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,				
	2016	2015	2014	2013	2012
	(in millions, except per share data)				
Statement of Operations data:					
Revenues	$ 3,906.9	$ 3,495.8	$ 3,161.8	$ 2,782.7	$ 2,894.9
Restructuring, asset impairments and other, net (1)	33.2	9.3	30.5	33.2	163.7
Goodwill and intangible asset impairment charges (2)	2.2	3.8	9.6	—	49.5
Net income (loss)	184.5	209.0	192.1	153.6	(92.9)
Diluted net income (loss) per common share attributable to ON Semiconductor Corporation	0.43	0.48	0.43	0.33	(0.21)
Balance Sheet data:					
Total assets	$ 6,924.4	$ 3,869.6	$ 3,822.1	$ 3,292.5	$ 3,374.1
Long-term debt, including current maturities, less capital lease obligations	3,609.3	1,365.7	1,150.9	887.5	918.6
Capital lease obligations	13.0	28.2	40.8	53.4	91.1
Total stockholders' equity	1,845.0	1,631.9	1,647.4	1,523.6	1,427.9

(1) Restructuring, asset impairments and other, net primarily includes employee severance and other exit costs associated with our worldwide cost reduction and profitability enhancement programs, asset impairments and any other infrequent or unusual items. See Note 6: "Restructuring, Asset Impairments and Other, Net" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

(2) For the year ended December 31, 2014, we recorded $9.6 million of goodwill and intangible asset impairment charges on our Consolidated Statements of Operations and Comprehensive Income relating to a reporting unit in our Analog Solutions Group. For the year ended December 31, 2012, we recorded $49.5 million of goodwill and intangible asset impairment charges on our Consolidated Statements of Operations and Comprehensive Income relating to certain reporting units in our Power Solutions Group and former System Solutions Group segment. See Note 5: "Goodwill and Intangible Assets" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information on goodwill and intangible asset impairments.

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.

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Industry Overview

In recent years, worldwide semiconductor industry sales have tracked the impact of the financial crisis, subsequent recovery and persistent economic uncertainty. According to WSTS (an industry research firm), worldwide semiconductor industry sales were $338.9 billion in 2016, an increase of approximately 1.1% from $335.2 billion in 2015. 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 revenues and revenues in our Serviceable Addressable Market ("SAM") since 2012:

Year Ended December 31,	Worldwide Semiconductor Industry Sales (1) (in billions)	Percentage Change	Serviceable Addressable Market Sales (1) (2) (in billions)	Percentage Change
2016	$ 338.9	1.1 %	$ 118.9	2.6 %
2015	$ 335.2	(0.2)%	$ 115.9	(0.2)%
2014	$ 335.8	9.9 %	$ 116.1	11.3 %
2013	$ 305.6	4.8 %	$ 104.3	0.6 %
2012	$ 291.6	(2.6)%	$ 103.7	(3.4)%

(1) Based on shipment information published by WSTS. WSTS collects this information based on product shipments, which differs from how we recognize revenue on shipments to certain distributors as described in Note 2: "Significant Accounting Policies—Revenue Recognition" in the notes to our audited consolidated financial statements contained elsewhere in this Form 10-K. 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) Our SAM comprises the following specific WSTS product categories: (a) discrete products (all discrete semiconductors other than sensors, microwave power transistors/modules, microwave diodes, and microwave transistors, power modules, logic and optoelectronics); (b) standard analog products (amplifiers, VREGs and references, comparators, ASSP consumer, ASSP communications, ASSP computer, ASSP automotive and ASSP industrial and others); (c) standard logic products (general purpose logic); (d) standard product logic (consumer other, computer other peripherals, wired / wireless communications, automotive, industrial and multipurpose); (e) CMOS and CCD image sensors; (f) memory; (g) microcontrollers and (h) motor control modules. 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 $291.6 billion in 2012 to $338.9 billion in 2016. The increase of 1.1% from 2015 to 2016 reflected improving macroeconomic conditions in the second half of 2016. Sales in our SAM increased from $103.7 billion in 2012 to $118.9 billion in 2016. The increase of 2.6% from 2015 to 2016 is consistent with the trend in the worldwide semiconductor market. The most recently published estimates of WSTS project a compound annual growth rate in our SAM of approximately 4.0% for the next three years. These projections are not ours and may not be indicative of actual results.

Historically, the semiconductor industry has been highly cyclical. During a down cycle, unit demand and pricing have tended to fall in tandem, resulting in revenue declines. In response to such declines, manufacturers have reduced or shut down production capacity. When new applications or other factors have caused demand to strengthen, production volumes have historically stabilized and then grown again. As market unit demand reaches levels above capacity production capabilities, shortages begin to occur, which typically causes pricing power to swing back from customers to manufacturers, thus prompting further capacity expansion. Such expansion has typically resulted in overcapacity following a decrease in demand, which has triggered another similar cycle.

ON Semiconductor Overview

We are 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 use analog, MCU, DSP, mixed-signal and advanced logic capabilities to act as the brain behind 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, optical image stabilization and auto focus devices provide advanced solutions for automotive, wireless, industrial and consumer 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.

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.

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

- Our acquisition of Fairchild and our integration of Fairchild's business into our operations, including through the segment realignment described below;
- Macroeconomic conditions affecting the semiconductor industry;
- The cyclicality and seasonality of the semiconductor industry;
- The global economic climate;
- Our significant indebtedness, including the indebtedness incurred in connection with our acquisition of Fairchild;
- An uncertain corporate tax environment, both in the U.S. and abroad;
- An uncertain political climate and related impacts on global trade;
- The effects of trends in the automotive industry on our revenues; and

- Competitive conditions, and in particular consolidation, within our industry.

Fairchild Acquisition

On September 19, 2016, we completed our acquisition of Fairchild, pursuant to the Agreement and Plan of Merger (the “Fairchild Agreement”) with each of Fairchild and Falcon Operations Sub, Inc., a Delaware corporation and our wholly-owned subsidiary, which provided for the acquisition of Fairchild by us (the “Fairchild Transaction”). The purchase price totaled $2,532.2 million and was funded by the borrowings against our Term Loan “B” Facility and a partial draw of our Revolving Credit Facility and with cash on hand.

We believe that this acquisition creates a power semiconductor leader with strong capabilities in a rapidly consolidating semiconductor industry. Ultimately, we believe that the combination of Fairchild operations with our own will provide complementary product lines to offer customers the full spectrum of high, medium and low voltage products, and we will continue to pioneer technology and design innovation in efficient energy consumption to help our customers achieve success and drive value for our partners and employees around the world. We believe the acquisition also expands our footprint in wireless communication products, particularly in high efficiency power conversions and USB Type C communication and power delivery. See “Business - 2016 Acquisition Activity,” “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” for additional information. See Note 4: “Acquisitions and Divestitures” in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

Recent ON Semiconductor Results

Our total revenues for the year ended December 31, 2016 were $3,906.9 million, an increase of approximately 11.8% from $3,495.8 million from the year ended December 31, 2015. The increase was attributable to the acquisition of Fairchild, partially offset by lower revenues in our Image Sensor Group. During 2016, we reported net income attributable to ON Semiconductor of $182.1 million compared to $206.2 million in 2015. Our gross margin decreased by approximately 90 basis points to 33.2% in 2016 from 34.1% in 2015. The decrease was due to the expensing of the fair market value of inventory step-up from the Fairchild acquisition of $67.5 million. Excluding the expensing of the fair market value of inventory step-up, the increase in gross margin was primarily driven by higher factory utilization and product mix.

ON Semiconductor Q1 2017 Outlook

Based upon product booking trends, backlog levels, and estimated turns levels, we estimate that our revenues will be approximately $1,215 to $1,265 million in the first quarter of 2017. Backlog levels for the first quarter of 2017 represent approximately 80% to 85% of our anticipated first quarter 2017 revenues. For the first quarter of 2017, we estimate that gross margin as a percentage of revenues will be approximately 33.4% to 34.8%.

Statements related to our outlook for the first quarter of 2017 are based on our current expectations, forecasts, estimates and assumptions. Such statements involve risks, uncertainties and other factors that could cause results or events to differ materially from those expressed in the forward-looking statements. See “Risk Factors” for additional information.

Business and Macroeconomic Environment Influence on Cost Savings and Restructuring Activities

In 2016 and 2017, our initiatives have been and will be focused on synergy related cost reductions from the Fairchild acquisition. Additionally, we have historically pursued, and expect to continue to pursue, other 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. However, 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. 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 6: “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.

Segment Realignment in 2016

During the third quarter of 2016, we realigned our operating and reporting segments into the following three operating and reporting segments to optimize anticipated efficiencies resulting from our acquisition of Fairchild: Power Solutions Group, Analog Solutions Group and Image Sensor Group. The operating results of the System Solutions Group, which was previously our fourth operating and reporting segment, and which did not have goodwill, are now assigned among the three current operating and reporting segments. Prior year periods of segment information presented below reflect the current three operating and reporting segments. Our Power Solutions Group and Analog Solutions Group operating and reporting segments include the business acquired in the Fairchild Transaction.

Results of Operations

Our results of operations for the year ended December 31, 2016 include the results of operations from our acquisitions of Fairchild, AXSEM, Aptina, and Truesense on September 19, 2016, July 15, 2015, August 15, 2014 and April 30, 2014, respectively.

Operating Results

The following table summarizes certain information relating to our operating results that has been derived from our audited consolidated financial statements for the years ended December 31, 2016, 2015 and 2014 (in millions):

	Year ended December 31,			Dollar Change	
	2016	2015	2014	2015 to 2016	2014 to 2015
Revenues	$ 3,906.9	$ 3,495.8	$ 3,161.8	$ 411.1	$ 334.0
Cost of revenues (exclusive of amortization shown below)	2,610.0	2,302.6	2,076.9	307.4	225.7
Gross profit	1,296.9	1,193.2	1,084.9	103.7	108.3
Operating expenses:					
Research and development	452.3	396.7	366.6	55.6	30.1
Selling and marketing	238.0	204.3	200.0	33.7	4.3
General and administrative	230.3	182.3	180.9	48.0	1.4
Amortization of acquisition-related intangible assets	104.8	135.7	68.4	(30.9)	67.3
Restructuring, asset impairments and other, net	33.2	9.3	30.5	23.9	(21.2)
Goodwill and intangible asset impairment	2.2	3.8	9.6	(1.6)	(5.8)
Total operating expenses	1,060.8	932.1	856.0	128.7	76.1
Operating income	236.1	261.1	228.9	(25.0)	32.2
Other (expense) income, net:					
Interest expense	(145.3)	(49.7)	(34.1)	(95.6)	(15.6)
Interest income	4.5	1.1	1.5	3.4	(0.4)
Gain on divestiture of business	92.2	—	—	92.2	—
Loss on modification or extinguishment of debt	(6.3)	(0.4)	—	(5.9)	(0.4)
Other	(0.6)	7.7	(4.4)	(8.3)	12.1
Other (expense) income, net	(55.5)	(41.3)	(37.0)	(14.2)	(4.3)
Income before income taxes	180.6	219.8	191.9	(39.2)	27.9
Income tax (provision) benefit	3.9	(10.8)	0.2	14.7	(11.0)
Net income	184.5	209.0	192.1	(24.5)	16.9
Less: Net income attributable to non-controlling interest	(2.4)	(2.8)	(2.4)	0.4	(0.4)
Net income attributable to ON Semiconductor Corporation	$ 182.1	$ 206.2	$ 189.7	$ (24.1)	$ 16.5

Revenues

Revenues were $3,906.9 million, $3,495.8 million and $3,161.8 million for 2016, 2015 and 2014, respectively. The increase of $411.1 million, or approximately 12%, in 2016 compared to 2015 was primarily attributable to approximately 21.2% and 10.7% increases in revenue in our Power Solutions Group and Analog Solutions Group, respectively, which included Fairchild revenues of $411.5 million between September 19, 2016 and December 31, 2016. This increase was partially offset by lower revenues in our Image Sensor Group.

The increase in revenues from 2015 compared to 2014 of $334.0 million, or approximately 11%, was primarily attributed to $411.0 million of additional revenue in the Image Sensor Group provided by a full year of operations from the 2014 acquisitions of Aptina and Truesense, partially offset by decreased revenue from our former System Solutions Group segment and a decrease in average selling prices of approximately 8%.

Revenues by reportable segment for each of 2016, 2015 and 2014 were as follows (dollars in millions):

	2016	As a % of Revenue (1)	2015	As a % of Revenue (1)	2014	As a % of Revenue (1)
Power Solutions Group	$ 1,708.6	43.7%	$ 1,409.9	40.3%	$ 1,423.5	45.0%
Analog Solutions Group	1,481.5	37.9%	1,338.6	38.3%	1,415.8	44.8%
Image Sensor Group	716.8	18.3%	747.3	21.4%	322.5	10.2%
Total revenues	$ 3,906.9		$ 3,495.8		$ 3,161.8	

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

Revenues from the Power Solutions Group

Revenues from the Power Solutions Group increased by $298.7 million, or approximately 21%, during 2016 compared to 2015, and decreased by $13.6 million, or approximately 1%, during 2015 compared to 2014.

The 2016 increase was primarily attributable to the acquisition of Fairchild, which had $277.5 million in revenues across various products within this segment. Revenues from our discrete products increased by $215.0 million, or approximately 35%, revenues from our new IPMS and Optoelectronics products increased by $45.8 million and $20.8 million, respectively, and revenues from our analog products increased by $20.5 million, or approximately 6%.

The 2015 decrease resulted from a decrease in revenues from our IPM products of $14.1 million, or approximately 13%, and a decrease in revenues from TMOS products of $14.6 million, or approximately 6%, partially offset by an increase in revenues from memory products of $16.7 million, or approximately 24%.

Revenues from the Analog Solutions Group

Revenues from the Analog Solutions Group increased by $142.9 million, or approximately 11%, during 2016 compared to 2015 and decreased by $77.2 million, or approximately 5%, during 2015 compared to 2014.

The 2016 increase was primarily attributable to the acquisition of Fairchild, which had $134.0 million in revenues across various products within this segment. Additionally, revenues from our legacy analog products increased $19.9 million, or approximately 5%, partially offset by decreased revenue in our LSI products of $15.0 million, or approximately 5%.

The 2015 decrease resulted from a decrease in revenues from our LSI products of $62.0 million, or approximately 18%, and a decrease in revenues from analog products of $18.5 million, or approximately 5%.

Revenues from the Image Sensor Group

Revenues from the Image Sensor Group decreased by $30.5 million, or approximately 4%, during 2016 compared to 2015 and increased by $424.8 million, or approximately 132%, during 2015 compared to 2014.

The 2016 decrease was primarily attributable to a decrease in revenues from our consumer products of $57.6 million, or approximately 9%, offset by an increase in revenues from our LSI products of $15.2 million, or approximately 51%, and an increase in revenues from our ASIC products of $11.8 million, or approximately 12%.

The 2015 increase was primarily attributable to $409.6 million of additional revenue generated by Aptina and Truesense during their first full year of operations after acquisition, as compared to 2014, in which the two businesses generated $262.4 million of revenue during the period of 2014 after the closing of the acquisitions.

Revenues by Geographic Location

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

	2016	As a % of Revenue (1)	2015	As a % of Revenue (1)	2014	As a % of Revenue (1)
United States	$ 588.4	15.1%	$ 544.3	15.6%	$ 497.0	15.7%
United Kingdom	541.1	13.8%	503.2	14.4%	497.9	15.7%
Hong Kong	1,086.8	27.8%	874.4	25.0%	975.3	30.8%
Japan	334.5	8.6%	281.7	8.1%	293.1	9.3%
Singapore	1,110.4	28.4%	1,120.7	32.1%	786.5	24.9%
Other	245.7	6.3%	171.5	4.9%	112.0	3.5%
Total	$ 3,906.9		$ 3,495.8		$ 3,161.8	

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

For additional information, see the table of revenues by geographic location included in Note 18: "Segment Information" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

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

Our gross profit by reportable segment for each of 2016, 2015, and 2014 was as follows (dollars in millions):

	2016	As a % of Segment Revenue (2)	2015	As a % of Segment Revenue (2)	2014	As a % of Segment Revenue (2)
Power Solutions Group	$ 566.3	33.1 %	$ 428.7	30.4 %	$ 446.8	31.4 %
Analog Solutions Group	589.0	39.8 %	537.9	40.2 %	574.5	40.6 %
Image Sensor Group	236.5	33.0 %	242.4	32.4 %	97.0	30.1 %
Gross profit for all segments	$ 1,391.8		$ 1,209.0		$ 1,118.3	
Unallocated manufacturing (1)	(94.9)	(2.4)%	(15.8)	(0.5)%	(33.4)	(1.1)%
Total gross profit	$ 1,296.9	33.2 %	$ 1,193.2	34.1 %	1,084.9	34.3 %

(1) 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).

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

Our gross profit was $1,296.9 million, $1,193.2 million and $1,084.9 million for 2016, 2015 and 2014, respectively. The gross profit increase of $103.7 million, or approximately 9%, for 2016 compared to 2015 was primarily due to the contributions from Fairchild, which generated approximately $87 million of gross profit for 2016.

The gross profit increase of $108.3 million, or approximately 10%, for 2015 compared to 2014 was primarily due to the contributions of acquisitions during 2014, including $27.0 million for the amortization of the fair market value of inventory step-up from our acquisitions during 2014 for which there was no amortization during 2015, and manufacturing and cost improvements that were partially offset by decreased average selling prices.

Gross margin decreased to approximately 33.2% during 2016 compared to approximately 34.1% during 2015. Excluding the expensing of the fair market value of inventory step-up from the Fairchild acquisition of $67.5 million, gross margin increased, primarily due to higher factory utilization and product mix.

Gross margin decreased to approximately 34.1% during 2015 compared to approximately 34.3% during 2014. This decrease was primarily driven by a larger proportion of our revenues provided by our Image Sensor Group which generates lower gross margin levels than our Analog Solutions Group and Power Solutions Group.

Operating Expenses

Research and Development

Research and development expenses were $452.3 million, $396.7 million and $366.6 million, representing approximately 12%, 11% and 12% of revenues, for 2016, 2015 and 2014, respectively.

The increase in research and development expenses of $55.6 million, or approximately 14%, during 2016 compared to 2015 was primarily associated with the acquisition of Fairchild, which added to several categories of research and development expenses totaling $28.8 million. Research and development expenses unrelated to the Fairchild Transaction increased by $26.8 million, primarily in the area of payroll, including incentive compensation and payroll related costs, pension losses and IP related activities.

The increase in research and development expenses of $30.1 million, or approximately 8%, during 2015 compared to 2014 was primarily associated with an increase of $50.4 million from expenses attributable to the operations of Aptina and Truesense for the full period in 2015. These expenses were partially offset by lower payroll costs, including incentive compensation and payroll related costs, in our Analog Solutions Group and former System Solutions Group segment.

Selling and Marketing

Selling and marketing expenses were $238.0 million, $204.3 million and $200.0 million, representing approximately 6% of revenues in each year period, for 2016, 2015 and 2014, respectively.

The increase in selling and marketing expenses of $33.7 million, or approximately 16%, during 2016 compared to 2015 was primarily associated with the acquisition of Fairchild, which had selling and marketing expenses of $26.7 million, primarily in the area of payroll, including incentive compensation and payroll related costs. There were also increases in expenses related to outside services and travel.

The increase in selling and marketing expenses of $4.3 million, or approximately 2%, during 2015 compared to 2014 was primarily associated with an increase of $23.5 million for expenses attributable to the operations of Aptina and Truesense for the full period in 2015. These expenses were significantly offset by lower payroll costs, including incentive compensation and payroll related costs in our Analog Solutions Group, Power Solutions Group and former System Solutions Group segment.

General and Administrative

General and administrative expenses were $230.3 million, $182.3 million and $180.9 million, representing approximately 6%, 5% and 6% of revenues, for 2016, 2015 and 2014, respectively.

The increase in general and administrative expenses of $48.0 million, or approximately 26%, during 2016 compared to 2015 was primarily associated with the acquisition of Fairchild, which had general and administrative expenses of $36.9 million, primarily in the area of payroll, including incentive compensation and payroll related costs, outside services, travel related expenses, as well as acquisition related expenses.

The increase in general and administrative expenses of $1.4 million, or approximately 1%, during 2015 compared to 2014 includes an increase of approximately $14.6 million for expenses attributable to the operations of Aptina and Truesense for the full period in 2015, partially offset by lower payroll, including incentive compensation and payroll related costs in our Power Solutions Group, Analog Solutions Group and former System Solutions Group.

Amortization of Acquisition—Related Intangible Assets

Amortization of acquisition-related intangible assets was $104.8 million, $135.7 million and $68.4 million for 2016, 2015 and 2014, respectively. The decrease of $30.9 million during 2016 compared to 2015 was attributable to the declining amortization of our Aptina and Truesense intangible assets, partially offset by the amortization of our intangible assets acquired from the Fairchild acquisition. Amortization of acquired intangible assets from the Fairchild Transaction was $12.6 million between September 19, 2016 and December 31, 2016.

The increase in amortization of acquisition-related intangible assets during 2015 compared to 2014 was attributable to a full period of the amortization of intangible assets assumed as a result of our acquisitions of Aptina and Truesense.

See Note 4: "Acquisition and Divestitures" and Note 5: "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 $33.2 million, $9.3 million and $30.5 million for 2016, 2015 and 2014, respectively. The information below summarizes the major activities in each year. For additional information, see Note 6: "Restructuring, Asset Impairments and Other, Net" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

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 former

System Solutions Group segment voluntary workforce reduction program costs, and $2.1 million of manufacturing relocation program costs.

2015

During 2015, we recorded approximately $9.3 million of net charges related to our restructuring programs, consisting primarily of $3.5 million of employee separation charges from our European marketing organization relocation plan and $4.8 million of general workforce reductions. Total Restructuring, asset impairments and other, net, was partially offset by a $3.4 million gain from the sale of assets.

During the first quarter of 2015, we announced that we would relocate our European customer marketing organization from France to Slovakia and Germany. As a result, six positions are expected to be eliminated. We recorded $3.5 million of related employee separation charges during 2015. The impacted employees left the Company during the second half of 2016.

During the third quarter of 2015, management approved and commenced implementation of restructuring actions, primarily targeted workforce reductions. We notified approximately 150 employees of their employment termination, the majority of which had exited by the end of 2015. The total expense for 2015 was $4.8 million.

2014

During the fourth quarter of 2013, we initiated a voluntary retirement program for employees of certain of our former System Solutions Group segment subsidiaries in Japan (the “Q4 2013 Voluntary Retirement Program”). Approximately 350 employees opted to retire under the Q4 2013 Voluntary Retirement Program, of which all employees had exited by the end of 2014. For 2014, we recognized approximately $10.4 million of employee separation charges related to the Q4 2013 Voluntary Retirement Program.

In connection with the Q4 2013 Voluntary Retirement Program, approximately 70 contractor positions were also identified for elimination, all of which all had exited by the end of 2015. During 2014, an additional 40 positions were identified for elimination, as an extension of the Q4 2013 Voluntary Retirement Program, consisting of 20 employees and 20 contractors, substantially all of whom had exited by the end of 2014.

As a result of the Q4 2013 Voluntary Retirement Program, we recognized a pension curtailment benefit associated with the affected employees of $4.5 million during 2014, which is recorded in Restructuring, asset impairments and other, net. See Note 11: “Employee Benefit Plans” in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

During 2014, we initiated further voluntary retirement activities applicable to an additional 60 to 70 positions for certain of our former System Solutions Group segment subsidiaries in Japan, consisting of employees and contractors. Substantially all personnel had exited under this program by December 31, 2014.

On October 6, 2013, we announced a plan to close KSS (the “KSS Plan”). Pursuant to the KSS Plan, a majority of the production from KSS was transferred to other of our manufacturing facilities. The KSS Plan includes the elimination of approximately 170 full time and 40 contract employees. During 2014, we recorded approximately $7.8 million of employee separation charges and $2.3 million of exit costs related to the KSS Plan.

As a result of the KSS facility closure, we recognized a $2.1 million pension curtailment benefit associated with the affected employees during 2014, which was recorded in Restructuring, asset impairments and other, net. See Note 11: “Employee Benefit Plans” in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

Indefinite and Long-Lived Asset Impairment Charges

2016

During 2016, we canceled certain of our previously capitalized IPRD projects and recorded impairment losses of $2.2 million included in the “Goodwill and intangible asset impairment” caption in our Consolidated Statements of Operations and Comprehensive Income in our audited consolidated financial statements included elsewhere in this Form 10-K.

2015

During 2015, we canceled certain of our previously capitalized IPRD projects and recorded impairment losses of $3.8 million included in the “Goodwill and intangible asset impairment” caption in our Consolidated Statements of Operations and Comprehensive Income in our audited consolidated financial statements included elsewhere in this Form 10-K.

2014

During 2014, we determined that approximately $8.7 million in carrying value of goodwill relating to one of our reporting units in the Analog Solutions Group was impaired resulting from a decline in estimated future cash flows. In connection with this impairment, we wrote-off approximately $0.9 million of intangible assets and $4.7 million of other long-lived assets.

See Note 5: “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 increased by $95.6 million to $145.3 million during 2016 compared to $49.7 million in 2015, primarily due to the substantial indebtedness incurred in order to acquire Fairchild. Interest expense increased by $15.6 million, or approximately 46%, to $49.7 million during 2015, up from $34.1 million in 2014, primarily due to additional amortization of debt discount on our 1.00% Notes. We expect interest expense to remain substantial in future periods as we service the debt we incurred in connection with the Fairchild Transaction. We recorded amortization of debt discount to interest expense of $26.0 million, $17.5 million and $7.0 million for 2016, 2015 and 2014, respectively. Our average gross amount of long-term debt balance (including current maturities) during 2016, 2015 and 2014 was $2,661.3 million, $1,361.6 million and $1,085.6 million, respectively. Our weighted average interest rate on our gross amount of long-term debt (including current maturities) was approximately 5.5%, 3.7% and 3.1% per annum in 2016, 2015 and 2014, respectively. See “Liquidity and Capital Resources - Key Financing and Capital Events” below and Note 8: “Long-Term Debt” in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for a description of the indebtedness incurred for the Fairchild Transaction and our refinancing activities.

Gain on Divestiture of Business

Gain on divestiture of business was $92.2 million during 2016. On August 29, 2016, the Company sold two lines of business for $104.0 million in cash. In connection with the sale, the Company recorded a gain of $92.2 million after, among other things, transferring inventory of $4.1 million to Littelfuse, Inc., writing off goodwill of $3.4 million, and deferring $4.3 million of the proceeds to be recognized in the future. See Note 4: "Acquisitions and Divestitures" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for further information.

Loss on Modification or Extinguishment of Debt

2016

Loss on modification or extinguishment of debt increased by $5.9 million from $0.4 million to $6.3 million from 2015 to 2016, due to the execution of the First Amendment, which resulted in a debt extinguishment charge of $4.7 million, and the termination and replacement of our 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.

2015

During 2015, we amended our senior revolving credit facility to, among other things, increase the borrowing capacity to $1.0 billion and reset the facility's five year maturity. As a result of the amendment, we wrote-off $0.4 million of existing debt issuance costs associated with the facility, resulting in a loss during 2016.

Other

Other income decreased by $8.3 million, from income of $7.7 million in 2015 to an expense of $0.6 million in 2016. Other income increased by $12.1 million, from an expense of $4.4 million in 2014 to income of $7.7 million in 2015. The change from year to year is largely attributable to fluctuations in foreign currencies against the dollar for the period, net of the impact from our hedging activity, along with gains and losses on available-for-sale securities.

Income Tax Provision (Benefit)

We recorded an income tax benefit of $3.9 million, an income tax provision of $10.8 million and an income tax benefit of $0.2 million in 2016, 2015 and 2014, respectively.

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 is 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.

The income tax provision for 2015 consisted of the reversal of $12.1 million of our previously established valuation allowance against our foreign deferred tax assets, the release of $4.3 million for reserves and interest for uncertain tax positions in foreign taxing jurisdictions that were effectively settled or for which the statute lapsed during 2015, and a change in tax rate that favorably impacted deferred balances by $1.6 million. This is partially offset by $24.4 million for income and withholding taxes of certain of our foreign and domestic operations and $4.4 million of new reserves and interest on existing reserves for uncertain tax positions in foreign taxing jurisdictions.

The income tax benefit for 2014 consisted of the reversal of $23.3 million of our previously established valuation allowance against our U.S. deferred tax assets as a result of a net deferred tax liability recorded as part of the Truesense acquisition and the reversal of $4.6 million for reserves and interest for uncertain tax positions in foreign taxing jurisdictions that were effectively settled or for which the statute lapsed during 2014. This is partially offset by $19.8 million for income and withholding taxes of certain of our foreign and domestic operations, $4.6 million of new reserves and interest on existing reserves for uncertain tax positions in foreign taxing jurisdictions, and $3.3 million of deferred federal income taxes associated with tax deductible goodwill.

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. Our effective tax rate for 2015 was a provision of 4.9%, which differs from the U.S. federal statutory income tax rate of 35% primarily due to our change in valuation allowance, deemed dividend income from foreign subsidiaries and tax rate differential in our foreign subsidiaries. Our effective tax rate for 2014 was a benefit of 0.1%, which differs from the U.S. federal statutory income tax rate of 35%, primarily due to our domestic tax losses and tax rate differential in our foreign subsidiaries.

The consummation of the Fairchild acquisition during the quarter ended September 30, 2016 caused the Company to reassess the prior years' indefinite reinvestment assertion because of the U.S. debt incurred to fund the acquisition. See Note 8: "Long-Term Debt" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information. This resulted in a change in judgment regarding the future cash flows by jurisdiction and the reversal of prior years' indefinite reinvestment assertion. The change in assertion, which resulted in recording a deferred tax liability for future U.S. taxes, had a direct impact on the judgment about the realizability of the U.S. federal deferred tax assets which resulted in a release of valuation allowance. The change in the prior years' indefinite reinvestment assertion resulted in an increase to income tax expense of $310.8 million, which was partially offset by a benefit of $267.9 million relating to the release of valuation allowance. The reversal of the prior year's indefinite reinvestment assertion and release of the U.S. federal valuation allowance did not have an effect on our cash taxes.

We have not made an indefinite reinvestment assertion related to current year foreign earnings. We expect our future tax rate to more approximate the U.S. federal statutory rate of 35%. The effect of the increase in the future rate is not anticipated to have an effect on our cash tax until all of our U.S. federal net operating losses and credits have been utilized.

We continue to maintain a valuation allowance on a portion of our foreign tax credits and foreign net operating losses, a substantial portion of which relate to Japan net operating losses which are projected to expire prior to utilization. In addition, we also maintain a valuation allowance on a portion of our U.S. foreign tax credit carryforwards and a full valuation allowance on our U.S. capital loss carryforwards and U.S. state deferred tax assets.

For additional information, see Note 15: "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.

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, 2016 and the effect such obligations are expected to have on our liquidity and cash flow in the future (in millions):

	Payments Due by Period						
Contractual obligations (1)	**Total**	**2017**	**2018**	**2019**	**2020**	**2021**	**Thereafter**
Long-term debt, excluding capital leases (2)	$4,433.7	$660.0	$263.7	$176.4	$827.0	$117.5	$ 2,389.1
Capital leases (2)	13.6	9.4	3.5	0.7	—	—	—
Operating leases (3)	148.9	37.6	26.5	17.9	13.5	9.8	43.6
Purchase obligations (3):							
Capital purchase obligations	86.0	81.4	2.6	0.5	0.5	0.5	0.5
Inventory and external manufacturing purchase obligations	251.9	160.3	23.3	22.5	14.9	12.4	18.5
Information technology, communication and mainframe support services	19.3	10.8	4.2	3.2	0.7	0.4	—
Other	45.3	38.6	2.8	1.7	1.2	1.0	—
Total contractual obligations	$4,998.7	$998.1	$326.6	$222.9	$857.8	$141.6	$ 2,451.7

(1) The table above excludes approximately $21.8 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, 2016.

(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 $12.1 million in 2017. 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 2017, 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 11: “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 $1,028.1 million as of December 31, 2016. 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, 2016 include approximately $399.0 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, cash equivalents and short-term investments outside the United States in various foreign subsidiaries, we have the ability to obtain cash in the United States through distributions from our foreign subsidiaries in order to cover our domestic needs, by utilizing existing credit facilities, or through new bank loans or debt obligations.

See Note 8: "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.

Off-Balance Sheet Arrangements

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

In the normal course of business, we provide standby letters of credit or other guarantee instruments to certain parties initiated by either our subsidiaries or us, as required for transactions including, but not limited to: material purchase commitments; agreements to mitigate collection risk; leases; utilities; and customs guarantees. Our senior revolving credit facility includes $15.0 million of availability for the issuance of letters of credit. There were no letters of credit outstanding under our Revolving Credit Facility as of December 31, 2016. We had outstanding guarantees and letters of credit outside of our senior revolving credit facility of $6.7 million at December 31, 2016.

As part of securing financing in the normal course of business, we issued guarantees related to our capital lease obligations, equipment financing, lines of credit and real estate mortgages, which totaled approximately $130.7 million as of December 31, 2016. We are also a guarantor of SCI LLC's non-collateralized loan with SMBC, which had a balance of $160.4 million as of December 31, 2016.

Based on historical experience and information currently available, we believe that in the foreseeable future we will not be required to make payments under the standby letters of credit or guarantee arrangements.

For our operating leases, we expect to make cash payments and incur similar expenses totaling $148.9 million as payments come due. We have not recorded any liability in connection with these operating leases, letters of credit and guarantee arrangements.

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, property damage including environmental contamination, personal injury, failure to comply with applicable laws, our negligence or willful misconduct, or breach of representations and warranties and 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 damages, 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 and our subsidiaries provide for indemnification of directors, officers and other persons in accordance with limited liability agreements, certificates of incorporation, by-laws, articles of association or similar organizational documents, as the case may be. We maintain directors' and officers' insurance, which should enable us to recover a portion of any future amounts paid.

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, (a) it will 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 servings as a director, officer, employee or other fiduciary of Fairchild or its subsidiaries prior to the effective time of the acquisition, (b) it will 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, it will 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 12: "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, 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. 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 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.

On September 19, 2016, we completed our acquisition of Fairchild pursuant to the Fairchild Agreement. The purchase price totaled $2,532.2 million and was funded by the borrowings against our Term Loan "B" Facility and Revolving Credit Facility and with cash on hand. See "Business—2016 Acquisition Activity," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" for additional information. During 2015 and 2014, we acquired AXSEM, Aptina and Truesense. See Note 4: "Acquisitions and Divestitures" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

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 1.00% Notes 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, short-term investments 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. During 2016, we paid $210.7 million for capital expenditures, while in 2015 we paid $270.8 million. Our current minimum commitment for 2017 is approximately $81.4 million. The capital expenditure levels can materially influence our available cash for other initiatives. Our capital expenditures have historically been approximately 6% to 7% of annual revenues and we expect to continue to incur capital expenditures to support our business activities. Future capital expenditures may be impacted by events and transactions that are not currently forecasted.

On April 15, 2016, we entered into two new financing arrangements to secure funds for the purchase consideration of Fairchild among certain other items, including a $2.2 billion Term Loan "B" Facility, with the proceeds deposited into escrow accounts and used to finance the transaction, which occurred on September 19, 2016. On September 30, 2016, we amended the financing arrangements and increased the Term Loan "B" Facility by $200 million. The associated interest expense related to our Term Loan "B" Facility has had, and will continue to have, a material impact to our results of operations throughout the term of the Amended Credit Agreement.

During the year ended December 31, 2015, we issued $690.0 million of our 1.00% Notes and used a portion of the proceeds to pay down amounts previously drawn on our senior revolving credit facility. We also increased the borrowing capacity of our senior revolving credit facility from $800.0 million to $1.0 billion and reset the five year maturity. See Note 8: "Long-Term Debt" in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

On December 1, 2014, we announced a capital allocation policy (the "Capital Allocation Policy") under which we intend to return to stockholders approximately 80% of free cash flow less repayments of long-term debt, subject to a variety of factors, including our strategic plans, market and economic conditions and the Board's discretion. For the purposes of the Capital Allocation Policy, we define free cash flow as net cash provided by operating activities less purchases of property, plant and equipment. We also announced the 2014 Share Repurchase Program pursuant to the Capital Allocation Policy. Under the 2014 Share Repurchase Program, we intend to repurchase approximately $1.0 billion of our common shares over a four year period, subject to the same factors and considerations described above. The 2014 Share Repurchase Program was effective December 1, 2014, and the $300 million 2012 Stock Repurchase Program was terminated on that date. See "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities" for additional information with respect to our share repurchase program.

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 $581.2 million, $470.6 million, and $481.3 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Our cash flows provided by operating activities for the year ended December 31, 2016 increased by approximately $110.6 million compared to the year ended December 31, 2015. The increase was primarily attributable to the change in working capital during the period. 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.

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 short-term investments, was $338.1 million as of December 31, 2016 and has fluctuated between $33.9 million and $424.0 million at the end of each of our last eight fiscal quarters. Our working capital, including cash and cash equivalents and short-term investments, was $1,366.5 million as of December 31, 2016 and has fluctuated between $611.8 million and $1,366.5 million over the last eight quarter-ends. Working capital as of December 31, 2015 was impacted by ASU 2015-17, which we prospectively adopted and applied to our financial statements for the year ended December 31, 2015 and subsequent periods. Periods prior to December 31, 2015 have not been adjusted for the adoption of ASU 2015-17. See Note 3: “Recent Accounting Pronouncements” in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K for additional information.

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, 2016, our working capital was most significantly impacted by the acquisition of Fairchild and the related financing. See Note 8: “Long-Term Debt” and Note 9: “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 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, generally, our annual funding of these obligations is 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 11: “Employee Benefit Plans” and Note 15: “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 2016. 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 8: “Long-Term Debt” and for further discussion on share repurchase program, see Note 9: “Earnings Per Share and Equity” in the notes to our audited consolidated financial statements included elsewhere in this Form 10-K.

Recent Events

2016 Financing Events

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 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.

On April 15, 2016, we entered into (1) a $600 million senior revolving credit facility (the “Revolving Credit Facility”) and a $2.2 billion term loan “B” facility (the “Term Loan “B” Facility”), the terms of which are set forth in a Credit Agreement (the “New 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 (the “Agent”), and certain other parties, and (2) a Guarantee and Collateral Agreement (the “Guarantee and Collateral Agreement”) with certain of our domestic subsidiaries (the “Guarantors”), pursuant to which the New 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 New Credit Agreement are also secured by mortgages on certain real property assets of the Company and its domestic subsidiaries. Subject to the terms and conditions of the New 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 New 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, the Company, entered into the first amendment (the “First Amendment”) to the New Credit Agreement (the “Amended Credit Agreement”). 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 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 intellectual property 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. The Company used the additional $200.0 million proceeds under the Term Loan "B" Facility to pay off the Company's $200.0 million outstanding balance under the Company's Revolving Credit Facility.

2015 Financing Events

Issuance of 1.00% Notes

During the second quarter of 2015, we completed a private unregistered offering for an aggregate principal amount of $690.0 million of our 1.00% Notes. The 1.00% Notes mature on December 1, 2020, unless earlier purchased or converted. We concurrently entered into convertible note hedge and warrant transactions with certain institutional counterparties. A portion of the proceeds from the offering were used to finance the hedge and warrant transactions associated with the issuance of the 1.00% Notes, to pay down the senior revolving credit facility and to repurchase $70.0 million of our common stock. The issuance was a private placement made pursuant to Rule 144A under the Securities Act.

Amended Senior Revolving Credit Facility

During the second quarter of 2015, we amended our $800.0 million senior revolving credit facility to, among other things, increase the borrowing capacity to $1.0 billion and reset the five year maturity. We also amended the terms of the related Amended and Restated Credit Agreement. The facility includes $15.0 million of availability for the issuance of letters of credit, $15.0 million of availability for swingline loans for short-term borrowings and a foreign currency sublimit of $75.0 million. The facility may be used for general corporate purposes, including working capital, stock repurchase, and/or acquisitions.

Share Repurchase Program

During the year ended December 31, 2015, we purchased approximately 30.4 million shares of our common stock pursuant to our share repurchase program for an aggregate purchase price of approximately $347.8 million, exclusive of fees, commissions and other expenses, at a weighted-average execution price of $11.46 per share. See "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities" for additional information.

2014 Financing Events

Share Repurchase Program

During the year ended December 31, 2014, we purchased approximately 13.9 million shares of our common stock pursuant to our share repurchase programs for an aggregate purchase price of approximately $121.0 million, exclusive of fees, commissions and other expenses, at a weighted-average execution price of $8.71 per share. See "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities" for additional information.

Amounts Drawn on Amended and Restated Senior Revolving Credit Facility

During the third quarter of 2014, we drew an incremental amount of approximately $230.0 million to partially fund the purchase of Aptina. The outstanding balance of the facility as of December 31, 2014 was $350.0 million.

Debt Guarantees and Related Covenants

As of December 31, 2016, we were in compliance with the indentures relating to our 1.00% Notes and our 2.625% Notes, Series B and with covenants relating to our Term Loan “B” Facility, Revolving Credit Facility and various other debt agreements. Our 1.00% Notes are senior to the existing and future subordinated indebtedness of ON Semiconductor and its guarantor subsidiaries. See Note 8: “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 generally accepted accounting principles in the United States of America 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 revenues and expenses during the reporting period. Significant estimates have been used by management in conjunction with the following: (i) measurement of valuation allowances relating to inventories and deferred tax assets; (ii) estimates of future payouts for customer incentives and allowances, warranties, and restructuring activities; (iii) assumptions surrounding future pension obligations; (iv) fair values of share-based compensation and of financial instruments (including derivative financial instruments); (v) evaluations of uncertain tax positions; (vi) estimates and assumptions used in connection with business combinations; and (vi) future cash flows used to assess and test for impairment of goodwill and long-lived assets, if applicable. Actual results could differ from these estimates.

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 manufacturing and design services provided to customers. Revenue is recognized when persuasive evidence of an arrangement exists, title and risk of loss pass to the customer (generally upon shipment), the price is fixed or determinable and collectability is reasonably assured. Revenues are recorded net of provisions for related sales returns and allowances.

For products sold to distributors who are entitled to returns and allowances (generally referred to as “ship and credit rights” within the semiconductor industry), we recognize the related revenue and cost of revenues depending on if the sale originated through an ON Semiconductor or legacy Fairchild systems and processes. If the sale originated through an ON Semiconductor system and process, revenue is recognized when ON Semiconductor is informed by the distributor that it has resold the products to the end-user. As a result of our inability to reliably estimate up front the effects of the returns and allowances with these distributors for sales originating through an ON Semiconductor system and process, we defer the related revenue and gross margin on sales to these distributors until it is informed by the distributor that the products have been resold to the end-user, at which time the ultimate sales price is known. Legacy Fairchild's systems and processes enable us to estimate up front the effects of returns and allowances provided to the distributors and thereby record the net revenue at the time of sale related to a legacy Fairchild system and process. Although payment terms vary, most distributor agreements require payment within 30 days.

For products sold to non-distributors, sales returns and allowances are estimated based on historical experience. Our OEM customers do not have the right to return products, other than pursuant to the provisions of our standard warranty. Sales to distributors, however, are typically made pursuant to agreements that provide return rights with respect to discontinued or slow-moving products. Provisions for discounts and rebates to customers, estimated returns and allowances, and other adjustments are provided for in the same period the related revenues are recognized, and are netted against revenues. We review warranty and related claims activities and records provisions, as necessary.

Freight and handling costs are included in cost of revenues and are recognized as period expense when incurred. Taxes assessed by government authorities on revenue-producing transactions, including value-added and excise taxes, are presented on a net basis (excluded from revenues) in the statement of operations.

Inventories. We carry our inventories at the lower of standard cost (which approximates actual cost on a first-in, first-out basis) or market 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. 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 revenues 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.

Impairment of Long-Lived Assets. We evaluate the recoverability of the carrying amount of our property, plant and equipment and intangible assets 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 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. In recent years, most of our asset groups that have been impaired consist of assets that were ultimately abandoned, sold or otherwise disposed of due to cost reduction activities and the consolidation of our manufacturing facilities. In some instances, these assets have subsequently been sold for amounts higher than their impaired value with related gains recorded in the restructuring, asset impairment and other, net line item in our consolidated statement of operations and disclosed in the footnotes to the financial statements.

Goodwill. 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 of goodwill consists of a qualitative assessment to determine if it is more likely than not that the fair value of a reporting unit is less than 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, we follow a two-step quantitative goodwill impairment test to determine if goodwill is impaired. The first step of the goodwill impairment test compares the fair value of a reporting unit with its carrying amount, including 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. Estimates of the future cash flows associated with the businesses are critical to these assessments. The assumptions about future conditions include factors such as future revenues, gross profits, operating expenses, and industry trends. Changes in these estimates based on evolving economic conditions or business strategies could result in material impairment charges in future periods. 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 base our fair value estimates on assumptions we believe to be reasonable. Actual future results may differ from those estimates. We consider historical rates and current market conditions when determining the discount and growth rates to use in our analysis.

We have determined that the divisions within our Company, which are components of our operating segments, constitute reporting units for purposes of allocating and testing goodwill. Our divisions are one level below the operating segments, constituting individual businesses, with our segment management conducting regular reviews of the operating results. The first step of the goodwill impairment test compares the fair value of the reporting unit to its carrying value. 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 and we are not required to perform further testing. If the carrying value of the net assets associate with the reporting unit exceeds the fair value of the reporting unit, then we must perform the second step of the goodwill impairment test in order to determine the implied fair value of the reporting unit's goodwill. If, during this second step, we determine that the carrying value of a reporting unit's goodwill exceeds its implied fair value, we would record an impairment loss equal to the difference.

Our next annual test for impairment is expected to be performed on the first day of the fourth quarter of 2017; however, identification of a triggering event may result in the need for earlier reassessments of the recoverability of our goodwill and may result in material impairment charges in future periods.

Defined Benefit Pension Plans and Related Benefits. We maintain defined benefit pension plans covering certain of our non-U.S. employees. For financial reporting purposes, net periodic pension costs and estimated withdrawal liabilities 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 increase for employees participating in the plans. These assumptions are based upon management's judgment and consultation with actuaries, considering all known trends and uncertainties. Actual results that differ from these assumptions impact the expense recognition and cash funding requirements of our pension plans. As of December 31, 2016, a one percentage point change in the discount rate utilized to determine our continuing foreign pension liabilities and expense for our continuing foreign defined benefit plans would have impacted our results by approximately $4.7 million.

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.

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.

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 is it 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 15: “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.

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 3: “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, 2016, our long-term debt (including current maturities) totaled $3,622.3 million. We have no interest rate exposure to rate changes on our fixed rate debt, which totaled $1,098.7 million. We do have interest