federal, state and local governmental departments and agencies through various contracts and programs which may require compliance with regulations covering many areas of our operations, including, but not limited to, accounting practices, IP rights, information handling, and security. Noncompliance with contract terms, particularly with respect to highly-regulated public sector clients, or with government procurement regulations could result in fines or penalties against us, termination of such contracts or civil, criminal and administrative liability to the Company. With respect to public sector clients, the government's remedies may also include suspension or debarment from future government business. In addition, almost all of our contracts have default provisions, and certain of our contracts in the public sector are terminable at any time for convenience of the contracting agency. The effect of any of these possible actions or the adoption of new or modified procurement regulations or practices could materially adversely affect our business, financial position and results of operations.

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The Company is subject to governmental laws, regulations and other legal obligations related to privacy and data protection.

The legislative and regulatory framework for privacy and data protection issues worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. The Company collects personally identifiable information ("PII") and other data as part of its business processes and activities. This data is subject to a variety of U.S. and international laws and regulations, including oversight by various regulatory or other governmental bodies. Many foreign countries and governmental bodies, including the European Union and other relevant jurisdictions where the Company conducts business, have laws and regulations concerning the collection and use of PII and other data obtained from their residents or by businesses operating within their jurisdictions that are currently more restrictive than those in the U.S. Additionally, in May 2016, the European Union adopted the General Data Protection Regulation ("GDPR") that imposed more stringent data protection requirements and provided for greater penalties for noncompliance beginning in May 2018. Although the Company has substantially complied with the GDPR, any inability, or perceived inability, to adequately address privacy and data protection concerns, even if unfounded, or to comply with applicable laws, regulations, policies, industry standards, contractual obligations or other legal obligations, could result in additional cost and liability to the Company or company officials, damage our reputation, inhibit sales and adversely affect our business.

Trends, Risks and Uncertainties Relating to Our Indebtedness

Our substantial debt could materially adversely affect our financial condition and results of operations.

As of December 31, 2018, we had \$2,939.0 million of outstanding indebtedness. We may need to incur additional indebtedness in the future to repay or refinance other outstanding debt, to make acquisitions or for other purposes, and if we incur additional debt, the related risks that we now face could intensify. The degree to which we are leveraged could have important consequences to our potential and current investors, including:

- our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions, general corporate purposes or other purposes may be impaired;
- the timing, amount and execution of our capital allocation policy, including our 2018 Share Repurchase Program, could be affected by the degree to which we are leveraged;
- a significant portion of our cash flow from operating activities must be dedicated to the payment of interest and principal on our debt, which reduces the funds available to us for our operations and may limit our ability to engage in acts that may be in our long-term best interests;
- some of our debt is and will continue to be at variable rates of interest, which may result in higher interest expense in the event of increases in market interest rates;
- our debt agreements may contain, and any agreements to refinance our debt likely will contain, financial and restrictive covenants, and our failure to comply with them may result in an event of default which if not cured or waived, could have a material adverse effect on us;
- our level of indebtedness will increase our vulnerability to, and reduce our flexibility to respond to, general economic downturns and adverse industry and business conditions;
- as our long-term debt ages, we must repay, and may need to renegotiate, such debt or seek additional financing;
- to the extent the debt we incur requires collateral to secure such indebtedness, our assets could be at risk and our flexibility related to such assets could be limited;
- our debt service obligations could limit our flexibility in planning for, or reacting to, changes in our business and the semiconductor industry;

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- our substantial leverage could place us at a competitive disadvantage vis-à-vis our competitors who may have less leverage relative to their overall capital structures; and
- our level of indebtedness may place us at a competitive disadvantage relative to less leveraged competitors.

To the extent that we continue to maintain or expand our significant indebtedness, our financial condition and results of operations may be materially adversely affected.

Indebtedness incurred in connection with the Fairchild Transaction could materially and adversely affect us by, among other things, limiting our ability to conduct our operations and reducing our flexibility to respond to changing business and economic conditions.

In connection with our acquisition of Fairchild, we entered into the Amended Credit Agreement which, as subsequently amended, provides for our \$1.0 billion Revolving Credit Facility, which provides liquidity to us, and our \$2.4 billion Term Loan "B" Facility, the proceeds of which were initially used to fund the acquisition of Fairchild. The obligations under the Amended Credit Agreement are collateralized by a lien on substantially all of the personal property and material real property assets of the Company and most of the Company's domestic subsidiaries. As a result, if we are unable to satisfy our obligations under the Amended Credit Agreement, the lenders could take possession of and foreclose on the pledged collateral securing the indebtedness, in which case we would be at risk of losing the related collateral, which would have a material adverse effect on our business and operations. In addition, subject to customary exceptions, the Amended Credit Agreement requires mandatory prepayment under certain circumstances, which may result in prepaying outstanding amounts under the Revolving Credit Facility and the Term Loan "B" Facility rather than using funds for other business purposes. Our acquisition-related financing could have a material adverse effect on our business and financial condition, including, among other things, our ability to obtain additional financing for working capital, capital expenditures, acquisitions, and other general corporate purposes and could reduce our flexibility to respond to changing business and economic conditions.

The agreements relating to our indebtedness, including the Amended Credit Agreement, may restrict our ability to operate our business, and as a result may materially adversely affect our results of operations.

Our debt agreements, including the Amended Credit Agreement, contain, and any future debt agreements may include, a number of restrictive covenants that impose significant operating and financial restrictions on us and our subsidiaries. Such restrictive covenants may significantly limit our ability to:

- incur additional debt, including issuing guarantees;
- incur liens;
- make certain investments;
- settle a conversion of our 1.00% and 1.625% Notes in whole or in part with cash;
- sell or otherwise dispose of assets;
- make some acquisitions;
- engage in mergers or consolidations or certain other "change of control" transactions;
- make distributions to our stockholders;
- engage in restructuring activities;
- engage in certain sale and leaseback transactions; and
- issue or repurchase stock or other securities.

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Such agreements may also require us to satisfy other requirements, including maintaining certain financial ratios and condition tests. Our ability to meet these requirements can be affected by events beyond our control, and we may be unable to meet them. To the extent we fail to meet any such requirements and are in default under our debt obligations, our financial condition may be materially adversely affected. These restrictions may limit our ability to engage in activities that could otherwise benefit us. To the extent that we are unable to engage in activities that support the growth, profitability and competitiveness of our business, our results of operations may be materially adversely affected.

We may not be able to generate sufficient cash flow to meet our debt service obligations, and any inability to repay our debt when due would have a material adverse effect on our business, financial condition and results of operations.

Our ability to generate sufficient cash flow from operating activities to make scheduled payments on our debt obligations will depend on our future financial performance, which will be affected by a range of economic, competitive and business factors, many of which are outside of our control. If we do not generate sufficient cash flow from operating activities and proceeds from sales of assets in the ordinary course of business to satisfy our debt obligations as they come due, we may have to undertake alternative financing plans, such as refinancing or restructuring our debt, selling additional assets, reducing or delaying capital investments or seeking to raise additional capital. We cannot assure you that any refinancing would be possible, that any assets could be sold, or, if sold, of the timing of the sales and the amount of proceeds realized from those sales, or that additional financing could be obtained on acceptable terms, if at all, or would be permitted under the terms of our various debt instruments then in effect. Furthermore, we cannot assure you that, if we were required to repurchase any of our debt securities upon a change of control or other specified event, our assets or cash flow would be sufficient to fully repay borrowings under our outstanding debt instruments or that we would be able to refinance or restructure the payments on those debt securities. If we are unable to repay, refinance or restructure our indebtedness under our collateralized debt, the holders of such debt could proceed against the collateral securing that indebtedness, which could materially negatively impact our results of operations and financial condition. A default under our committed credit facilities, including our Amended Credit Agreement, could also limit our ability to make further borrowings under those facilities, which could materially adversely affect our business and results of operations. In addition, to the extent we are not able to borrow or refinance debt obligations, we may have to issue additional shares of our common stock, which would have a dilutive effect to the current stockholders.

An event of default under any agreement relating to our outstanding indebtedness could cross default other indebtedness, which could have a material adverse effect on our business, financial condition and results of operations.

If there were an event of default under certain of our agreements relating to our outstanding indebtedness, the holders of the defaulted debt could cause all amounts outstanding with respect to that debt to be due and payable immediately, which default or acceleration of debt could cross default other indebtedness. Any such cross default would put immediate pressure on our liquidity and financial condition and would amplify the risks described above with regards to being unable to repay our indebtedness when due and payable. We cannot assure you that our assets or cash flow would be sufficient to fully repay borrowings under our outstanding debt instruments if accelerated upon an event of default, and, as described above, any inability to repay our debt when due would have a material adverse effect on our business, financial condition and results of operations.

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If our operating subsidiaries, which may have no independent obligation to repay our debt, are not able to make cash available to us for such repayment, our business, financial condition and results of operations may be adversely affected.

We conduct our operations through our subsidiaries. Repayment of our indebtedness is dependent on the generation of cash flow by our subsidiaries and their ability to make such cash available to us, by dividend, debt repayment or otherwise. Unless they are guarantors of our indebtedness, our subsidiaries have no obligation to pay amounts due on such indebtedness or to make funds available for that purpose. Our subsidiaries may not be able to, or may not be permitted to, make distributions to enable us to make payments in respect of our indebtedness. Each subsidiary is a distinct legal entity, and, under certain circumstances, legal and contractual restrictions may limit our ability to obtain cash from our subsidiaries. In the event that we do not receive distributions or payments from our subsidiaries, we may be unable to make required principal and interest payments on our indebtedness and, as described above, any inability to repay our debt when due would have a material adverse effect on our business, financial condition and results of operations.

If interest rates increase, our debt service obligations under our variable rate indebtedness could increase significantly, which would have a material adverse effect on our results of operations.

Borrowings under certain of our facilities from time to time, including under our Amended Credit Agreement, are at variable rates of interest and as a result expose us to interest rate risk. If interest rates were to increase, our debt service obligations on the variable rate indebtedness would increase even though the amount borrowed remained the same, and our net income and cash flows, including cash available for servicing our indebtedness, will correspondingly decrease. During the first quarter of 2017, we entered into interest rate swaps that involved the exchange of floating for fixed rate interest payments in order to reduce interest rate volatility for a portion of our Term Loan "B" Facility through the end of 2019. However, we may not maintain interest rate swaps with respect to all of our variable rate indebtedness, and any swaps we enter into may not fully mitigate our interest rate risk. To the extent the risk materializes and is not fully mitigated, the resulting increase in interest expense could have a material adverse effect on our results of operations.

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Servicing the 1.00% Notes and 1.625% Notes may require a significant amount of cash, and we may not have sufficient cash flow or the ability to raise the funds necessary to satisfy our obligations under the 1.00% Notes and 1.625% Notes in a timely manner.

In June 2015, we issued \$690.0 million aggregate principal amount of our 1.00% Notes, and in March 2017, we issued \$575.0 million aggregate principal amount of our 1.625% Notes. Holders of the 1.00% Notes and the 1.625% Notes will have the right to require us to repurchase all or a portion of their notes upon the occurrence of a fundamental change (as defined under the respective indentures governing such notes) at a repurchase price equal to 100% of their principal amount, plus accrued and unpaid interest, if any, to, but not including, the fundamental change repurchase date. In addition, upon conversion of the 1.00% Notes and/or the 1.625% Notes to be repurchased, unless we elect to deliver solely shares of our common stock to settle such conversion (other than paying cash in lieu of delivering any fractional shares), we will be required to make cash payments in respect of such 1.00% Notes and/or 1.625% Notes being converted. Moreover, we will be required to repay the 1.00% Notes and the 1.625% Notes in cash at their maturity, unless earlier converted or repurchased. Servicing the 1.00% Notes and the 1.625% Notes may require a significant amount of cash, and we may not have sufficient cash flow or the ability to raise the funds necessary to satisfy our obligations under the 1.00% Notes and the 1.625% Notes. Our ability to make cash payments in connection with conversions of the 1.00% Notes and/or the 1.625% Notes, repurchase the 1.00% Notes and/or the 1.625% Notes in the event of a fundamental change or repay such notes at maturity will depend on market conditions and our future performance, which is subject to economic, financial, competitive and other factors beyond our control. If we are unable to make cash payments upon conversion of the 1.00% Notes and/or the 1.625% Notes, we would be required to issue significant amounts of our common stock, which would dilute existing stockholders. In addition, if we do not have sufficient cash to repurchase the 1.00% Notes and/or the 1.625% Notes following a fundamental change, we would be in default under the terms of such notes, which could cross default other debt and materially, adversely harm our business. The terms of the Amended Credit Agreement limit the amount of future indebtedness we may incur, but the terms of the 1.00% Notes and the 1.625% Notes do not limit the amount of future indebtedness we may incur. If we incur significantly more debt, this could intensify the risks described above. Our decision to use our cash for other purposes, such as to make acquisitions or to repurchase our common stock, could also intensify these risks.

The conditional conversion feature of the 1.00% Notes or the 1.625% Notes, if triggered, may adversely affect our financial condition and results of operations and, if we elect to settle the conversion of the 1.00% Notes or the 1.625% Notes in common stock, any such settlement could materially dilute the ownership interests of existing stockholders.

If specified conditions are met, holders of the 1.00% Notes may convert their notes prior to the close of business on the business day immediately preceding September 1, 2020 and holders of the 1.625% Notes may convert their notes prior to the close of business on the business day immediately preceding July 15, 2023. Unless we elect to satisfy our conversion obligations by delivering solely shares of our common stock (other than paying cash in lieu of delivering any fractional shares), in the event the conditional conversion feature under either the 1.00% Notes or the 1.625% Notes is triggered, holders electing to convert their notes could require us to settle a portion or all of our conversion obligations through the payment of cash, which could materially adversely affect our liquidity. Alternatively, if the conditional conversion feature under either the 1.00% Notes or the 1.625% Notes is triggered, and holders do not elect to convert their notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of such notes as a current rather than long-term liability, which would result in a material reduction of our net working capital. Any material decrease in our liquidity or reduction in our net working capital could have a material adverse effect on our financial condition and results of operations. In addition, we may elect to settle a conversion of the 1.00% Notes or the 1.625% Notes solely in common stock to avoid an event of default under our Amended Credit Agreement, and any such issuance of common stock could materially dilute the ownership interests of existing stockholders, including stockholders who previously converted such notes to shares of our common stock.

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The fundamental change repurchase feature of our 1.00% Notes and 1.625% Notes may delay or prevent an otherwise beneficial attempt to take over our Company.

The terms of our 1.00% Notes and 1.625% Notes require us to repurchase such notes in the event of a fundamental change (as defined under the respective indentures governing such notes). In certain circumstances, a takeover of our Company could trigger an option of the holders of the 1.00% Notes and the 1.625% Notes to require us to repurchase such notes. This may have the effect of delaying or preventing a takeover of our Company that would otherwise be beneficial to investors in the 1.00% Notes and the 1.625% Notes and our common stock, which could materially decrease the value of such notes and of our common stock.

Note hedge and warrant transactions we have entered into may materially adversely affect the value of our common stock.

Concurrently with the issuance of the 1.00% Notes and the 1.625% Notes, we entered into note hedge transactions with certain financial institutions, which we refer to as the option counterparties. The convertible note hedges are expected to reduce the potential dilution upon any conversion of the respective series of notes and/or offset any cash payments we are required to make in excess of the principal amount of converted notes of such series, as the case may be. We also entered into warrant transactions with the option counterparties. However, the warrant transactions could separately have a dilutive effect on our common stock to the extent that the market price per share of our common stock exceeds \$25.96, with respect to the 1.00% Notes, and \$30.70, with respect to the 1.625% Notes.

In connection with establishing their initial hedge of the convertible note hedges and warrant transactions, the option counterparties or their respective affiliates have purchased shares of our common stock and/or entered into various derivative transactions with respect to our common stock following the pricing of the 1.00% Notes and the 1.625% Notes, respectively. The option counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives contracts with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the 1.00% Notes and the 1.625% Notes, respectively (and are likely to do so during any observation period related to a conversion of 1.00% Notes or 1.625% Notes following any repurchase of the 1.00% Notes or 1.625% Notes by us on any fundamental change repurchase date or otherwise). The potential effect, if any, of these transactions and activities on the market price of our common stock will depend in part on market conditions and cannot be ascertained at this time. Any of these activities could materially adversely affect the value of our common stock.

Counterparty risk with respect to the note hedge transactions, if realized, could have a material adverse impact on our results of operations.

The option counterparties are financial institutions or affiliates of financial institutions, and we are subject to the risk that these option counterparties may default under the note hedge transactions. We can provide no assurances as to the financial stability or viability of any of the option counterparties. Our exposure to the credit risk of the option counterparties is not secured by any collateral. If one or more of the option counterparties to one or more of our note hedge transactions becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at the time under those transactions.

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To the extent the option counterparties do not honor their contractual commitments with us pursuant to the note hedge transactions, we could face a material increase in our exposure to potential dilution upon any conversion of the 1.00% Notes or the 1.625% Notes and/or cash payments we are required to make in excess of the principal amount of converted 1.00% Notes or 1.625% Notes, as the case may be. Our exposure will depend on many factors but, generally, the increase in our exposure will be correlated to the increase in the market price of our common stock and in the volatility of the market price of our common stock. In addition, upon a default by one of the option counterparties, we may suffer adverse tax consequences with respect to our common stock. Any such adverse tax consequences or increased cash payments could have a material adverse effect on our results of operations.

Trends, Risks and Uncertainties Relating to Our Common Stock

Fluctuations in our quarterly operating results may cause the market price of our common stock to decline.

Given the nature of the markets in which we participate, we cannot reliably predict future revenue and profitability, and unexpected changes may impact the value of our common stock. A large portion of our costs are fixed, due in part to our significant sales, research and development and manufacturing costs. Thus, small declines in revenue could negatively affect our operating results in any given quarter. In addition to the other factors described above, factors that could affect our quarterly operating results include:

- the timing and size of orders from our customers, including cancellations and reschedulings;
- the timing of introduction of new products;
- the gain or loss of significant customers, including as a result of industry consolidation or as a result of our acquisitions;
- seasonality in some of our target markets;
- changes in the mix of products we sell;
- changes in demand by the end-users of our customers' products;
- market acceptance of our current and future products;
- variability of our customers' product life cycles;
- availability of supplies and manufacturing services;
- changes in manufacturing yields or other factors affecting the cost of goods sold, such as the cost and availability of raw materials and the extent of utilization of manufacturing capacity;
- changes in the prices of our products, which can be affected by the level of our customers' and end-users' demand, technological change, product obsolescence, competition or other factors;
- cancellations, changes or delays of deliveries to us by our third-party manufacturers, including as a result of the availability of manufacturing capacity and the proposed terms of manufacturing arrangements;
- our liquidity and access to capital; and
- our research and development activities and the funding thereof.

An adverse change or development in any of the above factors could cause the market price of common stock to materially decline.

The market price of our common stock may be volatile, which could result in substantial losses for investors.

The stock markets in general, and the markets for high technology stocks in particular, have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the trading price of our common stock.

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The market price of the common stock may also fluctuate significantly in response to the following factors, among others, some of which are beyond our control:

- variations in our quarterly operating results;
- the issuance or repurchase of shares of our common stock;
- changes in securities analysts' estimates of our financial performance;
- changes in market valuations of similar companies;
- announcements by us or our competitors of significant contracts, acquisitions, strategic partnerships, joint ventures, capital commitments, new products or product enhancements;
- loss of a major customer or failure to complete significant transactions; and
- additions or departures of key personnel.

The trading price of our common stock in the past has had significant volatility, and we cannot accurately predict every potential risk that may materially and adversely affect our stock price.

Provisions in our charter documents may delay or prevent the acquisition of our Company, which could materially adversely affect the value of our common stock.

Our certificate of incorporation and by-laws contain provisions that could make it harder for a third-party to acquire us without the consent of our board of directors. These provisions:

- establish advance notice requirements for submitting nominations for election to the board of directors and for proposing matters that can be acted upon by stockholders at a meeting;
- authorize the issuance of "blank check" preferred stock, which is preferred stock that our board of directors can create and issue without prior stockholder approval and that could be issued with voting or other rights or preferences that could impede a takeover attempt; and
- require the approval by holders of at least 66 2/3% of our outstanding common stock to amend any of these provisions in our certificate of incorporation or by-laws.

Although we believe these provisions make a higher third-party bid more likely by requiring potential acquirers to negotiate with our board of directors, these provisions apply even if an initial offer may be considered beneficial by some stockholders. Any delay or prevention of an acquisition of our Company that would have been beneficial to our stockholders could materially decrease the value of our common stock.

Item 1B. *Unresolved Staff Comments*

None.

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Item 2. *Properties*

Our corporate headquarters as well as certain design center and research and development operations are located in approximately 600,000 square feet of building space on property that we own in Phoenix, Arizona. We also own and lease properties around the world for use as sales offices, design centers, research and development labs, warehouses, logistic centers, trading offices and manufacturing support. The size and/or location of these properties change from time to time based on business requirements. We operate distribution centers, which are leased or contracted through a third-party, in locations throughout Asia, Europe and the Americas. See "Business - Manufacturing Operations" included elsewhere in this Form 10-K for information on properties used in our manufacturing operations. While these facilities are primarily used in manufacturing operations, they also include office, utility, laboratory, warehouse and unused space. Additionally, we own research and development facilities located in Belgium, Canada, China, the Czech Republic, France, Germany, Hong Kong, India, Japan, Singapore, South Korea, Romania, the Slovak Republic, Switzerland, Taiwan and the United States. Our joint ventures in Leshan, China and in Aizuwakamatsu, Japan also own manufacturing, warehouse, laboratory, office and other unused space. We believe that our facilities around the world, whether owned or leased, are well-maintained.

Certain of our properties are subject to encumbrances such as mortgages and liens. See Note 9: "Long-Term Debt" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for further information. In addition, due to local law restrictions, the land upon which our facilities are located in certain foreign locations is subject to varying long-term leases.

See "Business - Manufacturing Operations" and "Sales, Marketing and Distribution" included elsewhere in this Form 10-K for further details on our properties and "Business-Governmental Regulation" for further details on environmental regulation of our properties.

Item 3. *Legal Proceedings*

See Note 13: "Commitments and Contingencies" under the heading "Legal Matters" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for a description of legal proceedings and related matters.

Item 4. *Mine Safety Disclosure*

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 traded under the symbol "ON" on the Nasdaq Global Select Market. The stock price details can be obtained from the Nasdaq website at www.nasdaq.com. As of February 15, 2019, there were approximately 233 holders of record of our common stock and 409,710,366 shares of common stock outstanding.

We have neither declared nor paid any cash dividends on our common stock since our initial public offering. Our future dividend policy with respect to our common stock will depend upon our earnings, capital requirements, financial condition, debt restrictions and other factors deemed relevant by our board of directors in its sole discretion.

Our outstanding debt facilities may limit the amount of dividends we are permitted to pay and the amount we are permitted to buy back shares under the Share Repurchase Programs (as defined below). So long as no default has occurred and is continuing or results therefrom, our Amended Credit Agreement permits us to pay cash dividends to our common stockholders, buy back shares under the Share Repurchase Programs, or a combination thereof, in an amount up to \$100.0 million. Additionally, we may pay dividends and buy back shares under the Share Repurchase Programs in an unlimited amount so long as, after giving effect thereto, the consolidated total net leverage ratio (calculated in accordance with our Amended Credit Agreement) does not exceed 2.50 to 1.00. See Note 9: "Long-Term Debt" in the notes to the audited consolidated financial statements included elsewhere in this Form 10-K for further discussion of our Amended Credit Agreement.

Issuer Purchases of Equity Securities

The following table provides information regarding repurchases of our common stock during the quarter ended December 31, 2018:

Period (1)	Total Number of Shares Purchased (2)	Average Price Paid per Share (3)	Total Number of Shares Purchased as part of Publicly Announced Plans or Programs	Approximate dollar value of Shares that may yet be Purchased under the Plans or Programs (\$ in millions) (4) (5)
<i>September 29, 2018 - October 26, 2018</i>	3,622,003	\$ 16.84	3,570,198	\$ 428.2
<i>October 27, 2018 - November 23, 2018</i>	7,916,139	17.73	7,901,299	288.2
<i>November 24, 2018 - December 31, 2018</i>	69,875	17.75	—	1,500.0
Total	11,608,017	17.46	11,471,497	

(1) These time periods represent our fiscal month start and end dates for the fourth quarter of 2018.

(2) The number of shares purchased represents shares of common stock held by employees who tendered owned shares of common stock to the Company to satisfy the employee withholding taxes due upon the vesting of RSUs and shares purchased under the Share Repurchase Programs.

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- (3) The price per share is based on the fair market value at the time of tender or repurchase, respectively.
- (4) On December 1, 2014, we announced a capital allocation policy (the "Capital Allocation Policy") and a share repurchase program pursuant to the Capital Allocation Policy (the "2014 Share Repurchase Program") for up to \$1.0 billion of our common stock over a four-year period effective December 1, 2014, exclusive of any fees, commissions or other expenses. The 2014 Share Repurchase Program expired on November 30, 2018, and approximately \$288.2 million that remained unutilized was canceled.
- (5) On November 15, 2018, we announced a new share repurchase program pursuant to the Capital Allocation Policy (the "2018 Share Repurchase Program" and, together with the 2014 Share Repurchase Program, the "Share Repurchase Programs") for up to \$1.5 billion of our common stock over a four-year period effective from December 1, 2018, exclusive of any fees, commissions or other expenses.

Share Repurchase Programs

Under the 2014 Share Repurchase Program, we were permitted to repurchase up to \$1.0 billion (exclusive of fees, commissions and other expenses) of our common stock over a period of four years from December 1, 2014, subject to certain contingencies. We were permitted to repurchase our common stock from time to time in privately negotiated transactions or open market transactions, including pursuant to a trading plan in accordance with Rule 10b5-1 and Rule 10b-18 of the Exchange Act, or by any combination of such methods or other methods. The timing of any repurchases and the actual number of shares repurchased depended on a variety of factors, including our stock price, corporate and regulatory requirements, restrictions under our debt obligations and other market and economic conditions. The 2014 Share Repurchase Program did not require us to purchase any particular amount of common stock and was subject to a variety of factors including the Board's discretion. The 2014 Share Repurchase Program expired on November 30, 2018.

We repurchased 11.5 million shares of our common stock for approximately \$200.0 million under the 2014 Share Repurchase Program during the quarter ended December 31, 2018.

Under the 2018 Share Repurchase Program, we may repurchase up to \$1.5 billion (exclusive of fees, commissions and other expenses) of our common stock over a period of four years from December 1, 2018, subject to certain contingencies. We may repurchase our common stock from time to time in privately negotiated transactions or open market transactions, including pursuant to a trading plan in accordance with Rule 10b5-1 and Rule 10b-18 of the Exchange Act, or by any combination of such methods or other methods. The timing of any repurchases and the actual number of shares repurchased will depend on a variety of factors, including our stock price, corporate and regulatory requirements, restrictions under our debt obligations, other market and economic conditions. The 2018 Share Repurchase Program does not require us to purchase any particular amount of common stock and is subject to a variety of factors including the Board's discretion.

No shares were repurchased under the 2018 Share Repurchase Program during the quarter ended December 31, 2018. As of December 31, 2018, \$1.5 billion remained of the total amount authorized to purchase common stock pursuant to the 2018 Share Repurchase Program.

See Note 10: "Earnings Per Share and Equity" of the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for further information on shares of common stock tendered to the Company by employees to satisfy applicable employee withholding taxes due upon vesting of RSUs, the 2014 Share Repurchase Program and the 2018 Share Repurchase Program.

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Item 6. Selected Financial Data

The following table sets forth certain of our selected financial data for the periods indicated. The statement of operations and balance sheet data set forth below are derived from our audited consolidated financial statements. The table below includes consolidated results, including our recent acquisitions, thus comparability will be materially affected.

You should read this information in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited consolidated financial statements, including the notes thereto, included elsewhere in this Form 10-K.

	Year ended December 31,				
	2018	2017	2016	2015	2014
(in millions, except per share data)					
Consolidated Statements of Operations data:					
Revenue	\$ 5,878.3	\$ 5,543.1	\$ 3,906.9	\$ 3,495.8	\$ 3,161.8
Restructuring, asset impairments and other, net	4.3	20.8	33.2	9.3	30.5
Goodwill and intangible asset impairment charges	6.8	13.1	2.2	3.8	9.6
Net income	629.9	813.0	184.5	209.0	192.1
Diluted net income per common share attributable to ON Semiconductor Corporation	1.44	1.89	0.43	0.48	0.43
Consolidated Balance Sheets data:					
Total assets (1)	\$ 7,587.6	\$ 7,195.1	\$ 6,924.4	\$ 3,869.6	\$ 3,822.1
Net long-term debt, including current maturities, less capital lease obligations (1)	2,765.2	2,947.6	3,609.3	1,365.7	1,150.9
Capital lease obligations	0.9	4.2	13.0	28.2	40.8
Total stockholders' equity	3,194.1	2,801.0	1,845.0	1,631.9	1,647.4

(1) Increased in 2016 primarily due to the Fairchild Transaction. See Note 5: "Acquisitions, Divestitures and Licensing Transactions" and Note 9: "Long-Term Debt" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

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

You should read the following discussion in conjunction with our audited historical consolidated financial statements, including the notes thereto, which are included elsewhere in this Form 10-K. Management's Discussion and Analysis of Financial Condition and Results of Operations contains statements that are forward-looking. These statements are based on current expectations and assumptions that are subject to risk, uncertainties, and other factors. Actual results could differ materially because of the factors discussed in "Risk Factors" included elsewhere in this Form 10-K.

Executive Overview

This executive overview presents summarized information regarding our industry, markets, business, and operating trends only. For further information relating to the information summarized herein, see "Management's Discussion and Analysis of Financial Condition and Results of Operations" in its entirety.

[Table of Contents](#)*Industry Overview*

According to WSTS (an industry research firm), worldwide semiconductor industry sales were \$468.8 billion in 2018, an increase of approximately 13.7% from \$412.2 billion in 2017. We participate in unit and revenue surveys and use data summarized by WSTS to evaluate overall semiconductor market trends and also to track our progress against the market in the areas we provide semiconductor components. The following table sets forth total worldwide semiconductor industry revenue and revenue in our Serviceable Addressable Market ("SAM") since 2014:

<u>Year Ended December 31,</u>	<u>Worldwide Semiconductor Industry Sales (1)</u> (in billions)	<u>Percentage Change</u>	<u>Serviceable Addressable Market Sales (1) (2)</u> (in billions)	<u>Percentage Change</u>
2018	\$ 468.8	13.7 %	\$ 82.0	10.2 %
2017	\$ 412.2	21.6 %	\$ 74.4	12.6 %
2016	\$ 338.9	1.1 %	\$ 66.1	5.4 %
2015	\$ 335.2	(0.2)%	\$ 62.7	(1.9)%
2014	\$ 335.8	9.9 %	\$ 63.9	11.5 %

- (1) Based on shipment information published by WSTS. We believe the data provided by WSTS is reliable, but we have not independently verified it. WSTS periodically revises its information. We assume no obligation to update such information.
- (2) From time to time, we reassess the WSTS product categories that our SAM comprises. For comparison purposes, the information for 2014 through 2017 in the table above has been revised from previously-reported SAM sales to reflect our current assessment. Our SAM comprises mainly the following WSTS product categories: (a) discrete products, which includes diodes, small signal transistors, power transistors and modules, rectifiers and thyristors; (b) image sensors; (c) general purpose analog; (d) application specific analog for computer, automotive, and industrial; and (e) MOS general purpose logic. Our SAM is derived using the most recent information available, excluding foundry exposure, at the time of the filing of each respective period's annual report and is revised in subsequent periods to reflect final results.

As indicated above, worldwide semiconductor sales increased from \$335.8 billion in 2014 to \$468.8 billion in 2018. The increase of 13.7% from 2017 to 2018 was the result of increased demand for semiconductor products. Sales in our SAM increased from \$63.9 billion in 2014 to \$82.0 billion in 2018. The increase of 10.2% from 2017 to 2018 is consistent with the trend in the worldwide semiconductor market.

ON Semiconductor Overview

Our new product development efforts continue to be focused on building solutions in product areas that appeal to customers in focused market segments and across multiple high-growth applications. We collaborate with our customers to identify desired innovations in electronic systems in each end-market that we serve. This enables us to participate in the fastest growing sectors of the market. We also innovate in advanced packaging technologies to support ongoing size reduction in electronic systems and in advanced thermal packaging to support high performance power conversion applications. It is our practice to regularly re-evaluate our research and development spending, to assess the deployment of resources and to review the funding of high-growth technologies. We deploy people and capital with the goal of maximizing our investment in research and development in order to facilitate continued growth by targeting innovative products and solutions for high growth applications that position us to outperform the industry. Our design expertise in analog, digital, mixed signal and imaging ICs, combined with our extensive portfolio of standard products enable the company to offer comprehensive, value-added solutions to our global customers for their electronics systems.

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We believe that some of the key factors and trends affecting our results of operations include, but not limited to:

- Macroeconomic conditions affecting the semiconductor industry;
- The cyclical and seasonality of the semiconductor industry;
- The global economic climate;
- Our significant indebtedness, including the indebtedness incurred in connection with our acquisition of Fairchild;
- The impact of U.S. corporate tax reform and an uncertain corporate tax environment abroad;
- An uncertain political climate and related impacts on global trade, such as tariffs on imports into the U.S. from China;
- The effects of trends in the automotive and industrial end-markets on our revenue; and
- Competitive conditions, and in particular, consolidation, within our industry.

Recent ON Semiconductor Results

Our total revenue for the year ended December 31, 2018 was \$5,878.3 million, an increase of approximately 6.0% from \$5,543.1 million from the year ended December 31, 2017. The increase was primarily attributable to an increase in revenue in our Power Solutions Group and Analog Solutions Group as a result of better demand. During 2018, we reported net income attributable to ON Semiconductor of \$627.4 million compared to \$810.7 million in 2017. Net income attributable to ON Semiconductor for the year ended December 31, 2017 was positively impacted by \$449.9 million relating to the U.S. tax reform as well as the change in revenue recognition from sell-through to sell-in for shipment to our distributors. Excluding the impact of these items, the improved results for 2018 were attributable to healthy end-user demand for our products and contributions from the acquired Fairchild business. Our gross margin increased by approximately 140 basis points to 38.1% in 2018 from 36.7% in 2017. The increase in gross margin was primarily due to more favorable product mix.

Business and Macroeconomic Environment Influence on Cost Savings and Restructuring Activities

We have historically pursued, and expect to continue to pursue, cost-saving initiatives to align our overall cost structure, capital investments and other expenditures with our expected revenue, spending and capacity levels based on our current sales and manufacturing projections. We have recognized efficiencies from previously implemented restructuring activities and programs and continue to implement profitability enhancement programs to improve our cost structure. The semiconductor industry has traditionally been highly cyclical and has often experienced significant downturns in connection with, or in anticipation of, declines in general economic conditions. We have historically taken significant actions to align our overall cost structure with our expectations of market conditions and by focusing on synergies-related cost reductions arising from each of our acquisitions. However, there can be no assurances that we will adequately forecast economic conditions or that we will effectively align our cost structure, capital investments and other expenditures with our revenue, spending and capacity levels in the future.

See “Results of Operations—Restructuring, asset impairments and other, net” below, along with Note 7: “Restructuring, Asset Impairments and Other, Net” in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for information relating to our most recent cost-saving initiatives.

Results of Operations

Our results of operations for the years ended December 31, 2018 and December 31, 2017 include the full year results, and our results of operations for the year ended December 2016 include the partial year results from our acquisition of Fairchild on September 19, 2016. Our results of operations for the year ended December 31, 2018 include the partial year results, from our acquisition of SensL on May 8, 2018.

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Operating Results

The following table summarizes certain information relating to our operating results that has been derived from our audited consolidated financial statements (in millions):

	Year ended December 31,			Dollar Change	
	2018	2017	2016	2017 to 2018	2016 to 2017
Revenue	\$ 5,878.3	\$ 5,543.1	\$ 3,906.9	\$ 335.2	\$ 1,636.2
Cost of revenue (exclusive of amortization shown below)	3,639.6	3,507.5	2,606.4	132.1	901.1
Gross profit	2,238.7	2,035.6	1,300.5	203.1	735.1
Operating expenses:					
Research and development	650.7	594.7	446.8	56.0	147.9
Selling and marketing	324.7	316.6	236.7	8.1	79.9
General and administrative	293.3	285.0	230.0	8.3	55.0
Amortization of acquisition-related intangible assets	111.7	123.8	104.8	(12.1)	19.0
Restructuring, asset impairments and other, net	4.3	20.8	33.2	(16.5)	(12.4)
Goodwill and intangible asset impairment	6.8	13.1	2.2	(6.3)	10.9
Total operating expenses	1,391.5	1,354.0	1,053.7	37.5	300.3
Operating income	847.2	681.6	246.8	165.6	434.8
Other income (expense), net:					
Interest expense	(128.2)	(141.2)	(145.3)	13.0	4.1
Interest income	6.1	3.0	4.5	3.1	(1.5)
Loss on debt refinancing and prepayment	(4.6)	(47.2)	(6.3)	42.6	(40.9)
Gain on divestiture of business	5.0	12.5	92.2	(7.5)	(79.7)
Licensing income	36.6	47.6	—	(11.0)	47.6
Other expense	(7.1)	(8.8)	(11.3)	1.7	2.5
Other income (expense), net	(92.2)	(134.1)	(66.2)	41.9	(67.9)
Income before income taxes	755.0	547.5	180.6	207.5	366.9
Income tax benefit (provision)	(125.1)	265.5	3.9	(390.6)	261.6
Net income	629.9	813.0	184.5	(183.1)	628.5
Less: Net income attributable to non-controlling interest	(2.5)	(2.3)	(2.4)	(0.2)	0.1
Net income attributable to ON Semiconductor Corporation	\$ 627.4	\$ 810.7	\$ 182.1	\$ (183.3)	\$ 628.6

Revenue

Revenue was \$5,878.3 million, \$5,543.1 million and \$3,906.9 million for 2018, 2017 and 2016, respectively.

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Prior to the first quarter of 2017, we recognized revenue from distributors under the sell-through method as we did not have the ability to estimate the effects of returns and allowances. Beginning in the first quarter of 2017, we were able to estimate upfront the effects of returns and allowances and record revenue at the time of shipments to our distributors. This change resulted in us recognizing an additional \$155.1 million in revenue during the first quarter of 2017, which resulted in an increase of \$59.0 million to gross profit and income before income taxes for such period. The impact of this change is reflected in the discussion below.

The increase of \$335.2 million, or approximately 6%, in revenue in 2018 compared to 2017 was primarily attributable to approximately 8% and 6% increases in revenue in our Power Solutions Group and Analog Solutions Group, respectively, as a result of better demand for these products. Excluding the one-time impact of the change in revenue recognition for the year ended December 31, 2017 amounting to \$155.1 million, revenue increased \$490.3 million, or approximately 9%.

The increase in revenue from 2017 compared to 2016 of \$1,636.2 million, or approximately 42%, was primarily attributable to approximately 65% and 32% increases in revenue in our Power Solutions Group and Analog Solutions Group, respectively, as a result of increased demand for these products. The year 2017 included an entire twelve-month period of Fairchild revenue and \$155.1 million in revenue due to the change in revenue recognition on distributor sales. Excluding the one-time impact of the change in revenue recognition for the year ended December 31, 2017, revenue increased \$1,481.1 million, or approximately 38%.

Revenue by reportable segment for each were as follows (dollars in millions):

	<u>2018</u>	<u>As a % of Revenue (1)</u>	<u>2017</u>	<u>As a % of Revenue (1)</u>	<u>2016</u>	<u>As a % of Revenue (1)</u>
Power Solutions Group	\$ 3,038.2	51.7%	\$ 2,819.3	50.9%	\$ 1,708.6	43.7%
Analog Solutions Group	2,071.2	35.2%	1,950.9	35.2%	1,481.5	37.9%
Intelligent Sensing Group	768.9	13.1%	772.9	13.9%	716.8	18.3%
Total revenue	<u>\$ 5,878.3</u>		<u>\$ 5,543.1</u>		<u>\$ 3,906.9</u>	

(1) Certain of the amounts may not total due to rounding of individual amounts.

Revenue from the Power Solutions Group

Revenue from the Power Solutions Group increased by \$218.9 million, or approximately 8%, during 2018 compared to 2017, and increased by \$1,110.7 million, or approximately 65%, during 2017 compared to 2016. Excluding the \$107.8 million increase in revenue due to the change in revenue recognition on distributor sales during the year ended December 31, 2017, revenue increased by \$326.7 million or 12% in 2018 compared to 2017.

The 2018 increase was primarily attributable to an increase in revenue of \$165.9 million in our Power MOSFET division due to increased demand, an increase in revenue of our High Power division by \$83.8 million due to entry into new markets, and to a lesser extent, \$30.0 million increase in our Integrated Circuits division and \$28.5 million increase in our Protection and Signal division also due to better demand.

The 2017 increase was primarily attributable to the acquisition of Fairchild, which had a full year contribution in 2017, as well as a \$107.8 million impact due to the change in revenue recognition on distributor sales during the first quarter of 2017. These two factors contributed to increases in substantially all of the divisions within this segment, which resulted in a \$417.8 million increase in revenue in our Power MOSFET division, a \$327.8 million increase in revenue in our High Power division, and, to a lesser extent, \$132.9 million increase in revenue in our Integrated Circuits division and \$120.7 million increase in revenue in our Protection and Signal division.

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Revenue from the Analog Solutions Group

Revenue from the Analog Solutions Group increased by \$120.3 million, or approximately 6%, during 2018 compared to 2017 and increased by \$469.4 million, or approximately 32%, during 2017 compared to 2016. Excluding the \$42.1 million increase in revenue due to the change in revenue recognition on distributor sales during the year ended December 31, 2017, revenue increased by \$162.4 million or 9% in 2018 compared to 2017.

The 2018 increase was primarily attributable to revenue in our Mobile and Computing Division increasing by \$78.5 million, revenue in our Signal, Wireless and Medical Division increasing by \$30.5 million and revenue in our Automotive Division increasing by \$52.8 million, all due to increase in demand in the markets served.

The 2017 increase was primarily attributable to the acquisition of Fairchild, which had a full year contribution in 2017, as well as a \$42.1 million impact due to the change in revenue recognition on distributor sales during the first quarter of 2017. These two factors contributed to increases in substantially all of the divisions within this segment, which resulted in a \$150.6 million increase in revenue in our Mobile Solutions division, a \$100.3 million increase in revenue in our Automotive division, a \$97.5 million increase in revenue in our then Digital and DC/DC division and a \$81.3 million increase in revenue in our Industrial and Offline Power division.

Revenue from the Intelligent Sensing Group

Revenue from the Intelligent Sensing Group decreased by \$4.0 million, or approximately 1%, during 2018 compared to 2017 and increased by \$56.1 million, or approximately 8%, during 2017 compared to 2016.

The 2018 decrease was primarily attributable to a decrease in our Consumer Solutions Division revenue by \$52.6 million, primarily as a result of the exit of the Mobile CIS business and a \$7.8 million decrease in our Industrial Solutions Division due to our de-emphasis of certain lower margin product lines as well as decreased demand, offset by an increase in our Automotive Solutions Division revenue by \$56.6 million due to better demand in the markets served.

The 2017 increase was primarily attributable to an \$84.9 million, or 29%, increase in revenue in our Automotive Solutions division, which was partially offset by a \$39.6 million, or approximately 13%, decrease in revenue in our Consumer Solutions division as a result of the exit of the Mobile CIS business which occurred during the fourth quarter of 2016. For further information on the Mobile CIS business exit, see Note 5: "Acquisitions, Divestitures and Licensing Transactions".

Revenue by Geographic Location

Revenue by geographic location, including local sales made by operations within each area, based on sales billed from the respective country, are as follows (dollars in millions):

	2018	As a % of Revenue (1)	2017	As a % of Revenue (1)	2016	As a % of Revenue (1)
Singapore	\$ 1,955.0	33.3%	\$ 1,466.9	26.5%	\$ 1,110.4	28.4%
Hong Kong	1,489.1	25.3%	1,785.0	32.2%	1,086.8	27.8%
United Kingdom	946.5	16.1%	668.8	12.1%	541.1	13.8%
United States	862.7	14.7%	748.8	13.5%	588.4	15.1%
Other	625.0	10.6%	873.6	15.8%	580.2	14.9%
Total	<u>\$ 5,878.3</u>		<u>\$ 5,543.1</u>		<u>\$ 3,906.9</u>	

(1) Certain of the amounts may not total due to rounding of individual amounts.

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Gross Profit and Gross Margin (exclusive of amortization of acquisition-related intangible assets described below)

Our gross profit by reportable segment for each was as follows (dollars in millions):

	2018	As a % of Segment Revenue (1)	2017	As a % of Segment Revenue (1)	2016	As a % of Segment Revenue (1)
Power Solutions Group	\$ 1,110.1	36.5 %	\$ 959.8	34.0 %	\$ 567.5	33.2 %
Analog Solutions Group	878.3	42.4 %	817.8	41.9 %	590.2	39.8 %
Intelligent Sensing Group	317.1	41.2 %	302.6	39.2 %	237.7	33.2 %
Gross profit for all segments (2)	\$ 2,305.5		\$ 2,080.2		\$ 1,395.4	
Unallocated manufacturing costs (3)	(66.8)	(1.1)%	(44.6)	(0.8)%	(94.9)	(2.4)%
Total gross profit	\$ 2,238.7	38.1 %	\$ 2,035.6	36.7 %	\$ 1,300.5	33.3 %

(1) Certain of the amounts may not total due to rounding of individual amounts.

(2) Gross profit for the years ended December 31, 2017 and 2016 has been retrospectively adjusted due to the adoption of ASU 2017-07. See Note 1: "Background and Basis of Presentation" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

(3) Unallocated manufacturing costs are being shown as a percentage of total revenue (includes expensing of the fair market value step-up of inventory of \$67.5 million during 2016, \$13.6 million during 2017, and \$1.0 million during 2018).

Our gross profit was \$2,238.7 million, \$2,035.6 million and \$1,300.5 million for 2018, 2017 and 2016, respectively. The gross profit increase of \$203.1 million, or approximately 10%, for 2018 compared to 2017 was primarily due to an increase in gross profit in our Power Solutions Group and Analog Solutions Group. Gross profit for the year ended December 31, 2017 was positively impacted by \$59.0 million due to the change in revenue recognition on distributor sales and negatively impacted by \$13.6 million of expensing fair market value of inventory step-up from the Fairchild Acquisition. Excluding these items, gross profit increased by \$248.5 million, or 12%, for the year ended December 31, 2018.

The gross profit increase of \$735.1 million, or approximately 57%, for 2017 compared to 2016 was primarily due to an increase in gross profit in our Power Solutions Group and Analog Solutions Group, which included a full-year of contributions from the acquired Fairchild business and the positive impact due to the change in revenue recognition on distributor sales. Gross profit improvement in the Intelligent Sensing Group of \$64.9 million was due to increased revenue in high margin automotive and industrial markets offsetting decreased revenue on the exit of the Mobile CIS business.

Gross margin increased to approximately 38.1% during 2018 compared to approximately 36.7% during 2017. The increase was due to a combination of operational leverage as a result of better demand, entry into new markets, and product mix and was offset by slightly lower factory utilization.

Gross margin increased to approximately 36.7% during 2017 compared to approximately 33.3% during 2016. Excluding the expensing of the fair market value of inventory step-up from the Fairchild acquisition, gross margin increased to approximately 36.9% during 2017 compared to approximately 35.0% during 2016. The increase was primarily due to higher factory utilization, product mix, which included the mix shift in imaging products to higher margin automotive and industrial imaging products, and the exit of the lower margin Mobile CIS business.

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Operating Expenses

Research and Development

Research and development expenses were \$650.7 million, \$594.7 million and \$446.8 million for 2018, 2017 and 2016, respectively representing approximately 11% of revenue for each of the years.

The increase in research and development expenses of \$56.0 million, or approximately 9%, during 2018 compared to 2017 was primarily in the area of payroll and payroll related costs due to additional headcount as well as an increase in the cost of materials utilized in research and development, offset by a decrease in variable compensation.

The increase in research and development expenses of \$147.9 million, or approximately 33%, during 2017 compared to 2016 was primarily associated with the acquisition of Fairchild, which added several categories of research and development expenses. Research and development expenses unrelated to Fairchild increased primarily in the area of payroll, including incentive compensation and payroll related costs as well as an overall increase in variable compensation for the combined company.

Selling and Marketing

Selling and marketing expenses were \$324.7 million, \$316.6 million and \$236.7 million for 2018, 2017 and 2016, respectively representing approximately 6% of revenue for each of the years.

The increase in selling and marketing expenses of \$8.1 million, or approximately 3%, during 2018 compared to 2017 did not relate to any significant expense driver.

The increase in selling and marketing expenses of \$79.9 million, or approximately 34%, during 2017 compared to 2016 was primarily associated with the acquisition of Fairchild, primarily in the area of payroll, including incentive compensation and payroll related costs as well as an overall increase in variable compensation for the combined company. There were also increases in expenses related to commissions and advertising.

General and Administrative

General and administrative expenses were \$293.3 million, \$285.0 million and \$230.0 million, representing approximately 5%, 5% and 6% of revenue, for 2018, 2017 and 2016, respectively.

The increase in general and administrative expenses of \$8.3 million, or approximately 3%, during 2018 compared to 2017 did not relate to any significant expense driver.

The increase in general and administrative expenses of \$55.0 million, or approximately 24%, during 2017 compared to 2016 was primarily associated with the acquisition of Fairchild, primarily in the area of payroll, including incentive compensation and payroll related costs, as well as an overall increase in variable compensation for the combined company.

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Amortization of Acquisition—Related Intangible Assets

Amortization of acquisition-related intangible assets was \$111.7 million, \$123.8 million and \$104.8 million for 2018, 2017 and 2016, respectively. The decrease of \$12.1 million during 2018 compared to 2017 was primarily due to the additional amortization of \$8.1 million recorded during the year ended December 31, 2017, representing the value of the technology transferred under a licensing transaction.

The increase in amortization during 2017 compared to 2016 was primarily associated with the amortization of our intangible assets acquired from the Fairchild acquisition, partially offset by the declining amortization of our Aptina intangible assets.

See Note 5: "Acquisitions, Divestitures and Licensing Transactions" and Note 6: "Goodwill and Intangible Assets" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information with respect to intangible assets.

Restructuring, Asset Impairments and Other, Net

Restructuring, asset impairments and other, net was \$4.3 million, \$20.8 million and \$33.2 million for 2018, 2017 and 2016, respectively. The information below summarizes the major activities in each year.

2018

During 2018, we recorded approximately \$4.3 million of net charges attributable to the asset impairments and severance charges relating to the restructuring programs in effect during the period.

2017

During 2017, we recorded approximately \$20.8 million of net charges related to our restructuring programs, consisting primarily of \$9.7 million of post-Fairchild acquisition restructuring costs, \$2.2 million of the former System Solutions Group voluntary workforce reduction program costs, \$7.3 million of asset impairment charges primarily for assets held-for-sale and \$3.7 million of other costs, partially offset by a reversal of \$2.1 million relating to manufacturing relocation program costs.

2016

During 2016, we recorded approximately \$33.2 million of net charges related to our restructuring programs, consisting primarily of \$25.7 million of post-Fairchild acquisition restructuring costs, \$5.3 million of the former System Solutions Group segment voluntary workforce reduction program costs, and \$2.1 million of manufacturing relocation program costs.

For additional information, see Note 7: "Restructuring, Asset Impairments and Other, Net" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

Goodwill and Intangible Asset Impairment

Goodwill and intangible asset impairments were \$6.8 million, \$13.1 million and \$2.2 million for 2018, 2017 and 2016, respectively. The information below summarizes the major activities in each year.

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2018

During 2018, we recorded \$3.3 million of goodwill impairment charges and \$3.5 million relating to the impairment in the value of one project as a result of the indefinite-lived impairment test performed during the fourth quarter of 2018.

2017

During 2017, we recorded \$13.1 million of intangible asset impairment charges consisting of \$7.7 million relating to abandoned IPRD projects and \$5.4 million relating to the impairment in the value of certain IPRD projects as a result of the indefinite-lived impairment test performed during the fourth quarter of 2017.

2016

During 2016, we canceled certain of our previously capitalized IPRD projects and recorded intangible asset impairment charges of \$2.2 million.

See Note 6: "Goodwill and Intangible Assets" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

Other Income and Expenses

Interest Expense

Interest expense decreased by \$13.0 million, or approximately 9%, to \$128.2 million during 2018 compared to \$141.2 million in 2017, primarily due to repayments of outstanding balances offset by a marginal increase in the interest rate of the Term Loan "B" Facility. Interest expense decreased by \$4.1 million, or approximately 2.8%, to \$141.2 million during 2017, down from \$145.3 million in 2016, primarily due to the interest rate reduction under our Amended Credit Agreement. We recorded amortization of debt discount to interest expense of \$36.1 million, \$30.8 million and \$26.0 million for 2018, 2017 and 2016, respectively. Our average gross amount of long-term debt balance (including current maturities) during 2018, 2017 and 2016 was \$3,057.0 million, \$3,490.9 million and \$2,661.3 million, respectively. Our weighted average interest rate on our gross amount of long-term debt (including current maturities) was approximately 4.2%, 4.0% and 5.5% per annum in 2018, 2017 and 2016, respectively. See "Liquidity and Capital Resources—Key Financing and Capital Events" below and Note 9: "Long-Term Debt" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for a description of our indebtedness and our refinancing activities.

Loss on Debt Refinancing and Prepayment

2018

Loss on debt refinancing and prepayment decreased by \$42.6 million from \$47.2 million in 2017 to \$4.6 million in 2018. We recorded a debt extinguishment charge of \$2.6 million related to refinancing of the Term Loan "B" Facility and expensed \$2.0 million of unamortized debt discount and issuance costs attributable to the partial pay-down of the Term Loan "B" Facility during 2018.

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2017

Loss on debt refinancing and prepayment increased by \$40.9 million from \$6.3 million in 2016 to \$47.2 million in 2017. The loss relates to the: (1) expensing of \$26.2 million of unamortized debt discount and issuance costs attributed to the partial pay down of \$575.0 million and the repricing of the Term Loan "B" Facility for the Second Amendment (as defined below); (2) expensing of \$6.7 million of unamortized debt discount costs attributed to the partial pay down of \$200.0 million of Term Loan "B" Facility; and (3) expensing of \$14.3 million of unamortized debt discount and unamortized issuance costs attributed to the partial pay down of \$400.0 million and the repricing of Term Loan "B" Facility for the Third Amendment (as defined below).

2016

Loss on debt refinancing and prepayment was \$6.3 million in 2016, due to the execution of the First Amendment (as defined below), which resulted in a debt extinguishment charge of \$4.7 million, and the termination and replacement of our previous senior revolving credit facility by the Revolving Credit Facility, which resulted in a debt modification and write-off of \$1.6 million in unamortized debt issuance costs.

See Note 9: "Long-Term Debt" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

Gain on Divestiture of Business

Gain on divestiture of business was \$5.0 million, \$12.5 million and \$92.2 million for 2018, 2017 and 2016, respectively. The information below summarizes the major activities in each year.

2018

Gain on divestiture of business was \$5.0 million during 2018. On June 25, 2018, we divested the transient voltage suppressing diodes business we acquired from Fairchild to TSC America, Inc. and recorded a gain of \$4.6 million.

2017

Gain on divestiture of business was \$12.5 million during 2017. On September 29, 2017, we sold Xsens Holding B.V. to mCube Hong Kong Limited ("mCube") for cash consideration of \$26.0 million and recorded a gain of \$12.5 million after writing off the carrying value of the assets and liabilities sold of \$7.0 million and goodwill of \$6.5 million.

2016

Gain on divestiture of business was \$92.2 million during 2016. On August 29, 2016, we sold two lines of business for \$104.0 million to Littelfuse, Inc., ("Littelfuse"). In connection with the sale, we recorded a gain of \$92.2 million after, among other things, transferring inventory of \$4.1 million to Littelfuse, writing off goodwill of \$3.4 million, and deferring \$4.3 million of the proceeds to be recognized in the future.

For additional information, see Note 5: "Acquisitions, Divestitures and Licensing Transactions" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

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Licensing Income

Licensing income was \$36.6 million, \$47.6 million and zero for 2018, 2017 and 2016, respectively. The information below summarizes the major activities in each year.

2018

Licensing income was \$36.6 million for 2018 primarily due to the achievement of the established criteria based on which income was recognized under the various licensing agreements. We have completed recognizing licensing income under existing agreements as of December 31, 2018.

2017

Licensing income was \$47.6 million for 2017 compared to zero for 2016. Approximately \$45.1 million was attributable to payments received under an asset purchase agreement with HSET Electronic Tech (Hong Kong) Limited in connection with our licensing of certain patents related to the Mobile CIS business. The remaining \$2.5 million was received from various other licensing agreements.

See Note 5: "Acquisitions, Divestitures and Licensing Transactions" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for more information.

Other Expense

Other expense decreased by \$1.7 million, from expense of \$8.8 million in 2017 to \$7.1 million in 2018. Other expense decreased by \$2.5 million, from expense of \$11.3 million in 2016 to \$8.8 million in 2017. The change from year to year is attributable to fluctuations in foreign currencies against the U.S. dollar for the periods presented, net of the impact from our hedging activity, pension related gain and losses and an adjustment to contingent consideration.

Income Tax (Provision) Benefit

We recorded an income tax provision of \$125.1 million, an income tax benefit of \$265.5 million and an income tax benefit of \$3.9 million in 2018, 2017 and 2016, respectively.

The income tax provision for the year ended December 31, 2018 consisted primarily of \$180.0 million for income and withholding taxes of certain of our foreign and domestic current year operations and \$35.2 million related to the finalization of the Company's tax impacts of U.S. tax reform. These expenses were offset by a one-time benefit of \$48.2 million related to U.S. tax method changes made during the year that impacted the Company's Global Intangible Low Tax Income ("GILTI") inclusion, a benefit of \$17.1 million relating to an increase in deferred tax assets expected to be realized in the foreseeable future due to the liquidation of a foreign subsidiary, a benefit of \$14.0 million relating to the lapse of the statute of limitations on certain unrecognized tax benefits, a benefit of \$7.6 million relating to equity award excess tax benefits and a benefit of \$3.2 million relating to changes in valuation allowance.

The income tax benefit for 2017 consisted primarily of the provisional benefit of \$449.9 million related to the estimated impact of U.S. tax reform and related effects and a discrete benefit of \$13.2 million relating to equity award excess tax benefits. These benefits were offset by \$186.8 million for income and withholding taxes of certain of our foreign and domestic current year operations and \$10.8 million relating to the establishment of an additional valuation allowance on certain foreign deferred tax assets.

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The income tax benefit for 2016 consisted primarily of the reversal of \$359.8 million of our previously established valuation allowance against part of our U.S. federal and foreign deferred tax assets and the release of \$1.9 million for reserves and interest for uncertain tax positions in foreign taxing jurisdictions which were effectively settled or for which the statute lapsed during 2016. This was partially offset by \$310.8 million related to the reversal of the prior years' indefinite reinvestment assertion, \$43.5 million for income and withholding taxes of certain of our foreign and domestic operations and \$3.5 million of new reserves and interest on existing reserves for uncertain tax positions in foreign taxing jurisdictions.

Our effective tax rate for 2018 was 16.6%, which differs from the U.S. federal statutory income tax rate of 21% primarily due to U.S. tax method changes made during the year that impacted the Company's GILTI inclusion. Our effective tax rate for 2017 was a benefit of 48.5%, which differs from the U.S. federal statutory income tax rate of 35% primarily due to U.S. tax reform codified under the Tax Act. Our effective tax rate for 2016 was a benefit of 2.2%, which differs from the U.S. federal statutory income tax rate of 35% primarily due to the release of our U.S. and Japan valuation allowances, partially offset by the reversal of the prior years' indefinite reinvestment assertion.

We expect our effective tax rate, before discrete items, to be between 23% and 27% until we fully utilize all of our U.S. federal net operating losses. The primary difference between our effective tax rate and the federal statutory rate of 21% is due to foreign taxes for which the Company will not receive a U.S. tax credit as a result of U.S. tax reform until our U.S. federal net operating losses are fully utilized. Once our U.S. federal net operating losses are fully utilized, we expect our future effective tax rate, before discrete items, to approximate, or be lower than, the federal statutory rate of 21%. We anticipate our U.S. federal net operating losses and credits will be fully utilized by 2021.

Our cash tax, as a percentage of income before income taxes ("Cash Tax Rate"), is significantly lower than our effective tax rate due to the current utilization of our U.S. federal net operating losses and credits. We expect our future Cash Tax Rate to approximate our effective tax rate once our U.S. federal net operating losses and credits are fully utilized.

We continue to maintain a full valuation allowance on our U.S. state deferred tax assets and a valuation allowance on foreign net operating losses and tax credits in certain other foreign jurisdictions, a substantial portion of which relate to Japan net operating losses which are projected to expire prior to utilization.

For additional information, see Note 16: "Income Taxes" in the notes to the audited consolidated financial statements included elsewhere in this Form 10-K.

Liquidity and Capital Resources

This section includes a discussion and analysis of our cash requirements, off-balance sheet arrangements, contingencies, sources and uses of cash, operations, working capital and long-term assets and liabilities.

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Contractual Obligations

Our principal outstanding contractual obligations relate to our long-term debt, capital leases, operating leases and purchase obligations. The following table summarizes our contractual obligations at December 31, 2018 and the effect such obligations are expected to have on our liquidity and cash flow in the future (in millions):

Contractual obligations (1)	Payments Due by Period						
	Total	2019	2020	2021	2022	2023	Thereafter
Long-term debt, excluding capital leases (2)	\$3,256.8	\$223.4	\$773.3	\$470.5	\$58.5	\$1,731.1	\$ —
Capital leases (2)	0.9	0.8	0.1	—	—	—	—
Operating leases (3)	160.8	36.8	27.6	21.9	16.8	12.3	45.4
Purchase obligations (3):							
Capital purchase obligations	103.1	100.5	1.7	0.7	0.2	—	—
Inventory and external manufacturing purchase obligations	262.7	219.6	13.4	6.7	6.1	6.0	10.9
Information technology, communication and mainframe support services	34.2	16.2	11.0	6.6	0.3	0.1	—
Other	63.3	37.4	12.1	9.0	2.7	2.1	—
Total contractual obligations	\$3,881.8	\$634.7	\$839.2	\$515.4	\$84.6	\$1,751.6	\$ 56.3

- (1) The table above excludes approximately \$17.8 million of liabilities related to unrecognized tax benefits because we are unable to reasonably estimate the timing of the settlement of such liabilities.
- (2) Includes interest payments at applicable rates as of December 31, 2018.
- (3) These represent our off-balance sheet arrangements (See "Liquidity and Capital Resources—Off-Balance Sheet Arrangements" for a description of our off-balance sheet arrangements).

The table also excludes our pension obligations. We expect to make cash contributions to comply with local funding requirements and required benefit payments of approximately \$15.3 million and \$4.7 million, respectively, in 2019. This future payment estimate assumes we continue to meet our statutory funding requirements. The timing and amount of contributions may be impacted by a number of factors, including the funded status of the plans. Beyond 2019, the actual amounts required to be contributed are dependent upon, among other things, interest rates, underlying asset returns and the impact of legislative or regulatory actions related to pension funding obligations. See Note 12: "Employee Benefit Plans" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for more information on our pension obligations.

Our balance of cash and cash equivalents was \$1,069.6 million as of December 31, 2018. We believe that our cash flows from operations, coupled with our existing cash and cash equivalents, will be adequate to fund our operating and capital needs for at least the next 12 months. Total cash and cash equivalents at December 31, 2018 include approximately \$448.7 million available in the United States. We require a substantial amount of cash in the United States for operating requirements, debt service, debt repayments and acquisitions. While we hold a significant amount of cash and cash equivalents outside the United States in various foreign subsidiaries, we have the ability to obtain cash in the United States in order to cover our domestic needs, through distributions from our foreign subsidiaries, by utilizing existing credit facilities or through new bank loans or debt obligations.

See Note 9: "Long-Term Debt," in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for a discussion of our long-term debt. See "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities" included elsewhere in this Form 10-K for a discussion of restrictions on our ability to pay dividends and our stock repurchase activities.

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Off-Balance Sheet Arrangements

In the ordinary course of business, we enter into various operating leases for buildings, equipment including our mainframe computer system, desktop computers, communications, foundry equipment and service agreements relating to this equipment.

In the ordinary course of business, we provide standby letters of credit or other guarantee instruments to certain parties in connection with certain transactions including, but not limited to: material purchase commitments, agreements to mitigate collection risk, leases, utilities or customs guarantees. As of December 31, 2018, our Revolving Credit Facility included \$15.0 million of availability for the issuance of letters of credit. There were \$1.0 million letters of credit outstanding under our Revolving Credit Facility as of December 31, 2018, which reduces our borrowing capacity dollar-for-dollar. As of December 31, 2018, we also had outstanding guarantees and letters of credit outside of our Revolving Credit Facility in the amount of \$6.1 million at December 31, 2018.

As part of securing financing in the ordinary course of business, we issued guarantees related to certain of our subsidiaries' capital lease obligations, equipment financing, lines of credit and real estate mortgages, which totaled \$68.6 million as of December 31, 2018. Based on historical experience and information currently available, we believe that we will not be required to make payments under the standby letters of credit or guarantee arrangements for the foreseeable future.

For our operating leases, we expect to make cash payments and similarly incur expenses totaling \$160.8 million as payments come due. We have not recorded any liability in connection with these operating leases, letters of credit and guarantee arrangements. We will record the associated lease obligations as a liability when we adopt the provisions of the New Leasing Standard (as defined below). See Note 4: "Recent Accounting Pronouncements", "Note 9:" "Long-Term Debt," and Note 13: "Commitments and Contingencies" in the notes to our audited consolidated financial statements found elsewhere in this Form 10-K for additional information.

Contingencies

We are a party to a variety of agreements entered into in the ordinary course of business pursuant to which we may be obligated to indemnify other parties for certain liabilities that arise out of or relate to the subject matter of the agreements. Some of the agreements entered into by us require us to indemnify the other party against losses due to IP infringement, environmental contamination and other property damage, personal injury, our failure to comply with applicable laws, our negligence or willful misconduct or our breach of representations, warranties or covenants related to such matters as title to sold assets.

We face risk of exposure to warranty and product liability claims in the event that our products fail to perform as expected or such failure of our products results, or is alleged to result, in economic damage, bodily injury or property damage. In addition, if any of our designed products are alleged to be defective, we may be required to participate in their recall. Depending on the significance of any particular customer and other relevant factors, we may agree to provide more favorable rights to such customer for valid defective product claims.

We maintain directors' and officers' insurance policies that indemnify our directors and officers against various liabilities, including certain liabilities under the Exchange Act, that might be incurred by any director or officer in his or her capacity as such.

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The Fairchild Agreement provides for indemnification and insurance rights in favor of Fairchild's then current and former directors, officers and employees. Specifically, the Company has agreed that, for no fewer than six years following the Fairchild acquisition, the Company will: (a) indemnify and hold harmless each such indemnitee against losses and expenses (including advancement of attorneys' fees and expenses) in connection with any proceeding asserted against the indemnified party in connection with such person's services as a director, officer, employee or other fiduciary of Fairchild or its subsidiaries prior to the effective time of the acquisition; (b) maintain in effect all provisions of the certificate of incorporation or bylaws of Fairchild or any of its subsidiaries or any other agreements of Fairchild or any of its subsidiaries with any indemnified party regarding elimination of liability, indemnification of officers, directors and employees and advancement of expenses in existence on the date of the Fairchild Agreement for acts or omissions occurring prior to the effective time of the acquisition and; (c) subject to certain qualifications, provide to Fairchild's then current directors and officers an insurance and indemnification policy that provides coverage for events occurring prior to the effective time of the acquisition that is no less favorable than Fairchild's then-existing policy, or, if insurance coverage that is no less favorable is unavailable, the best available coverage.

While our future obligations under certain agreements may contain limitations on liability for indemnification, other agreements do not contain such limitations and under such agreements it is not possible to predict the maximum potential amount of future payments due to the conditional nature of our obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by us under any of these indemnities have not had a material effect on our business, financial condition, results of operations or cash flows, and we do not believe that any amounts that we may be required to pay under these indemnities in the future will be material to our business, financial condition, results of operations or cash flows.

See "Legal Proceedings" and Note 13: "Commitments and Contingencies" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for possible contingencies related to legal matters. See also "Business—Government Regulation" for information on certain environmental matters.

Sources and Uses of Cash

We require cash to fund our operating expenses and working capital requirements, including outlays for strategic acquisitions and investments, for research and development, to make capital expenditures, to repurchase our common stock and other Company securities, and to pay debt service, including principal and interest and capital lease payments. We expect interest expense to remain significant in future periods as we continue to service the debt incurred in connection with the Fairchild Transaction. Our principal sources of liquidity are cash on hand, cash generated from operations and funds from external borrowings and equity issuances. In the near term, we expect to fund our primary cash requirements through cash generated from operations and with cash and cash equivalents on hand. We also have the ability to utilize our Revolving Credit Facility.

As part of our business strategy, we review acquisition and divestiture opportunities and proposals on a regular basis. During 2018, we completed the acquisition of SensL and the divestiture of the transient voltage suppressing diodes business we acquired from Fairchild. See Note 5: "Acquisitions, Divestitures and Licensing Transactions" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

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We believe that the key factors that could affect our internal and external sources of cash include:

- Factors that affect our results of operations and cash flows, including the impact on our business and operations as a result of changes in demand for our products, competitive pricing pressures, effective management of our manufacturing capacity, our ability to achieve further reductions in operating expenses, the impact of our restructuring programs on our production and cost efficiency and our ability to make the research and development expenditures required to remain competitive in our business; and
- Factors that affect our access to bank financing and the debt and equity capital markets that could impair our ability to obtain needed financing on acceptable terms or to respond to business opportunities and developments as they arise, including interest rate fluctuations, macroeconomic conditions, sudden reductions in the general availability of lending from banks or the related increase in cost to obtain bank financing, and our ability to maintain compliance with covenants under our debt agreements in effect from time to time.

Our ability to service our long-term debt, including our 1.625% Notes, 1.00% Notes, Revolving Credit Facility and Term Loan "B" Facility, to remain in compliance with the various covenants contained in our debt agreements and to fund working capital, capital expenditures and business development efforts will depend on our ability to generate cash from operating activities, which is subject to, among other things, our future operating performance, as well as to general economic, financial, competitive, legislative, regulatory and other conditions, some of which may be beyond our control.

If we fail to generate sufficient cash from operations, we may need to raise additional equity or borrow additional funds to achieve our longer term objectives. There can be no assurance that such equity or borrowings will be available or, if available, will be at rates or prices acceptable to us. We believe that cash flow from operating activities coupled with existing cash and cash equivalents and existing credit facilities will be adequate to fund our operating and capital needs, as well as enable us to maintain compliance with our various debt agreements, through at least the next 12 months. To the extent that results or events differ from our financial projections or business plans, our liquidity may be adversely impacted.

During the ordinary course of business, we evaluate our cash requirements and, if necessary, adjust our expenditures for inventory, operating expenditures and capital expenditures to reflect the current market conditions and our projected sales and demand. Our capital expenditures are primarily directed toward production equipment and capacity expansion. Our capital expenditure levels can materially influence our available cash for other initiatives. For example, during 2018, we paid approximately \$514.8 million for capital expenditures, while in 2017 we paid approximately \$387.5 million. While our capital expenditures have historically been approximately 6% to 7% of annual revenue, we incurred capital expenditures of approximately 8% to 9% of annual revenue in 2018 and expect to incur similar amounts in 2019 to adjust to a higher growth environment and to further improve our manufacturing cost structure. Future capital expenditures may be impacted by events and transactions that are not currently forecasted.

On April 15, 2016, in connection with the Fairchild Transaction, we entered into the Amended Credit Agreement which initially provided for a \$600 million Revolving Credit Facility and a \$2.2 billion Term Loan "B" Facility.

On September 30, 2016, we entered into the First Amendment (as defined below) pursuant to which, among other things, we increased the amount that may be borrowed under the Term Loan "B" Facility by \$200.0 million to \$2.4 billion, the proceeds of which were used to pay off the \$200.0 million outstanding balance under the Revolving Credit Facility.

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On March 31, 2017, we completed the private unregistered offering of \$575.0 million aggregate principal amount of the 1.625% Notes, which amount includes the full exercise of the initial purchasers' option to purchase additional 1.625% Notes. The net proceeds from the offering of the 1.625% Notes were used to repay \$562.1 million of borrowings outstanding under the Term Loan "B" Facility.

On November 30, 2017, we entered into the Third Amendment (as defined below) pursuant to which, among other things, we increased the amount that may be borrowed under the Revolving Credit Facility to \$1.0 billion. In connection with the Third Amendment, we prepaid \$400.0 million of borrowings under the Term Loan "B" Facility, bringing the outstanding borrowings under the Term Loan "B" Facility to approximately \$1.2 billion.

As of December 31, 2018, there was \$1,134.5 million outstanding under the Term Loan "B" Facility and \$400.0 million outstanding under the Revolving Credit Facility. The associated interest expense related to the Term Loan "B" Facility has had, and will continue to have, a material impact on our results of operations throughout the term of the Amended Credit Agreement.

We repurchased common stock worth approximately \$315.0 million under the 2014 Share Repurchase Program during the year ended December 31, 2018. We repurchased shares worth \$25.0 million of our common stock under the 2014 Share Repurchase Program in connection with the offering of the 1.625% Notes during the year ended December 31, 2017.

Cash Management

Our ability to manage cash is limited, as our primary cash inflows and outflows are dictated by the terms of our sales and supply agreements, contractual obligations, debt instruments and legal and regulatory requirements. While we have some flexibility with respect to the timing of capital equipment purchases, we must invest in capital equipment on a timely basis to allow us to maintain our manufacturing efficiency and support our platforms of new products.

Primary Cash Flow Sources

Our long-term cash generation is dependent on the ability of our operations to generate cash. Our cash flows from operating activities were \$1,274.2 million, \$1,094.2 million, and \$581.1 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Our cash flows provided by operating activities for the year ended December 31, 2018 increased by approximately \$180.0 million, or approximately 16.5%, compared to the year ended December 31, 2017. The increase was primarily attributable to better cash flows from operations and effective cash management. Our ability to maintain positive operating cash flows is dependent on, among other factors, our success in achieving our revenue goals and manufacturing and operating cost targets.

Our management of our assets and liabilities, including both working capital and long-term assets and liabilities, also influences our operating cash flows, and each of these components is discussed below.

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Working Capital

Working capital, calculated as total current assets less total current liabilities, fluctuates depending on end-market demand and our effective management of certain items such as receivables, inventory and payables. In times of escalating demand, our working capital requirements may be affected as we purchase additional manufacturing materials and increase production. Our working capital may also be affected by restructuring programs, which may require us to use cash for severance payments, asset transfers and contract termination costs. In addition, our working capital may be affected by acquisitions and transactions involving our convertible notes and other debt instruments. Our working capital, excluding cash and cash equivalents and the current portion of long-term debt, was \$767.4 million as of December 31, 2018 and has fluctuated between \$743.4 million and \$941.0 million at the end of each of our last eight fiscal quarters. Our working capital, including cash and cash equivalents and the current portion of long-term debt, was \$1,698.5 million as of December 31, 2018 and has fluctuated between \$1,022.0 million and \$1,782.3 million at the end of each of our last eight fiscal quarters.

Although investments made to fund working capital will reduce our cash balances, these investments are necessary to support business and operating initiatives. For the year ended December 31, 2018, our working capital was most significantly impacted by our capital expenditures and our repayment of long-term debt, including capital leases. See Note 9: "Long-Term Debt" and Note 10: "Earnings Per Share and Equity" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

Long-Term Assets and Liabilities

Our long-term assets consist primarily of property, plant and equipment, intangible assets, deferred taxes and goodwill.

Our manufacturing rationalization plans have included efforts to utilize our existing manufacturing assets and supply arrangements more efficiently. We believe that near-term access to additional manufacturing capacity, should it be required, could be readily obtained on reasonable terms through manufacturing agreements with third parties. We will continue to look for opportunities to make strategic purchases in the future for additional capacity.

Our long-term liabilities, excluding long-term debt and deferred taxes, consist of liabilities under our foreign defined benefit pension plans and contingent tax reserves. In regard to our foreign defined benefit pension plans, our annual funding of these obligations is at a minimum generally equal to the minimum amount legally required in each jurisdiction in which the plans operate. This annual amount is dependent upon numerous actuarial assumptions. For additional information, see Note 12: "Employee Benefit Plans" and Note 16: "Income Taxes" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

Key Financing and Capital Events

Overview

For the past several years, we have undertaken various measures to secure liquidity to pursue acquisitions, repurchase shares of our common stock, reduce interest costs, amend existing key financing arrangements and, in some cases, extend a portion of our debt maturities to continue to provide us additional operating flexibility. Certain of these measures continued in 2018. Set forth below is a summary of certain key financing events affecting our capital structure during the last three years. For further discussion of our debt instruments, see Note 9: "Long-Term Debt" and for further discussion on Share Repurchase Programs, see Note 10: "Earnings Per Share and Equity" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

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On April 15, 2016, the Company and certain of its subsidiaries, as guarantors (the "Guarantors"), entered into the Amended Credit Agreement, which provides for the Revolving Credit Facility and the Term Loan "B" Facility. Borrowings under the Amended Credit Agreement may be incurred in U.S. Dollars, Euros, Pounds Sterling, Japanese Yen or any other currency approved by the agent and the lenders under the Revolving Credit Facility, subject to certain qualifications described in the Amended Credit Agreement. Regardless of currency, all borrowings under the Amended Credit Agreement may, at the Company's option, be incurred as either eurocurrency loans ("Eurocurrency Loans") or alternate base rate loans ("ABR Loans").

On April 15, 2016, the Company and the Guarantors entered into a Guarantee and Collateral Agreement (the "Guarantee and Collateral Agreement"), pursuant to which the Amended Credit Agreement was guaranteed by the Guarantors and secured by a pledge of substantially all of the assets of the Company and the Guarantors, including a pledge of the equity interests in certain of the Company's domestic and first tier foreign subsidiaries, subject to customary exceptions. The obligations under the Amended Credit Agreement are also collateralized by mortgage on certain real property assets of the Company and its domestic subsidiaries.

Recent Events

2018 Financing Events

Amendments to the Amended Credit Agreement

On May 31, 2018, the Company, the Guarantors, the several lenders party thereto and the Agent entered into the Fourth Amendment to the Amended Credit Agreement (the "Fourth Amendment"). Pursuant to the Fourth Amendment, for any interest period ending after the date of the Fourth Amendment, Eurocurrency Loans will accrue interest at (i) a base rate per annum equal to the Adjusted LIBO Rate (as defined in the Amended Credit Agreement) plus (ii) an applicable margin equal to (x) 1.25% with respect to borrowings under the Revolving Credit Facility (with step-downs and step-ups as set forth in the Amended Credit Agreement) or (y) 1.75% with respect to borrowings under the Term Loan "B" Facility.

Pursuant to the Fourth Amendment, ABR Loans will accrue interest at (i) a base rate per annum equal to the highest of (x) the Federal funds rate plus 0.50%, (y) the prime commercial lending rate announced by the Agent from time to time as its prime lending rate and (z) the Adjusted LIBO Rate for a one month interest period (or if such day is not a business day, the immediately preceding business day) (determined after giving effect to any applicable "floor") plus 1.00%; provided that, the Adjusted LIBO Rate for any day shall be based on the LIBO Rate (as defined in the Amended Credit Agreement), subject to the interest rate floors set forth in the Amended Credit Agreement, plus (ii) an applicable margin equal to (x) 0.25% with respect to borrowings under the Revolving Credit Facility (with step-ups as set forth in the Amended Credit Agreement) or (y) 0.75% with respect to borrowings under the Term Loan "B" Facility.

During the year ended December 31, 2018 we prepaid \$70.0 million of borrowings under the Term Loan "B" Facility.

Share Repurchase Programs

We repurchased 16.8 million shares of our common stock for \$315.0 million under the 2014 Share Repurchase Program during the year ended December 31, 2018. No shares were repurchased under our 2018 Share Repurchase Program during the year ended December 31, 2018.

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We repurchased 4.2 million shares of our common stock for \$71.7 million under our 2018 Share Repurchase Program subsequent to December 31, 2018 through February 15, 2019.

2017 Financing Events

Amendments to the Amended Credit Agreement

On April 15, 2016, we and the Guarantors entered into the Amended Credit Agreement. On March 31, 2017, we and the Guarantors entered into the Second Amendment to the Amended Credit Agreement (the "Second Amendment"). The Second Amendment provided for, among other things, modifications to the Amended Credit Agreement to allow the 1.625% Notes to rank pari passu with borrowings under the Amended Credit Agreement and to reduce the interest rates payable under the Term Loan "B" Facility and the Revolving Credit Facility. For any interest period ending after the date of the Second Amendment, the Second Amendment reduced the applicable margins on borrowings under Eurocurrency Loans to 1.75% and 2.25% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively, and reduced applicable margins on borrowings under ABR Loans to 0.75% and 1.25% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively. For further discussion of the Amended Credit Agreement, see "2016 Financing Events—Amended Credit Agreement."

During the quarter ended June 30, 2017, we repaid in full the \$120.0 million outstanding under the Revolving Credit Facility. During the quarter ended September 29, 2017, we prepaid \$200.0 million of borrowings under the Term Loan "B" Facility.

On November 30, 2017, we and the Guarantors entered into the Third Amendment to the Amended Credit Agreement (the "Third Amendment"). The Third Amendment provided for, among other things, modifications to the Amended Credit Agreement to reduce the interest rate payable under the Term Loan "B" Facility and to increase the amount that may be borrowed pursuant to the Revolving Credit Facility to \$1.0 billion. For any interest period ending after the date of the Third Amendment, the Third Amendment reduced the applicable margins on Eurocurrency Loans to 2.00% for borrowings under the Term Loan "B" Facility, and reduced applicable margins on ABR Loans to 1.00% for borrowings under the Term Loan "B" Facility. In connection with the Third Amendment, we prepaid \$400.0 million of borrowings under the Term Loan "B" Facility, bringing the outstanding borrowings under the Term Loan "B" Facility to approximately \$1.2 billion as of the date of the Third Amendment. We had \$400.0 million of borrowings outstanding under the Revolving Credit Facility as of the date of the Third Amendment.

Issuance of 1.625% Notes

On March 31, 2017, we completed a private placement of \$575.0 million of our 1.625% Notes to qualified institutional buyers pursuant to Rule 144A under the Securities Act. The 1.625% Notes are governed by an indenture (the "1.625% Indenture") between the Company, the guarantors party thereto, and Wells Fargo Bank, National Association, as trustee. The net proceeds from the offering of the 1.625% Notes were used to repay \$562.1 million of borrowings outstanding under the Term Loan "B" Facility. The 1.625% Notes bear interest at the rate of 1.625% per year from the date of issuance, payable semiannually in arrears on April 15 and October 15 of each year, beginning on October 15, 2017. The 1.625% Notes are fully and unconditionally guaranteed, on a joint and several basis, by each of our subsidiaries that is a borrower or guarantor under our Amended Credit Agreement.

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Share Repurchase Programs

We repurchased approximately 1.6 million shares of our common stock for an aggregate purchase price of \$25.0 million pursuant to the 2014 Share Repurchase Program in connection with the offering of the 1.625% Notes during the year ended December 31, 2017.

2016 Financing Events

Redemption of 2.625% Notes, Series B

On November 17, 2016, we announced that we would be exercising our option to redeem the entire \$356.9 million outstanding principal amount of the 2.625% Notes, Series B, on December 20, 2016 pursuant to the terms of the indenture governing the 2.625% Notes, Series B (the "2.625% Notes, Series B Indenture"). The holders of the 2.625% Notes, Series B, had the right to convert their 2.625% Notes, Series B, into shares of common stock of the Company at a conversion rate of 95.2381 shares per \$1,000 principal amount until the close of business on December 19, 2016. We satisfied our conversion obligation with respect to the 2.625% Notes, Series B, tendered for conversion with cash. The final conversion was settled on January 26, 2017, resulting in an aggregate payment of approximately \$445.0 million for the redemption and conversion of the 2.625% Notes, Series B.

Amended Credit Agreement

On April 15, 2016, we entered into: (1) the Amended Credit Agreement; and (2) the Guarantee and Collateral Agreement. Subject to the terms and conditions of the Amended Credit Agreement, on April 15, 2016, we borrowed an aggregate of \$2.2 billion under the Term Loan "B" Facility (the "Gross Proceeds").

On April 15, 2016, the Gross Proceeds, along with certain other amounts funded by the Company, were deposited into escrow accounts pursuant to the terms of an escrow agreement and, upon release from escrow, in accordance with the terms of the escrow agreement, were available primarily to pay, directly or indirectly, the purchase price of the Fairchild Transaction pursuant to the terms of the Fairchild Agreement and certain other items, subject to the terms and conditions of the Amended Credit Agreement.

On September 19, 2016, the Company completed the acquisition and acquired 100% of Fairchild, whereby Fairchild became a wholly-owned subsidiary of the Company. The Company funded the acquisition with the Term Loan "B" Facility proceeds and Company funded amounts previously deposited into escrow accounts, proceeds from a \$200.0 million draw against the Company's Revolving Credit Facility, and existing cash on hand. Proceeds from the Term Loan "B" Facility were also used to pay for debt issuance costs, transaction fees and expenses.

On September 30, 2016, we and the Guarantors entered into the First Amendment to the Amended Credit Agreement (the "First Amendment"). The First Amendment reduced the applicable margins on Eurocurrency Loans to 2.75% and 3.25% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively, and reduced applicable margins on ABR Loans to 1.75% and 2.25% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively. Additionally, the First Amendment included the following: (i) the Term Loan "B" Facility was increased to \$2.4 billion; (ii) certain restructuring transactions and intercompany IP transfers are permitted in order to achieve efficient integration of the Company, its subsidiaries and acquired entities; and (iii) certain changes were made to the provisions regarding hedge agreements to allow the Company and each of the guarantors to enter into certain hedge arrangements. We used the additional \$200.0 million proceeds under the Term Loan "B" Facility to pay off the \$200.0 million outstanding balance under the Revolving Credit Facility.

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Share Repurchase Programs

We did not repurchase shares pursuant to the 2014 Share Repurchase Program during the year ended December 31, 2016, as we focused on the funding required for the Fairchild Transaction.

Debt Guarantees and Related Covenants

As of December 31, 2018, we were in compliance with the indentures relating to our 1.00% Notes and 1.625% Notes and with covenants relating to our Term Loan "B" Facility, Revolving Credit Facility and our other debt agreements. Our 1.00% Notes are senior to the existing and future subordinated indebtedness of ON Semiconductor and its guarantor subsidiaries. Our 1.625% Notes rank equally in right of payment to all of our existing and future senior debt and as unsecured obligations are subordinated to all of our existing and future secured debt. See Note 9: "Long-Term Debt" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

Critical Accounting Policies and Estimates

The accompanying discussion and analysis of our financial condition and results of operations is based upon our audited consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. We believe certain of our accounting policies are critical to understanding our financial position and results of operations. We utilize the following critical accounting policies in the preparation of our financial statements.

Use of Estimates. The preparation of financial statements in accordance with GAAP requires us to make estimates and assumptions that affect the reported amount of assets and liabilities at the date of the financial statements and the reported amount of revenue and expenses during the reporting period. We evaluate these estimates and judgments on an ongoing basis and base our estimates on experience, current and expected future conditions, third-party evaluations and various other assumptions that we believe are reasonable under the circumstances. Significant estimates have been used by management in conjunction with the following: (i) estimates of future payouts for customer incentives and estimates of amounts subject to allowances, returns and warranties; (ii) measurement of valuation allowances relating to inventories; (iii) fair values of share-based compensation and of financial instruments (including derivative financial instruments); and (iv) measurement of valuation allowances against deferred tax assets, evaluations of uncertain tax positions, and impact of U.S. tax reform. Additionally, during periods where it becomes applicable, significant estimates will be used by management in determining the future cash flows used to assess and test for impairment of goodwill, indefinite-lived intangible assets and long-lived assets and in assumptions used in connection with business combinations. Actual results may differ from the estimates.

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Revenue. We generate revenue from sales of our semiconductor products to OEMs, electronic manufacturing service providers and distributors. We also generate revenue, to a much lesser extent, from product development agreements and manufacturing services provided to customers. We recognize revenue when we satisfy a performance obligation in an amount reflecting the consideration to which we expect to be entitled. For sales agreements, we have identified the promise to transfer products, each of which is distinct, to be the performance obligation. For product development agreements, we have identified the completion of a service defined in the agreement to be the performance obligation. We apply a five step approach in determining the amount and timing of revenue to be recognized: (1) identifying the contract with a customer; (2) identifying the performance obligations in the contract; (3) determining the transaction price; (4) allocating the transaction price to the performance obligations in the contract; and (5) recognizing revenue when the performance obligation is satisfied. We allocate the transaction price to each distinct product based on its relative stand-alone selling price. In determining the transaction price, we evaluate whether the price is subject to refund or adjustment to determine the net consideration to which we expect to be entitled. Sales to certain distributors, primarily those with ship and credit rights, can be subject to price adjustment on certain products. Substantially all of our revenue is recognized at the time control of the products transfers to the customer.

Prior to the first quarter of 2017, for products sold to distributors who are entitled to ship and credit rights, we recognized the related revenue and cost of revenue when we were informed by the distributor that it had resold the products to the end-user. This was due to our inability to reliably estimate up front the effects of the returns and allowances with these distributors. In anticipation of the adoption of the New Revenue Standard (see Note 3: "Revenue and Segment Information"), we had developed our internal systems, processes and controls for making the required estimates on the sales to these distributors. We develop an estimate of their expected claims under the ship and credit program based primarily on the historical claims submitted by product and customer which requires the use of estimates and assumptions related to the amount of each claim as well as the historical period used to develop the estimate.

Our OEM customers do not have the right to return products, other than pursuant to the provisions of the Company's standard warranty. Sales to distributors, however, are typically made pursuant to agreements that provide return rights and stock rotation provisions permitting limited levels of product returns. Provisions for discounts and rebates to customers, estimated returns and allowances, ship and credit claims and other adjustments are provided for in the same period the related revenue are recognized, and are netted against revenue. For returns, we recognize a related asset for the right to recover returned products with a corresponding reduction to cost of goods sold. We record a reserve for cash discounts as a reduction to accounts receivable and a reduction to revenue, based on the experience with each customer. Although payment terms vary, most distributor agreements require payment within 30 days. In addition, the Company offers cash discounts to certain customers for payments received within an agreed upon time, generally 10 days after shipment.

We have elected to record freight and handling costs associated with outbound freight after control over a product has transferred to a customer as a fulfillment cost and include it in cost of revenue. Taxes assessed by government authorities on revenue-producing transactions, including value-added and excise taxes, are presented on a net basis (excluded from revenue) in the Consolidated Statements of Operations and Comprehensive Income.

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Inventories. We carry our inventories at the lower of standard cost (which approximates actual cost on a first-in, first-out basis) or net realizable value and record provisions for potential excess and obsolete inventories based upon a regular analysis of inventory on hand compared to historical and projected end-user demand. The determination of projected end-user demand requires the use of estimates and assumptions related to projected unit sales for each product. These provisions can influence our results from operations. For example, when demand falls for a given part, all or a portion of the related inventory that is considered to be in excess of anticipated demand is reserved, impacting our cost of revenue and gross profit. If demand recovers and the parts previously reserved are sold, we will generally recognize a higher than normal margin. However, the majority of product inventory that has been previously reserved is ultimately discarded. Although we do sell some products that have previously been written down, such sales have historically been relatively consistent on a quarterly basis and the related impact on our margins has not been material.

Share-Based Compensation. We record compensation expense for all share-based payment awards including RSUs and ESPPs and measure them at the grant date, based on the estimated fair value of the award, recognized as an expense over the employee's requisite service period. Determining the amount of share-based compensation to be recorded requires us to develop estimates to be used in calculating the grant-date fair value of the award. We calculate the grant-date fair values of the award using valuation models. The use of valuation models requires us to make estimates of key assumptions such as expected option term and stock price volatility to determine the fair value of the award. The estimate of these key assumptions is based on historical information and judgment regarding market factors and trends. For the past several years, we have utilized RSUs as our primary equity incentive compensation for employees. We have outstanding awards with performance, time and service-based vesting provisions.

Income Taxes. Income taxes are accounted for using the asset and liability method. Under this method, deferred income tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided for those deferred tax assets for which we cannot conclude that it is more likely than not that such deferred tax assets will be realized.

In determining the amount of the valuation allowance, estimated future taxable income, as well as feasible tax planning strategies for each taxing jurisdiction, are considered. If we determine it is more likely than not that all or a portion of the remaining deferred tax assets will not be realized, the valuation allowance will be increased with a charge to income tax expense. Conversely, if we determine it is more likely than not to be able to utilize all or a portion of the deferred tax assets for which a valuation allowance has been provided, the related portion of the valuation allowance will be recorded as a reduction to income tax expense.

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We recognize and measure benefits for uncertain tax positions using a two-step approach. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the weight of available evidence indicates that it is more likely than not that the tax positions will be sustained upon audit, including resolution of any related appeals or litigation processes. For tax positions that are more likely than not to be sustained upon audit, the second step is to measure the tax benefit as the largest amount that is more than 50% likely to be realized upon settlement. Our practice is to recognize interest and/or penalties related to income tax matters in income tax expense. Significant judgment is required to evaluate uncertain tax positions. Evaluations are based upon a number of factors, including changes in facts or circumstances, changes in tax law, correspondence with tax authorities during the course of tax audits and effective settlement of audit issues. Changes in the recognition or measurement of uncertain tax positions could result in material increases or decreases in income tax expense in the period in which the change is made, which could have a material impact to our effective tax rate. See Note 16: "Income Taxes" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information. See also "Management's Discussion and Analysis—Results of Operations—Income Tax Provision (Benefit)" for additional information.

Impairment of Goodwill, Indefinite-lived Intangible Assets and Long-Lived Assets. We evaluate our goodwill for potential impairment annually during the fourth quarter and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable. Our impairment evaluation consists of a qualitative assessment, and if deemed necessary, a quantitative test is performed which compares the fair value of a reporting unit with its carrying amount, including goodwill.

If the fair value of the reporting unit exceeds the carrying value of the net assets associated with that unit, goodwill is not considered impaired. If the carrying value of the net assets associated with the reporting unit exceeds the fair value of the reporting unit, goodwill is considered impaired and will be determined as the amount by which the reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. Determining the fair value of our reporting units is subjective in nature and involves the use of significant estimates and assumptions, including projected net cash flows, discount and long-term growth rates. We determine the fair value of our reporting units based on an income approach, whereby the fair value of the reporting unit is derived from the present value of estimated future cash flows. The assumptions about estimated cash flows include factors such as future revenue, gross profit, operating expenses, and industry trends. We consider historical rates and current market conditions when determining the discount and long-term growth rates to use in its analysis. We consider other valuation methods, such as the cost approach or market approach, if it is determined that these methods provide a more representative approximation of fair value.

We are required to test our IPRD assets for impairment annually using the guidance for indefinite-lived intangible assets. An IPRD asset is considered to be impaired when the asset's carrying amount is greater than its fair value. Our impairment evaluation consists of first assessing qualitative factors, and if deemed necessary, we calculate the fair value of the IPRD asset and record an impairment charge if the carrying amount exceeds fair value. We determine the fair value based on an income approach, which is calculated as the present value of the estimated future cash flows of the IPRD asset. The assumptions about estimated cash flows include factors such as future revenue, gross profit, operating expenses, and industry trends.

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We evaluate the recoverability of the carrying amount of our property, plant and equipment and intangible assets (excluding IPRD), whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be fully recoverable. Impairment is first assessed when the undiscounted expected cash flows derived for an asset group are less than its carrying amount. Impairment losses, if applicable, are measured as the amount by which the carrying value of an asset group exceeds its fair value and are recognized in operating results. We continually apply our best judgment when applying these impairment rules to determine the timing of the impairment test, the undiscounted cash flows used to assess impairments and the fair value of an impaired asset group. The dynamic economic environment in which we operate and the resulting assumptions used to estimate future cash flows impact the outcome of our impairment tests.

Business Combination. We use significant estimates and assumptions in allocating the purchase price of acquired business by utilizing established valuation techniques appropriate for the technology industry. We utilize the income approach, cost approach or market approach, depending upon which approach is the most appropriate based on the nature and reliability of available data. The income approach is predicated upon the value of the future cash flows that an asset is expected to generate over its economic life and involves significant assumptions as to cash flows, associated expenses, long-term growth rates and discount rates. The cost approach takes into account the cost to replace (or reproduce) the asset and involves assumptions relating to the asset's value of physical, functional and/or economic obsolescence that has occurred with respect to the asset. The market approach is used to estimate value from an analysis of actual transactions or offerings for economically comparable assets available as of the valuation date.

Contingencies. We are involved in a variety of legal matters that arise in the normal course of business. Based on the available information, we evaluate the relevant range and likelihood of potential outcomes and we record the appropriate liability when the amount is deemed probable and reasonably estimable.

For a further listing and discussion of our accounting policies, see Note 2: "Significant Accounting Policies" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

Recent Accounting Pronouncements

For a discussion of recent accounting pronouncements, see Note 4: "Recent Accounting Pronouncements" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to financial market risks, including changes in interest rates and foreign currency exchange rates. To mitigate these risks, we utilize derivative financial instruments. We do not use derivative financial instruments for speculative or trading purposes.

As of December 31, 2018, our long-term debt (including current maturities) totaled \$2,939.0 million. We have no interest rate exposure to rate changes on our fixed rate debt, which totaled \$2,295.4 million. We do have interest rate exposure with respect to the \$643.6 million balance of our variable interest rate debt outstanding as of December 31, 2018. A 50 basis point increase in interest rates would impact our expected annual interest expense for the next 12 months by approximately \$3.2 million. However, some of this impact would be offset by additional interest earned on our cash and cash equivalents should rates on deposits and investments also increase. We entered into interest rate swaps to hedge some of the risk of variability in cash flows resulting from future interest payments on our variable interest rate debt under the Term Loan "B" Facility.

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To ensure the adequacy and effectiveness of our foreign exchange hedge positions, we continually monitor our foreign exchange forward positions, both on a stand-alone basis and in conjunction with their underlying foreign currency exposures, from an accounting and economic perspective. However, given the inherent limitations of forecasting and the anticipatory nature of exposures intended to be hedged, we cannot provide any assurances that such programs will offset more than a portion of the adverse financial impact resulting from unfavorable movements in foreign exchange rates.

We are subject to risks associated with transactions that are denominated in currencies other than our functional currencies, as well as the effects of translating amounts denominated in a foreign currency to the United States Dollar as a normal part of the reporting process. Some of our Japanese operations utilize Japanese Yen as the functional currency, which results in a translation adjustment that is included as a component of accumulated other comprehensive income.

We enter into forward foreign currency contracts that economically hedge the gains and losses generated by the re-measurement of certain recorded assets and liabilities in a non-functional currency. Changes in the fair value of these undesignated hedges are recognized in other income and expense immediately as an offset to the changes in the fair value of the assets or liabilities being hedged. The notional amount of foreign currency contracts at December 31, 2018 and 2017 was \$157.3 million and \$130.5 million, respectively. Our policies prohibit speculation on financial instruments, trading in currencies for which there are no underlying exposures, or entering into trades for any currency to intentionally increase the underlying exposure.

Substantially all of our revenue is transacted in U.S. dollars. However, a significant amount of our operating expenditures and capital purchases are transacted in local currencies, including Japanese Yen, Euros, Korean Won, Malaysian Ringgit, Philippines Peso, Singapore Dollars, Swiss Francs, Chinese Renminbi, and Czech Koruna. Due to the materiality of our transactions in these local currencies, our results are impacted by changes in currency exchange rates measured against the U.S. dollar. For example, we determined that based on a hypothetical weighted-average change of 10% in currency exchange rates, our results would have impacted our income before taxes by approximately \$102.9 million for the year ended December 31, 2018, assuming no inter-relationship between the currencies.

See Note 15: "Financial Instruments" in the notes to the audited consolidated financial statements included elsewhere in this Form 10-K for further information with respect to our hedging activity.

Item 8. *Financial Statements and Supplementary Data*

Our consolidated Financial Statements listed in the index appearing under Part IV, Item 15(a)(1) of this Form 10-K and the Financial Statement Schedule listed in the index appearing under Part IV, Item 15(a)(2) of this Form 10-K are filed as part of this Form 10-K and are incorporated herein by reference in this Item 8.

Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure*

None.

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Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures .

We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act). Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered in this Form 10-K, our disclosure controls and procedures were effective to ensure that information required to be disclosed in reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the required time periods and is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting.

We also carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of changes to our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) that occurred during the fiscal quarter ended December 31, 2018.

There have been no changes to our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) that occurred during the fiscal quarter ended December 31, 2018 which have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)). Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control—Integrated Framework 2013*. Based on this assessment, management has concluded that our internal control over financial reporting was effective as of December 31, 2018.

The effectiveness of our internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears in "Exhibits and Financial Statement Schedules" of this Form 10-K.

Item 9B. Other Information

None.

PART III

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

The information under the heading “Executive Officers of the Registrant” in this Form 10-K is incorporated by reference into this section. Information concerning directors and persons nominated to become directors and executive officers is incorporated by reference from the text under the captions “Management Proposals—Proposal No. 1: Election of Directors,” “The Board of Directors and Corporate Governance,” “Section 16(a) Reporting Compliance” and “Miscellaneous Information—Stockholder Nominations and Proposals” in our Proxy Statement to be filed pursuant to Regulation 14A within 120 days after our fiscal year ended December 31, 2018 in connection with our 2019 Annual Meeting of Stockholders (“Proxy Statement”).

Code of Business Conduct

Information concerning our Code of Business Conduct is incorporated by reference from the text under the caption “The Board of Directors and Corporate Governance—Code of Business Conduct” in our Proxy Statement.

Item 11. *Executive Compensation*

Information concerning executive compensation is incorporated by reference from the text under the captions “The Board of Directors and Corporate Governance—2018 Compensation of Directors,” “Compensation of Executive Officers,” “Compensation Committee Report,” “Compensation Discussion and Analysis” and “Compensation Committee Interlocks and Insider Participation” in our Proxy Statement.

The information incorporated by reference under the caption “Compensation Committee Report” in our Proxy Statement shall be deemed furnished, and not filed, in this Form 10-K and shall not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act as a result of this furnishing, except to the extent that we specifically incorporate it by reference.

Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

Information concerning security ownership of certain beneficial owners and management is incorporated by reference from the text under the captions “Principal Stockholders,” “Share Ownership of Directors and Officers” and “Share-Based Compensation Plan Information” in our Proxy Statement.

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

Information concerning certain relationships and related transactions involving us and certain others is incorporated by reference from the text under the captions “Management Proposals—Proposal No. 1: Election of Directors,” “The Board of Directors and Corporate Governance,” “Compensation of Executive Officers” and “Relationships and Related Transactions” in our Proxy Statement.

Item 14. *Principal Accountant Fees and Services*

Information concerning principal accounting fees and services is incorporated by reference from the text under the caption “Management Proposals—Proposal No. 3: Ratification of Appointment of Independent Registered Public Accounting Firm—Audit and Related Fees” in our Proxy Statement.

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PART IV

Item 15. Exhibits and Financial Statement Schedules

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

(1) Consolidated Financial Statements:

ON Semiconductor Corporation and Subsidiaries Consolidated Financial Statements:

Report of Independent Registered Public Accounting Firm	94
Consolidated Balance Sheets as of December 31, 2018 and December 31, 2017	96
Consolidated Statements of Operations and Comprehensive Income for the years ended December 31, 2018, 2017 and 2016	97
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2018, 2017 and 2016	98
Consolidated Statements of Cash Flows for the years ended December 31, 2018, 2017 and 2016	99
Notes to Consolidated Financial Statements	100

(2) Consolidated Financial Statement Schedule:

Schedule II - Valuation and Qualifying Accounts	168
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All other schedules are omitted because they are not applicable or the required information is shown in the financial statements or related notes

(3) Exhibits:

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EXHIBIT INDEX*

<u>Exhibit No.</u>	<u>Exhibit Description</u>
2.1	Reorganization Agreement, dated as of May 11, 1999, among Motorola, Inc., SCG Holding Corporation and Semiconductor Components Industries, LLC (incorporated by reference to Exhibit 2.1 to the Company's Registration Statement filed with the Commission on November 5, 1999 (File No. 333-90359))†
2.2(a)	Agreement and Plan of Recapitalization and Merger, as amended, dated as of May 11, 1999, among SCG Holding Corporation, Semiconductor Components Industries, LLC, Motorola, Inc., TPG Semiconductor Holdings LLC, and TPG Semiconductor Acquisition Corp. (incorporated by reference to Exhibit 2.2 to the Company's Registration Statement filed with the Commission on November 5, 1999 (File No. 333-90359))†
2.2(b)	Amendment No. 1 to Agreement and Plan of Recapitalization and Merger, dated as of July 28, 1999, among SCG Holding Corporation, Semiconductor Components Industries, LLC, Motorola, Inc., TPG Semiconductor Holdings LLC, and TPG Semiconductor Acquisition Corp. (incorporated by reference to Exhibit 2.3 to the Company's Registration Statement filed with the Commission on November 5, 1999 (File No. 333-90359))†
2.3(a)	Purchase Agreement by and among ON Semiconductor Corporation, Semiconductor Components Industries, LLC and SANYO Electric Co., Ltd. dated July 15, 2010 (incorporated by reference to Exhibit 2.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on November 4, 2010)†
2.3(b)	Amendment No. 1 to Purchase Agreement by and among ON Semiconductor Corporation, Semiconductor Components Industries, LLC and SANYO Electric Co., Ltd. dated November 30, 2010 (incorporated by reference to Exhibit 2.2 to the Company's Current Report on Form 8-K filed with the Commission on January 6, 2011)†
2.4	Agreement and Plan of Merger by and among ON Semiconductor Benelux B.V., Alpine Acquisition Sub, Aptina, Inc. and Fortis Advisors LLC, as Equityholder Representative, dated as of June 9, 2014 (incorporated by reference to Exhibit 2.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 1, 2014)†
2.5	Agreement and Plan of Merger, dated November 18, 2015, by and among Fairchild Semiconductor International, Inc., ON Semiconductor Corporation and Falcon Operations Sub, Inc. (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed with the Commission on November 18, 2015)†
2.6	Asset Purchase Agreement, dated as of March 11, 1997, between Fairchild Semiconductor Corporation and National Semiconductor Corporation (incorporated by reference to Exhibit 2.02 to Fairchild Semiconductor Corporation's Registration Statement filed with the Commission on May 12, 1997 (File No. 333-26897))†

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
3.1(a)	<u>Certificate of Incorporation of ON Semiconductor Corporation, as further amended through March 26, 2008 (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on May 7, 2008)</u>
3.1(b)	<u>Certificate of Amendment to the Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Commission on June 3, 2014)</u>
3.1(c)	<u>Certificate of Amendment to the Amended and Restated Certificate of Incorporation, dated May 17, 2017 (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 7, 2017)</u>
3.2	<u>By-Laws of ON Semiconductor Corporation as Amended and Restated on November 21, 2013 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Commission on November 25, 2013)</u>
4.1	<u>Specimen of share certificate of Common Stock, par value \$0.01, ON Semiconductor Corporation (incorporated by reference to Exhibit 4.1 to the Company's Annual Report on Form 10-K filed with the Commission on March 10, 2004)</u>
4.2(a)	<u>Indenture regarding the 1.00% Convertible Senior Notes due 2020, dated June 8, 2015, among ON Semiconductor Corporation, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Commission on June 8, 2015)</u>
4.2(b)	<u>Form of Global 1.00% Convertible Senior Note due 2020 (included in Exhibit 4.2(a))</u>
4.2(c)	<u>Supplemental Indenture to the Indenture regarding the 1.00% Convertible Senior Notes due 2020, dated March 11, 2016, among ON Semiconductor Corporation, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Commission on March 17, 2016)</u>
4.2(d)	<u>Second Supplemental Indenture to the Indenture regarding the 1.00% Convertible Senior Notes 2020, dated April 14, 2016, among ON Semiconductor Corporation, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Commission on April 15, 2016)</u>
4.2(e)	<u>Third Supplemental Indenture to the Indenture regarding the 1.00% Convertible Senior Notes due 2020, dated November 21, 2016, among ON Semiconductor Corporation, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Commission on November 21, 2016)</u>

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
4.3(a)	<u>Indenture regarding the 1.625% Convertible Senior Notes due 2023, dated as of March 31, 2017 among ON Semiconductor Corporation, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Commission on April 3, 2017)</u>
4.3(b)	<u>Form of Global 1.625% Convertible Senior Note due 2023 (included in Exhibit 4.3(a))</u>
10.1	<u>Amended and Restated Intellectual Property Agreement, dated August 4, 1999, among Semiconductor Components Industries, LLC and Motorola, Inc. (incorporated by reference to Exhibit 10.5 to Amendment No. 1 to the Company's Registration Statement filed with the Commission on January 11, 2000 (File No. 333-90359))</u>
10.2	<u>Lease for 52nd Street property, dated July 31, 1999, among Semiconductor Components Industries, LLC as Lessor, and Motorola, Inc. as Lessee (incorporated by reference to Exhibit 10.16 to the Company's Registration Statement filed with the Commission on November 5, 1999 (File No. 333-90359))</u>
10.3	<u>Declaration of Covenants, Easement of Restrictions and Options to Purchase and Lease, dated July 31, 1999, among Semiconductor Components Industries, LLC and Motorola, Inc. (incorporated by reference to Exhibit 10.17 to the Company's Registration Statement filed with the Commission on November 5, 1999 (File No. 333-90359))</u>
10.4(a)	<u>Joint Venture Contract for Leshan-Phoenix Semiconductor Company Limited, amended and restated on April 20, 2006 between SCG (China) Holding Corporation (a subsidiary of ON Semiconductor Corporation) and Leshan Radio Company Ltd. (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed with the Commission on July 28, 2006)</u>
10.4(b)	<u>Amendment Agreement, dated September 29, 2014, to Joint Venture Contract for Leshan-Phoenix Semiconductor Company Limited between ON Semiconductor (China) Holding, LLC (a subsidiary of ON Semiconductor Corporation) and Leshan Radio Company Ltd. (incorporated by reference to Exhibit 10.5(b) to the Company's Annual Report on Form 10-K filed with the Commission on February 27, 2015)</u>
10.5(a)	<u>Credit Agreement, dated April 15, 2016, among ON Semiconductor Corporation, as borrower, the several lenders party thereto, Deutsche Bank AG New York Branch, as administrative agent and collateral agent, Deutsche Bank Securities Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, BMO Capital Markets Corp., HSBC Securities (USA) Inc. and Sumitomo Mitsui Banking Corporation, as joint lead arrangers and joint bookrunners, Barclays Bank PLC, Compass Bank, The Bank of Tokyo-Mitsubishi UFJ, Ltd., Morgan Stanley Senior Funding, Inc., BOKF, NA and KBC Bank N.V., as co-managers, and HSBC Bank USA, N.A. and Sumitomo Mitsui Banking Corporation, as co-documentation agents (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on April 15, 2016)</u>

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
10.5(b)	<u>Guarantee and Collateral Agreement, dated April 15, 2016, made by ON Semiconductor Corporation and the other signatories thereto in favor of Deutsche Bank AG New York Branch, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Commission on April 15, 2016)</u>
10.5(c)	<u>Escrow Agreement, dated April 15, 2016, among ON Semiconductor Corporation, MUFG Union Bank, N.A., as escrow agent, and Deutsche Bank AG New York Branch, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed with the Commission on April 15, 2016)</u>
10.5(d)	<u>Joinder to Amended and Restated Guaranty, dated March 15, 2016, among the guarantors party thereto (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on March 17, 2016)</u>
10.5(e)	<u>Joinder to Amended and Restated Guaranty, dated April 14, 2016, among the guarantors party thereto (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed with the Commission on April 15, 2016)</u>
10.5(f)	<u>Assumption Agreement, dated September 19, 2016, by and between ON Semiconductor (China) Holdings, LLC and Deutsche Bank AG New York Branch (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on September 23, 2016)</u>
10.5(g)	<u>Pledge Supplement, dated September 19, 2016, by ON Semiconductor (China) Holdings, LLC (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Commission on September 23, 2016)</u>
10.5(h)	<u>Assumption Agreement, dated September 19, 2016, by and among Fairchild Semiconductor International, Inc., Fairchild Semiconductor Corporation, Fairchild Semiconductor Corporation of California, Giant Holdings, Inc., Fairchild Semiconductor West Corporation, Kota Microcircuits, Inc., Silicon Patent Holdings, Giant Semiconductor Corporation, Micro-Ohm Corporation, Fairchild Energy, LLC and Deutsche Bank AG New York Branch (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed with the Commission on September 23, 2016)</u>
10.5(i)	<u>Pledge Supplement, dated September 19, 2016, by Fairchild Semiconductor International, Inc., Fairchild Semiconductor Corporation, Fairchild Semiconductor Corporation of California, Giant Holdings, Inc., Fairchild Semiconductor West Corporation, Kota Microcircuits, Inc., Silicon Patent Holdings, Giant Semiconductor Corporation, Micro-Ohm Corporation and Fairchild Energy, LLC (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed with the Commission on September 23, 2016)</u>

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
10.5(j)	<u>First Amendment to Credit Agreement, dated September 30, 2016, among ON Semiconductor Corporation, as borrower, certain subsidiaries thereof, as guarantors, the several lenders party thereto, and Deutsche Bank AG New York Branch, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on September 30, 2016)</u>
10.5(k)	<u>Second Amendment to Credit Agreement, dated March 31, 2017, among ON Semiconductor Corporation, as borrower, certain subsidiaries thereof, as guarantors, the several lenders party thereto, and Deutsche Bank AG New York Branch, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on April 3, 2017)</u>
10.5(l)	<u>Third Amendment to Credit Agreement, dated November 30, 2017, among ON Semiconductor Corporation, as borrower, certain subsidiaries thereof, as guarantors, the several lenders party thereto, and Deutsche Bank AG New York Branch, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on December 4, 2017)</u>
10.5(m)	<u>Fourth Amendment to Credit Agreement, dated May 31, 2018, among ON Semiconductor Corporation, as borrower, certain subsidiaries thereof, as guarantors, the several lenders party thereto, and Deutsche Bank AG New York Branch, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on July 30, 2018)</u>
10.6(a)	<u>Form of Convertible Note Hedge and Warrant Transactions (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on June 8, 2015)</u>
10.6(b)	<u>Form of Warrant Confirmation (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Commission on June 8, 2015)</u>
10.7(a)	<u>ON Semiconductor Corporation 2000 Stock Incentive Plan, as amended and restated May 19, 2004 (incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 6, 2004)(2)</u>
10.7(b)	<u>Amendment to the ON Semiconductor Corporation 2000 Stock Incentive Plan, dated May 16, 2007 (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 1, 2007)(2)</u>
10.7(c)	<u>Non-qualified Stock Option Agreement for the ON Semiconductor Corporation 2000 Stock Incentive Plan (incorporated by reference to Exhibit 10.35(d) to Amendment No. 1 to the Company's Registration Statement filed with the Commission on March 24, 2000 (File No. 333-30670))(2)</u>

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
10.7(d)	<u>ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement filed with the Commission on May 19, 2010 (File No. 333-166958))(2)</u>
10.7(e)	<u>First Amendment to the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 3, 2012)(2)</u>
10.7(f)	<u>Second Amendment to the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan, effective May 20, 2015 (incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 3, 2015)(2)</u>
10.7(g)	<u>Third Amendment to the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan, effective May 17, 2017 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 7, 2017)(2)</u>
10.7(h)	<u>Non-qualified Stock Option Agreement for Directors for the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (form of standard agreement) (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 5, 2010)(2)</u>
10.7(i)	<u>Non-qualified Stock Option Agreement for Senior Vice Presidents and Above for the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (form of standard agreement) (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 5, 2010)(2)</u>
10.7(j)	<u>Restricted Stock Units Award Agreement for Senior Vice Presidents and Above for the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (form of standard agreement) (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 5, 2010)(2)</u>
10.7(k)	<u>Stock Grant Award Agreement for Directors under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (form of standard Stock Grant Award for Non-employee Directors) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on May 6, 2011)(2)</u>
10.7(l)	<u>Performance-Based Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (form of Performance-Based Award for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Commission on May 6, 2011)(2)</u>

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
10.7(m)	<u>Performance-Based Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2012 form of Performance-Based Award for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on May 4, 2012)(2)</u>
10.7(n)	<u>Performance-Based Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2013 form of Performance-Based Award for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on May 3, 2013)(2)</u>
10.7(o)	<u>Performance-Based Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2014 form of Performance-Based Award for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on May 2, 2014)(2)</u>
10.7(p)	<u>Performance-Based Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2015 form of Performance-Based Award for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 3, 2015)(2)</u>
10.7(q)	<u>Performance-Based Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2016 form of Performance-Based Award for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 8, 2016)(2)</u>
10.7(r)	<u>Performance-Based Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2017 form of Performance-Based Award for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 7, 2017)(2)</u>
10.7(s)	<u>Performance-Based Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2018 form of Performance-Based Award for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on April 30, 2018)(2)</u>
10.7(t)	<u>Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2018 form agreement for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Commission on April 30, 2018)(2)</u>
10.7(u)	<u>Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2019 form agreement for Section 16 Officers) (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on February 19, 2019)(2)</u>

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
10.7(v)	<u>Performance-Based Restricted Stock Units Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2019 form agreement for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Commission on February 19, 2019)(2)</u>
10.7(w)	<u>Performance-Based Restricted Stock Units Upside Award Agreement under the ON Semiconductor Corporation Amended and Restated Stock Incentive Plan (2019 form agreement for Senior Vice Presidents and Above) (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed with the Commission on February 19, 2019)(2)</u>
10.8(a)	<u>ON Semiconductor Corporation 2000 Employee Stock Purchase Plan, as amended and restated as of May 20, 2009 (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 No. 333-159381 filed with the Commission on May 21, 2009)(2)</u>
10.8(b)	<u>Amendment to the ON Semiconductor Corporation 2000 Employee Stock Purchase Plan, as amended as of May 15, 2013 (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed with the Commission on August 2, 2013)(2)</u>
10.8(c)	<u>Amendment to the ON Semiconductor Corporation 2000 Employee Stock Purchase Plan, as amended as of May 20, 2015 (incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 3, 2015)(2)</u>
10.8(d)	<u>Amendment to the ON Semiconductor Corporation 2000 Employee Stock Purchase Plan, as amended as of May 17, 2017 (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 7, 2017)(2)</u>
10.9(a)	<u>ON Semiconductor 2002 Executive Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed with the Commission on August 9, 2002)(2)</u>
10.9(b)	<u>ON Semiconductor 2007 Executive Incentive Plan (incorporated by reference to Appendix B of Schedule 14A filed with the Commission on April 11, 2006)(2)</u>
10.9(c)	<u>First Amendment to the ON Semiconductor 2007 Executive Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on August 22, 2007)(2)</u>
10.10(a)	<u>Employee Incentive Plan January 2002 (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Commission on August 9, 2002)(2)</u>
10.10(b)	<u>First Amendment to the ON Semiconductor 2002 Employee Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Commission on August 22, 2007)(2)</u>
10.11	<u>Amended and Restated Employment Agreement, effective June 1, 2017, by and between Semiconductor Components Industries, LLC and Keith Jackson (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on June 2, 2017)(2)</u>

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
10.12	<u>Amended and Restated Employment Agreement, effective June 1, 2017, by and between Semiconductor Components Industries, LLC and George H. Cave (incorporated by reference to Exhibit 10.12 to the Company's Annual Report on Form 10-K filed with the Commission on February 21, 2018)(2)</u>
10.13(a)	<u>Employment Agreement by and between Semiconductor Components Industries, LLC and William M. Hall, dated as of April 23, 2006 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on May 7, 2009)(2)</u>
10.13(b)	<u>Amendment No. 1 to Employment Agreement by and between Semiconductor Components Industries, LLC and William M. Hall, dated as of April 23, 2008 (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Commission on May 7, 2009)(2)</u>
10.13(c)	<u>Amendment No. 2 to Employment Agreement by and between Semiconductor Components Industries, LLC and William M. Hall, dated as of June 1, 2017 (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed with the Commission on June 2, 2017)(2)</u>
10.14(a)	<u>Employment Agreement by and between Semiconductor Components Industries, LLC and Bernard Gutmann, dated as of September 26, 2012 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on September 27, 2012)(2)</u>
10.14(b)	<u>Amendment No. 1 to Employment Agreement by and between Semiconductor Components Industries, LLC and Bernard Gutmann, dated as of June 1, 2017 (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Commission on June 2, 2017)(2)</u>
10.15(a)	<u>Employment Agreement by and between Semiconductor Components Industries, LLC and Robert Klosterboer, dated as of March 14, 2008 (incorporated by reference to Exhibit 10.16 to the Company's Annual Report on Form 10-K filed with the Commission on February 21, 2014)(2)</u>
10.15(b)	<u>Amendment No. 1 to Employment Agreement by and between Semiconductor Components Industries, LLC and Robert Klosterboer, effective June 1, 2017 (incorporated by reference to Exhibit 10.15(b) to the Company's Annual Report on Form 10-K filed with the Commission on February 21, 2018)(2)</u>
10.16(a)	<u>Employment Agreement between Semiconductor Components Industries, LLC and William Schromm dated as of August 25, 2014 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on August 25, 2014)(2)</u>
10.16(b)	<u>Amendment No. 1 to Employment Agreement by and between Semiconductor Components Industries, LLC and William Schromm, dated as of June 1, 2017 (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed with the Commission on June 2, 2017)(2)</u>
10.17(a)	<u>Employment Agreement between Semiconductor Components Industries, LLC and Paul Rolls dated as of July 14, 2013 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on May 4, 2015)(2)</u>

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
10.17(b)	Amendment No. 1 to Employment Agreement by and between Semiconductor Components Industries, LLC and Paul Rolls, effective June 1, 2017 (incorporated by reference to Exhibit 10.21(b) to the Company's Annual Report on Form 10-K filed with the Commission on February 21, 2018)(2)
10.18	Key Officer Severance and Change of Control Agreement by and between Semiconductor Components Industries, LLC and Taner Ozcelik, dated as of June 1, 2017 (incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K filed with the Commission on February 21, 2018)(2)
10.19	Employment Agreement by and between Semiconductor Components Industries, LLC and Vince Hopkin, dated as of May 11, 2018 (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed with the Commission on July 30, 2018)(2)
10.20	Employment Agreement by and between Semiconductor Components Industries, LLC and Simon Keeton, dated January 1, 2019(1)(2)
10.21	Form of Indemnification Agreement with Directors and Officers (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on February 25, 2016)(2)
10.22(a)	Environmental Side Letter, dated March 11, 1997, between National Semiconductor Corporation and Fairchild Semiconductor Corporation (incorporated by reference to Exhibit 10.19 to Fairchild Semiconductor Corporation's Registration Statement filed with the Commission on May 12, 1997 (File No. 333-26897))
10.22(b)	Intellectual Property License Agreement, dated April 13, 1999, between Samsung Electronics Co., Ltd. and Fairchild Korea Semiconductor, Ltd. (incorporated by reference to Exhibit 10.41 to Fairchild Semiconductor International, Inc.'s Registration Statement filed with the Commission on June 30, 1999 (File No. 333-78557))
10.22(c)	Fairchild Benefit Restoration Plan (incorporated by reference to Exhibit 10.23 to Fairchild Semiconductor Corporation's Registration Statement filed with the Commission on May 12, 1997 (File No. 333-26897))(2)
10.22(d)	Technology Licensing and Transfer Agreement, dated March 11, 1997, between National Semiconductor Corporation and Fairchild Semiconductor Corporation (incorporated by reference to Amendment No. 3 to Fairchild Semiconductor Corporation's Registration Statement on Form S-4, filed July 9, 1997 (File No. 333-28697))
10.22(e)	Intellectual Property Assignment and License Agreement, dated December 29, 1997, between Raytheon Semiconductor, Inc. and Raytheon Company (incorporated by reference to Fairchild Semiconductor International, Inc.'s Current Report on Form 8-K, dated December 31, 1997, filed January 13, 1998. (File No. 333-26897))
14.1	ON Semiconductor Corporation Code of Business Conduct effective as of August 16, 2016 (incorporated by reference to Exhibit 14.1 to the Company's Current Report on Form 8-K filed with the Commission on August 24, 2016)
21.1	List of Significant Subsidiaries(1)

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<u>Exhibit No.</u>	<u>Exhibit Description</u>
23.1	Consent of Independent Registered Public Accounting Firm-PricewaterhouseCoopers LLP(1)
24.1	Powers of Attorney(1)
31.1	Certification by CEO pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002(1)
31.2	Certification by CFO pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002(1)
32	Certification by CEO and CFO pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002(3)
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Reports filed under the Securities Exchange Act (Form 10-K, Form 10-Q and Form 8-K) are filed under File No. 000-30419.

(1) Filed herewith.

(2) Management contract or compensatory plan, contract or arrangement.

(3) Furnished herewith.

† Schedules or other attachments to these exhibits not filed herewith shall be furnished to the Commission upon request.

Item 16. Form 10-K Summary

None.

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SIGNATURES

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

February 20, 2019

ON Semiconductor Corporation

By: /s/ KEITH D. JACKSON

Name: Keith D. Jackson

Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Titles</u>	<u>Date</u>
<u>/s/ KEITH D. JACKSON</u> Keith D. Jackson	President, Chief Executive Officer and Director (Principal Executive Officer)	February 20, 2019
<u>/s/ BERNARD GUTMANN</u> Bernard Gutmann	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer)	February 20, 2019
<u>/s/ BERNARD R. COLPITTS, JR.</u> Bernard R. Colpitts, Jr.	Chief Accounting Officer (Principal Accounting Officer)	February 20, 2019
<u>*</u>	Chair of the Board of Directors	February 20, 2019
<u>Alan Campbell</u>		
<u>*</u>	Director	February 20, 2019
<u>Atsushi Abe</u>		
<u>*</u>	Director	February 20, 2019
<u>Curtis J. Crawford</u>		
<u>*</u>	Director	February 20, 2019
<u>Gilles Delfassy</u>		
<u>*</u>	Director	February 20, 2019
<u>Emmanuel T. Hernandez</u>		
<u>*</u>	Director	February 20, 2019
<u>Paul A. Mascarenas</u>		
<u>*</u>	Director	February 20, 2019
<u>Daryl A. Ostrander</u>		
<u>*</u>	Director	February 20, 2019
<u>Teresa M. Ressel</u>		
<u>*</u>	Director	February 20, 2019
<u>Christine Y. Yan</u>		
*By: <u>/s/ BERNARD GUTMANN</u> Bernard Gutmann	Attorney in Fact	February 20, 2019

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
ON Semiconductor Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of ON Semiconductor Corporation and its subsidiaries as of December 31, 2018 and 2017, and the related consolidated statements of operations and comprehensive income, of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2018, including the related notes and schedule of valuation and qualifying accounts for each of the three years in the period ended December 31, 2018 appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control—Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control—Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 11: "Share-Based Compensation" to the consolidated financial statements, the Company changed the manner in which it accounts for the excess tax benefits from share-based compensation in 2017.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

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

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ PricewaterhouseCoopers LLP
Phoenix, Arizona
February 20, 2019

We have served as the Company's auditor since 1999.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in millions, except share and per share data)

	December 31, 2018	December 31, 2017
Assets		
Cash and cash equivalents	\$ 1,069.6	\$ 949.2
Receivables, net	686.0	701.5
Inventories	1,225.2	1,089.5
Other current assets	187.0	193.0
Total current assets	3,167.8	2,933.2
Property, plant and equipment, net	2,549.6	2,279.1
Goodwill	932.5	916.9
Intangible assets, net	566.4	628.3
Deferred tax assets	266.2	339.1
Other assets	105.1	98.5
Total assets	<u>\$ 7,587.6</u>	<u>\$ 7,195.1</u>
Liabilities, Non-Controlling Interest and Stockholders' Equity		
Accounts payable	\$ 671.7	\$ 548.0
Accrued expenses	659.1	612.8
Current portion of long-term debt	138.5	248.1
Total current liabilities	1,469.3	1,408.9
Long-term debt	2,627.6	2,703.7
Deferred tax liabilities	54.8	55.1
Other long-term liabilities	241.8	226.4
Total liabilities	4,393.5	4,394.1
Commitments and contingencies (Note 13)		
ON Semiconductor Corporation stockholders' equity:		
Common stock (\$0.01 par value, 1,250,000,000 shares authorized, 558,701,620 and 551,873,115 shares issued, 413,834,227 and 425,118,194 shares outstanding, respectively)	5.6	5.5
Additional paid-in capital	3,702.3	3,593.5
Accumulated other comprehensive loss	(37.9)	(40.6)
Accumulated earnings	979.6	351.5
Less: Treasury stock, at cost; 144,867,393 and 126,754,921 shares, respectively	(1,478.0)	(1,131.1)
Total ON Semiconductor Corporation stockholders' equity	3,171.6	2,778.8
Non-controlling interest in consolidated subsidiary	22.5	22.2
Total stockholders' equity	3,194.1	2,801.0
Total liabilities and stockholders' equity	<u>\$ 7,587.6</u>	<u>\$ 7,195.1</u>

See accompanying notes to consolidated financial statements

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
(in millions, except per share data)

	Year ended December 31,		
	2018	2017	2016
Revenue	\$ 5,878.3	\$ 5,543.1	\$ 3,906.9
Cost of revenue (exclusive of amortization shown below)	3,639.6	3,507.5	2,606.4
Gross profit	2,238.7	2,035.6	1,300.5
Operating expenses:			
Research and development	650.7	594.7	446.8
Selling and marketing	324.7	316.6	236.7
General and administrative	293.3	285.0	230.0
Amortization of acquisition-related intangible assets	111.7	123.8	104.8
Restructuring, asset impairments and other, net	4.3	20.8	33.2
Goodwill and intangible asset impairment	6.8	13.1	2.2
Total operating expenses	1,391.5	1,354.0	1,053.7
Operating income	847.2	681.6	246.8
Other income (expense), net:			
Interest expense	(128.2)	(141.2)	(145.3)
Interest income	6.1	3.0	4.5
Loss on debt refinancing and prepayment	(4.6)	(47.2)	(6.3)
Gain on divestiture of business	5.0	12.5	92.2
Licensing income	36.6	47.6	—
Other expense	(7.1)	(8.8)	(11.3)
Other income (expense), net	(92.2)	(134.1)	(66.2)
Income before income taxes	755.0	547.5	180.6
Income tax benefit (provision)	(125.1)	265.5	3.9
Net income	629.9	813.0	184.5
Less: Net income attributable to non-controlling interest	(2.5)	(2.3)	(2.4)
Net income attributable to ON Semiconductor Corporation	\$ 627.4	\$ 810.7	\$ 182.1
Comprehensive income, net of tax:			
Net income	\$ 629.9	\$ 813.0	\$ 184.5
Foreign currency translation adjustments	0.7	7.0	(8.0)
Effects of cash flow hedges	2.0	2.6	0.1
Other comprehensive income (loss)	2.7	9.6	(7.9)
Comprehensive income	632.6	822.6	176.6
Comprehensive income attributable to non-controlling interest	(2.5)	(2.3)	(2.4)
Comprehensive income attributable to ON Semiconductor Corporation	\$ 630.1	\$ 820.3	\$ 174.2
Net income per common share attributable to ON Semiconductor Corporation:			
Basic	\$ 1.48	\$ 1.92	\$ 0.44
Diluted	\$ 1.44	\$ 1.89	\$ 0.43
Weighted-average common shares outstanding:			
Basic	423.8	421.9	415.2
Diluted	435.9	428.3	420.0

See accompanying notes to consolidated financial statements

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions, except share data)

	Common Stock			Accumulated Other Comprehensive Loss	Accumulated (Deficit) Earnings	Treasury Stock		Non- Controlling Interest in Consolidated Subsidiary	Total Equity
	Number of shares	At Par Value	Additional Paid-in Capital			Number of shares	At Cost		
Balance at December 31, 2015	534,134,721	\$ 5.3	\$ 3,420.3	\$ (42.3)	\$ (709.4)	(122,094,916)	\$(1,065.7)	\$ 23.7	\$1,631.9
Stock option exercises	1,849,777	0.1	14.8	—	—	—	—	—	14.9
Shares issued pursuant to the ESPP	1,813,789	—	15.0	—	—	—	—	—	15.0
RSUs and stock grant awards issued	4,519,501	—	—	—	—	—	—	—	—
Shares withheld for employee taxes on RSUs	—	—	—	—	—	(1,281,159)	(12.3)	—	(12.3)
Share-based compensation expense	—	—	56.1	—	—	—	—	—	56.1
Dividend to non-controlling shareholder	—	—	—	—	—	—	—	(4.3)	(4.3)
Reclassification of 2.625% Notes, Series B, equity component to mezzanine equity	—	—	(32.9)	—	—	—	—	—	(32.9)
Comprehensive (loss) income	—	—	—	(7.9)	182.1	—	—	2.4	176.6
Balance at December 31, 2016	542,317,788	5.4	3,473.3	(50.2)	(527.3)	(123,376,075)	(1,078.0)	21.8	1,845.0
Impact of the adoption of ASU 2016-09	—	—	—	—	68.1	—	—	—	68.1
Stock option exercises	2,213,859	—	18.0	—	—	—	—	—	18.0
Shares issued pursuant to the ESPP	1,913,528	—	23.6	—	—	—	—	—	23.6
RSUs and stock grant awards issued	5,427,940	0.1	(0.1)	—	—	—	—	—	—
Shares withheld for employee taxes on RSUs	—	—	—	—	—	(1,750,182)	(28.1)	—	(28.1)
Share-based compensation expense	—	—	69.8	—	—	—	—	—	69.8
Repurchase of common stock	—	—	—	—	—	(1,628,664)	(25.0)	—	(25.0)
Repayment of 2.625% Notes, Series B - Equity Portion	—	—	(55.7)	—	—	—	—	—	(55.7)
Dividend to non-controlling shareholder	—	—	—	—	—	—	—	(1.9)	(1.9)
Warrants and bond hedge, net	—	—	(59.5)	—	—	—	—	—	(59.5)
Issuance of 2023 convertible notes	—	—	113.1	—	—	—	—	—	113.1
Tax impact of 2023 convertible notes, warrants and bond hedge	—	—	11.0	—	—	—	—	—	11.0
Comprehensive income	—	—	—	9.6	810.7	—	—	2.3	822.6
Balance at December 31, 2017	551,873,115	5.5	3,593.5	(40.6)	351.5	(126,754,921)	(1,131.1)	22.2	2,801.0
Impact of the adoption of ASU 2016-16	—	—	—	—	(1.4)	—	—	—	(1.4)
Impact of the Adoption of ASC 606	—	—	—	—	2.1	—	—	—	2.1
Stock option exercises	794,165	—	5.7	—	—	—	—	—	5.7
Shares issued pursuant to the ESPP	1,516,012	—	24.9	—	—	—	—	—	24.9
RSUs and stock grant awards issued	4,518,328	0.1	(0.1)	—	—	—	—	—	—
Shares withheld for employee taxes on RSUs	—	—	—	—	—	(1,343,961)	(31.6)	—	(31.6)
Share-based compensation expense	—	—	78.3	—	—	—	—	—	78.3
Repurchase of common stock	—	—	—	—	—	(16,768,511)	(315.3)	—	(315.3)
Dividend to non-controlling shareholder	—	—	—	—	—	—	—	(2.2)	(2.2)
Comprehensive income	—	—	—	2.7	627.4	—	—	2.5	632.6
Balance at December 31, 2018	558,701,620	\$ 5.6	\$ 3,702.3	\$ (37.9)	\$ 979.6	(144,867,393)	\$(1,478.0)	\$ 22.5	\$3,194.1

See accompanying notes to consolidated financial statements.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

	Year ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income	\$ 629.9	\$ 813.0	\$ 184.5
Adjustments to reconcile net income to net cash provided by operating activities and other adjustments:			
Depreciation and amortization	508.7	481.9	364.1
Loss on sale or disposal of fixed assets	2.4	3.9	1.5
Gain on divestiture of business	(5.0)	(12.5)	(92.2)
Loss on debt refinancing and prepayment	4.6	47.2	6.3
Amortization of debt discount and issuance costs	13.2	16.0	12.0
Payments for term debt modification	(1.1)	(3.8)	(26.4)
Write-down of excess inventories	55.7	67.0	66.2
Share-based compensation expense	78.3	69.8	56.1
Non-cash interest on convertible notes	36.1	30.8	26.0
Non-cash asset impairment charges	2.4	7.9	0.5
Goodwill and intangible asset impairment charges	6.8	13.1	2.2
Change in deferred taxes	69.2	(348.3)	(38.1)
Other	(1.6)	2.2	(4.6)
Changes in operating assets and liabilities (exclusive of the impact of acquisitions and divestitures):			
Receivables	(2.7)	(57.9)	28.1
Inventories	(185.2)	(126.9)	(7.9)
Other assets	(37.4)	(86.0)	(25.0)
Accounts payable	44.8	51.8	42.4
Accrued expenses	56.5	211.1	(15.3)
Deferred income on sales to distributors	—	(109.8)	0.1
Other long-term liabilities	(1.4)	23.7	0.6
Net cash provided by operating activities	<u>1,274.2</u>	<u>1,094.2</u>	<u>581.1</u>
Cash flows from investing activities:			
Purchase of property, plant and equipment	(514.8)	(387.5)	(210.7)
Proceeds from sales of property, plant and equipment	36.5	14.3	0.4
Deposits utilized (made) for purchases of property, plant and equipment	4.1	(8.2)	(2.2)
Purchase of business, net of cash acquired	(70.9)	(0.8)	(2,284.0)
Purchase of equity interest and assets, net of cash acquired	(24.6)	—	—
Proceeds from divestiture of business, net of cash transferred	8.4	20.0	104.0
Proceeds from repayment of note receivable	10.2	—	—
Cash placed in escrow	—	—	(67.7)
Cash received from escrow	—	—	23.8
Other	2.2	(2.6)	—
Net cash used in investing activities	<u>(548.9)</u>	<u>(364.8)</u>	<u>(2,436.4)</u>
Cash flows from financing activities:			
Proceeds for the issuance of common stock under the ESPP	25.0	23.6	15.0
Proceeds from exercise of stock options	5.7	18.0	14.9
Payments of tax withholding for restricted shares	(31.6)	(28.1)	(12.3)
Repurchase of common stock	(315.3)	(25.0)	—
Proceeds from debt issuance	15.3	1,106.2	2,586.9
Payment of debt issuance and other financing costs	—	—	(6.8)
Repayment of long-term debt	(298.4)	(1,831.4)	(313.8)
Purchase of convertible note hedges	—	(144.7)	—
Proceeds from issuance of warrants	—	85.2	—
Payment of capital lease obligations	(3.6)	(8.9)	(14.9)
Payment of contingent consideration	—	(3.9)	—
Dividend to non-controlling shareholder	(2.2)	(1.9)	(4.3)
Net cash (used in) provided by financing activities	<u>(605.1)</u>	<u>(810.9)</u>	<u>2,264.7</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	0.3	2.3	(0.8)
Net increase (decrease) in cash, cash equivalents and restricted cash	120.5	(79.2)	408.6
Cash, cash equivalents and restricted cash, beginning of period (Note 18)	966.6	1,045.8	637.2
Cash, cash equivalents and restricted cash, end of period (Note 18)	<u>1,087.1</u>	<u>966.6</u>	<u>1,045.8</u>

See accompanying notes to consolidated financial statements

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

Note 1: Background and Basis of Presentation

ON Semiconductor Corporation, together with its wholly and majority-owned subsidiaries (the "Company"), prepares its consolidated financial statements in accordance with GAAP. As of December 31, 2018, the Company was organized into three operating segments, which also represent its three reporting segments: the Power Solutions Group, the Analog Solutions Group and the Intelligent Sensing Group. Additional information about the Company's operating and reporting segments is included in Note 3: "Revenue and Segment Information".

During the year ended December 31, 2018, the Company adopted the provisions of ASU No. 2017-07—Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost ("ASU 2017-07") retrospectively, which required the net benefit cost to be split in the income statement resulting in the service cost component to be included in operating income while the other components, including the interest cost and the expected return on plan assets, are reported separately outside of operating income. The Company utilized the practical expedient to estimate the impact of ASU 2017-07 for the years ended December 31, 2017 and 2016 using the information previously disclosed in the notes to the consolidated financial statements in the 2017 Form 10-K. This resulted in the operating income increasing by \$0.7 million and \$10.7 million for the years ended December 31, 2017 and 2016, respectively, compared to the amounts previously disclosed, with offsetting impact to other expense. The service cost is allocated between the cost of revenue, research and development, selling and marketing and general and administrative line items, while the other components are included in other expense in the Consolidated Statements of Operations and Comprehensive Income for the years ended December 31, 2018, 2017 and 2016.

All dollar amounts are in millions, except per share amounts and unless otherwise noted.

Note 2: Significant Accounting Policies

Principles of Consolidation

The accompanying consolidated financial statements include the assets, liabilities, revenue and expenses of all wholly-owned and majority-owned subsidiaries over which the Company exercises control and, when applicable, entities in which the Company has a controlling financial interest or is the primary beneficiary. Investments in nonconsolidated affiliates that represent less than 20% of the related ownership interests and where the Company does not have the ability to exert significant influence are accounted for as cost method investments. All material intercompany balances and transactions have been eliminated.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Use of Estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amount of assets and liabilities at the date of the financial statements and the reported amount of revenue and expenses during the reporting period. Management evaluates these estimates and judgments on an ongoing basis and bases its estimates on experience, current and expected future conditions, third-party evaluations and various other assumptions that management believes are reasonable under the circumstances. Significant estimates have been used by management in conjunction with the following: (i) estimates of future payouts for customer incentives and estimates of amounts subject to allowances, returns and warranties; (ii) measurement of valuation allowances relating to inventories; (iii) fair values of share-based compensation and of financial instruments (including derivative financial instruments); and (iv) measurement of valuation allowances against deferred tax assets, evaluations of uncertain tax positions, and the impact of U.S. tax reform. Additionally, during periods where it becomes applicable, significant estimates will be used by management in determining the future cash flows used to assess and test for impairment of goodwill, indefinite-lived intangible assets and long-lived assets and in assumptions used in connection with business combinations. Actual results may differ from the estimates and assumptions used in the consolidated financial statements and related notes.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity to the Company of three months or less to be cash equivalents. Cash and cash equivalents are maintained with reputable major financial institutions. If, due to current economic conditions, one or more of the financial institutions with which the Company maintains deposits fails, the Company's cash and cash equivalents may be at risk. Deposits with these banks generally exceed the amount of insurance provided on such deposits; however, these deposits typically may be redeemed upon demand and, as a result of the quality of the respective financial institutions, management believes these deposits bear minimal risk.

Inventories

Inventories are stated at the lower of standard cost (which approximates actual cost on a first-in, first-out basis) or net realizable value. General market conditions, as well as the Company's design activities, can cause certain of its products to become obsolete. The Company writes down excess and obsolete inventories based upon a regular analysis of inventory on hand compared to historical and projected end-user demand. These write downs can influence results from operations. For example, when demand for a given part falls, all or a portion of the related inventory that is considered to be in excess of anticipated demand is written down, impacting cost of revenue and gross profit. If demand recovers and the parts previously written down are sold, a higher than normal margin will generally be recognized. However, the majority of product inventory that has been previously written down is ultimately discarded. Although the Company does sell some products that have previously been written down, such sales have historically been consistently immaterial and the related impact on the Company's gross profit has also been immaterial.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Property, Plant and Equipment

Property, plant and equipment are recorded at cost and are depreciated over estimated useful lives of 30-50 years for buildings and 3-20 years for machinery and equipment using straight-line methods. Expenditures for maintenance and repairs are charged to operations in the period in which the expense is incurred. When assets are retired or otherwise disposed of, the related costs and accumulated depreciation are removed from the balance sheet and any resulting gain or loss is reflected in operations in the period realized.

The Company evaluates the recoverability of the carrying amount of its property, plant and equipment whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be fully recoverable. A potential impairment charge is evaluated when the undiscounted expected cash flows derived from an asset group are less than its carrying amount. Impairment losses, if applicable, are measured as the amount by which the carrying value of an asset group exceeds its fair value and are recognized in operating results. Judgment is used when applying these impairment rules to determine the timing of the impairment test, the undiscounted cash flows used to assess impairments and the fair value of the asset group.

Business Combination Purchase Price Allocation

The allocation of the purchase price of business combinations is based on management estimates and assumptions, which utilize established valuation techniques appropriate for the technology industry. These techniques include the income approach, cost approach or market approach, depending upon which approach is the most appropriate based on the nature and reliability of available data. The income approach is predicated upon the value of the future cash flows that an asset is expected to generate over its economic life. The cost approach takes into account the cost to replace (or reproduce) the asset and the effects on the asset's value of physical, functional and/or economic obsolescence that has occurred with respect to the asset. The market approach is used to estimate value from an analysis of actual transactions or offerings for economically comparable assets available as of the valuation date.

Goodwill

Goodwill represents the excess of the purchase price over the estimated fair value of the net assets acquired in the Company's acquisitions.

The Company evaluates its goodwill for potential impairment annually during the fourth quarter and whenever events or changes in circumstances indicate the carrying value of a reporting unit may not be recoverable. The Company's divisions are one level below the operating segments, constituting individual businesses, at which level the Company's segment management conducts regular reviews of the operating results. The Company's divisions, either individually or in a combination, constitute reporting units for purposes of allocating and testing goodwill. The Company's impairment evaluation of goodwill consists of a qualitative assessment to determine if it is more likely than not that the fair value of a reporting unit exceeds its carrying amount. If this qualitative assessment indicates it is more likely than not the estimated fair value of a reporting unit exceeds its carrying value, no further analysis is required and goodwill is not impaired. Otherwise, the Company performs a quantitative goodwill impairment test to determine if goodwill is impaired. The quantitative test compares the fair value of a reporting unit with its carrying amount, including goodwill.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

If the fair value of the reporting unit exceeds the carrying value of the net assets associated with that unit, goodwill is not considered impaired. If the carrying value of the net assets associated with the reporting unit exceeds the fair value of the reporting unit, goodwill is considered impaired and will be determined as the amount by which the reporting units carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. Determining the fair value of the Company's reporting units is subjective in nature and involves the use of significant estimates and assumptions, including projected net cash flows, discount and long-term growth rates. The Company determines the fair value of its reporting units based on an income approach, whereby the fair value of the reporting unit is derived from the present value of estimated future cash flows. The assumptions about estimated cash flows include factors such as future revenue, gross profit, operating expenses and industry trends. The Company considers historical rates and current market conditions when determining the discount and long-term growth rates to use in its analysis. The Company considers other valuation methods, such as the cost approach or market approach, if it is determined that these methods provide a more representative approximation of fair value. Changes in these estimates based on evolving economic conditions or business strategies could result in material impairment charges in future periods. The Company bases its fair value estimates on assumptions it believes to be reasonable. Actual results may differ from those estimates.

Intangible Assets

The Company's acquisitions have resulted in intangible assets consisting of values assigned to customer relationships, patents, developed technology, IPRD and trademarks. IPRD is considered an indefinite-lived intangible asset until the abandonment or completion of the associated research and development efforts. If abandoned, the assets would be impaired. If the activities are completed, a determination is made regarding the useful lives of such assets and methods of amortization.

The Company is required to test its IPRD assets for impairment annually using the guidance for indefinite-lived intangible assets. An IPRD asset is considered to be impaired when the asset's carrying amount is greater than its fair value. The Company's impairment evaluation consists of first assessing qualitative factors to determine whether events and circumstances indicate that it is more likely than not that the IPRD asset is impaired. If it is more likely than not that the asset is impaired, the Company calculates the fair value of the IPRD asset and records an impairment charge if the carrying amount exceeds fair value. The Company determines the fair value based on an income approach, which is calculated as the present value of the estimated future cash flows of the IPRD asset. The assumptions about estimated cash flows include factors such as future revenue, gross profit, operating expenses and industry trends. The Company can bypass the qualitative assessment for any asset in any period and proceed directly to the quantitative impairment test.

The remaining intangible assets are considered long-lived assets and are stated at cost less accumulated amortization, are amortized over their estimated useful lives, and are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset group containing these assets may not be recoverable. A potential impairment charge is evaluated when the undiscounted expected cash flows derived from an asset group are less than its carrying amount. Impairment losses are measured as the amount by which the carrying value of an asset group exceeds its fair value and are recognized in operating results. Judgment is used when applying these impairment rules to determine the timing of the impairment test, the undiscounted cash flows used to assess impairments and the fair value of an asset group. The dynamic economic environment in which the Company operates and the resulting assumptions used to estimate future cash flows impact the outcome of these impairment tests.

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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Treasury Stock

Treasury stock is recorded at cost, inclusive of fees, commissions and other expenses, when outstanding common shares are repurchased by the Company, including when outstanding shares are withheld to satisfy tax withholding obligations in connection with certain shares pursuant to RSUs under the Company's share-based compensation plans.

Debt Issuance Costs

Debt issuance costs for line-of-credit agreements, including the Company's Revolving Credit Facility, are capitalized and amortized over the term of the underlying agreements on a straight-line basis. Amortization of these debt issuance costs is included in interest expense while the unamortized balance is included in other assets.

Debt issuance costs for the Company's convertible notes and Term Loan "B" Facility are recorded as a direct deduction from the carrying amount of the convertible notes and the Term Loan "B" Facility, consistent with debt discounts, and are amortized over their term using the effective interest method. Amortization of these debt issuance costs is included in interest expense.

Revenue Recognition

On January 1, 2018, as required, the Company adopted ASU No. 2014-09 - Revenue from Contracts with Customers (Topic 606) ("ASU 2014-09"), ASU No. 2015-14 - Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date ("ASU 2015-14"), ASU No. 2016-08 - Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations ("ASU 2016-08"), ASU No. 2016-10 - Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing ("ASU 2016-10"), ASU No. 2016-12 - Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients ("ASU 2016-12") and ASU No. 2016-20 - Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers ("ASU 2016-20") (collectively, the "New Revenue Standard").

The Company adopted the New Revenue Standard using the modified retrospective method, applying the guidance to all open contracts, and recognized the cumulative effect adjustment of \$2.1 million to retained earnings and accrued expenses. The comparative financial information has not been restated and continues to be presented under the accounting standards in effect for the respective periods. The Company applied the practical expedient and has not disclosed the revenue allocated to future shipments of partially completed contracts.

In anticipation of the adoption of the New Revenue Standard, during the quarter ended March 31, 2017, the Company developed its internal systems, processes and controls to enable it to make the estimates required by the New Revenue Standard on sales to its distributors and was able to reliably estimate upfront the effects of returns and allowances and record revenue at the time of shipments to these distributors. Prior to this, the Company recognized revenue from distributors under the sell-through method as it did not have the ability to estimate the effects of returns and allowances. As a result of this change, the Company recognized an additional \$155.1 million in revenue during the first quarter of 2017, which resulted in an increase of \$59.0 million to income before income taxes.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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The Company generates revenue from sales of its semiconductor products to OEMs, electronic manufacturing service providers and distributors. The Company also generates revenue, to a much lesser extent, from product development agreements and manufacturing services provided to customers. The Company recognizes revenue when it satisfies a performance obligation in an amount reflecting the consideration to which it expects to be entitled. For sales agreements, the Company has identified the promise to transfer products, each of which is distinct, to be the performance obligation. For product development agreements, the Company has identified the completion of a service defined in the agreement to be the performance obligation. The Company applies a five-step approach in determining the amount and timing of revenue to be recognized: (1) identifying the contract with a customer; (2) identifying the performance obligations in the contract; (3) determining the transaction price; (4) allocating the transaction price to the performance obligations in the contract; and (5) recognizing revenue when the performance obligation is satisfied.

Substantially all of the Company's revenue continues to be recognized following the transfer of control of the products to the customer, which typically occurs upon shipment or delivery depending on the terms of the underlying contracts. Under the New Revenue Standard, revenue from certain product development agreements, which was previously deferred as delivered, is now recognized over time. During year ended December 31, 2018, revenue increased by \$4.6 million due to the impact of the adoption of the New Revenue Standard.

Sales agreements with customers are renewable periodically and contain terms and conditions with respect to payment, delivery, warranty and supply, but typically do not require minimum purchase commitments. In the absence of a sales agreement, the Company's standard terms and conditions apply. The Company considers the customer purchase orders, governed by sales agreements or the Company's standard terms and conditions, to be the contract with the customer. The Company evaluates certain factors including the customer's ability to pay (or credit risk).

Most of the Company's OEM customers negotiate pricing terms on an annual basis, distributors generally negotiate pricing terms on a quarterly basis, while the pricing terms for electronic manufacturer service providers are negotiated periodically during the year. Pricing terms on product development agreements are negotiated at the beginning of a project. The Company allocates the transaction price to each distinct product based on its relative stand-alone selling price.

ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

In determining the transaction price, the Company evaluates whether the price is subject to refund or adjustment to determine the net consideration to which the Company expects to be entitled. The Company's OEM customers do not have the right to return products, other than pursuant to the provisions of the Company's standard warranty. Sales to distributors, however, are typically made pursuant to agreements that provide return rights and stock rotation provisions permitting limited levels of product returns. Sales to certain distributors, primarily those with ship and credit rights, can also be subject to price adjustment on certain products. Although payment terms vary, most distributor agreements require payment within 30 days. In addition, the Company offers cash discounts to certain customers for payments received within an agreed upon time, generally 10 days after shipment. The Company recognizes revenue when it satisfies a performance obligation. The Company recognizes revenue from sales agreements upon transferring control of a product to the customer. This typically occurs when products are shipped or delivered, depending on the delivery terms, or when products that are consigned at customer locations are consumed. The Company recognizes revenue from product development agreements over time based on the cost-to-cost method. Revenue recognized during the year ended December 31, 2018 for sales agreements and product development agreements was \$5,849.0 million and \$29.3 million, respectively. Sales returns and allowances are estimated based on historical experience. Provisions for discounts and rebates to customers, estimated returns and allowances, ship and credit claims and other adjustments are provided for in the same period the related revenue are recognized, and are netted against revenue. For returns, the Company recognizes a related asset for the right to recover returned products with a corresponding reduction to cost of goods sold. The Company records a reserve for cash discounts as a reduction to accounts receivable and a reduction to revenue, based on the experience with each customer.

Frequently, the Company receives orders with multiple delivery dates that may extend across reporting periods. Since each delivery constitutes a performance obligation, the Company allocates the transaction price of the contract to each performance obligation based on the stand-alone selling price of the products. The Company invoices the customer for each delivery upon shipment and recognizes revenue in accordance with delivery terms. As scheduled delivery dates are within one year, revenue allocated to future shipments of partially completed contracts are not disclosed.

The Company has elected to record freight and handling costs associated with outbound freight after control over a product has transferred to a customer as a fulfillment cost and include it in cost of revenue. Taxes assessed by government authorities on revenue-producing transactions, including value-added and excise taxes, are presented on a net basis (excluded from revenue) in the Consolidated Statements of Operations and Comprehensive Income.

The Company generally warrants that products sold to its customers will, at the time of shipment, be free from defects in workmanship and materials and conform to specifications. The Company's standard warranty extends for a period of two years from the date of delivery, except in the case of image sensor products, which are warranted for one year from the date of delivery. At the time revenue is recognized, the Company establishes an accrual for estimated warranty expenses associated with its sales and records them as a component of the cost of revenue.

Research and Development Costs

Research and development costs are expensed as incurred.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Share-Based Compensation

Share-based compensation cost is measured at the grant date, based on the estimated fair value of the award, and is recognized as expense over the employee's requisite service period. The Company has outstanding awards with performance, time and service-based vesting provisions.

Income Taxes

Income taxes are accounted for using the asset and liability method. Under this method, deferred income tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided for those deferred tax assets for which management cannot conclude that it is more likely than not that such deferred tax assets will be realized.

In determining the amount of the valuation allowance, estimated future taxable income, as well as feasible tax planning strategies for each taxing jurisdiction are considered. If the Company determines it is more likely than not that all or a portion of the remaining deferred tax assets will not be realized, the valuation allowance will be increased with a charge to income tax expense. Conversely, if the Company determines it is more likely than not to be able to utilize all or a portion of the deferred tax assets for which a valuation allowance has been provided, the related portion of the valuation allowance will be recorded as a reduction to income tax expense.

The Company recognizes and measures benefits for uncertain tax positions using a two-step approach. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the weight of available evidence indicates that it is more likely than not that the tax positions will be sustained upon audit, including resolution of any related appeals or litigation processes. For tax positions that are more likely than not to be sustained upon audit, the second step is to measure the tax benefit as the largest amount that is more than 50% likely to be realized upon settlement. The Company's practice is to recognize interest and/or penalties related to income tax matters in income tax expense. Significant judgment is required to evaluate uncertain tax positions. Evaluations are based upon a number of factors, including changes in facts or circumstances, changes in tax law, correspondence with tax authorities during the course of tax audits and effective settlement of audit issues. Changes in the recognition or measurement of uncertain tax positions could result in material increases or decreases in income tax expense in the period in which the change is made, which could have a material impact to the Company's effective tax rate.

Foreign Currencies

Most of the Company's foreign subsidiaries conduct business primarily in U.S. dollars and, as a result, utilize the dollar as their functional currency. For the remeasurement of financial statements of these subsidiaries, assets and liabilities in foreign currencies that are receivable or payable in cash are remeasured at current exchange rates, while inventories and other non-monetary assets in foreign currencies are remeasured at historical rates. Gains and losses resulting from the remeasurement of such financial statements are included in the operating results, as are gains and losses incurred on foreign currency transactions.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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Historically, the majority of the Company's Japanese subsidiaries utilized Japanese Yen as their functional currency. The assets and liabilities of these subsidiaries are translated at current exchange rates, while revenue and expenses are translated at the average rates in effect for the period. The related translation gains and losses are included in other comprehensive income or loss within the Consolidated Statements of Operations and Comprehensive Income. As a result of an analysis which took into account the economic indicators of these subsidiaries from a long-term perspective, the Company changed the functional currency for some of these subsidiaries from Japanese Yen to U.S. Dollars effective as of January 1, 2018.

Defined Benefit Pension Plans

The Company maintains defined benefit pension plans covering certain of its foreign employees. For financial reporting purposes, net periodic pension costs and pension obligations are determined based upon a number of actuarial assumptions, including discount rates for plan obligations, assumed rates of return on pension plan assets and assumed rates of compensation increases for employees participating in plans. These assumptions are based upon management's judgment and consultation with actuaries, considering all known trends and uncertainties.

Contingencies

The Company is involved in a variety of legal matters, intellectual property matters, environmental, financing and indemnification contingencies that arise in the ordinary course of business. Based on the information available, management evaluates the relevant range and likelihood of potential outcomes and records the appropriate liability when the amount is deemed probable and reasonably estimable.

Fair Value Measurement

The Company measures certain of its financial and non-financial assets at fair value by using the fair value hierarchy that prioritizes certain inputs into individual fair value measurement approaches. Fair value is the exchange price that would be received for an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy is based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value, as follows:

- Level 1 - Quoted prices in active markets for identical assets or liabilities;
- Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and
- Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Companies may choose to measure certain financial instruments and certain other items at fair value. Unrealized gains and losses on items for which the fair value option has been elected must be reported in earnings. The Company has elected not to carry any of its debt instruments at fair value.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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Note 3: Revenue and Segment Information

The Company is organized into three operating and reporting segments consisting of the Power Solutions Group, the Analog Solutions Group and the Intelligent Sensing Group.

The Company does not allocate income taxes or interest expense to its operating segments as the operating segments are principally evaluated on revenue and gross profit. Additionally, restructuring, asset impairments and other, net and certain other manufacturing and operating expenses, which include corporate research and development costs, unallocated inventory reserves and miscellaneous nonrecurring expenses, are not allocated to any segment. In addition to the operating and reporting segments, the Company also operates global operations, sales and marketing, information systems, finance and administration groups that are led by vice presidents who report to the Chief Executive Officer. A portion of the expenses of these groups are allocated to the segments based on specific and general criteria and are included in the segment results.

Revenue and gross profit for the Company's operating and reporting segments are as follows (in millions):

	Power Solutions Group	Analog Solutions Group	Intelligent Sensing Group	Total
For year ended December 31, 2018:				
Revenue from external customers	\$ 3,038.2	\$ 2,071.2	\$ 768.9	\$ 5,878.3
Segment gross profit	1,110.1	878.3	317.1	2,305.5
For year ended December 31, 2017:				
Revenue from external customers	\$ 2,819.3	\$ 1,950.9	\$ 772.9	\$ 5,543.1
Segment gross profit	959.8	817.8	302.6	2,080.2
For year ended December 31, 2016:				
Revenue from external customers	\$ 1,708.6	\$ 1,481.5	\$ 716.8	\$ 3,906.9
Segment gross profit	567.5	590.2	237.7	1,395.4

Gross profit is exclusive of the amortization of acquisition-related intangible assets. Depreciation expense is included in segment gross profit. Reconciliations of segment gross profit to consolidated gross profit are as follows (in millions):

	Year Ended December 31,		
	2018	2017	2016
Gross profit for reportable segments	\$ 2,305.5	\$ 2,080.2	\$ 1,395.4
Less: unallocated manufacturing costs	(66.8)	(44.6)	(94.9)
Consolidated gross profit	\$ 2,238.7	\$ 2,035.6	\$ 1,300.5

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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Revenue for the Company's operating and reporting segments disaggregated into geographic locations and sales channels are as follows (in millions):

	Year Ended December 31, 2018			Total
	Power Solutions Group	Analog Solutions Group	Intelligent Sensing Group	
Geographic Location				
Singapore	\$ 1,086.6	\$ 704.2	\$ 164.2	\$ 1,955.0
Hong Kong	847.9	496.5	144.7	1,489.1
United Kingdom	488.5	319.8	138.2	946.5
United States	398.5	339.2	125.0	862.7
Other	216.7	211.5	196.8	625.0
Total	<u>\$ 3,038.2</u>	<u>\$ 2,071.2</u>	<u>\$ 768.9</u>	<u>\$ 5,878.3</u>
Sales Channel				
Distributors	\$ 2,011.1	\$ 1,066.4	\$ 464.2	\$ 3,541.7
OEM	846.8	860.7	263.4	1,970.9
Electronic Manufacturing Service Providers	180.3	144.1	41.3	365.7
Total	<u>\$ 3,038.2</u>	<u>\$ 2,071.2</u>	<u>\$ 768.9</u>	<u>\$ 5,878.3</u>

The Company operates in various geographic locations. Sales to unaffiliated customers have little correlation with the location of manufacturers. It is, therefore, not meaningful to present operating profit by geographical location.

The Company's wafer manufacturing facilities fabricate ICs for all business units, as necessary, and their operating costs are reflected in the segments' cost of revenue on the basis of product costs. Because operating segments are generally defined by the products they design and sell, they do not make sales to each other. The Company does not discretely allocate assets to its operating segments, nor does management evaluate operating segments using discrete asset information. The Company's consolidated assets are not specifically ascribed to its individual reporting segments. Rather, assets used in operations are generally shared across the Company's operating and reporting segments.

Property, plant and equipment, net by geographic location, are summarized as follows (in millions):

	As of December 31,	
	2018	2017
United States	\$ 616.9	\$ 547.9
Philippines	474.5	439.5
Korea	383.1	380.5
China	248.4	246.0
Malaysia	229.1	230.0
Other	597.6	435.2
	<u>\$ 2,549.6</u>	<u>\$ 2,279.1</u>

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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The following table illustrates the product technologies under each of the Company's reportable segments based on the Company's operating strategy. Because many products are sold into different end-markets, the total revenue reported for a segment is not indicative of actual sales in the end-market associated with that segment, but rather is the sum of the revenue from the product lines assigned to that segment. These segments represent the Company's view of the business and as such are used to evaluate progress of major initiatives and allocation of resources.

Power Solutions Group	Analog Solutions Group	Intelligent Sensing Group
Analog products	Analog products	LSI products
Discrete products	ASIC products	Sensors
HD products	ECL products	
IPM products	Foundry products / services	
Memory products	LSI products	
PIM products	Standard logic products	
Sensors	TMOS products	
Standard logic products		
TMOS products		
WBG products		

Note 4: Recent Accounting Pronouncements

ASUs Adopted:

New Revenue Standard

The Company adopted the New Revenue Standard on a modified retrospective basis on January 1, 2018. The cumulative-effect adjustment related to the timing of revenue recognition on certain product development agreements recorded to beginning retained earnings and accrued expenses as of January 1, 2018, was \$2.1 million. The Company expects the ongoing impact of the New Revenue Standard to be immaterial to the consolidated financial statements.

ASU No. 2017-09 - Scope of Modification Accounting ("ASU 2017-09")

In May 2017, the FASB issued ASU No. 2017-09 to reduce diversity in practice and provide clarity regarding existing guidance in ASC 718, "Stock Compensation." The amendments clarify that an entity should apply modification accounting in response to a change in the terms and conditions of an entity's share-based payment awards unless three newly specified criteria are met. The amendments are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company adopted ASU 2017-09 during the first quarter of 2018. The adoption of this standard did not have a material impact on the consolidated financial statements.

ASU No 2017-07

The Company adopted ASU 2017-07 during the first quarter of 2018, applying the standard retrospectively to all periods presented. The adoption of this standard did not have a material impact on the current period or prior period consolidated financial statements.

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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ASU No. 2016-18 - Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force) (“ASU 2016-18”)

In November 2016, the FASB issued ASU 2016-18, which requires entities to include in their cash and cash-equivalent balances in the statement of cash flows those amounts that are deemed to be restricted cash and restricted cash equivalents. The ASU does not define the terms “restricted cash” and “restricted cash equivalents.” The amendments are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company adopted ASU 2016-18 during the first quarter of 2018, applying the standard retrospectively to all periods presented. The adoption of this standard did not have a material impact on the current period or prior period consolidated financial statements. See Note 18: “Supplemental Disclosures” for further information on the adoption of ASU 2016-18.

ASU No. 2016-16 - Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory (“ASU 2016-16”)

In October 2016, the FASB issued ASU 2016-16, which eliminates the exception for all intra-entity sales of assets other than inventory. As a result, a reporting entity would recognize the tax expense from the sale of the asset in the seller’s tax jurisdiction when the transfer occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. Any deferred tax asset that arises in the buyer’s jurisdiction would also be recognized at the time of the transfer. The new guidance does not apply to intra-entity transfers of inventory. The income tax consequences from the sale of inventory from one member of a consolidated entity to another will continue to be deferred until the inventory is sold to a third-party. The amendments are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company adopted ASU 2016-16 during the first quarter of 2018 and recorded the cumulative-effect adjustment of \$1.4 million as a reduction to the beginning retained earnings.

ASU No. 2016-15 - Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (“ASU 2016-15”)

In August 2016, the FASB issued ASU 2016-15, which changes how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The amendments are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company adopted ASU 2016-15 during the first quarter of 2018. The adoption of this standard did not have a material impact on the consolidated financial statements.

ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

ASUs Pending Adoption:

ASU No. 2017-12 - Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities (“ASU 2017-12”)

In August 2017, the FASB issued ASU No. 2017-12 to better align hedge accounting with risk management strategies, and as a result, more hedging strategies will be eligible for hedge accounting. Public business entities will have until the end of the first quarter in which a hedge is designated to perform an initial assessment of a hedge’s effectiveness. After initial qualification, the new guidance permits a qualitative effectiveness assessment for certain hedges instead of a quantitative test if the company can reasonably support an expectation of high effectiveness throughout the term of the hedge. An initial quantitative test to establish that the hedge relationship is highly effective is still required. The amendments are effective for fiscal years beginning after December 15, 2018. Early adoption is permitted. The Company does not anticipate the adoption of ASU 2017-12 will have a material impact on its consolidated financial statements.

ASU No. 2016-02 - Leases (Topic 842) (“ASU 2016-02”), ASU No. 2018-10 - Codification improvements to Topic 842, Leases (“ASU 2018-10”), ASU No. 2018-11 - Leases (Topic 842) (“ASU 2018-11”) (collectively, the “New Leasing Standard”)

In February 2016, the FASB issued ASU 2016-02, which amended the accounting treatment for leases. ASU 2016-02 requires that a lessee should recognize on its balance sheet a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. 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 modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees and lessors may not apply a full retrospective transition approach. In July 2018, the FASB issued ASU 2018-10 and ASU 2018-11. ASU 2018-10 provides certain areas for improvement in ASU 2016-02 and ASU 2018-11 provides an additional optional transition method by allowing entities to initially apply the New Leasing Standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The New Leasing Standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years and early adoption is permitted. The Company will adopt the standard beginning January 1, 2019 utilizing the modified retrospective transition method through a cumulative-effect adjustment at the beginning of the first quarter of 2019.

The Company currently plans to apply the package of practical expedients to leases that commenced before the effective date whereby we will elect to not reassess the following: (i) whether any expired or existing contracts contain leases; (ii) the lease classification for any expired or existing leases; and (iii) initial direct costs for any existing leases. The Company expects the adoption of this standard will result in the inclusion of a significant component of the Company’s future minimum lease obligations, as disclosed in Note 13: “Commitments and Contingencies” on its Consolidated Balance Sheets, as right-of-use assets and lease liabilities with no material impact to its Consolidated Statements of Operations and Comprehensive Income. The Company is continuing to assess the potential impacts of the New Leasing Standard. We anticipate disclosing additional information, as necessary, to comply with the New Leasing Standard.

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Note 5: Acquisitions, Divestitures and Licensing Transactions

The Company pursues strategic acquisitions and divestitures from time to time to leverage its existing capabilities and further build its business. Acquisition costs are not included as components of consideration transferred and instead are accounted for as expenses in the period in which the costs are incurred. During the years ended December 31, 2018 and 2017, the Company incurred acquisition and divestiture related costs of approximately \$4.5 million and \$3.2 million, respectively, which are included in operating expenses on the Company's Consolidated Statements of Operations and Comprehensive Income.

2018 Acquisition

On May 8, 2018, the Company acquired 100% of the outstanding shares of SensL Technologies Ltd. ("SensL"), a company specializing in silicon photomultipliers, single photon avalanche diode and LiDAR sensing products for the automotive, medical, industrial and consumer markets, for \$71.6 million, funded with cash on hand. This acquisition positions the Company to extend its products in automotive sensing applications for ADAS and autonomous driving by adding LiDAR capabilities to the Company's existing capabilities in imaging and radar.

The following table presents the allocation of the purchase price of SensL for the assets acquired and liabilities assumed based on their fair values (in millions):

	Purchase Price Allocation
Current assets (including cash and cash equivalents of \$0.7)	\$ 4.2
Property, plant and equipment and other non-current assets	1.8
Goodwill	18.9
Intangible assets (excluding IPRD)	31.4
IPRD	20.0
Total assets acquired	76.3
Current liabilities	0.7
Other non-current liabilities	4.0
Total liabilities assumed	4.7
Net assets acquired/purchase price	\$ 71.6

Acquired intangible assets of \$31.4 million include developed technology of \$30.0 million (which are estimated to have a seven year weighted-average useful life). The total weighted average amortization period for the acquired intangibles is seven years. IPRD assets are amortized over the estimated useful life of the assets upon successful completion of the related projects. The value assigned to IPRD was determined by estimating the net cash flows from the projects when completed and discounting the net cash flows to their present value using a discount rate of 30.0%. The cash flows from IPRD's significant products are expected to commence in 2019.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

The acquisition produced \$18.9 million of goodwill, which was allocated to the Intelligent Sensing Group. Goodwill is attributable to a combination of SensL's assembled workforce, expectations regarding a more meaningful engagement by the customers due to the scale of the combined company and other product and operating synergies. Goodwill will not be amortized but instead tested for impairment at least annually (more frequently if certain indicators are present). Goodwill arising from the SensL acquisition is not deductible for tax purposes.

Unaudited pro-forma consolidated results of operations for the years ended December 31, 2018 and 2017 are not included considering the significance of the acquisition to the results of the Company.

2018 Divestiture

On June 25, 2018, the Company divested the transient voltage suppressing diodes business it acquired from Fairchild to TSC America, Inc. for \$5.6 million in cash and recorded a gain of \$4.6 million after writing off the carrying values of the assets and liabilities disposed. There were certain other immaterial transactions resulting in a total gain of \$5.0 million during the year ended December 31, 2018.

Licensing Transactions

During 2016 and 2017, the Company entered into an Asset Purchase Agreement with Huaian Imaging Device Manufacturer Corporation ("HIDM") pursuant to which the Company received \$52.5 million in cash in 2017 and provided perpetual, non-exclusive licenses relating to certain technologies to HIDM. Of this amount, \$10.0 million was recorded as deferred licensing income to be recognized in the period in which certain qualification requirements of the technologies are achieved (or refunded to HIDM, if such qualification did not occur by June 21, 2018). Prior to this date, the Company achieved such qualification requirements for the technologies transferred and recognized \$10.0 million as licensing income.

On November 29, 2017, the Company and QST Co. Ltd ("QST") entered into an IP license and technology transfer agreement ("IP Agreement") to grant QST patent licenses and IP rights to certain of the Company's technologies. Pursuant to the IP Agreement, QST receives perpetual, worldwide, nonexclusive and nontransferable patents licenses and IP rights upon the payment of license fees of \$13.0 million and other fees of \$8.5 million in its entirety. Such amounts were paid by QST during the years ended December 31, 2017 and 2018. As a result, the Company recognized licensing income of \$22.7 million relating to licensing and other fees and certain other aspects of the transaction during the year ended December 31, 2018. The Company also recognized certain immaterial amounts of licensing income relating to other transactions during the year ended December 31, 2018.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

2017 Divestiture

On September 29, 2017, the Company entered into a Share Purchase Agreement with mCube, whereby mCube acquired 100% of the outstanding shares of Xsens Holding B.V., a wholly owned subsidiary of the Company, for cash consideration of \$26.0 million (collectively, the "Xsens Transaction"). Twenty percent of the consideration, or \$5.2 million, was deposited into an escrow account and the remaining \$20.8 million was received on September 29, 2017. There were no indemnification liabilities identified, and the escrow amount has been considered as part of the consideration in calculating the gain and included in other current assets in the Consolidated Balance Sheet as of December 31, 2018. The escrow amount will be released to the Company upon satisfaction of any pending claims eighteen months after the date on which the Xsens Transaction closed. The Company recorded a gain of \$12.5 million after writing off the carrying value of the assets and liabilities sold of \$7.0 million and goodwill of \$6.5 million.

2016 Acquisition

On September 19, 2016, the Company acquired 100% of Fairchild, whereby Fairchild became a wholly-owned subsidiary of the Company. The purchase price totaled \$2,532.2 million in cash and was funded by the Company's borrowings against its Term Loan "B" Facility and a partial draw of the Revolving Credit Facility, as well as with cash on hand. See Note 9: "Long-Term Debt" for additional information.

For the period from September 19, 2016 to December 31, 2016, the Company recognized revenue of \$411.5 million and a net loss of \$34.5 million relating to Fairchild, which included charges for the amortization of fair market value step-up of inventory of \$67.5 million, the amortization of acquired intangible assets and restructuring.

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The following table presents the allocation of the purchase price for the acquisition of Fairchild for the assets acquired and liabilities assumed based on their fair values (in millions):

	Purchase Price Allocation
Cash and cash equivalents	\$ 255.0
Receivables	227.3
Inventories	342.3
Other current assets	61.0
Property, plant and equipment	925.8
Goodwill	656.1
Intangible assets (excluding IPRD)	413.6
IPRD	134.2
Other non-current assets	13.1
Total assets acquired	<u>3,028.4</u>
Accounts payable	79.4
Other current liabilities	168.1
Deferred tax liabilities	213.5
Other non-current liabilities	35.2
Total liabilities assumed	<u>496.2</u>
Net assets acquired/purchase price	<u>\$ 2,532.2</u>

Acquired intangible assets included \$134.2 million of IPRD assets, which are to be amortized over the useful life upon successful completion of the related projects. The value assigned to IPRD was determined by considering the importance of products under development to the overall development plan, estimating costs to develop the purchased IPRD into commercially viable products, estimating the resulting net cash flows from the projects when completed and discounting the net cash flows to their present value. The Company utilized a discount rate of 14.5% and cash flows from its significant products were expected to commence from 2017 and beyond.

Other acquired intangible assets of \$413.6 million consisted of developed technology of \$272.7 million (eleven year weighted-average useful life), customer relationships of \$135.5 million (fifteen year useful life) and backlog of \$3.0 million (six month useful life). The total weighted-average amortization period for the acquired intangibles is 12.1 years.

The acquisition produced \$656.1 million of goodwill, of which \$366.1 million was assigned to the Power Solutions Group and \$290.0 million to the Analog Solutions Group. Goodwill is attributable to a combination of Fairchild's assembled workforce, expectations regarding a more meaningful engagement with customers due to the scale of the combined Company and other synergies. Goodwill arising from the Fairchild acquisition is not deductible for tax purposes.

During the year ended December 31, 2016, the Company incurred \$24.7 million in acquisition-related costs from the Fairchild acquisition. These costs are recorded in general and administrative expense in the Consolidated Statements of Operations and Comprehensive Income.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

See Note 13: "Commitments and Contingencies" for information on contingent liabilities assumed from the acquisition of Fairchild.

Pro-Forma Results of Operations

Unaudited pro-forma consolidated results of operations for the years ended December 31, 2018 and 2017 are not required because the results of Fairchild are included in the Consolidated Statements of Operations and Comprehensive Income for these periods. The following unaudited pro-forma consolidated results of operations for the year ended December 31, 2016 has been prepared as if the acquisition of Fairchild had occurred on January 1, 2015 and includes adjustments for depreciation expense, amortization of intangibles, interest expense from financing, and the effect of purchase accounting adjustments, including the step-up of inventory (in millions, except per share data):

	Year Ended December 31, 2016
Revenue	\$ 4,912.8
Net Income	196.6
Net income attributable to ON Semiconductor Corporation	194.2
Net income per common share attributable to ON Semiconductor Corporation:	
Basic	0.47
Diluted	0.46

2016 Divestiture

On August 25, 2016, the U.S. Federal Trade Commission ("FTC") accepted a proposed consent order whereby, prior to the closing of the acquisition of Fairchild, the FTC required the Company to dispose of its IGBT business. In satisfaction of this requirement, on August 29, 2016, the Company sold the ignition IGBT business to Littelfuse. On the same day, the Company sold its transient voltage suppression diode and switching thyristor product lines ("Thyristor") to Littelfuse. The sale of the ignition IGBT and Thyristor businesses was for \$104.0 million in cash. In connection with the sale, the Company recorded a gain on divestiture of \$92.2 million after, among other things, transferring inventory of \$4.1 million to Littelfuse, writing off goodwill of \$3.4 million and deferring \$4.3 million of the proceeds representing the fair value of manufacturing services which has been recognized in the Consolidated Statements of Operations and Comprehensive Income through December 31, 2018.

Note 6: Goodwill and Intangible Assets

Goodwill

Goodwill is tested for impairment at the reporting unit level, which is one level below the Company's operating segments. The Company performed qualitative assessments for the annual impairment analysis during the fourth quarters of 2018 and 2017 and concluded that it is more likely than not that the fair value of its reporting units exceed their carrying amounts and a quantitative impairment test was not required.

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The following table summarizes goodwill by relevant reportable segment (in millions):

	As of December 31, 2018			As of December 31, 2017		
	Goodwill	Accumulated Impairment Losses	Carrying Value	Goodwill	Accumulated Impairment Losses	Carrying Value
<i>Operating Segment</i>						
Analog Solutions Group	\$ 836.7	\$ (418.9)	\$ 417.8	\$ 836.7	\$ (418.9)	\$ 417.8
Intelligent Sensing Group	114.4	—	114.4	95.5	—	95.5
Power Solutions Group	432.2	(31.9)	400.3	432.2	(28.6)	403.6
Total	\$ 1,383.3	\$ (450.8)	\$ 932.5	\$1,364.4	\$ (447.5)	\$ 916.9

The following table summarizes the change in goodwill (in millions):

Net balance as of December 31, 2016	\$ 924.7
Measurement period adjustment	(1.3)
Divestiture of business	(6.5)
Net balance as of December 31, 2017	916.9
Addition due to business combination	18.9
Goodwill Impairment	(3.3)
Net balance as of December 31, 2018	\$ 932.5

The goodwill impairment charge of \$3.3 million in 2018 was the result of the licensing transaction with QST and represented the entire goodwill assigned to a reporting unit within the Power Solutions Group. The measurement period adjustment of \$1.3 million in 2017 was related to an immaterial acquisition that occurred on December 29, 2016.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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Intangible Assets

Intangible assets, net, were as follows (in millions):

	As of December 31, 2018			
	Original Cost	Accumulated Amortization	Accumulated Impairment Losses	Carrying Value
Customer relationships	\$ 556.7	\$ (359.1)	\$ (20.1)	\$ 177.5
Developed technology	698.0	(356.4)	(2.6)	339.0
IPRD	64.1	—	(22.5)	41.6
Other intangibles	82.3	(58.8)	(15.2)	8.3
Total intangible assets	<u>\$ 1,401.1</u>	<u>\$ (774.3)</u>	<u>\$ (60.4)</u>	<u>\$ 566.4</u>

	As of December 31, 2017			
	Original Cost	Accumulated Amortization	Accumulated Impairment Losses	Carrying Value
Customer relationships	\$ 555.9	\$ (328.5)	\$ (20.1)	\$ 207.3
Developed technology	657.6	(278.2)	(2.6)	376.8
IPRD	54.5	—	(19.0)	35.5
Other intangibles	79.8	(55.9)	(15.2)	8.7
Total intangible assets	<u>\$ 1,347.8</u>	<u>\$ (662.6)</u>	<u>\$ (56.9)</u>	<u>\$ 628.3</u>

During the year ended December 31, 2018, the Company determined that the value of one of its IPRD projects under the Intelligent Sensing Group was impaired and recorded a charge of \$3.5 million, and the Company also completed certain of its IPRD projects resulting in the reclassification of \$10.4 million from IPRD to developed technology.

During the year ended December 31, 2017, the Company canceled certain of its previously capitalized IPRD projects under the Power Solutions Group and Analog Solutions Group and recorded impairment losses of \$7.7 million. Additionally, the Company determined that the value of certain of its projects under the Analog Solutions Group were impaired and recorded charges of \$5.4 million. During the year ended December 31, 2017, the Company also completed certain of its IPRD projects, resulting in the reclassification of \$99.4 million from IPRD to developed technology and, disposed of \$8.7 million of intangible assets as part of the Xsens Transaction.

During the year ended December 31, 2016, the Company canceled certain of its previously capitalized IPRD projects under the Intelligent Sensing Group and recorded impairment losses of \$2.2 million, and the Company also completed certain of its IPRD projects resulting in the reclassification of \$21.6 million from IPRD to developed technology.

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Amortization expense for intangible assets for the years ended December 31, 2018, 2017 and 2016 amounted to \$111.7 million, \$123.8 million and \$104.8 million, respectively. Amortization expense for intangible assets, with the exception of the \$41.6 million of IPRD assets that will be amortized once the corresponding projects have been completed, is expected to be as follows over the next five years, and thereafter (in millions):

	<u>Total</u>
2019	\$ 106.2
2020	95.8
2021	78.7
2022	63.8
2023	47.0
Thereafter	<u>133.3</u>
Total estimated amortization expense	<u>\$ 524.8</u>

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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Note 7: Restructuring, Asset Impairments and Other, Net

Summarized activity included in the “Restructuring, asset impairments and other, net” caption on the Company’s Consolidated Statements of Operations and Comprehensive Income for the years ended December 31, 2018, 2017 and 2016 is as follows (in millions):

	<u>Restructuring</u>	<u>Asset Impairments (1)</u>	<u>Other (2)</u>	<u>Total</u>
<i>Year Ended December 31, 2018</i>				
Other	\$ 3.9	\$ 4.6	\$ (4.2)	\$ 4.3
Total	\$ 3.9	\$ 4.6	\$ (4.2)	\$ 4.3
<i>Year Ended December 31, 2017</i>				
Post-Fairchild acquisition restructuring costs	\$ 9.7	\$ —	\$ —	\$ 9.7
Manufacturing relocation	(2.1)	—	—	(2.1)
Former System Solutions Group segment voluntary workforce reduction	2.2	—	—	2.2
Other	0.1	7.3	3.6	11.0
Total	\$ 9.9	\$ 7.3	\$ 3.6	\$ 20.8
<i>Year Ended December 31, 2016</i>				
Post-Fairchild acquisition restructuring costs	\$ 25.7	\$ —	\$ —	\$ 25.7
Former System Solutions Group segment voluntary workforce reduction	5.3	—	—	5.3
Manufacturing relocation	2.1	—	—	2.1
General Workforce Reductions	0.3	—	—	0.3
Other	(0.2)	—	—	(0.2)
Total	\$ 33.2	\$ —	\$ —	\$ 33.2

(1) Includes impairment charges of \$7.3 million for the year ended December 31, 2017, to write down certain held-for-sale assets to fair value less costs to sell.

(2) Includes gain on sale of certain held-for-sale assets for the year ended December 31, 2018 and charges related to other facility closures and asset disposal activities for the year ended December 31, 2017.

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Summary of changes in accrued restructuring charges as follows (in millions):

	Estimated employee separation charges	Estimated costs to exit	Total
<i>Balance as of December 31, 2016</i>	\$ 8.1	\$ —	\$ 8.1
Charges	7.6	2.3	9.9
Usage	(13.8)	(2.1)	(15.9)
<i>Balance as of December 31, 2017</i>	\$ 1.9	\$ 0.2	\$ 2.1
Charges	3.9	—	3.9
Usage	(5.5)	—	(5.5)
<i>Balance as of December 31, 2018</i>	\$ 0.3	\$ 0.2	\$ 0.5

The Company did not have any significant restructuring activities during the year ended December 31, 2018. Activity related to the Company's significant restructuring programs that were initiated during 2016 or 2017 was as follows:

Post-Fairchild Acquisition Restructuring Costs

Following the acquisition of Fairchild, the Company approved the implementation of a cost-reduction plan, which eliminated approximately 225 positions from its workforce as a result of redundancies. Restructuring charges of \$25.7 million were recorded during the year ended December 31, 2016. During the year ended December 31, 2017, an additional 111 positions were eliminated, totaling 336 pursuant to the plan. As of December 31, 2017, a total of 331 employees had exited, and the remaining five exited during 2018. The restructuring expense attributable to severance and termination benefits was \$7.9 million and to other exit costs was \$1.8 million for the year ended December 31, 2017. The total expense for this program amounted to \$35.4 million and the Company paid \$13.4 million and \$20.2 million during the years ended December 31, 2017 and 2016, respectively. Accrued severance benefits for this program was \$1.8 million as of December 31, 2017, of which \$1.3 million was paid during the year ended December 31, 2018.

Manufacturing Relocation

During March 2016, the Company announced a plan to relocate certain of its manufacturing operations to another existing location. During the quarter ended March 31, 2017, the Company made the decision to cancel the plans for relocation and announced all workforce would remain intact. As a result, the accrued balance of \$2.1 million was released as of March 31, 2017.

Former System Solutions Group Segment Voluntary Workforce Reduction

During the quarter ended June 30, 2017, the Company announced a voluntary resignation program for the former System Solutions Group. A total of 36 employees had signed employee separation agreements as of December 31, 2017 and the related expense for the year was \$2.2 million, of which \$2.0 million had been paid as of December 31, 2017. The remaining amounts were paid during 2018.

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During March 2016, the Company had announced a voluntary resignation program for the former System Solutions Group. A total of 75 employees volunteered and signed employee separation agreements. The total expense of the plan was \$5.3 million and all employees exited and were paid during the 2016.

Note 8: Balance Sheet Information

Certain significant amounts included in the Company's Consolidated Balance Sheets consist of the following (in millions):

	As of	
	December 31, 2018	December 31, 2017
Inventories:		
Raw materials	\$ 137.3	\$ 117.7
Work in process	760.7	660.8
Finished goods	327.2	311.0
	<u>\$ 1,225.2</u>	<u>\$ 1,089.5</u>
Property, plant and equipment, net:		
Land	\$ 125.5	\$ 148.4
Buildings	820.4	744.0
Machinery and equipment	3,980.2	3,454.6
Property, plant and equipment, gross	4,926.1	4,347.0
Less: Accumulated depreciation	(2,376.5)	(2,067.9)
	<u>\$ 2,549.6</u>	<u>\$ 2,279.1</u>
Accrued expenses:		
Accrued payroll and related benefits	\$ 240.8	\$ 201.8
Sales related reserves	294.8	280.0
Income taxes payable	38.2	29.9
Other	85.3	101.1
	<u>\$ 659.1</u>	<u>\$ 612.8</u>

Assets classified as held-for-sale, consisting primarily of properties, are required to be recorded at the lower of carrying value or fair value less any costs to sell. The carrying value of these assets as of December 31, 2018 and 2017 was \$1.4 million and \$5.3 million, respectively, and is reported as other current assets on the Company's Consolidated Balance Sheet. The Company sold the assets held-for-sale at December 31, 2017 in January 2018 for \$5.5 million.

Depreciation expense for property, plant and equipment, including amortization of capital leases, totaled \$359.3 million, \$325.2 million and \$239.6 million for 2018, 2017 and 2016, respectively.

As of December 31, 2018 and 2017, total property, plant and equipment included \$0.9 million and \$4.2 million, respectively, of assets financed under capital leases. Accumulated depreciation associated with these assets is included in total accumulated depreciation in the table above.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Warranty Reserves

The activity related to the Company's warranty reserves are as follows (in millions):

<i>Balance as of December 31, 2015</i>	\$	5.3
Provision		6.3
Usage		(10.8)
Warranty reserves from acquired businesses		8.0
<i>Balance as of December 31, 2016</i>	\$	8.8
Provision		6.8
Usage		(7.6)
<i>Balance as of December 31, 2017</i>		8.0
Provision		0.4
Usage		(3.2)
<i>Balance as of December 31, 2018</i>	\$	<u>5.2</u>

Note 9: Long-Term Debt

The Company's long-term debt consists of the following (annualized interest rates, in millions):

	As of	
	December 31, 2018	December 31, 2017
Amended Credit Agreement:		
Revolving Credit Facility due 2021, interest payable monthly at 3.77% and 3.07%, respectively	\$ 400.0	\$ 400.0
Term Loan "B" Facility due 2023, interest payable monthly at 4.27% and 3.57%, respectively	1,134.5	1,204.5
1.00% Notes due 2020 (1)	690.0	690.0
1.625% Notes due 2023 (2)	575.0	575.0
Note payable to SMBC due 2018, interest payable quarterly at 0% and 3.09%, respectively (3)	—	122.7
Other long-term debt (4)	139.5	182.8
Gross long-term debt, including current maturities	2,939.0	3,175.0
Less: Debt discount (5)	(139.4)	(178.8)
Less: Debt issuance costs (6)	(33.5)	(44.4)
Net long-term debt, including current maturities	2,766.1	2,951.8
Less: Current maturities	(138.5)	(248.1)
Net long-term debt	\$ 2,627.6	\$ 2,703.7

- (1) Interest is payable on June 1 and December 1 of each year at 1.00% annually.
- (2) Interest is payable on April 15 and October 15 of each year at 1.625% annually.
- (3) This loan represented SCI LLC's non-collateralized loan with SMBC, which was guaranteed by the Company.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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- (4) Consists of U.S. real estate mortgages, term loans, revolving lines of credit, notes payable and other facilities at certain international locations where interest is payable weekly, monthly or quarterly, with interest rates between 1.00% and 4.00% and maturity dates between 2019 and 2020.
- (5) Debt discount of \$41.6 million and \$61.9 million for the 1.00% Notes, \$88.5 million and \$104.4 million for the 1.625% Notes and \$9.3 million and \$12.5 million for the Term Loan "B" Facility, in each case as of December 31, 2018 and December 31, 2017, respectively.
- (6) Debt issuance costs of \$5.8 million and \$8.6 million for the 1.00% Notes, \$8.5 million and \$10.0 million for the 1.625% Notes and \$19.2 million and \$25.8 million for the Term Loan "B" Facility, in each case as of December 31, 2018 and December 31, 2017, respectively.

Maturities

Expected maturities relating to the Company's gross long-term debt (including current maturities) as of December 31, 2018 are as follows (in millions):

	Annual Maturities
2019	\$ 138.5
2020	690.9
2021	400.0
2022	—
2023	1,709.6
Thereafter	—
Total	\$ 2,939.0

Amended Credit Agreement

Fairchild Transaction Financing

On April 15, 2016, the Company obtained capital for the Fairchild Transaction purchase consideration and other general corporate purposes by entering into the Amended Credit Agreement and the Guarantee and Collateral Agreement. The proceeds from the Term Loan "B" Facility, along with \$67.7 million funded by the Company, were deposited into escrow accounts until the close of the Fairchild Transaction. Upon the close of the Fairchild Transaction, the Company's then current senior revolving credit facility was terminated and replaced by the Revolving Credit Facility, which became immediately available to the Company.

The acquisition of Fairchild was funded with proceeds from the Term Loan "B" Facility, Company-funded amounts previously deposited into escrow accounts, proceeds from a \$200.0 million draw against the Company's Revolving Credit Facility and existing cash on hand. Proceeds from the Term Loan "B" Facility were also used to pay for debt issuance costs, transaction fees and expenses. Borrowings under the Amended Credit Agreement may be incurred in U.S. Dollars, Euros, Pounds Sterling, Japanese Yen or any other currency approved by the Agent and the lenders under the Revolving Credit Facility, subject to certain qualifications described in the Amended Credit Agreement. Regardless of currency, all borrowings under the Amended Credit Agreement may, at the Company's option, be incurred as either eurocurrency loans ("Eurocurrency Loans") or alternate base rate loans ("ABR Loans").

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Amendments to the Amended Credit Agreement

On September 30, 2016, the Company, and certain of the Company's subsidiaries, as guarantors (the "Guarantors"), entered into the First Amendment to the Amended Credit Agreement with the several lenders party thereto and Deutsche Bank AG New York Branch, as the administrative agent (the "Agent"). The First Amendment reduced the applicable margins on Eurocurrency Loans to 2.75% and 3.25% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively, and reduced applicable margins on ABR Loans to 1.75% and 2.25% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively. Additionally, under the First Amendment: (i) the Term Loan "B" Facility was increased to \$2.4 billion; (ii) certain restructuring transactions and intercompany intellectual property transfers were permitted in order to achieve efficient integration of the Company, its subsidiaries and acquired entities; and (iii) certain changes were made to the provisions regarding hedge agreements to allow the Company and each of the Guarantors to enter into certain hedge arrangements that shall be deemed to be "obligations" for purposes of the Amended Credit Agreement which may be collateralized by the collateral granted pursuant to the Guarantee and Collateral Agreement. The Company used the additional \$200.0 million proceeds under the Term Loan "B" Facility to pay off the outstanding balance under the Revolving Credit Facility.

On March 31, 2017, the Company, the Guarantors, the several lenders party thereto and the Agent entered into the Second Amendment to the Amended Credit Agreement (the "Second Amendment"). The Second Amendment provided for, among other things, modifications to the Amended Credit Agreement to allow the 1.625% Notes to rank pari passu with borrowings under the Amended Credit Agreement and to reduce the interest rates payable under the Term Loan "B" Facility and the Revolving Credit Facility. The Second Amendment reduced the applicable margins on Eurocurrency Loans to 1.75% and 2.25% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively, and reduced the applicable margins on ABR Loans to 0.75% and 1.25% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively.

On November 30, 2017, the Company, the Guarantors, the several lenders party thereto and the Agent entered into the Third Amendment to the Amended Credit Agreement (the "Third Amendment"). The Third Amendment provided for, among other things, modifications to the Amended Credit Agreement to reduce the interest rate payable under the Term Loan "B" Facility and to increase the amount that may be borrowed pursuant to the Revolving Credit Facility to \$1.0 billion. The Third Amendment reduced the applicable margins on Eurocurrency Loans to 1.50% and 2.00% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively, and reduced applicable margins on ABR Loans to 0.50% and 1.00% for borrowings under the Revolving Credit Facility and the Term Loan "B" Facility, respectively.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

On May 31, 2018, the Company, the Guarantors, the several lenders party thereto and the Agent entered into the Fourth Amendment to the Amended Credit Agreement (the "Fourth Amendment"). Pursuant to the Fourth Amendment, for any interest period ending after the date of the Fourth Amendment, Eurocurrency Loans will accrue interest at (i) a base rate per annum equal to the Adjusted LIBO Rate (as defined in the Amended Credit Agreement) plus (ii) an applicable margin equal to (x) 1.25% with respect to borrowings under the Revolving Credit Facility (with step-downs and step-ups as set forth in the Amended Credit Agreement) or (y) 1.75% with respect to borrowings under the Term Loan "B" Facility. Pursuant to the Fourth Amendment, ABR Loans will accrue interest at (i) a base rate per annum equal to the highest of (x) the Federal funds rate plus 0.50%, (y) the prime commercial lending rate announced by the Agent from time to time as its prime lending rate and (z) the Adjusted LIBO Rate for a one month interest period (or if such day is not a business day, the immediately preceding business day) (determined after giving effect to any applicable "floor") plus 1.00%; provided that, the Adjusted LIBO Rate for any day shall be based on the LIBO Rate, subject to the interest rate floors set forth in the Amended Credit Agreement, plus (ii) an applicable margin equal to (x) 0.25% with respect to borrowings under the Revolving Credit Facility (with step-downs and step-ups as set forth in the Amended Credit Agreement) or (y) 0.75% with respect to borrowings under the Term Loan "B" Facility.

The obligations under the Amended Credit Agreement are guaranteed by the Guarantors and collateralized by a pledge of substantially all of the assets of the Company and the Guarantors, including a pledge of the equity interests in certain of the Company's domestic and first tier foreign subsidiaries, subject to customary exceptions. The obligations under the Amended Credit Agreement are also collateralized by mortgage on certain real property assets of the Company and its domestic subsidiaries.

The Amended Credit Agreement includes financial maintenance covenants, including, among others, a maximum total net leverage ratio and a minimum interest coverage ratio. It also contains other customary affirmative and negative covenants and events of default. The Company was in compliance with its covenants as of December 31, 2018. The Term Loan "B" Facility will mature on March 31, 2023 and the Revolving Credit Facility will mature on September 19, 2021.

Debt Refinancing and Prepayments

The Company incurred third-party, legal and other fees of \$1.1 million related to the Fourth Amendment and recorded debt extinguishment charges of \$2.6 million, which included a write-off of \$1.5 million of unamortized debt discount and issuance costs and \$1.1 million in third-party fees. The Company also prepaid \$70.0 million of borrowings under the Term Loan "B" Facility during the year ended December 31, 2018 and expensed \$2.0 million of unamortized debt discount and issuance costs attributed to the partial pay-down as loss on debt refinancing and prepayment.

The Company incurred third-party, legal and other fees of \$3.3 million related to the Third Amendment and capitalized \$1.9 million of closing costs relating to the Revolving Credit Facility which will be amortized straight-line over its term and expensed \$1.4 million of third-party fees and expenses relating to the Term Loan "B" Facility. The Company also expensed \$12.9 million of unamortized debt discount and issuance costs attributed to the partial pay down of \$400.0 million of the Term Loan "B" Facility. The Company prepaid \$200.0 million of borrowings under the Term Loan "B" Facility during the year ended December 31, 2017 and expensed \$6.7 million of unamortized debt discount and issuance costs attributed to the partial pay-down as loss on debt refinancing and prepayment.

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

The Company incurred legal and other fees of \$2.4 million related to the Second Amendment and recorded debt extinguishment charges of \$5.6 million, which included a \$3.2 million write-off of unamortized debt issuance costs and \$2.4 million in third-party fees. On March 31, 2017, the Company used the proceeds from the issuance of the 1.625% Notes, amounting to \$562.1 million, and cash on hand of \$12.9 million to prepay \$575.0 million of the outstanding balance of the Term Loan "B" Facility and expensed \$20.6 million of unamortized debt discount and issuance costs.

The Company incurred debt issuance costs consisting of legal, underwriting and other fees of \$66.6 million related to the Term Loan "B" Facility, including \$22.0 million toward lender fees for the First Amendment and recorded debt extinguishment charges of \$4.7 million during the year ended December 31, 2016. The Company incurred debt issuance costs consisting of legal, underwriting and other fees of \$8.2 million for the Revolving Credit Facility and accounted for the termination and replacement of its senior revolving credit facility by the Revolving Credit Facility as a debt modification and wrote off \$1.6 million in unamortized debt issuance costs.

As a result of the above, the Company recorded debt refinancing and prepayment charges of \$4.6 million, \$47.2 million and \$6.3 million for the years ended December 31, 2018, 2017 and 2016, respectively.

1.00% Notes due 2020

On June 8, 2015, the Company completed a private placement of \$690.0 million of its 1.00% Notes to qualified institutional buyers pursuant to Rule 144A under the Securities Act. The Company was the sole issuer in the private unregistered offering of the 1.00% Notes. The Company incurred issuance costs of \$18.3 million in connection with the issuance of the 1.00% Notes, of which \$15.4 million were recorded as debt issuance costs and are being amortized using the effective interest method and \$2.9 million were allocated to the conversion option (as further described below) and were recorded to equity. The 1.00% Notes are governed by an indenture between the Company, as the issuer, the guarantors named therein and Wells Fargo Bank, National Association, as trustee (the "1.00% Indenture").

The Company's use of the net proceeds from the offering included the following: (i) the funding of the cost of the convertible note hedge transactions described below (the cost of which was partially offset by the proceeds that the Company received from entering into the warrant transactions described below); (ii) funding the repurchase of \$70.0 million of the Company's common stock which was acquired from purchasers of the 1.00% Notes in privately negotiated transactions effected through one or more of the initial purchasers or their affiliates conducted concurrently with the issuance of the 1.00% Notes; and (iii) repayment of \$350.0 million of borrowings outstanding under its Revolving Credit Facility. The remainder of the proceeds was intended for general corporate purposes, including additional share repurchases and potential acquisitions.

The notes bear interest at the rate of 1.00% per year from the date of issuance, payable semiannually in arrears on June 1 and December 1 of each year, beginning on December 1, 2015. The 1.00% Notes are fully and unconditionally guaranteed on a senior unsecured obligation basis by certain existing subsidiaries of the Company.

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

The 1.00% Notes are convertible by holders into cash and shares of the Company's common stock at a conversion rate of 54.0643 shares of common stock per \$1,000 principal amount of notes (subject to adjustment in certain events), which is equivalent to an initial conversion price of \$18.50 per share of common stock. The Company will settle conversion of all 1.00% Notes validly tendered for conversion in cash and shares of the Company's common stock, if applicable, subject to the Company's right to pay the share amount in additional cash. Holders may convert their 1.00% Notes only under the following circumstances: (i) during any calendar quarter commencing after the calendar quarter ending on September 30, 2015, if the last reported sale price of common stock for at least 20 trading days (whether or not consecutive) during the 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; (ii) during the five business-day period immediately following any five consecutive trading-day period in which the trading price per \$1,000 principal amount of 1.00% Notes for each day of such period was less than 98% of the product of the closing sale price of the Company's common stock and the conversion rate; (iii) upon occurrence of the specified transactions described in the 1.00% Indenture; or (iv) on and after September 1, 2020. Upon conversion of the 1.00% Notes, the Company will deliver cash, shares of its common stock or a combination of cash and shares of its common stock, at the Company's election. For a discussion of the dilutive effects for earnings per share calculations, see Note 10: "Earnings Per Share and Equity."

The 1.00% Notes will mature on December 1, 2020. If a holder elects to convert its 1.00% Notes in connection with the occurrence of specified fundamental changes that occur prior to September 1, 2020, the holder will be entitled to receive, in addition to cash and shares of common stock equal to the conversion rate, an additional number of shares of common stock, in each case as described in the 1.00% Indenture. Notwithstanding these conversion rate adjustments, the 1.00% Notes contain an explicit limit on the number of shares issuable upon conversion.

In connection with the occurrence of specified fundamental changes, holders may require the Company to repurchase for cash all or part of their 1.00% Notes at a purchase price equal to 100% of the principal amount of the 1.00% Notes to be repurchased, plus accrued and unpaid interest to, but not including, the fundamental change repurchase date.

The 1.00% Notes, which are the Company's unsecured obligations, ranks equally in right of payment to all of the Company's existing and future unsubordinated indebtedness and are senior in right of payment to all of the Company's existing and future subordinated obligations. The 1.00% Notes are effectively subordinated to any of the Company's or its subsidiaries' secured indebtedness to the extent of the value of the assets securing such indebtedness. ON Semiconductor was the sole issuer of the 1.00% Notes.

In accordance with accounting guidance on embedded conversion features, the Company valued and bifurcated the conversion option associated with the 1.00% Notes from the respective host debt instrument, which is referred to as the debt discount, and initially recorded the conversion option of \$110.4 million in stockholders' equity. The resulting debt discount is being amortized to interest expense at an effective interest rate of 4.29% over the contractual terms of the 1.00% Notes.

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

The Company used \$56.9 million of the net proceeds from the offering of its 1.00% Notes to concurrently enter into convertible note hedge and warrant transactions with certain of the initial purchasers of the 1.00% Notes. Pursuant to these transactions, the Company has the option to purchase initially (subject to adjustment for certain specified transactions) a total of 37.3 million shares of its common stock at a price of \$18.50 per share. The total cost of the convertible note hedge transactions was \$108.9 million. In addition, the Company sold warrants to certain bank counterparties whereby the holders of the warrants have the option to purchase initially (subject to adjustment for certain specified events) a total of 37.3 million shares of the Company's common stock at a price of \$25.96 per share. The Company received \$52.0 million in cash proceeds from the sale of these warrants.

In aggregate, the purchase of the convertible note hedges and the sale of the warrants are intended to reduce the potential dilution from the conversion of the 1.00% Notes. As these transactions meet certain accounting criteria, the convertible note hedges and warrants are recorded in stockholders' equity and are not accounted for as derivatives. The net cost incurred in connection with the convertible note hedge and warrant transactions was recorded as a reduction to additional paid-in capital in the Consolidated Balance Sheet. All of the shares subject to the conversion of the 1.00% Notes and hedging transactions were reserved in the form of the Company's treasury stock.

1.625% Notes due 2023

On March 31, 2017, the Company completed a private placement of \$575.0 million of its 1.625% Notes to qualified institutional buyers pursuant to Rule 144A under the Securities Act. The Company incurred issuance costs of \$13.7 million in connection with the issuance of the 1.625% Notes, of which \$11.1 million was capitalized as debt issuance costs and is being amortized using the effective interest method, and \$2.6 million was allocated to the conversion option (as further described below) and was recorded as equity. The 1.625% Notes are governed by the 1.625% Indenture.

The net proceeds from the offering of the 1.625% Notes were used to repay \$562.1 million of borrowings outstanding under the Term Loan "B" Facility. The 1.625% Notes bear interest at the rate of 1.625% per year from the date of issuance, payable semiannually in arrears on April 15 and October 15 of each year, beginning on October 15, 2017. The 1.625% Notes are fully and unconditionally guaranteed, on a joint and several basis, by each of the Company's subsidiaries that is a borrower or guarantor under the Amended Credit Agreement.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

The initial conversion rate of the 1.625% Notes is 48.2567 shares of common stock per \$1,000 principal amount of 1.625% Notes (subject to adjustment in certain events), which is equivalent to an initial conversion price of approximately \$20.72 per share of common stock. Prior to the close of business on the business day immediately preceding July 15, 2023, the 1.625% Notes will be convertible only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on June 30, 2017 (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 the 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 five consecutive trading day period in which the trading price per \$1,000 principal amount of the 1.625% Notes for each trading day of such 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 transactions described in the 1.625% Indenture. On or after July 15, 2023, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders of the 1.625% Notes may convert all or a portion of their 1.625% Notes at any time. Upon conversion of the 1.625% Notes, the Company will deliver cash, shares of its common stock or a combination of cash and shares of its common stock, at the Company's election. For a discussion of the dilutive effects for earnings per share calculations, see Note 10: "Earnings Per Share and Equity".

The 1.625% Notes will mature on October 15, 2023. If a holder elects to convert its 1.625% Notes in connection with the occurrence of specified fundamental changes that occur prior to July 15, 2023, the holder will be entitled to receive, in addition to cash and/or shares of common stock equal to the conversion rate, an additional number of shares of common stock, as described in the 1.625% Indenture. Notwithstanding these conversion rate adjustments, the 1.625% Notes contain an explicit limit on the number of shares issuable upon conversion.

In connection with the occurrence of specified fundamental changes, holders may require the Company to repurchase for cash all or a portion of their 1.625% Notes at a purchase price equal to 100% of the principal amount of the 1.625% Notes to be repurchased, plus accrued and unpaid interest to, but not including, the fundamental change repurchase date.

The 1.625% Notes, which are the Company's unsecured obligations, rank equally in right of payment to all of the Company's existing and future unsubordinated indebtedness and are senior in right of payment to all of the Company's existing and future subordinated obligations. The 1.625% Notes are effectively subordinated to any of the Company's or its subsidiaries' secured indebtedness to the extent of the value of the assets securing such indebtedness. ON Semiconductor was the sole issuer of the 1.625% Notes.

In accordance with accounting guidance on embedded conversion features, the Company valued and bifurcated the conversion option associated with the 1.625% Notes from the respective host debt instrument, which is referred to as the debt discount, and initially recorded the conversion option of \$115.7 million in stockholders' equity. The resulting debt discount is being amortized to interest expense at an effective interest rate of 5.38% over the contractual terms of the notes.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Concurrently with the offering of the 1.625% Notes, the Company used \$59.5 million of borrowings under the Revolving Credit Facility to enter into convertible note hedge and warrant transactions with certain of the initial purchasers of the 1.625% Notes. Pursuant to these transactions, the Company has the option to purchase (subject to adjustment for certain specified transactions) an aggregate of 27.7 million shares of its common stock at a price of \$20.72 per share. The total cost of the convertible note hedge transactions was \$144.7 million. In addition, the Company sold warrants to certain bank counterparties whereby the holders of the warrants have the option to purchase initially (subject to adjustment for certain specified events) a total of 27.7 million shares of the Company's common stock at a price of \$30.70 per share. The Company received \$85.2 million in cash proceeds from the sale of these warrants. The tax impact of the conversion option and the convertible note hedge and warrant transactions amounted to \$11.0 million and was recorded in stockholders' equity.

Together, the purchase of the convertible note hedges and the sale of the warrants are intended to reduce the potential dilution from the conversion of the 1.625% Notes. As these transactions meet certain accounting criteria, the convertible note hedges and warrants are recorded in stockholders' equity and are not accounted for as derivatives. The net cost incurred in connection with the convertible note hedge and warrant transactions was recorded as a reduction to additional paid-in capital in the consolidated balance sheet. All of the shares subject to the conversion of the 1.625% Notes and hedging transactions were reserved from the Company's unallocated shares.

Note Payable to SMBC

On January 31, 2013, the Company amended and restated its seven-year, non-collateralized loan obligation with SANYO Electric. In connection with the amendment and restatement of the loan agreement, SANYO Electric assigned all of its rights under the loan agreement to SMBC. The loan had an original principal amount of approximately \$377.5 million and had a principal balance of \$122.7 million as of December 31, 2017. The entire balance was repaid on the due date of January 2, 2018.

Other Long-term Debt

Note Payable to Fujitsu

On October 1, 2018, the Company assumed a yen-denominated non-collateralized loan obligation amounting to \$50.6 million as a result of the Company acquiring a majority ownership in OSA. See Note 10: "Earnings Per Share and Equity" for more information on the acquisition of OSA. Amortization and maturity of the loan is at the request of the lender, FSL. The loan bears a variable interest rate which is payable monthly and the ending balance amounting to \$51.6 million has been classified as current portion of long-term debt in the Consolidated Balance Sheet as of December 31, 2018.

U.S. Real Estate Mortgages

On August 4, 2014, one of the Company's U.S. subsidiaries entered into an amended and restated loan agreement with a bank for approximately \$49.4 million, which was collateralized by real estate, including certain of the Company's facilities in California, Oregon, and Idaho. The balance as of December 31, 2018 was \$29.5 million and the loan bears interest which is payable monthly at a rate of approximately 3.12% per annum, with a balloon payment of approximately \$26.7 million in 2019.

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Philippine Term Loans

During the second quarter of 2015, the Company's wholly-owned Philippine subsidiaries and ON Semiconductor, as guarantor, entered into two non-collateralized term loans with an aggregate borrowing capacity of \$50.0 million, the terms of which were set forth in agreements by and between the Company's Philippine subsidiaries and a Philippine bank. During the third quarter of 2015, the Company borrowed the full \$50.0 million available under the term loans and the balance was repaid in full during the year ended December 31, 2018. Borrowings under the loans bear interest based on the 3-month LIBO Rate plus 2.0% per annum, with interest payable quarterly in arrears. The total borrowed amount must be repaid within five years over 17 equal quarterly principal installments starting at the end of the fourth quarter from the initial drawdown date.

Malaysia Revolving Line of Credit

On September 23, 2014, one of the Company's wholly-owned Malaysian subsidiaries and ON Semiconductor, as guarantor, entered into a non-collateralized and uncommitted \$25.0 million line of credit (the "Malaysia Line of Credit"), the terms of which were set forth in an agreement by and between the Company's Malaysian subsidiary and a Japanese bank. During the third quarter of 2014, the Company's Malaysian subsidiary borrowed the full \$25.0 million available under the Malaysia Line of Credit. The balance as of December 31, 2018 was \$25.0 million. Borrowings under the Malaysia Line of Credit bear interest based on the 3-month LIBO Rate, as established at the commencement of each borrowing period, plus 1.45% per annum, with interest payable quarterly. The borrowed amount is payable within 21 business days of demand.

Vietnam Revolving Line of Credit

On September 3, 2014, one of the Company's wholly-owned Vietnamese subsidiaries and ON Semiconductor, as guarantor, entered into a non-collateralized and uncommitted \$25.0 million line of credit (the "Vietnam Line of Credit"), the terms of which were set forth in an agreement by and between the Company's Vietnamese subsidiary and a Japanese bank. As of December 31, 2018, the Company's Vietnamese subsidiary had an outstanding balance of \$10.7 million under the Vietnam Line of Credit. Borrowings under the Vietnam Line of Credit bear interest based on the 3-month LIBO Rate and 12-month LIBO Rate, as established at the commencement of each borrowing period, plus 1.45% per annum, with interest payable quarterly and annually. The outstanding amount is payable within 5 business days of demand.

Capital Lease Obligations

The Company has various capital lease obligations primarily for buildings, which, as of December 31, 2018, totaled \$0.9 million, with interest rates ranging from 1.0% to 5.2% and maturities from the first quarter of 2019 until the fourth quarter of 2022. Future payments for the Company's capital lease obligations are included in the annual maturities table.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Note 10: Earnings Per Share and Equity

Earnings Per Share

Calculations of net income per common share attributable to ON Semiconductor Corporation are as follows (in millions, except per share data):

	<u>Year ended December 31,</u>		
	<u>2018</u>	<u>2017</u>	<u>2016</u>
Net income attributable to ON Semiconductor Corporation	\$ 627.4	\$ 810.7	\$ 182.1
Basic weighted average common shares outstanding	423.8	421.9	415.2
Add: Incremental shares for:			
Dilutive effect of share-based awards	4.3	5.5	3.8
Dilutive effect of convertible notes	7.8	0.9	1.0
Diluted weighted average common shares outstanding	<u>435.9</u>	<u>428.3</u>	<u>420.0</u>
Net income per common share attributable to ON Semiconductor Corporation:			
Basic	<u>\$ 1.48</u>	<u>\$ 1.92</u>	<u>\$ 0.44</u>
Diluted	<u>\$ 1.44</u>	<u>\$ 1.89</u>	<u>\$ 0.43</u>

Basic income per common share is computed by dividing net income attributable to ON Semiconductor Corporation by the weighted average number of common shares outstanding during the period.

To calculate the diluted weighted-average common shares outstanding, the number of incremental shares from the assumed exercise of stock options and assumed issuance of shares relating to RSUs is calculated by applying the treasury stock method. Share-based awards whose impact is considered to be anti-dilutive under the treasury stock method were excluded from the diluted net income per share calculation. The excluded number of anti-dilutive share-based awards was approximately 0.6 million, 0.2 million and 1.7 million for the years ended December 31, 2018, 2017 and 2016, respectively.

The dilutive impact related to the Company's 1.00% Notes and 1.625% Notes is determined in accordance with the net share settlement requirements, under which the Company's convertible notes are assumed to be convertible into cash up to the par value, with the excess of par value being convertible into common stock. Additionally, if the average price of the Company's common stock exceeds \$25.96 per share, with respect to the 1.00% Notes, or \$30.70 per share, with respect to the 1.625% Notes, during the relevant reporting period, the effect of the additional potential shares that may be issued related to the warrants that were issued concurrently with the issuance of the convertible notes will also be included in the calculation of diluted weighted-average common shares outstanding. Prior to conversion, the convertible note hedges are not considered for purposes of the earnings per share calculations, as their effect would be anti-dilutive. Upon conversion, the convertible note hedges are expected to offset the dilutive effect of the 1.00% Notes and 1.625% Notes, respectively, when the stock price is above \$18.50 per share, with respect to the 1.00% Notes, and \$20.72 per share, with respect to the 1.625% Notes.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Equity

Share Repurchase Programs

On December 1, 2014, the Company announced the "Capital Allocation Policy" under which the Company intends to return to stockholders approximately 80 percent of free cash flow, less repayments of long-term debt, subject to a variety of factors, including the strategic plans, market and economic conditions and the discretion of the Company's board of directors. For the purposes of the Capital Allocation Policy, the Company defines "free cash flow" as net cash provided by operating activities less purchases of property, plant and equipment.

On December 1, 2014, the Company announced the 2014 Share Repurchase Program pursuant to the Capital Allocation Policy. Under the Company's 2014 Share Repurchase Program, the Company had the ability to repurchase up to \$1.0 billion (exclusive of fees, commissions and other expenses) of the Company's common stock over a period of four years from December 1, 2014, subject to certain contingencies. The 2014 Share Repurchase Program, which did not require the Company to purchase any particular amount of common stock and was subject to the discretion of the board of directors, expired on November 30, 2018 with approximately \$288.2 million remaining unutilized.

The Company repurchased common stock worth approximately \$315.0 million under the 2014 Share Repurchase Program during the year ended December 31, 2018. The Company repurchased shares worth \$25.0 million of the Company's common stock under the 2014 Share Repurchase Program in connection with the offering of the 1.625% Notes during the year ended December 31, 2017.

On November 15, 2018, the Company announced the 2018 Share Repurchase Program pursuant to the Capital Allocation Policy. Under the 2018 Share Repurchase Program, the Company is authorized to repurchase up to \$1.5 billion of its common shares over a four-year period, exclusive of any fees, commissions or other expenses. The Company may repurchase its common stock from time to time in privately negotiated transactions or open market transactions, including pursuant to a trading plan in accordance with Rule 10b5-1 and Rule 10b-18 of the Exchange Act, or by any combination of such methods or other methods. The timing of any repurchases and the actual number of shares repurchased will depend on a variety of factors, including the Company's stock price, corporate and regulatory requirements, restrictions under the Company's debt obligations and other market and economic conditions. The 2018 Share Repurchase Program became effective on December 1, 2018. There were no repurchases made under the 2018 Share Repurchase Program during the year ended December 31, 2018.

The Company repurchased 4.2 million shares of its common stock for \$71.7 million under the 2018 Share Repurchase Program subsequent to December 31, 2018 through February 15, 2019.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Information relating to the Company's Share Repurchase Programs is as follows (in millions, except per share data):

	Year ended December 31,		
	2018	2017	2016
Number of repurchased shares (1)	16.8	1.6	—
Beginning accrued share repurchases (2)	\$ —	\$ —	\$ —
Aggregate purchase price	315.0	25.0	\$ —
Fees, commissions and other expenses	0.3	—	\$ —
Less: ending accrued share repurchases (3)	—	—	—
Total cash used for share repurchases	\$ 315.3	\$ 25.0	\$ —
Weighted-average purchase price per share (4)	\$ 18.78	\$15.35	\$ —
Available for future purchases at period end	\$ 1,500.0	\$603.2	\$ 628.2

- (1) None of these shares had been reissued or retired as of December 31, 2018, but may be reissued or retired by the Company at a later date.
- (2) Represents unpaid amounts recorded in accrued expenses on the Company's Consolidated Balance Sheet as of the beginning of the period.
- (3) Represents unpaid amounts recorded in accrued expenses on the Company's Consolidated Balance Sheet as of the end of the period.
- (4) Exclusive of fees, commissions and other expenses.

Shares for Restricted Stock Units Tax Withholding

Treasury stock is recorded at cost and is presented as a reduction of stockholders' equity in the accompanying consolidated financial statements. Shares with a fair market value equal to the applicable amount of the employee withholding taxes due are withheld by the Company upon the vesting of RSUs to pay the applicable amount of employee withholding taxes and are considered common stock repurchases. The Company then pays the applicable amount of withholding taxes in cash. The amounts remitted in the years ended December 31, 2018 and 2017 were \$31.6 million and \$28.1 million, respectively, for which the Company withheld approximately 1.3 million and 1.8 million shares of common stock, respectively, that were underlying the RSUs that vested. None of these shares had been reissued or retired as of December 31, 2018, but may be reissued or retired by the Company at a later date. These deemed repurchases do not count against the Company's Share Repurchase Programs.

Non-Controlling Interest

The Company owns 80% of the outstanding equity interests in Leshan, and the results of Leshan have been consolidated in the Company's financial statements. Leshan operates assembly and test operations in Leshan, China.

At December 31, 2018, the Leshan non-controlling interest balance was \$22.5 million. This balance included the Leshan non-controlling interest's \$2.5 million share of the earnings for the year ended December 31, 2018 offset by \$2.2 million of dividends paid to the non-controlling shareholder of Leshan.

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At December 31, 2017, the Leshan non-controlling interest balance was \$22.2 million. This balance included the Leshan non-controlling interest's \$2.3 million share of the earnings for the year ended December 31, 2017 offset by \$1.9 million of dividends paid to the non-controlling shareholder of Leshan.

As of December 31, 2017, the Company owned 10% of the equity interest in OSA. During 2018, the Company acquired an incremental 50% equity interest for approximately \$24.6 million, net of cash acquired. OSA operates a front-end wafer fabrication facility in Aizuwakamatsu, Japan. As the Company acquired a controlling financial interest on October 1, 2018, the results of OSA have been consolidated in the Company's financial statements. This acquisition has been accounted for as an acquisition of assets. Due to the terms of the agreement with FSL, the former parent of OSA, there is no non-controlling interest balance recorded for the remaining 40% held by FSL. Subject to the fulfillment of certain conditions, the Company is required to increase its ownership in OSA to 100% between nine and eighteen months following the date it acquired the controlling financial interest.

Note 11: Share-Based Compensation

Total share-based compensation expense related to the Company's stock options, RSUs, stock grant awards and ESPP were recorded within the Consolidated Statements of Operations and Comprehensive Income as follows (in millions):

	Year Ended December 31,		
	2018	2017	2016
Cost of revenue	\$ 7.0	\$ 6.0	\$ 8.0
Research and development	14.3	12.5	11.1
Selling and marketing	14.1	11.7	9.8
General and administrative	42.9	39.6	27.2
Share-based compensation expense before income taxes	78.3	69.8	56.1
Related income tax benefits (1)	(16.4)	(24.4)	—
Share-based compensation expense, net of taxes	<u>\$ 61.9</u>	<u>\$ 45.4</u>	<u>\$ 56.1</u>

(1) Recognition of related income tax benefits are the result of the adoption of ASU 2016-09 during the first quarter of 2017 through a cumulative effect adjustment of \$68.1 million recorded as a credit to retained earnings as of January 1, 2017. Tax benefit is calculated using the federal statutory rate of 21% and 35% during the years ended December 31, 2018 and December 31, 2017, respectively.

At December 31, 2018, total unrecognized share-based compensation expense, net of estimated forfeitures, related to non-vested RSUs with time-based service conditions and performance-based vesting criteria was \$78.8 million, which is expected to be recognized over a weighted-average period of 1.4 years. The total intrinsic value of stock options exercised during the year ended December 31, 2018 was \$12.5 million. The Company received cash of \$5.7 million and \$24.9 million from the exercise of stock options and the issuance of shares under the ESPP, respectively. Upon option exercise, release of RSUs, stock grant awards, or completion of a purchase under the ESPP, the Company issues new shares of common stock.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Share-Based Compensation Information

The fair value per unit of each time-based and performance-based RSU and stock grant award is determined on the grant date and is equal to the Company's closing stock price on the grant date. There were no employee stock options granted during the years ended December 31, 2018, 2017 and 2016.

Share-based compensation expense is based on awards ultimately expected to vest. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The annualized pre-vesting forfeitures for RSUs were estimated to be approximately 5% for the years ended December 31, 2018, 2017 and 2016.

Plan Descriptions

On February 17, 2000, the Company adopted the 2000 SIP which provided key employees, directors and consultants with various equity-based incentives as described in the plan document. Prior to February 17, 2010, stockholders had approved amendments to the 2000 SIP which increased the number of shares of the Company's common stock reserved and available for grant to 30.5 million, plus an additional number of shares of the Company's common stock equal to 3% of the total number of outstanding shares of common stock effective automatically on January 1st of each year beginning January 1, 2005 and ending January 1, 2010. On February 17, 2010, the 2000 SIP expired and the Company ceased granting under the plan. Options granted pursuant to the 2000 SIP that remain outstanding continue to be exercisable or subject to vesting pursuant to the underlying option agreements.

On March 23, 2010, the Company adopted the Amended and Restated SIP, which was subsequently approved by the Company's stockholders at the annual stockholder meeting on May 18, 2010 and reapproved by the Company's stockholders at the annual stockholder meeting on May 20, 2015. The Amended and Restated SIP provides key employees, directors and consultants with various equity-based incentives as described in the plan document. The Amended and Restated SIP is administered by the Board of Directors or a committee thereof, which is authorized to determine, among other things, the key employees, directors or consultants who will receive awards under the plan, the amount and type of award, exercise prices or performance criteria, if applicable, and vesting schedules. On May 15, 2012, stockholders approved certain amendments to the Amended and Restated SIP to increase the number of shares of common stock subject to all awards under the Amended and Restated SIP by 33.0 million. On May 17, 2017, stockholders approved certain amendments to the Amended and Restated SIP to increase the number of shares of common stock subject to all awards under the Amended and Restated SIP by 27.9 million to 87.0 million, exclusive of shares of common stock subject to awards that were previously granted pursuant to the 2000 SIP that have or will become available for grant pursuant to the Amended and Restated SIP.

Generally, the options granted under the 2000 SIP and Amended and Restated SIP vest over a period of three to four years and have a contractual term of 10 years and seven years, respectively. Under both plans, certain outstanding options vest automatically upon a change of control, as defined in the respective plan document, provided the option holder is employed by the Company on the date of the change of control. Certain other outstanding options may also vest upon a change of control if the Board of Directors of the Company, at its discretion, provides for acceleration of the vesting of said options. Generally, upon the termination of an option holder's employment, all unvested options will immediately terminate and vested options will generally remain exercisable for a period of 90 days after the date of termination (one year in the case of death or disability).

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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Generally, RSUs granted under the 2000 SIP and the Amended and Restated SIP vest over three years or based on the achievement of certain performance criteria and are payable in shares of the Company's stock upon vesting.

As of December 31, 2018, there was an aggregate of 33.7 million shares of common stock available for grant under the Amended and Restated SIP.

Stock Options

The number of options outstanding at December 31, 2017 was 1.1 million at a weighted average exercise price of \$6.95 per option, of which 0.8 million options were exercised at a weighted average exercise price of \$7.13 per option during the year ended December 31, 2018. The number of options outstanding at December 31, 2018 was 0.3 million, at a weighted average exercise price of \$6.41 per option and had an aggregate intrinsic value of \$2.8 million. All outstanding options had exercise prices below \$16.51 per share, the closing price of the Company's common stock at December 31, 2018, and will expire at varying times between 2019 and 2021.

Restricted Stock Units

A summary of the RSU transactions for the year ended December 31, 2018 are as follows (number of shares in millions):

	Number of Shares	Weighted-Average Grant Date Fair Value
Nonvested shares of RSUs at December 31, 2017	9.8	\$ 12.63
Granted	3.2	23.90
Achieved	0.7	15.26
Released	(4.5)	13.09
Canceled	(0.6)	15.48
Nonvested shares of RSUs at December 31, 2018	<u>8.6</u>	16.59

During 2018, the Company awarded 1.1 million RSUs to certain officers and employees of the Company that vest upon the achievement of certain performance criteria. The number of units expected to vest is evaluated each reporting period and compensation expense is recognized for those units for which achievement of the performance criteria is considered probable.

As of December 31, 2018, unrecognized compensation expense, net of estimated forfeitures related to non-vested RSUs granted under the Amended and Restated SIP with time-based and performance-based conditions, was \$56.7 million and \$22.1 million, respectively. For RSUs with time-based service conditions, expense is being recognized over the vesting period; for RSUs with performance criteria, expense is recognized over the period during which the performance criteria is expected to be achieved. Unrecognized compensation cost related to awards with certain performance criteria that are not expected to be achieved is not included here. Total compensation expense related to both performance-based and service-based RSUs was \$70.3 million for the year ended December 31, 2018, which included \$42.1 million for RSUs with time-based service conditions that were granted in 2018 and prior that are expected to vest.

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Stock Grant Awards

During the year ended December 31, 2018, the Company granted 0.1 million shares of stock under stock grant awards to certain directors of the Company with immediate vesting at a weighted-average grant date fair value of \$25.51 per share. Total compensation expense related to stock grant awards for the year ended December 31, 2018 was approximately \$1.8 million.

Employee Stock Purchase Plan

On February 17, 2000, the Company adopted the ESPP. Subject to local legal requirements, each of the Company's eligible employees may elect to contribute up to 10% of eligible payroll applied towards the purchase of shares of the Company's common stock at a price equal to 85% of the fair market value of such shares as determined under the plan. Employees are limited to annual purchases of \$25,000 under this plan. In addition, during each quarterly offering period, employees may not purchase stock exceeding the lesser of: (i) 500 shares; or (ii) the number of shares equal to \$6,250 divided by the fair market value of the stock on the first day of the offering period. During the year ended December 31, 2018, employees purchased approximately 1.5 million shares under the ESPP. During the years ended December 31, 2017 and 2016, employees purchased approximately 1.9 million and 1.8 million shares, respectively, under the ESPP. Through May 2013, stockholders had approved amendments to the ESPP, which increased the number of shares of the Company's common stock issuable thereunder to 18.0 million shares. On May 20, 2015, stockholders approved an amendment to the Company's ESPP which increased the number of shares reserved and available to be issued pursuant to the ESPP by 5.5 million to a total of 23.5 million. Again on May 17, 2017 stockholders approved an amendment to the Company's ESPP which increased the number of shares reserved and available to be issued pursuant to the ESPP by 5.0 million to a total of 28.5 million. As of December 31, 2018, there were approximately 6.5 million shares available for issuance under the ESPP.

Note 12: Employee Benefit Plans

Defined Benefit Pension Plans

The Company maintains defined benefit pension plans for employees of certain of its foreign subsidiaries. Such plans conform to local practice in terms of providing minimum benefits mandated by law, collective agreements or customary practice. The Company recognizes the aggregate amount of all overfunded plans as assets and the aggregate amount of all underfunded plans as liabilities in its financial statements. The Company's expected long-term rate of return on plan assets is updated at least annually, taking into consideration its asset allocation, historical returns on similar types of assets and the current economic environment. For estimation purposes, the Company assumes its long-term asset mix will generally be consistent with the current mix. The Company determines its discount rates using highly rated corporate bond yields and government bond yields.

Benefits under all of the Company's plans are valued utilizing the projected unit credit cost method. The Company's policy is to fund its defined benefit plans in accordance with local requirements and regulations. The funding is primarily driven by the Company's current assessment of the economic environment and projected benefit payments of its foreign subsidiaries. The Company's measurement date for determining its defined benefit obligations for all plans is December 31 of each year.

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The Company recognizes actuarial gains and losses in the period the Company's annual pension plan actuarial valuations are prepared, which generally occurs during the fourth quarter of each year, or during any interim period where a revaluation is deemed necessary.

The following is a summary of the status of the Company's foreign defined benefit pension plans and the net periodic pension cost (dollars in millions):

	Year Ended December 31,		
	2018	2017	2016
Service cost	\$ 9.6	\$ 10.0	\$ 9.0
Interest cost	4.7	4.3	4.5
Expected return on plan assets	(6.1)	(5.5)	(3.9)
Curtailment gain	(0.3)	—	—
Actuarial and other loss	6.1	1.9	10.1
Total net periodic pension cost	<u>\$ 14.0</u>	<u>\$ 10.7</u>	<u>\$ 19.7</u>
Weighted average assumptions			
Discount rate	1.56%	1.66%	1.60%
Expected return on plan assets	3.18%	3.22%	3.20%
Rate of compensation increase	3.22%	3.22%	3.05%

The long term rate of return on plan assets was determined using the weighted-average method, which incorporates factors that include the historical inflation rates, interest rate yield curve and current market conditions.

	2018	2017
Change in projected benefit obligation (PBO)		
Projected benefit obligation at the beginning of the year	\$ 292.7	\$ 261.8
Service cost	9.6	10.0
Interest cost	4.7	4.3
Net actuarial (gain) loss	(6.1)	6.4
Benefits paid by plan assets	(5.6)	(4.7)
Benefits paid by the Company	(1.7)	(4.2)
Curtailments and settlements	(0.6)	—
Translation and other (gain) loss	(2.2)	19.1
Projected benefit obligation at the end of the year	<u>\$ 290.8</u>	<u>\$ 292.7</u>
Accumulated benefit obligation at the end of the year	<u>\$ 249.2</u>	<u>\$ 245.8</u>
Change in plan assets		
Fair value of plan assets at the beginning of the year	\$ 183.4	\$ 159.7
Actual return on plan assets	(6.1)	10.0
Benefits paid from plan assets	(5.6)	(4.7)
Employer contributions	5.0	6.0
Settlements	(0.3)	—
Translation and other gain (loss)	(1.5)	12.4
Fair value of plan assets at the end of the year	<u>\$ 174.9</u>	<u>\$ 183.4</u>

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

	As of December 31,	
	2018	2017
Plans with underfunded or non-funded projected benefit obligation		
Projected benefit obligation	\$ 282.6	\$ 283.3
Fair value of plan assets	166.2	173.7
Plans with underfunded or non-funded accumulated benefit obligation		
Accumulated benefit obligation	\$ 181.4	\$ 174.8
Fair value of plan assets	102.1	104.3
Amounts recognized in the balance sheet consist of		
Non-current assets	\$ 0.3	\$ 0.1
Current liabilities	(0.2)	(0.2)
Non-current liabilities	(116.0)	(109.2)
Funded status	<u>\$ (115.9)</u>	<u>\$ (109.3)</u>

As of December 31, 2018 and 2017, respectively, the assets of the Company's foreign plans were invested 18% and 20% in equity securities, 19% and 18% in debt securities, including corporate bonds, 46% and 45% in insurance and investment contracts, 3% and 3% in cash and 14% and 14% in other investments, including foreign government securities, equity securities and mutual funds. This asset allocation is based on the anticipated required funding amounts, timing of benefit payments, historical returns on similar assets and the influence of the current economic environment.

Plan Assets

The Company's overall investment strategy is to focus on stable and low credit risk investments aimed at providing a positive rate of return to the plan assets. The Company has an investment mix with a wide diversification of asset types and fund strategies that are aligned with each region and foreign location's economy and market conditions. Investments in government securities are generally guaranteed by the respective government offering the securities. Investments in corporate bonds, equity securities, and foreign mutual funds are made with the expectation that these investments will give an adequate rate of long-term returns despite periods of high volatility. Other types of investments include investments in cash deposits, money market funds and insurance contracts. Asset allocations are based on the anticipated required funding amounts, timing of benefit payments, historical returns on similar assets and the influence of the current economic environment.

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The following table sets forth, by level within the fair value hierarchy, a summary of investments measured at fair value and the asset allocations of the plan assets in the Company's foreign pension plans (in millions):

	As of			
	December 31, 2018			
Asset Category	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash/Money Markets	\$ 4.6	\$ 4.6	—	—
Foreign Government/Treasury Securities (1)	17.3	17.3	—	—
Corporate Bonds, Debentures (2)	33.3	—	33.3	—
Equity Securities (3)	32.3	—	32.3	—
Mutual Funds	7.3	—	7.3	—
Investment and Insurance Annuity Contracts (4)	80.1	—	29.5	50.6
	<u>\$ 174.9</u>	<u>\$ 21.9</u>	<u>\$ 102.4</u>	<u>\$ 50.6</u>

	As of			
	December 31, 2017			
Asset Category	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash/Money Markets	\$ 4.9	\$ 4.9	\$ —	\$ —
Foreign Government/Treasury Securities (1)	20.1	20.1	—	—
Corporate Bonds, Debentures (2)	32.5	—	32.5	—
Equity Securities (3)	36.8	—	36.8	—
Mutual Funds	6.7	—	6.7	—
Investment and Insurance Annuity Contracts (4)	82.4	—	27.2	55.2
	<u>\$ 183.4</u>	<u>\$ 25.0</u>	<u>\$ 103.2</u>	<u>\$ 55.2</u>

- (1) Includes investments primarily in guaranteed return securities.
(2) Includes investments in government bonds and corporate bonds of developed countries, emerging market government bonds, emerging market corporate bonds and convertible bonds.
(3) Includes investments in equity securities of developed countries and emerging markets.
(4) Includes certain investments with insurance companies which guarantee a minimum rate of return on the investment.

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When available, the Company uses observable market data, including pricing on recently closed market transactions and quoted prices, which are included in Level 2. When data is unobservable, valuation methodologies using comparable market data are utilized and included in Level 3. Activity during the year ended December 31, 2018 and 2017, respectively for plan assets with fair value measurement using significant unobservable inputs (Level 3) were as follows (in millions):

	Investment and Insurance Contracts
Balance at December 31, 2016	\$ 47.2
Actual return on plan assets	1.5
Purchase, sales and settlements	(0.3)
Foreign currency impact	6.8
Balance at December 31, 2017	\$ 55.2
Actual return on plan assets	(0.5)
Purchase, sales and settlements	(2.0)
Foreign currency impact	(2.1)
Balance at December 31, 2018	<u>\$ 50.6</u>

The expected benefit payments for the Company's defined benefit plans by year from 2019 through 2023 and the five years thereafter are as follows (in millions):

2019	\$ 4.7
2020	6.4
2021	10.6
2022	12.0
2023	15.6
Five years thereafter	95.9
Total	<u>\$ 145.2</u>

The total underfunded status was \$115.9 million at December 31, 2018. The Company expects to contribute \$15.3 million during 2019 to its foreign defined benefit plans.

Defined Contribution Plans

The Company has a deferred compensation savings plan for all eligible U.S. employees established under the provisions of Section 401(k) of the Internal Revenue Code (the "Code"). Eligible employees may contribute a percentage of their salary subject to certain limitations. The Company has elected to match 100% of employee contributions between 0% and 4% of their salary, with an annual limit of \$11,000. The Company recognized \$19.2 million, \$18.4 million and \$14.0 million of expense relating to matching contributions in 2018, 2017 and 2016, respectively.

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Certain foreign subsidiaries have defined contribution plans in which eligible employees participate. The Company recognized compensation expense of \$20.5 million, \$16.8 million and \$8.9 million relating to these plans for the years ended 2018, 2017 and 2016, respectively.

Note 13: Commitments and Contingencies

Leases

The following is a schedule by year of future minimum lease obligations under non-cancelable operating leases as of December 31, 2018 (in millions):

Year Ending December 31,	
2019	\$ 36.8
2020	27.6
2021	21.9
2022	16.8
2023	12.3
Thereafter	45.4
Total (1)	<u>\$ 160.8</u>

(1) Excludes \$12.3 million of expected sublease income.

The Company's existing leases do not contain significant restrictive provisions; however, certain leases contain renewal options and provisions for payment by the Company of real estate taxes, insurance and maintenance costs. Total rent expense associated with operating leases for 2018, 2017, and 2016 was \$43.6 million, \$45.3 million, and \$31.1 million, respectively.

Purchase Obligations

The Company has agreements with suppliers, external manufacturers and other parties to purchase inventory, manufacturing services and other goods and services. The following is a schedule by year of future minimum purchase obligations under non-cancelable arrangements in the ordinary course of business as of December 31, 2018 (in millions):

Year Ending December 31,	
2019	\$ 373.7
2020	38.2
2021	23.0
2022	9.3
2023	8.2
Thereafter	10.9
Total	<u>\$ 463.3</u>

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

Environmental Contingencies

The Company's headquarters in Phoenix, Arizona are located on property that is a "Superfund" site, which is a property listed on the National Priorities List and subject to clean-up activities under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). Motorola and Freescale (acquired by NXP Semiconductors N.V.) have been involved in the cleanup of on-site solvent contaminated soil and groundwater and off-site contaminated groundwater pursuant to consent decrees with the State of Arizona. As part of the Company's separation from Motorola in 1999, Motorola retained responsibility for this contamination, and Motorola and Freescale have agreed to indemnify the Company with respect to remediation costs and other costs or liabilities related to this matter.

The Company's former front-end manufacturing location in Aizu, Japan is located on property where soil and ground water contamination was detected. The Company believes that the contamination originally occurred during a time when the facility was operated by a prior owner. The Company worked with local authorities to implement a remediation plan and has completed remaining remediation. The majority of the cost of remediation was covered by insurance. Any costs to the Company in connection with this matter have not been, and, based on the information available, are not expected to be material.

The Company's manufacturing facility in the Czech Republic has undergone remediation to respond to releases of hazardous substances that occurred during the years that this facility was operated by government-owned entities. The remediation projects consisted primarily of monitoring groundwater wells located on-site and off-site with additional action plans developed to respond in the event activity levels are exceeded. The government of the Czech Republic has agreed to indemnify the Company and its respective subsidiaries, subject to specified limitations, for remediation costs associated with this historical contamination. We have completed remediation on this project, and accordingly, have ceased all related monitoring efforts. Any costs to the Company in connection with this matter have not been, and, based on the information available, are not expected to be, material.

The Company's design center in East Greenwich, Rhode Island is located on property that has localized soil contamination. In connection with the purchase of the facility, the Company entered into a Settlement Agreement and Covenant Not to Sue with the State of Rhode Island. This agreement requires that remedial actions be undertaken and a quarterly groundwater monitoring program be initiated by the former owners of the property. Any costs to the Company in connection with this matter have not been, and, based on the information available, are not expected to be material.

As a result of the acquisition of AMIS of 2008, the Company is a "primary responsible party" to an environmental remediation and cleanup at AMIS's former corporate headquarters in Santa Clara, California. Costs incurred by AMIS include implementation of the clean-up plan, operations and maintenance of remediation systems, and other project management costs. However, AMIS's former parent company, a subsidiary of Nippon Mining, contractually agreed to indemnify AMIS and the Company for any obligations relating to environmental remediation and cleanup at this location. Any costs to the Company in connection with this matter have not been, and, based on the information available, are not expected to be material.

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Through its acquisition of Fairchild, the Company acquired a facility in South Portland, Maine. This facility has ongoing environmental remediation projects to respond to certain releases of hazardous substances that occurred prior to the leveraged recapitalization of Fairchild from its former parent company, National Semiconductor Corporation, which is now owned by Texas Instruments Incorporated. Although the Company may incur certain liabilities with respect to these remediation projects, pursuant to the asset purchase agreement entered into in connection with the Fairchild recapitalization, National Semiconductor Corporation agreed to indemnify Fairchild, without limitation and for an indefinite period of time, for all future costs related to these projects. Under a 1999 asset purchase agreement pursuant to which Fairchild purchased the power device business of Samsung, Samsung agreed to indemnify Fairchild in an amount up to \$150.0 million for remediation costs and other liabilities related to historical contamination at Samsung's Bucheon, South Korea operations. Any costs to the Company in connection with this matter have not been, and, based on the information available, are not expected to be material.

Under a 2001 asset purchase agreement pursuant to which Fairchild purchased a manufacturing facility in Mountain Top, Pennsylvania, Intersil Corp. (subsequently acquired by Renesas Electronics Corporation) agreed to indemnify Fairchild for remediation costs and other liabilities related to historical contamination at the facility. Any costs to the Company incurred to respond to the above conditions and projects have not been, and are not expected to be, material, and any future payments the Company makes in connection with such liabilities are not expected to be material.

The Company was notified by the Environmental Protection Agency ("EPA") that it has been identified as a "potentially responsible party" ("PRP") under CERCLA in the Chemetco Superfund matter. Chemetco, a defunct reclamation services supplier that operated in Illinois at what is now a Superfund site, has performed reclamation services for the Company in the past. The EPA is pursuing Chemetco customers for contribution to the site cleanup activities. The Company has joined a PRP group which is cooperating with the EPA in the evaluation and funding of the cleanup. Any costs to the Company in connection with this matter have not been, and, based on the information available, are not expected to be material.

Financing Contingencies

In the ordinary course of business, the Company provides standby letters of credit and other guarantee instruments to certain parties initiated by either the Company or its subsidiaries, as required for transactions such as, but not limited to, material purchase commitments, agreements to mitigate collection risk, leases, utilities or customs guarantees. As of December 31, 2018, the Company's Revolving Credit Facility included \$15.0 million of availability for the issuance of letters of credit. There were \$1.0 million letters of credit outstanding under the Revolving Credit Facility as of December 31, 2018, which reduces the Company's borrowing capacity. The Company also had outstanding guarantees and letters of credit outside of its Revolving Credit Facility totaling \$6.1 million as of December 31, 2018.

As part of obtaining financing in the ordinary course of business, the Company has issued guarantees related to certain of its subsidiaries' capital lease obligations, equipment financing, lines of credit and real estate mortgages, which totaled \$68.6 million as of December 31, 2018.

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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Based on historical experience and information currently available, the Company believes that it will not be required to make payments under the standby letters of credit or guarantee arrangements for the foreseeable future.

Indemnification Contingencies

The Company is a party to a variety of agreements entered into in the ordinary course of business pursuant to which it may be obligated to indemnify the other parties for certain liabilities that arise out of or relate to the subject matter of the agreements. Some of the agreements entered into by the Company require it to indemnify the other party against losses due to IP infringement, property damage (including environmental contamination), personal injury, failure to comply with applicable laws, the Company's negligence or willful misconduct or breach of representations and warranties and covenants related to such matters as title to sold assets.

The Company faces risk of exposure to warranty and product liability claims in the event that its products fail to perform as expected or such failure of its products results, or is alleged to result, in economic damage, bodily injury or property damage. In addition, if any of the Company's designed products are alleged to be defective, the Company may be required to participate in their recall. Depending on the significance of any particular customer and other relevant factors, the Company may agree to provide more favorable rights to such customer for valid defective product claims.

The Company and its subsidiaries provide for indemnification of directors, officers and other persons in accordance with limited liability company operating agreements, certificates of incorporation, by-laws, articles of association or similar organizational documents, as the case may be. Section 145 of the Delaware General Corporation Law ("DGCL") authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers under certain circumstances and subject to certain limitations. The terms of Section 145 of the DGCL are sufficiently broad to permit indemnification under certain circumstances for liabilities, including reimbursement of expenses incurred, arising under the Exchange Act. As permitted by the DGCL, the Company's Amended and Restated Certificate of Incorporation, as amended (the "Certificate of Incorporation"), contains provisions relating to the limitation of liability and indemnification of directors and officers. The Certificate of Incorporation eliminates the personal liability of each of the Company's directors to the fullest extent permitted by Section 102(b) (7) of the DGCL, as it may be amended or supplemented, and provides that the Company will indemnify its directors and officers to the fullest extent permitted by Section 145 of the DGCL, as amended from time to time.

The Company has entered into indemnification agreements with each of its directors and executive officers. The form of agreement (the "Indemnification Agreement") provides, subject to certain exceptions and conditions specified in the Indemnification Agreement, that the Company will indemnify each indemnitee to the fullest extent permitted by Delaware law against all expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with a proceeding or claim in which such person is involved because of his or her status as one of the Company's directors or executive officers. In addition, the Indemnification Agreement provides that the Company will, to the extent not prohibited by law and subject to certain exceptions and repayment conditions, advance specified indemnifiable expenses incurred by the indemnitee in connection with such proceeding or claim. The foregoing description of the Indemnification Agreement does not purport to be complete and is qualified in its entirety by reference to the full and complete terms of the Indemnification Agreement, which is filed as Exhibit 10.1 to the Current Report on Form 8-K filed by the Company on February 25, 2016 and is incorporated by reference herein.

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The Company also maintains directors' and officers' insurance policies that indemnify its directors and officers against various liabilities, including certain liabilities under the Exchange Act, that might be incurred by any director or officer in his or her capacity as such.

The agreement and plan of merger relating to the acquisition of Fairchild (the "Fairchild Agreement") provides for indemnification and insurance rights in favor of Fairchild's then current and former directors, officers and employees. Specifically, the Company has agreed that, for no fewer than six years following the Fairchild acquisition, the Company will: (a) indemnify and hold harmless each such indemnitee against losses and expenses (including advancement of attorneys' fees and expenses) in connection with any proceeding asserted against the indemnified party in connection with such person's services as a director, officer, employee or other fiduciary of Fairchild or its subsidiaries prior to the effective time of the acquisition; (b) maintain in effect all provisions of the certificate of incorporation or bylaws of Fairchild or any of its subsidiaries or any other agreements of Fairchild or any of its subsidiaries with any indemnified party regarding elimination of liability, indemnification of officers, directors and employees and advancement of expenses in existence on the date of the Fairchild Agreement for acts or omissions occurring prior to the effective time of the acquisition; and (c) subject to certain qualifications, provide to Fairchild's then current directors and officers an insurance and indemnification policy that provides coverage for events occurring prior to the effective time of the acquisition that is no less favorable than Fairchild's then-existing policy, or, if insurance coverage that is no less favorable is unavailable, the best available coverage.

While the Company's future obligations under certain agreements may contain limitations on liability for indemnification, other agreements do not contain such limitations and under such agreements it is not possible to predict the maximum potential amount of future payments due to the conditional nature of the Company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the Company under any of these indemnities have not had a material effect on the Company's business, financial condition, results of operations or cash flows. Additionally, the Company does not believe that any amounts that it may be required to pay under these indemnities in the future will be material to the Company's business, financial position, results of operations or cash flows.

Legal Matters

From time to time, the Company is party to various legal proceedings arising in the ordinary course of business, including indemnification claims, claims of alleged infringement of patents, trademarks, copyrights and other intellectual property rights, claims of alleged non-compliance with contract provisions and claims related to alleged violations of laws and regulations. The Company regularly evaluates the status of the legal proceedings in which it is involved to assess whether a loss is probable or there is a reasonable possibility that a loss, or an additional loss, may have been incurred and determine if accruals are appropriate. If accruals are not appropriate, the Company further evaluates each legal proceeding to assess whether an estimate of possible loss or range of possible loss can be made for disclosure. Although litigation is inherently unpredictable, the Company believes that it has adequate provisions for any probable and estimable losses. It is possible, nevertheless, that the Company's consolidated financial position, results of operations or liquidity could be materially and adversely affected in any particular period by the resolution of a legal proceeding. The Company's estimates do not represent its maximum exposure. Legal expenses related to defense, negotiations, settlements, rulings and advice of outside legal counsel are expensed as incurred.

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The Company is currently involved in a variety of legal matters that arise in the ordinary course of business. Based on information currently available, except as disclosed below, the Company is not involved in any pending or threatened legal proceedings that it believes could reasonably be expected to have a material adverse effect on its financial condition, results of operations or liquidity. The litigation process and the administrative process at the United States Patent and Trademark Office (the "USPTO") are inherently uncertain, and the Company cannot guarantee that the outcome of these matters will be favorable to it.

Patent Litigation with Power Integrations, Inc.

There are eight outstanding civil litigation proceedings with Power Integrations, Inc. ("PI"), five of which were pending between PI and various Fairchild entities (including Fairchild Semiconductor International, Inc., Fairchild Semiconductor Corporation, and Fairchild (Taiwan) Corporation, f/k/a System General Corporation (collectively referred to in this sub-section as "Fairchild")), prior to the acquisition of Fairchild. The Company is vigorously defending the lawsuits filed by PI and believes that it has strong defenses. There are also numerous outstanding administrative proceedings between the parties at the USPTO in which each party is challenging the validity of the other party's patents.

The outcome of any litigation is inherently uncertain and difficult to predict. Any estimate or statement regarding any reserve or the estimated range of possible losses is made solely in compliance with applicable GAAP requirements and is not a statement or admission that the Company is or should be liable in any amount, or that any arguments, motions or appeals before any Court lack merit or are subject to impeachment. To the contrary, the Company believes that it has significant and meritorious grounds for judgment in its favor with respect to all of the PI cases and that the Company's appeals or motions currently pending at the district court level will significantly reduce or eliminate all prior adverse jury verdicts. Subject to the foregoing, as of the date of the filing of this Form 10-K, the Company estimates its range of possible losses for all PI cases to be between approximately \$4 million and \$20 million in the aggregate.

Power Integrations v. Fairchild Semiconductor International, Inc. et al. (October 20, 2004, Delaware, 1:04-cv-01371-LPS): PI filed this lawsuit in 2004 in the U.S. District Court for the District of Delaware against Fairchild, alleging that certain of Fairchild's pulse width modulation ("PWM") integrated circuit products infringed U.S. patents owned by PI. The lawsuit sought a permanent injunction as well as money damages for Fairchild's alleged infringement. In October 2006, a jury returned a willful infringement verdict and assessed damages against Fairchild. Fairchild voluntarily stopped U.S. sales and importation of those products in 2007 and has been offering replacement products since 2006. In December 2008, the judge overseeing the case reduced the jury's 2006 damages award from \$34.0 million to approximately \$6.1 million and ordered a new trial on the issue of willfulness. Following the new trial held in June 2009, the court found Fairchild's infringement to have been willful, and in January 2011 the court awarded PI final damages in the amount of \$12.2 million. Fairchild appealed the final damages award, willfulness finding, and other issues to the U.S. Court of Appeals for the Federal Circuit. In March 2013, the Court of Appeals vacated substantially all of the damages award, ruling that there was no basis upon which a reasonable jury could find Fairchild liable for induced infringement. The Court of Appeals also vacated the earlier judgment of willful patent infringement. The full Court of Appeals and the Supreme Court of the United States later denied PI's request to review the Court of Appeals ruling. The Court of Appeals instructed the lower court to conduct further proceedings to determine damages based on approximately \$750,000 worth of sales and imports of affected products, and to re-assess its finding that the infringement was willful. In December 2017, the lower court reinstated the willfulness finding but stayed resolution of the other

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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outstanding issues, including damages. In June 2018, the Supreme Court of the United States decided *WesternGeco LLC v. ION Geophysical Corp.*, in which the Court determined that certain extraterritorial conduct may be relevant to some United States patent litigation. On October 4, 2018, the lower court issued an order finding that *WesternGeco* implicitly overruled the Court of Appeals' 2013 decision in this case and stated that PI would be allowed to seek recovery of worldwide damages in a future retrial on damages. The lower court also, however, certified its October 4, 2018 order for interlocutory review by the Court of Appeals. The Court of Appeals has accepted the interlocutory appeal, and briefing in that appeal is underway.

Power Integrations v. Fairchild Semiconductor International, Inc. et al. (May 23, 2008, Delaware, 1:08-cv-00309-LPS): This lawsuit was initiated by PI in 2008 in the U.S. District Court for the District of Delaware against Fairchild, alleging that certain other PWM products infringed several U.S. patents owned by PI. On October 14, 2008, Fairchild filed a patent infringement lawsuit against PI in the U.S. District Court for the District of Delaware, alleging that certain PI products infringed U.S. patents owned by Fairchild. Each lawsuit included claims for money damages and a request for a permanent injunction. These two lawsuits were consolidated and heard together in a jury trial in April 2012, during which the jury found that PI infringed one of the two U.S. patents owned by Fairchild and upheld the validity of both of the Fairchild patents. In the same verdict, the jury found that Fairchild infringed two of four U.S. patents asserted by PI and that Fairchild had induced its customers to infringe the asserted patents. (The court later ruled that Fairchild infringed one other asserted PI patent that the jury found was not infringed.) The jury also upheld the validity of the asserted PI patents, and the court entered a permanent injunction against Fairchild. Willfulness and damages were not considered in the April 2012 trial but were reserved for subsequent proceedings. Fairchild and PI appealed the liability phase of this litigation to the U.S. Court of Appeals for the Federal Circuit, which heard arguments in July 2016 and issued a decision in December 2016. In the decision, the appeals court vacated the jury's finding that Fairchild induced infringement of PI's patents, held that one of PI's patents was invalid, vacated the permanent injunction against Fairchild, reversed the jury's finding that PI infringed the Fairchild patent, and remanded the case back to the lower court for further proceedings consistent with these rulings. A second jury trial was held in this matter from November 5-9, 2018, with the jury finding that Fairchild induced infringement of both remaining PI patents and that Fairchild's infringement was willful. The jury also awarded PI damages in the amount of \$24.3 million. In the parties' post-trial motions, PI is seeking a trebling of the jury verdict in view of the jury's willfulness finding, pre- and post- judgment interest, and its attorneys' fees, whereas Fairchild is seeking judgment as a matter of law in its favor, or a new trial, on inducement, willfulness, and damages.

Power Integrations v. Fairchild Semiconductor International Inc. et al. (November 4, 2009, Northern District of California, 3:09-cv-05235-MMC): In 2009, PI sued Fairchild in the U.S. District Court for the Northern District of California, alleging that several of Fairchild's products infringe three of PI's patents. Fairchild filed counterclaims asserting that PI infringed two Fairchild patents. During the initial trial in this matter in 2014, a jury found that Fairchild willfully infringed two PI patents, awarded PI \$105.0 million in damages and found that PI did not infringe any Fairchild patent. In September 2014, the court granted a motion filed by Fairchild that sought to set aside the jury's determination that it acted willfully, and held that, as a matter of law, Fairchild's actions were not willful. In November 2014, in response to another post-trial motion filed by Fairchild, the trial court ruled that the jury lacked sufficient evidence on which to base its damages award and, consequently, vacated the \$105.0 million verdict and ordered a second trial on damages. The second damages trial was held in December 2015, in which a jury awarded PI \$139.8 million in damages. Fairchild filed a number of post-trial motions challenging the second damages verdict, but the court ruled against Fairchild on these motions and awarded PI approximately \$7.0 million in pre-judgment interest. Following the court's rulings on these issues, PI

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moved the court to reinstate the jury's willfulness finding and sought enhanced damages and attorneys' fees. On January 23, 2017, the court reinstated the jury's willful infringement finding, but denied PI's motion for enhanced damages and attorneys' fees in its entirety. The Company appealed the infringement and damages judgments, and in July 2018, the U.S. Court of Appeals for the Federal Circuit affirmed the judgment with respect to infringement of both PI patents but vacated the damages judgment because PI had presented legally insufficient evidence to support its damages claim. The appellate court thus remanded the case back to the lower court for a new trial on damages. In August 2018, PI requested that the Federal Circuit rehear, *en banc*, the issues of the vacated damages award, but this request was denied in September 2018. In December 2018, PI filed a petition for *certiorari* in the United States Supreme Court for review of the Federal Circuit's decision, to which the Company responded in January 2019. All claims of the two PI patents found to be infringed by Fairchild have since been determined to be unpatentable in several inter partes review administrative proceedings described below. The impact of the USPTO's unpatentability determinations on the district court judgment is uncertain at this stage of the proceedings.

Fairchild Semiconductor International Inc. et al. v. Power Integrations (May 1, 2012, Delaware, 1:12-cv-00540-LPS): In May 2012, Fairchild sued PI in the U.S. District Court for the District of Delaware, and alleged that various PI products infringe Fairchild's U.S. patents. PI filed counterclaims of patent infringement against Fairchild, asserting five PI patents. Of those five patents, the court granted Fairchild summary judgment of no infringement on one, and PI voluntarily withdrew a second and was forced to remove a third patent during the trial, which began in May 2015. In that trial, the jury found that PI induced infringement of Fairchild's patent rights and awarded Fairchild \$2.4 million in damages. The same jury found that Fairchild infringed a PI patent and awarded PI damages of \$100,000. Based on the December 2016 appellate court decision in the litigation filed in Delaware in 2008 (described above), on July 13, 2017, the district court vacated the jury's finding that PI infringed Fairchild's patent. A jury trial was held in November 2018 to resolve several outstanding issues prior to appeal in this case. The jury in that trial found that Fairchild induced infringement of the sole PI patent Fairchild had previously been found to infringe and awarded PI damages in the amount of \$719,029.10. In the parties' post-trial motions, PI is seeking pre- and post-judgment interest and a permanent injunction, whereas Fairchild is seeking judgment as a matter of law in its favor, or a new trial, on inducement and damages.

Power Integrations v. Fairchild Semiconductor International Inc. et al. (October 21, 2015, Northern District of California, 3:15-cv-04854 MMC): In 2015, PI filed another complaint for patent infringement against Fairchild in the U.S. District Court for the Northern District of California, alleging Fairchild's products willfully infringe two PI patents. In the complaint, PI is seeking a permanent injunction, unspecified damages, a trebling of damages, and an accounting of costs and fees. Fairchild answered and counterclaimed, alleging infringement by PI of four Fairchild patents related to aspects of PI's products, and also seeking damages and a permanent injunction. The lawsuit is in its earliest stages, and has been stayed pending the outcome of the Company's administrative challenges, which are described below, to the two PI patents asserted against Fairchild. PI has also filed administrative challenges to Fairchild's asserted patents.

Power Integrations v. ON Semiconductor Corporation, and Semiconductor Components Industries, LLC (November 1, 2016, Northern District of California, 5:16-cv-06371-BLF and 5:17-cv-03189): On August 11, 2016, ON Semiconductor Corporation and SCILLC (collectively referred to in this subsection as "ON Semi") filed a lawsuit against PI in the U.S. District Court for the District of Arizona, alleging that PI infringed six patents and seeking a permanent injunction and money damages for the alleged infringement. The lawsuit also sought a claim for a declaratory judgment that ON Semi does not infringe several of PI's patents. Rather than

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responding to ON Semi's lawsuit in Arizona, PI filed a separate lawsuit in the U.S. District Court for the Northern District of California in November 2016, alleging that ON Semi infringes six PI patents, including two of the three PI patents in ON Semi's declaratory judgment claims from Arizona. PI also moved the Arizona court to dismiss ON Semi's lawsuit, or in the alternative to transfer the lawsuit to California. Following various procedural motions, ON Semi's Arizona action has been transferred to the U.S. District Court for the Northern District of California and consolidated with PI's November 2016 lawsuit, in which PI has subsequently asserted a claim for infringement on the last of the three PI patents in ON Semi's original declaratory judgment claims. In late 2018, the parties received a claim construction order, which included a finding that claims from several of PI's asserted patents are invalid. Fact discovery is ongoing and will be followed by infringement, validity, and damages expert discovery. The trial is scheduled for December 2019.

ON Semiconductor Corporation and Semiconductor Components Industries, LLC v. Power Integrations, Inc. (March 9, 2017, District of Delaware, 1:17-cv-00247-LPS-CJB): On March 9, 2017, ON Semi filed a lawsuit against PI in the U.S. District Court for the District of Delaware, alleging that PI's InnoSwitch family of products infringe six of ON Semi's U.S. patents. Following some procedural motions, PI has since counterclaimed alleging infringement by ON Semi of seven of PI's U.S. Patents. One of those seven patents was dropped by PI because it is asserted against ON Semi in a separate litigation. Both parties seek money damages and a permanent injunction. In late 2018, the parties received a claim construction order, following which ON Semi was forced to stipulate to non-infringement of two of ON Semi's original six patents. PI also voluntarily dropped their claims of infringement on two of PI's patents, leaving both parties with four asserted patents each as of January 2019. Fact discovery is ongoing and will be followed by infringement, validity, and damages expert discovery. The trial is scheduled for February 2020.

Semiconductor Components Industries, LLC v. Power Integrations, Inc. (November 2017, Taiwan Intellectual Property Court, 106-Ming-min-bu-Tzu-238): In November 2017, Semiconductor Components Industries, LLC filed a lawsuit against PI in Taiwan, alleging infringement by PI of certain of ON Semi's Taiwanese patents. The Taiwanese IP Court has held hearings concerning ON Semi's claim of infringement against PI for all three patents and is now evaluating PI's claims concerning the validity of those three patents. A first-instance judgment concerning infringement and validity in this matter is expected by April 2019. In January 2019, ON Semi withdrew its claim for damages under Taiwanese law in order to expedite injunctive relief in the event that relief is granted in a first-instance judgment.

Administrative Challenges to PI's Patents

In addition to the eight court proceedings described above, there are presently numerous inter partes review administrative proceedings between PI and ON Semi/Fairchild. Each of these administrative proceedings seeks to invalidate certain claims asserted in the various court proceedings. For the two proceedings filed by ON Semi involving claims asserted in the case filed in 2009 in the Northern District of California, the USPTO has issued a Final Written Decision finding that all of the claims challenged in those proceedings are unpatentable, and PI filed a notice of appeal for those decisions. The USPTO has also issued Final Written Decisions in seven additional proceedings initiated by ON Semi, all in ON Semi's favor. PI's appeals in all but one of those cases are ongoing, and PI failed to appeal one such Final Written Decision. In five of the proceedings initiated by PI, the USPTO has instituted a review of five ON Semi/Fairchild patents that are being asserted against PI. In two of those five proceedings, the USPTO recently found all of the claims challenged by PI to be unpatentable. In one of those two cases, ON Semi has filed an appeal to challenge the unpatentability finding, but elected to forego an appeal in the other case. With regard to a third instituted proceeding initiated by PI, the USPTO found one

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challenged patent claim unpatentable over the prior art and two claims patentable. PI is pursuing an appeal for this third administrative proceeding, but ON Semi decided to forego an appeal with respect to the claim that was found unpatentable. All of the other administrative proceedings between PI and the Company remain pending or were terminated without institution of an administrative trial by the USPTO.

Litigation with Acbel Polytech, Inc.

On November 27, 2013, Fairchild and Fairchild Semiconductor Corporation were named as defendants in a complaint filed by Acbel Polytech, Inc. ("Acbel") in the U.S. District Court for the District of Massachusetts. The lawsuit alleged a number of causes of action, including breach of warranty, fraud, negligence and strict liability, and has been docketed as *Acbel Polytech, Inc. v. Fairchild Semiconductor International, Inc. et al*, Case # 1:13-CV-13046-DJC. On December 10, 2016, the Court issued an order on the Company's motion for summary judgment dismissing all of Acbel's claims except for claims alleging breach of implied warranties. A bench trial was held in June 2017. On December 27, 2017, the Court rendered a verdict in favor of the Fairchild defendants on the remaining implied warranty claims. Acbel appealed the Court's ruling and on September 11, 2018, the U.S. Court of Appeals for the First Circuit heard arguments in this matter from Fairchild and Acbel.

Intellectual Property Matters

The Company faces risk to exposure from claims of infringement of the IP rights of others. In the ordinary course of business, the Company receives letters asserting that the Company's products or components breach another party's rights. Such letters may request royalty payments from the Company, that the Company cease and desist using certain intellectual property or other remedies.

Note 14: Fair Value Measurements

Fair Value of Financial Instruments

The following table summarizes the Company's financial assets and liabilities, excluding pension assets, measured at fair value on a recurring basis (in millions):

Description	As of December 31, 2018	Fair Value Hierarchy		
		Level 1	Level 2	Level 3
Assets:				
Cash, cash equivalents:				
Demand and time deposits	\$ 21.2	\$ 21.2	—	—
Money market funds	0.2	0.2	—	—

Description	As of December 31, 2017	Fair Value Hierarchy		
		Level 1	Level 2	Level 3
Assets:				
Cash, cash equivalents:				
Demand and time deposits	\$ 71.7	\$ 71.7	—	—
Money market funds	0.2	0.2	—	—
Liabilities:				
Contingent consideration	2.3	—	—	2.3

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During the year ended December 31, 2018, the contingent consideration payable relating to the second earn-out for the AXSEM acquisition was reduced to zero due to a revision in the Company's expectations regarding the likelihood that the earn-out would be achieved. During the year ended December 31, 2017, the Company paid the first earn-out amount of approximately \$3.9 million relating to the contingent consideration for the AXSEM acquisition and increased the second earn-out amount by \$1.7 million due to the revision of the Company's expectations of the earn-out achievement.

Other

The carrying amounts of other current assets and liabilities, such as accounts receivable and accounts payable, approximate fair value based on the short-term nature of these instruments.

Fair Value of Long-Term Debt, Including Current Portion

The carrying amounts and fair values of the Company's long-term borrowings (excluding capital lease obligations, real estate mortgages and equipment financing) are as follows (in millions):

	As of			
	December 31, 2018		December 31, 2017	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Long-term debt, including current portion				
Convertible notes (1)	\$ 1,120.6	\$ 1,368.5	\$ 1,080.1	\$ 1,596.7
Long-term debt (1)	1,615.1	1,585.9	1,833.2	1,845.4

(1) Carrying amount shown is net of debt discounts and debt issuance costs. See Note 9: "Long-Term Debt" for additional information.

The fair value of the Company's 1.00% Notes and 1.625% Notes were estimated based on market prices in active markets (Level 1). The fair value of other long-term debt was estimated based on discounting the remaining principal and interest payments using current market rates for similar debt (Level 2) at December 31, 2018 and December 31, 2017.

Fair Values Measured on a Non-Recurring Basis

Our non-financial assets, such as property, plant and equipment, goodwill and intangible assets are recorded at fair value upon acquisition and are remeasured at fair value only if an impairment charge is recognized. The Company uses unobservable inputs to the valuation methodologies that are significant to the fair value measurements, and the valuations require management's judgment due to the absence of quoted market prices. We determine the fair value of our held and used assets, goodwill and intangible assets using an income, cost or market approach as determined reasonable. See Note 6: "Goodwill and Intangible Assets" for a discussion of certain asset impairments.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
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As of December 31, 2018 and December 31, 2017, there were no non-financial assets included in the Company's Consolidated Balance Sheet that were remeasured at fair value on a nonrecurring basis.

The following table shows the adjustments to fair value of certain of the Company's non-financial assets that had an impact on the Company's results of operations (in millions):

	Year Ended		
	December 31, 2018	December 31, 2017	December 31, 2016
Nonrecurring fair value measurements			
Impairment of property, plant and equipment held-for-sale or disposal (Level 3)	\$ 2.4	\$ 7.9	\$ 0.5
Goodwill and IPRD (Level 3)	6.8	13.1	2.2
	<u>\$ 9.2</u>	<u>\$ 21.0</u>	<u>\$ 2.7</u>

See Note 6: "Goodwill and Intangible Assets" and Note 7: "Restructuring, Asset Impairments and Other, Net" for additional information with respect to impairment charges.

Cost Method Investments

The Company accounts for investments in companies that it does not control, or have significant influence over, under the cost method, as applicable. As of each of December 31, 2018 and 2017, the Company's cost method investments had a carrying value of \$7.5 million and \$12.6 million, respectively.

Note 15: Financial Instruments

Foreign Currencies

As a multinational business, the Company's transactions are denominated in a variety of currencies. When appropriate, the Company uses forward foreign currency contracts to reduce its overall exposure to the effects of currency fluctuations on its results of operations and cash flows. The Company's policy prohibits trading in currencies for which there are no underlying exposures and entering into trades for any currency to intentionally increase the underlying exposure.

The Company primarily hedges existing assets and liabilities associated with transactions currently on its balance sheet, which are undesignated hedges for accounting purposes.

As of December 31, 2018 and 2017, the Company had net outstanding foreign exchange contracts with net notional amounts of \$157.3 million and \$130.5 million, respectively. Such contracts were obtained through financial institutions and were scheduled to mature within one to three months from the time of purchase. Management believes that these financial instruments should not subject the Company to increased risks from foreign exchange movements because gains and losses on these contracts should offset losses and gains on the underlying assets, liabilities and transactions to which they are related.

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The following schedule summarizes the Company's net foreign exchange positions in U.S. dollars (in millions):

	As of December 31,			
	2018		2017	
	Buy (Sell)	Notional Amount	Buy (Sell)	Notional Amount
Euro	\$ 13.1	\$ 13.1	\$ (22.9)	\$ 22.9
Japanese Yen	29.9	29.9	(40.0)	40.0
Philippine Peso	30.1	30.1	26.4	26.4
Chinese Yuan	20.4	20.4	5.3	5.3
Czech Koruna	9.2	9.2	7.6	7.6
Other currencies - Buy	47.1	47.1	18.0	18.0
Other currencies - Sell	(7.5)	7.5	(10.3)	10.3
	<u>\$ 142.3</u>	<u>\$ 157.3</u>	<u>\$ (15.9)</u>	<u>\$ 130.5</u>

Amounts receivable or payable under the contracts are included in other current assets or accrued expenses in the accompanying Consolidated Balance Sheets. For the years ended December 31, 2018, 2017 and 2016, realized and unrealized foreign currency transactions totaled a \$8.0 million loss, a \$6.3 million loss and a \$0.7 million gain, respectively. The realized and unrealized foreign currency transactions are included in other income and expenses in the Company's Consolidated Statements of Operations and Comprehensive Income.

Cash Flow Hedges

All derivatives are recognized on the balance sheet at their fair value and classified based on the instrument's maturity date.

Interest rate risk

The Company uses interest rate swap contracts to mitigate its exposure to interest rate fluctuations associated with the Term Loan "B" Facility. The Company does not use such swap contracts for speculative or trading purposes. These contracts effectively hedge some of the future variable LIBO Rate interest expense to a fixed rate interest expense. The derivative instruments qualified for accounting as a cash flow hedge in accordance with ASC 815, and the Company designated it as such. The notional amounts of the interest rate swap agreements outstanding as of December 31, 2018 and December 31, 2017 amounted to \$1.0 billion and \$750.0 million, respectively. The Company performed effectiveness assessments and concluded that there was no ineffectiveness during the year ended December 31, 2018.

Foreign currency risk

The purpose of the Company's foreign currency hedging activities is to protect the Company from the risk that the eventual cash flows resulting from transactions in foreign currencies will be adversely affected by changes in exchange rates. The Company enters into forward contracts that are designated as foreign currency cash flow hedges of selected forecasted payments denominated in currencies other than U.S. dollars.

The Company did not have outstanding derivatives for its foreign currency exposure designated as cash flow hedges as of December 31, 2018 and 2017.

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See Note 17: "Changes in Accumulated Other Comprehensive Loss" for the effective amounts related to derivative instruments designated as cash flow hedges affecting accumulated other comprehensive loss and the Company's Consolidated Statements of Operations and Comprehensive Income for the year ended December 31, 2018.

Convertible Note Hedges

The Company entered into convertible note hedges in connection with the issuance of the 1.00% Notes and 1.625% Notes. See Note 9: "Long-Term Debt" for further details.

Other

At December 31, 2018, the Company had no outstanding commodity derivatives, currency swaps or options relating to either its debt instruments or investments. The Company does not hedge the value of its equity investments in its subsidiaries or affiliated companies. The Company is exposed to credit-related losses if counterparties to hedge contracts fail to perform their obligations. As of December 31, 2018, the counterparties to the Company's hedge contracts are held at financial institutions which the Company believes to be highly rated, and no credit related losses are anticipated.

Note 16: Income Taxes

The Company's geographic sources of income before income taxes and non-controlling interest are as follows (in millions):

	Year ended December 31,		
	2018	2017	2016
United States	\$ (181.8)	\$ (270.1)	\$ (287.0)
Foreign	936.8	817.6	467.6
	<u>\$ 755.0</u>	<u>\$ 547.5</u>	<u>\$ 180.6</u>

The Company's provision (benefit) for income taxes is as follows (in millions):

	Year ended December 31,		
	2018	2017	2016
Current:			
Federal	\$ (2.0)	\$ 26.3	\$ (0.1)
State and local	(2.2)	0.2	0.1
Foreign	55.3	53.1	34.4
	<u>51.1</u>	<u>79.6</u>	<u>34.4</u>
Deferred:			
Federal	99.4	(356.3)	60.8
State and local	—	0.4	—
Foreign	(25.4)	10.8	(99.1)
	<u>74.0</u>	<u>(345.1)</u>	<u>(38.3)</u>
Total provision (benefit)	<u>\$ 125.1</u>	<u>\$ (265.5)</u>	<u>\$ (3.9)</u>

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

On December 22, 2017, the U.S. enacted comprehensive tax legislation, (the "Tax Act"). The Tax Act reduced the U.S. federal corporate tax rate from 35% to 21%, and required companies to pay a one-time mandatory repatriation tax on earnings of certain foreign subsidiaries that were previously tax deferred and created new taxes on certain future foreign earnings. In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), which allowed the Company to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. As of December 31, 2017, the Company had not completed its accounting for the tax effects of the enactment of the Tax Act; however, in certain cases, specifically as follows, the Company had made a reasonable estimate of (i) the effects on its existing deferred tax balances and (ii) the effects of the one-time mandatory repatriation tax. The Company had recognized a provisional tax benefit of \$449.9 million in the year ended December 31, 2017 associated with the items it could reasonably estimate as described in the reconciliation of the U.S. federal statutory income tax rate to the Company's effective income tax rate table.

The Company completed its accounting for the provisions of the Tax Act as of December 22, 2018, which marked the end of the measurement period pursuant to SAB 118. With respect to (i) the effects on its existing deferred tax asset balances, the Company recognized an additional tax expense of \$31.8 million related to the Company's deferred tax liability for undistributed prior years' earnings of the Company's foreign subsidiaries and \$1.8 million for the impact to deferred taxes related to an increase in the limitation on deductibility of prior years' executive compensation. With respect to (ii) the tax effects of the one-time mandatory repatriation tax, the Company recognized an additional expense of \$1.5 million. The Company has concluded on the policy to record Global Intangible Low Tax Income ("GILTI") as a period cost. The Company has also concluded on the policy of tax law ordering for reflecting the realization of the net operating losses related to GILTI as a permanent adjustment.

A reconciliation of the U.S. federal statutory income tax rate to the Company's effective income tax rate is as follows:

	Year ended December 31,		
	2018	2017	2016
U.S. federal statutory rate	21.0%	35.0%	35.0%
Increase (decrease) resulting from:			
State and local taxes, net of federal tax benefit	(1.0)	2.2	(3.6)
Impact of U.S. Tax Reform and related effects (1)	4.7	(82.2)	—
Impact of foreign operations	(1.2)	(1.5)	(8.1)
Reversal of prior years' indefinite reinvestment assertion	—	—	172.1
Impact of U.S. tax method changes (2)	(6.4)	—	—
Change in valuation allowance and related effects (3) (4)	0.6	0.4	(190.7)
Non-deductible acquisition costs	—	—	1.9
Non-deductible share-based compensation costs	(0.5)	(1.6)	0.7
U.S. federal R&D credit	(1.1)	(1.5)	(10.1)
Other	0.5	0.7	0.6
Total	16.6%	(48.5)%	(2.2)%

**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

- (1) For the year ended December 31, 2018, this primarily includes expense of \$31.8 million, or 4.2%, related to the recognition of the Company's deferred tax liability for undistributed prior years' earnings of the Company's foreign subsidiaries, \$1.8 million, or 0.3% related to the limitation on deductibility of prior years' executive compensation, and \$1.5 million, or 0.2% related to the impact of the mandatory repatriation tax. These adjustments were made pursuant to SAB 118. For the year ended December 31, 2017, this included the benefit of \$744.1 million, or 135.9% for the reduction in the Company's deferred tax liability for undistributed current and prior years' earnings of the Company's foreign subsidiaries and the benefit of \$33.0 million, or 6.0% for the release of valuation allowance on federal foreign tax credit carryforwards which were utilized against the mandatory repatriation tax. These benefits were offset by the expense for the mandatory repatriation tax, net of unrecognized tax benefits, of \$207.1 million, or 37.8% and expense related to the change in the federal rate from 35% to 21% of \$120.1 million, or 21.9% on the Company's remaining net federal deferred tax asset balances.
- (2) For the year ended December 31, 2018, this includes a one-time benefit of \$48.2 million, or 6.4%, related to U.S. tax method changes made during the year that impacted the Company's GILTI inclusion.
- (3) For the year ended December 31, 2018, this includes an expense of \$135.2 million, or 17.9%, primarily related to the expiration of Japan net operating losses, netted with the offsetting benefit of \$135.2 million, or 17.9%, primarily for the write-off of the valuation allowance for those same Japan net operating losses. See Note 19: "Supplementary Financial Information—Selected Quarterly Financial Data (Unaudited)."
- (4) For the year ended December 31, 2017, the Company included the benefit related to the change in valuation allowance on federal foreign tax credits which were previously set to expire unutilized but were utilized against the expense related to the mandatory repatriation tax \$33.0 million 6.0%, in the line "Impact of U.S. Tax Reform and related effects"

The Company's effective tax rate for 2018 was 16.6%, which differs from the U.S. federal statutory income tax rate of 21% primarily due to a one-time benefit of U.S. tax method changes made during the year that impacted the Company's GILTI inclusion. The Company's effective tax rate for 2017 was a benefit of 48.5%, which differs from the U.S. federal statutory income tax rate of 35% primarily due to U.S. tax reform codified under the Tax Act. The Company's effective tax rate for 2016 was a benefit of 2.2%, which differs from the U.S. federal statutory income tax rate of 35% primarily due to the release of its U.S. and Japan valuation allowances, partially offset by the reversal of the prior years' indefinite reinvestment assertion.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

The tax effects of temporary differences in the recognition of income and expense for tax and financial reporting purposes that give rise to significant portions of the net deferred tax asset (liability) are as follows (in millions):

	As of December 31,	
	2018	2017
Net operating loss and tax credit carryforwards	\$ 584.9	\$ 738.4
Tax-deductible goodwill and amortizable intangibles	(29.4)	(29.1)
Reserves and accruals	57.4	49.8
Property, plant and equipment	(63.5)	(42.8)
Inventories	20.2	24.5
Undistributed earnings of foreign subsidiaries	(48.7)	(32.5)
Share-based compensation	7.7	9.2
Pension	24.3	21.1
Debt financing costs	(8.5)	(9.9)
Other	14.5	17.6
Deferred tax assets and liabilities before valuation allowance	558.9	746.3
Valuation allowance	(347.5)	(462.3)
Net deferred tax asset	\$ 211.4	\$ 284.0

As of December 31, 2017, all benefits related to excess tax deductions from employee equity exercises are included in the Company's NOL deferred tax asset due to the adoption of ASU 2016-09 as of the first quarter of 2017.

As of December 31, 2018 and 2017, the Company had approximately \$768.9 million and \$1,198.6 million, respectively, of federal NOL carryforwards, before reduction for unrecognized tax benefits, which are subject to annual limitations prescribed in Section 382 of the Internal Revenue Code. The decrease is due to NOL utilization in 2018. If not utilized, a portion of the NOLs will expire in varying amounts from 2024 to 2036.

As of December 31, 2018 and 2017, the Company had approximately \$83.7 million and \$46.0 million, respectively, of federal credit carryforwards, before consideration of valuation allowance or reduction for unrecognized tax benefits, which are subject to annual limitations prescribed in Section 383 of the Internal Revenue Code. The increase is primarily due to research and development credits and foreign tax credits generated during 2018. If not utilized, the credits will expire in varying amounts from 2028 to 2038.

As of December 31, 2018 and 2017, the Company had approximately \$801.0 million and \$790.3 million, respectively, of state NOL carryforwards, before consideration of valuation allowance or reduction for unrecognized tax benefits. The increase is due to NOL generated during 2018 partially offset by expiration. If not utilized, a portion of the NOLs will expire in varying amounts starting in 2019. Certain states have adopted the federal rule allowing unlimited NOL carryover for NOLs generated in tax years beginning after December 31, 2017. Therefore, a portion of the state NOLs generated during 2018 carry forward indefinitely. As of December 31, 2018 and 2017, the Company had \$115.8 million and \$107.2 million, respectively, of state credit carryforwards before consideration of valuation allowance or reduction for unrecognized tax benefits. If not utilized, a portion of the credits will begin to expire in varying amounts starting in 2019.

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**ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued**

As of December 31, 2018 and 2017, the Company had approximately \$734.4 million and \$1,103.0 million, respectively, of foreign NOL carryforwards, before consideration of valuation allowance. The decrease is primarily due to the expiration of \$369.2 million of NOL carryforwards in Japan. If not utilized, a portion of the NOLs will begin to expire in varying amounts starting in 2019. A significant portion of these NOLs will expire by 2025. As of December 31, 2018 and 2017, the Company had \$68.8 million and \$65.3 million, respectively, of foreign credit carryforwards before consideration of valuation allowance. If not utilized, the majority of these credits will expire by 2026.

In 2016, the Company reassessed its need for a valuation allowance for the Japan consolidated group. Due to the Company's recent trend of positive operating results, which resulted in the Japan group being in a cumulative twelve-quarter income position as of the period ended December 31, 2016, as well as the realignment of the former System Solutions Group segment, the Company realized an \$89.4 million net tax benefit related to the release of a portion of its valuation allowance, to reflect the amount of its deferred tax assets which are expected to be realized in future years. The Company continues to maintain a valuation allowance on a portion of its Japan NOLs, or \$172.6 million, which expire in varying amounts from 2019 to 2024.

In addition to the valuation allowance mentioned above on Japan NOLs, as of December 31, 2018 and 2017, the Company continues to maintain a full valuation allowance on its U.S. state deferred tax assets, and a valuation allowance on foreign NOLs and tax credits in certain other foreign jurisdictions.

At December 31, 2018, the Company is not indefinitely reinvested with respect to the earnings of its foreign subsidiaries and has therefore accrued withholding taxes that would be owed upon future distributions of such earnings. In 2017, substantially all of the Company's foreign earnings were also not indefinitely reinvested. After the adjustments made during 2018 pursuant to SAB118, the Company was not indefinitely reinvested with respect to any of its foreign earnings from prior years.

The Company maintains liabilities for unrecognized tax benefits. These liabilities involve considerable judgment and estimation and are continuously monitored by management based on the best information available, including changes in tax regulations, the outcome of relevant court cases, and other information. The Company is currently under examination by various taxing authorities. Although the outcome of any tax audit is uncertain, the Company believes that it has adequately provided in its consolidated financial statements for any additional taxes that the Company may be required to pay as a result of such examinations. If the payment ultimately proves not to be necessary, the reversal of these tax liabilities would result in tax benefits being recognized in the period the Company determines such liabilities are no longer necessary. However, if an ultimate tax assessment exceeds the Company's estimate of tax liabilities, additional tax expense will be recorded. The impact of such adjustments could have a material impact on the Company's results of operations in future periods.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

The activity for unrecognized gross tax benefits is as follows (in millions):

	2018	2017	2016
Balance at beginning of year	\$ 114.8	\$ 136.7	\$ 33.5
Acquired balances	—	—	86.9
Additions for tax benefits related to the current year	7.4	23.6	4.6
Additions for tax benefits of prior years	2.8	4.7	13.7
Reductions for tax benefits of prior years	(1.9)	(1.6)	(0.4)
Lapse of statute	(10.9)	(16.3)	(1.6)
Settlements	—	(4.9)	—
Change in rate due to U.S. Tax Reform	—	(27.4)	—
Balance at end of year	<u>\$ 112.2</u>	<u>\$ 114.8</u>	<u>\$ 136.7</u>

For the period ended December 31, 2016, the Company performed a U.S. R&D tax credit study which covered the years from 2012 to 2015. The results of the study were recorded during the period ended December 31, 2016. As a result the unrecognized tax benefits related to the outcome of the prior year study was also recorded.

Included in the December 31, 2018 balance of \$112.2 million is \$82.6 million related to unrecognized tax benefits that, if recognized, would impact the annual effective tax rate. Also included in the balance of unrecognized tax benefits as of December 31, 2018 is \$29.6 million of benefit that, if recognized, would result in adjustments to other tax accounts, primarily deferred taxes. Although the Company cannot predict the timing of resolution with taxing authorities, if any, the Company believes it is reasonably possible that its unrecognized tax benefits will be reduced by \$3.3 million in the next 12 months due to settlement with tax authorities or expiration of the applicable statute of limitations.

The Company recognizes interest and penalties accrued in relation to unrecognized tax benefits in tax expense. The Company recognized approximately \$0.8 million of tax benefit for interest and penalties during the year ended December 31, 2018, and recognized approximately \$1.5 million and \$0.5 million of tax expenses for interest and penalties during the years ended December 31, 2017 and 2016, respectively. The Company had approximately \$5.1 million, \$5.9 million, and \$4.4 million of accrued interest and penalties at December 31, 2018, 2017, and 2016, respectively.

Tax years prior to 2015 are generally not subject to examination by the IRS except for items involving tax attributes that have been carried forward to tax years whose statute of limitations remains open. The Company is not currently under IRS examination. For state returns, the Company is generally not subject to income tax examinations for years prior to 2014. The Company is also subject to routine examinations by various foreign tax jurisdictions in which it operates. With respect to major jurisdictions outside the United States, the Company's subsidiaries are no longer subject to income tax audits for years prior to 2008. The Company is currently under audit in the following significant jurisdictions: China, the Czech Republic, Japan, Malaysia, Mauritius, Philippines and Singapore.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Note 17: Changes in Accumulated Other Comprehensive Loss

Amounts comprising the Company's accumulated other comprehensive loss and reclassifications are as follows (in millions):

	Foreign Currency Translation Adjustments	Effects of Cash Flow Hedges	Total
<i>Balance as of December 31, 2016</i>	\$ (50.2)	—	\$ (50.2)
Other comprehensive income prior to reclassifications	7.0	2.2	9.2
Amounts reclassified from accumulated other comprehensive loss	—	0.4	0.4
Net current period other comprehensive income (1)	7.0	2.6	9.6
<i>Balance as of December 31, 2017</i>	\$ (43.2)	\$ 2.6	\$ (40.6)
Other comprehensive income prior to reclassifications	0.7	(1.3)	(0.6)
Amounts reclassified from accumulated other comprehensive loss	—	3.3	3.3
Net current period other comprehensive income (1)	0.7	2.0	2.7
<i>Balance as of December 31, 2018</i>	\$ (42.5)	\$ 4.6	\$ (37.9)

(1) Effects of cash flow hedges are net of tax of \$0.5 million and \$0.7 million of tax expense for the years ended December 31, 2018 and December 31, 2017, respectively.

Amounts which were reclassified from accumulated other comprehensive loss to the Company's Consolidated Statements of Operations and Comprehensive Income were as follows (net of tax of \$0.8 million and \$0.2 million in 2018 and 2017, respectively, in millions):

	Amounts Reclassified from Accumulated Other Comprehensive Loss—Year Ended		
	December 31, 2018	December 31, 2017	Statement of Operations and Comprehensive Income Line Item
Interest rate swaps	\$ (3.3)	\$ (0.4)	Other income and expense
Total reclassifications	\$ (3.3)	\$ (0.4)	

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Note 18: Supplemental Disclosures

Supplemental Disclosure of Cash Flow Information

The Company's non-cash financing activities and cash payments for interest and income taxes are as follows (in millions):

	Year ended December 31,		
	2018	2017	2016
Non-cash financing activities:			
Debt issuance costs paid directly from escrow accounts	\$ —	\$ —	\$ 46.0
Capital expenditures in accounts payable and other liabilities	233.9	165.6	105.9
Debt assumed through purchase of equity interest and assets	50.6	—	—
Cash (received) paid for:			
Interest income	\$ (6.1)	\$ (3.0)	\$ (4.5)
Interest expense	80.0	92.1	106.7
Income taxes	53.2	67.8	27.3

The Company adopted ASU 2016-18 on a retrospective basis during the quarter ended March 30, 2018. The following is a reconciliation of the captions in the Consolidated Balance Sheets to the Consolidated Statements of Cash Flows (in millions):

	As of December 31,		
	2018	2017	2016
Consolidated Balance Sheets:			
Cash and cash equivalents	\$ 1,069.6	\$ 949.2	\$ 1,028.1
Restricted cash (included in other current assets)	17.5	17.4	17.7
Cash, cash equivalents and restricted cash in Consolidated Statements of Cash Flows	<u>\$ 1,087.1</u>	<u>\$ 966.6</u>	<u>\$ 1,045.8</u>

The restricted cash balance relates to the consideration held in escrow for the Aptina acquisition that occurred in 2014 to be released upon satisfaction of certain outstanding items contained in the merger agreement.

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Note 19: Supplementary Financial Information—Selected Quarterly Financial Data (Unaudited)

Consolidated unaudited quarterly financial information is as follows (in millions, except per share data):

	Quarters ended in 2018			
	March 30	June 29	September 28	December 31
Revenue	\$ 1,377.6	\$ 1,455.9	\$ 1,541.7	\$ 1,503.1
Gross Profit (exclusive of the amortization of acquisition-related intangible assets)	517.4	555.0	596.6	569.7
Net income attributable to ON Semiconductor Corporation	139.6	155.3	166.9	165.6
Diluted net income per common share attributable to ON Semiconductor Corporation	0.31	0.35	0.38	0.39

	Quarters ended in 2017			
	March 31	June 30	September 29	December 31
Revenue	\$ 1,436.7	\$ 1,338.0	\$ 1,390.9	\$ 1,377.5
Gross Profit (exclusive of the amortization of acquisition-related intangible assets)	503.1	492.0	524.0	516.5
Net income attributable to ON Semiconductor Corporation	78.2	93.9	108.7	529.9
Diluted net income per common share attributable to ON Semiconductor Corporation	0.18	0.22	0.25	1.22

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ON SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
(in millions)

Description	Balance at Beginning of Period	Charged to Costs and Expenses	Charged to Other Accounts	Deductions /Write-offs	Balance at End of Period
<i>Allowance for deferred tax assets</i>					
Year ended December 31, 2016	\$ 735.7	\$ (356.0)	\$ 94.4(1)	\$ —	\$ 474.1
Year ended December 31, 2017	474.1	(30.6)	18.8(2)	—	462.3
Year ended December 31, 2018	462.3	4.6	15.8(2)	(135.2)(3)	347.5

(1) Represents the effects of cumulative translation adjustments. This also includes \$81.6 million of additional allowance for deferred tax assets arising from the Fairchild acquisition in 2016.

(2) Primarily represents the effects of cumulative translation adjustments.

(3) Primarily relates to the expiration of Japan net operating losses. See Note 16: "Income Taxes".