

AMERICAN AXLE & MANUFACTURING HOLDINGS INC

Form 10-K

February 12, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2015

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 1-14303

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of  
incorporation or organization)

38-3161171

(I.R.S. Employer  
Identification No.)

ONE DAUCH DRIVE, DETROIT, MICHIGAN

(Address of principal executive offices)

313-758-2000

(Registrant's telephone number, including area code)

48211-1198

(Zip Code)

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

Title of Each Class

COMMON STOCK, PAR VALUE \$0.01 PER SHARE

PREFERRED SHARE PURCHASE RIGHTS, PAR VALUE \$0.01 PER  
SHARE

Name of Each Exchange on Which  
Registered

NEW YORK STOCK EXCHANGE

NEW YORK STOCK EXCHANGE

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 x No o

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes o No x

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 x No o

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Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definition of "accelerated filer", "large 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 ☐  
(Do not check if small reporting company)

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

The closing price of the Common Stock on June 30, 2015 as reported on the New York Stock Exchange was \$20.91 per share and the aggregate market value of the registrant's Common Stock held by non-affiliates was approximately \$1,582.3 million.

As of February 10, 2016, the number of shares of the registrant's Common Stock, \$0.01 par value, outstanding was 76,092,979 shares.

Documents Incorporated by Reference

Portions of the registrant's Annual Report to Stockholders for the year ended December 31, 2015 and Proxy Statement for use in connection with its Annual Meeting of Stockholders to be held on May 5, 2016, to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after December 31, 2015, are incorporated by reference in Part I (Items 1, 1A, 1B, 2, 3 and 4), Part II (Items 5, 6, 7, 7A, 8, 9, 9A and 9B), Part III (Items 10, 11, 12, 13 and 14) and Part IV (Item 15) of this Report.

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Exhibit 101.CAL

XBRL Taxonomy Extension Calculation Linkbase Document

Exhibit 101.DEF

XBRL Taxonomy Extension Definition Linkbase Document

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## Part I

### Item 1. Business

As used in this report, except as otherwise indicated in information incorporated by reference, references to “our Company,” “we,” “our,” “us” or “AAM” mean American Axle & Manufacturing Holdings, Inc. (Holdings) and its subsidiaries and predecessors, collectively.

#### (a) General Development of Business

Holdings, a Delaware corporation, is a successor to American Axle & Manufacturing of Michigan, Inc., a Michigan corporation, pursuant to a migratory merger between these entities in 1999.

#### (b) Financial Information About Segments

See Item 8, “Financial Statements and Supplementary Data - Note 11 - Segment and Geographic Information” included in this report.

#### (c) Narrative Description of Business

##### Company Overview

We are a Tier I supplier to the automotive industry. We manufacture, engineer, design and validate driveline and drivetrain systems and related components and chassis modules for light trucks, sport utility vehicles (SUVs), passenger cars, crossover vehicles and commercial vehicles. Driveline and drivetrain systems include components that transfer power from the transmission and deliver it to the drive wheels. Our driveline, drivetrain and related products include axles, driveheads, chassis modules, driveshafts, power transfer units, transfer cases, chassis and steering components, transmission parts, electric drive systems and metal-formed products. In addition to locations in the United States (U.S.) (Michigan, Ohio and Indiana), we also have offices or facilities in Brazil, China, Germany, India, Japan, Luxembourg, Mexico, Poland, Scotland, South Korea, Sweden and Thailand.

We are the principal supplier of driveline components to General Motors Company (GM) for its full-size rear-wheel drive (RWD) light trucks and SUVs manufactured in North America, supplying substantially all of GM's rear axle and four-wheel drive and all-wheel drive (4WD/AWD) axle requirements for these vehicle platforms. Sales to GM were approximately 66% of our consolidated net sales in 2015, 68% in 2014, and 71% in 2013.

We are the sole-source supplier to GM for certain axles and other driveline products for the life of each GM vehicle program covered by Lifetime Program Contracts and Long Term Program Contracts (collectively, LPCs). Substantially all of our sales to GM are made pursuant to the LPCs. The LPCs have terms equal to the lives of the relevant vehicle programs or their respective derivatives, which typically run 5 to 7 years, and require us to remain competitive with respect to technology, design, quality and cost.

We also supply driveline system products for FCA US LLC (FCA) for heavy-duty Ram full-size pickup trucks and its derivatives, the AWD Jeep Cherokee, the AWD Chrysler 200, and a passenger car driveshaft program. Sales to FCA were approximately 20% of our consolidated net sales in 2015, 18% in 2014 and 12% in 2013. In addition to GM and FCA, we supply driveline systems and other related components to Volkswagen AG (Volkswagen), Audi AG (Audi), Mercedes-Benz, Jaguar Land Rover Automotive PLC (JLR), Honda Motor Co., Ltd., Ford Motor Company (Ford), Nissan Motor Co., Ltd. (Nissan), PACCAR Inc., Harley-Davidson Inc., Daimler Truck and other original equipment manufacturers (OEMs) and Tier I supplier companies such as Jatco Ltd. and Hino Motors Ltd. Our consolidated net sales to customers other than GM increased 10% to \$1,317.1 million in 2015 as compared to \$1,199.9 million in 2014

and \$926.7 million in 2013.

We estimate our principal served market to be approximately \$38 billion based on information available at the end of 2015. Our principal served market is the driveline market, which consists of driveline, drivetrain and related components and chassis modules for light trucks, SUVs, passenger cars, crossover vehicles and commercial vehicles, in the regions in which we compete.

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The following chart sets forth the percentage of total revenues attributable to our products for the periods indicated:

	Year ended December 31,				
	2015		2014		2013
Axles and driveshafts	83	%	82	%	82
Drivetrain components, forged products and other	17	%	18	%	18
Total	100	%	100	%	100

## Business Strategy

We are focused on profitable net sales growth and strengthening our balance sheet by capitalizing on our competitive strengths and continuing to diversify our customer, product and geographic sales mix while providing exceptional value to our customers.

We have aligned our business strategy to build value for our key stakeholders. This strategy emphasizes a commitment to deliver industry leading quality, technology leadership and operational excellence. By focusing on this commitment, we can achieve our key critical business objectives of product and customer diversification, globalization and solid financial performance. This strategy includes the following actions:

Maintain our high quality standards which are the foundation of our product durability and reliability.

AAM has an outstanding daily track record for delivering quality products, having averaged less than 10 discrepant parts per million (PPM) in 2015, as measured by our customers.

In 2014, our Colfor Minerva Facility in Ohio, Auburn Hills Manufacturing location in Michigan and Changshu Manufacturing Facility in China were recognized with the GM Supplier Quality Excellence Award for outstanding performance.

AAM has an enhanced internal quality assurance system that drives continuous improvement to not only meet but exceed the growing expectations of our OEM customers.

Achieve technology leadership by delivering innovative driveline products which improve the diversification of our product portfolio while increasing our total global served market.

AAM's significant investment in research and development (R&D) has resulted in the development of advanced technology products designed to assist our customers in meeting the market demands for improved fuel efficiency; lower emissions; enhanced power density; advanced, sophisticated electronic controls; improved safety, ride and handling performance; and enhanced reliability and durability for light trucks, SUVs, passenger cars, crossover vehicles and commercial vehicles.

AAM's EcoTrac® Disconnecting AWD system is a fuel-efficient and environmentally friendly driveline system that provides OEMs the option of an all-wheel-drive system that disconnects when not needed to improve fuel efficiency and reduce CO<sub>2</sub> emissions compared to conventional AWD systems. AAM's EcoTrac® Disconnecting AWD system is featured on the AWD Jeep Cherokee and the AWD Chrysler 200. We are currently designing the next generation of our EcoTrac® Disconnecting AWD system which is smaller, lighter in weight and aims to recover up to 90% of fuel penalty, compared to 80% currently.

e-AAM Driveline Systems AB (e-AAM) was created to design and commercialize battery electric and hybrid driveline systems designed to improve fuel efficiency, reduce CO<sub>2</sub> emissions and provide AWD capability. We will continue engineering, developing and commercializing electric and hybrid driveline systems for passenger cars and

crossover vehicles. In 2015, we secured a new driveline systems contract featuring patented e-AAM<sup>TM</sup> electric driveline systems technology with a premier global OEM.



AAM has established a high efficiency product portfolio that is designed to improve axle efficiency and fuel economy through innovative product design technologies. As our customers focus on reducing weight through the use of aluminum and other conventional means, AAM is well positioned to offer innovative, industry leading solutions for lightweighting. Our portfolio includes high efficiency axles, aluminum axles and also AWD applications for plug-in hybrid electrical vehicles to full-electric vehicles.

AAM continues to invest in R&D in emerging technology such as torque biasing capability. We have developed capabilities in the areas of control systems and mechatronics to further integrate electronic components such as motors, actuators, and sensors into AAM's mechanical technology to enhance vehicle performance and provide superior torque management.

To accelerate AAM's technological advancements, in 2015 we began the move-in phase of our Advanced Technology Development Center (ATDC) at our Detroit Campus. This state-of-the-art facility will be our center for technology benchmarking, prototype development, advanced technology development, supplier collaboration, customer showcasing and associate training on our future products, processes, and systems.

Sustain our operational excellence and focus on cost management to deliver exceptional value to our customers.

In 2015, we successfully launched 18 programs and facilities to support our customers. These launches included front and rear drive axles for a new global passenger car program for JLR at our Swidnica Manufacturing Facility in Poland, rear axles for a global light truck program for Ford at our Rayong Manufacturing Facility in Thailand and front and rear axles for a full-size pickup truck program for Nissan at our Guanajuato Manufacturing Complex in Mexico.

We continue to focus on cost management through the implementation of the AAM Operating System to improve quality, eliminate waste and reduce lead time and total costs globally.

Our stand-alone agreement with the United Automobile, Aerospace and Agricultural Implement Workers of America (UAW), which covers hourly associates at our Three Rivers Manufacturing Facility, ensures market competitiveness at AAM's largest U.S. facility into 2017. The collective bargaining agreements that cover hourly associates at our MSP Industries Corporation and Colfor Manufacturing Inc. subsidiaries expire in 2017 and 2018, respectively.

Diversify our business through the growth of new and existing customer relationships and expansion of our product portfolio.

In addition to maintaining and building upon our longstanding relationships with GM and FCA, we are focused on generating profitable growth with new and existing global OEM customers. New business launches in 2015 included business with key international customers such as Ford, JLR, Nissan, Mercedes-Benz and others.

We have accelerated the development and launch of products for passenger cars and crossover vehicles and the global light truck and commercial vehicle markets. We have approximately \$725 million of new and incremental business backlog launching from 2016 to 2018, of which approximately 75% relates to AWD and RWD applications for passenger cars and crossover vehicles.

Approximately 60% of our new and incremental business backlog launching from 2016 to 2018 is for customers other than GM. In addition, we are working on \$1.5 billion in quoted and emerging new business opportunities. These opportunities would allow us to continue the diversification and expansion of our customer base, product portfolio and global footprint. Substantially all of these opportunities are for customers other than GM and feature our advanced technology such as our EcoTrac® Disconnecting AWD system and e-AAM<sup>TM</sup> electric driveline systems

technology.

• We also continue to evaluate and consider strategic opportunities that will complement our core strengths and supplement our diversification strategies while providing future, profitable growth prospects.

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Achieve globalization by increasing our presence in global markets to support our customers' platforms.

As our customers continue to design their products for global markets, they will continue to require global support from their suppliers. For this reason, it is critical that we maintain a global presence in these markets in order to remain competitive for new contracts. Over the past few years, we have significantly increased our installed capacity in cost competitive global markets to support current programs and future opportunities. Specific actions included expanding capacity in Brazil, China, Mexico, Poland, Thailand and the U.S. and constructing new facilities in Mexico and the U.S.

- We expect our EcoTrac® Disconnecting AWD products to support three global vehicle platforms by 2018, based on our new and incremental business backlog launching from 2016 to 2018.

Our joint venture (JV) with Hefei Automobile Axle Co., Ltd. (HAAC), a subsidiary of the JAC Group (Anhui Jianghuai Automotive Group Co., Ltd.), which includes 100% of HAAC's light commercial axle business, continues to be a strong advantage for building relationships with leading Chinese light truck manufacturers. We supply front and rear beam axles to several leading Chinese light truck manufacturers, including JAC and BAIC Foton.

More than half of our \$725 million of new and incremental business backlog launching from 2016 to 2018 is for end use markets outside the U.S. and nearly all has been sourced to our manufacturing facilities outside the U.S.

Achieve solid financial performance to build value for our key stakeholders.

Over the past five years, AAM's compound annual growth rate (CAGR) for sales has more than doubled the growth rate of the industry. Included in this sales growth is an increase of 10% in our non-GM sales in 2015.

We have established a cost competitive, operationally flexible global manufacturing, engineering and sourcing footprint to increase our presence in global growth markets, support global product development initiatives and establish regional cost competitiveness. This includes having manufacturing and engineering facilities in Brazil, China, Germany, India, Mexico, Poland, Sweden, Thailand and the U.S.

As a result of our debt refinancing activities over the past few years, we reduced our weighted average interest cost, extended our debt maturities and improved debt covenant terms and conditions. In 2015, we took additional steps to reduce our long-term debt by voluntarily prepaying the remaining \$135.9 million outstanding under our term facility, which included \$2.8 million that was due in the fourth quarter of 2015. By taking advantage of favorable market conditions and paying down our term facility, we improved our flexibility to manage and grow our business and to support AAM's long-term strategic objectives. As of December 31, 2015, we had over \$840 million in available liquidity and no significant debt maturities until 2019.

#### Competition and Strengths

We compete with a variety of independent suppliers and distributors, as well as with the in-house operations of certain OEMs. Our principal competitors include Dana Holding Corporation, GKN plc, Magna International Inc., ZF Friedrichshafen AG, Linamar Corporation, Meritor Inc. and the in-house operations of various global OEMs. The sector is also attracting new competitors, some of whom are entering our product segment through the acquisition of non-core operations.

With a focus on engineering and manufacturing, we support our business strategy and differentiate ourselves through outstanding long-term daily track records on quality, warranty, reliability, delivery and launch performance. AAM has an outstanding daily track record for delivering quality products, having averaged less than 10 discrepant parts per

million (PPM) in 2015, as measured by our customers.

As global OEM's race to meet tighter fuel efficiency emissions standards, the automotive industry is entering a new, more advanced phase of innovation and design. This encompasses advanced powertrain applications, hybrid and electric vehicles, autonomous vehicles and other equally sophisticated technologies. AAM is meeting these challenges with an aggressive plan to increase our investment in advanced product, process and systems technology.

All of our global facilities utilize the AAM Operating System, a business philosophy focused on lean manufacturing designed to reduce costs, improve quality, decrease inventory and improve our operating flexibility.

#### Industry Trends

See Item 7, "Management's Discussion and Analysis - Industry Trends."

#### Productive Materials

We believe that we have adequate sources of supply of productive materials and components for our manufacturing needs. Most raw materials (such as steel) and semi-processed or finished items (such as castings) are available within the geographical regions of our operating facilities from qualified sources in quantities sufficient for our needs. We currently have contracts with our steel suppliers that ensure continuity of supply to our principal operating facilities in North America. We also have validation and testing capabilities that enable us to strategically qualify steel sources on a global basis. As we continue to expand our global manufacturing footprint, we will rely on suppliers in local markets that have not yet proven their ability to meet our requirements.

#### Research and Development (R&D)

We continue to invest in the development of new products, processes and systems to improve efficiency and flexibility in our operations and continue to deliver innovative new products, chassis modules and integrated driveline systems to our customers.

In 2015, R&D spending, net of customer engineering, design and development recoveries, was \$113.9 million as compared to \$103.9 million in 2014 and \$103.4 million in 2013. The focus of this investment continues to be developing innovative driveline and drivetrain systems and related components for light trucks, passenger cars, SUVs, crossover vehicles and commercial vehicles in the global marketplace. Product development in this area includes power transfer units, transfer cases, driveline and transmission differentials, multi-piece driveshafts, constant velocity joints, torque transfer devices, chassis modules and front and rear drive axles. We continue to focus on electronic integration in our existing and future products to advance their performance. We also continue to support the development of hybrid and electric vehicle systems. Special emphasis is also placed on the development of products and systems that provide our customers with advancements in fuel efficiency and emissions reduction and improved performance metrics such as noise vibration harshness (NVH), power density and traction control improvements for safety and stability. Our efforts in these areas have resulted in the development of prototypes and various configurations of these driveline systems for several OEMs throughout the world.

We have also developed and commercialized a disconnecting AWD system, which strengthens AAM's position as a leader in global driveline systems technology. AAM's EcoTrac® Disconnecting AWD system is an industry-first technology that seamlessly engages AWD functionality while improving fuel efficiency and reducing CO<sub>2</sub> emissions. This system is now featured on the award-winning Jeep Cherokee and the Chrysler 200.

AAM also develops and manufactures high-efficiency axle systems through the use of proprietary technologies to optimize product design and lubrication management, while also significantly reducing friction and improving fuel economy. Our high efficiency axles are featured on several premium OEM vehicles, including Cadillac,

Mercedes-Benz and Jaguar.

Our e-AAM subsidiary engineers and develops battery electric and hybrid driveline systems to be commercialized for passenger cars and crossover vehicles. These systems are designed to improve fuel efficiency by up to 30%, reduce CO<sub>2</sub> emissions and provide AWD capability with the additional benefit of improved vehicle stability when compared to traditional mechanical AWD systems.

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Through the development of our EcoTrac® Disconnecting AWD system, our high efficiency axles and our e-AAM™ hybrid and electric driveline systems, we have significantly improved fuel efficiency and ride and handling performance while reducing emissions for our customer's products.

As our customers continue to focus on reducing vehicle weight through the use of aluminum or other conventional means, AAM is well positioned to offer innovative, industry-leading solutions, through proprietary technologies such as PowerLite® axles, PowerDense® gears and PowerFilm® lubricant for passenger car, light truck and AWD applications.

### Backlog

We typically enter into agreements with our customers to provide axles or other driveline or drivetrain products for the life of our customers' vehicle programs. Our new and incremental business includes awarded programs and incremental content and volume including customer requested engineering changes. Our backlog may be impacted by various assumptions, many of which are provided by our customers based on their long range production plans. These assumptions include future production volume estimates, changes in program launch timing and fluctuation in foreign currency exchange rates.

Our new and incremental business backlog is approximately \$725 million for programs launching from 2016 to 2018. Approximately 75% of our new and incremental business backlog relates to RWD and AWD applications for passenger cars and crossover vehicles. More than half of our new and incremental business backlog will be for end use markets outside the U.S. and nearly all has been sourced to our non-U.S. manufacturing facilities. Approximately 60% of our new and incremental business backlog is for customers other than GM.

### Patents and Trademarks

We maintain and have pending various U.S. and foreign patents, trademarks and other rights to intellectual property relating to our business, which we believe are appropriate to protect our interest in existing products, new inventions, manufacturing processes and product developments. We do not believe that any single patent or trademark is material to our business nor would expiration or invalidity of any patent or trademark have a material adverse effect on our business or our ability to compete.

### Cyclical and Seasonality

Our operations are cyclical because they are directly related to worldwide automotive production, which is also cyclical and dependent on general economic conditions and other factors. Our business is also moderately seasonal as our major OEM customers historically have an extended shutdown of operations (typically 1 to 2 weeks) in conjunction with their model year changeover and an approximate one-week shutdown in December. Accordingly, our quarterly results may reflect these trends.

### Environmental Matters

We are subject to various federal, state, local and foreign environmental and occupational safety and health laws, regulations and ordinances, including those regulating air emissions, water discharge, waste management and environmental cleanup. We closely monitor our environmental conditions to ensure that we are in compliance with applicable laws, regulations and ordinances. We have made, and will continue to make, capital and other expenditures to comply with environmental requirements, including recurring administrative costs. Such expenditures were not significant in 2015, 2014 and 2013.





## Associates

We employ approximately 13,050 associates on a global basis, including our joint venture affiliates, of which approximately 3,610 are employed in the U.S. Approximately 2,010 associates are represented by the UAW. Approximately 1,290 of our hourly associates at our Three Rivers Manufacturing Facility in Michigan are subject to a stand alone UAW agreement that expires September 13, 2017. An additional 720 associates at our MSP Industries Corporation and Colfor Manufacturing, Inc. subsidiaries are represented by the UAW under collective bargaining agreements that expire April 18, 2017 and June 8, 2018, respectively. In addition, approximately 130 associates at our Albion Automotive subsidiary in Scotland, approximately 3,480 associates at our Guanajuato Manufacturing Complex in Mexico and approximately 480 associates at our Araucária Manufacturing Facility in Brazil are represented by labor unions that are subject to collective bargaining agreements. The current collective bargaining agreement at Albion will expire on March 31, 2017. The collective bargaining agreements in Mexico and Brazil expire and are renegotiated annually.

## Executive Officers of the Registrant

Name	Age	Position
David C. Dauch	51	Chairman of the Board & Chief Executive Officer
Michael K. Simonte	52	President
Timothy E. Bowes	52	Senior Vice President - Corporate Planning
Alberto L. Satine	59	President - Driveline, Senior Vice President - AAM Corporate
Norman Willemse	59	President - Metal Formed Products, Senior Vice President - AAM Corporate
Mark S. Barrett	55	Group Vice President - Driveshafts
Steven J. Proctor	59	Group Vice President - Strategic & Business Development
Michael J. Bly	48	President - AAM Europe, Vice President - AAM Corporate
David A. Culton	50	Vice President - Cost Engineering
Nigel J. Francis	55	Vice President - Advanced Engineering & Electrification Systems
Philip R. Guys	53	Vice President - Driveline Product Engineering
Donald L. Joseph	60	President - AAM Asia, Vice President - AAM Corporate
Terri M. Kemp	50	Vice President - Human Resources
Michael J. Lynch	51	Vice President - Driveline Business Performance & Cost Management
Christopher J. May	46	Vice President & Chief Financial Officer
Allan R. Monich	62	Vice President - Global Quality, Warranty & AAM Operating Systems
	44	President - AAM North America, Vice President - AAM Corporate

Tolga I. Oal

.....  
John S. Sofia

56

Vice President - Global Program Management

.....  
Thomas J. Szymanski

54

Vice President - Driveline Manufacturing Services

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David C. Dauch, age 51, has been AAM's Chief Executive Officer since September 2012. Mr. Dauch has served on AAM's Board of Directors since April 2009 and was appointed Chairman of the Board in August 2013. From September 2012 through August 2015, Mr. Dauch served as AAM's President & CEO. Prior to that, Mr. Dauch served as President & Chief Operating Officer (2008 - 2012) and held several other positions of increasing responsibility from the time he joined AAM in 1995. Prior to joining AAM, Mr. Dauch held several positions at Collins & Aikman Products Company, where he received the President's Award for leadership and innovation. Mr. Dauch also served on the Collins & Aikman Board of Directors from 2002 to 2007. Presently, he serves on the boards of Business Leaders for Michigan, the Detroit Regional Chamber, the Great Lakes Council Boy Scouts of America, the Boys & Girls Club of Southeast Michigan, the National Association of Manufacturers (NAM), the Original Equipment Suppliers Association (OESA), Amerisure Mutual Holdings, Inc. and the Amerisure Companies (since December 2014) and Horizon Global Corporation (since June 2015). Mr. Dauch also serves on the Miami University Business Advisory Council.

Michael K. Simonte, age 52, has been President since August 2015. Simonte previously served as Executive Vice President & Chief Financial Officer (since December 2011); Executive Vice President - Finance & Chief Financial Officer (since February 2009); Group Vice President - Finance & Chief Financial Officer (since December 2007); Vice President - Finance & Chief Financial Officer (since January 2006); Vice President & Treasurer (since May 2004); and Treasurer (since September 2002). Mr. Simonte joined AAM in December 1998 as Director, Corporate Finance. Prior to joining our Company, Mr. Simonte served as Senior Manager at the Detroit office of Ernst & Young LLP. Mr. Simonte is a certified public accountant.

Timothy E. Bowes, age 52, has been Senior Vice President - Corporate Planning since joining our Company in December 2015. Prior to joining AAM, Mr. Bowes served as Chief Executive Officer & President of Transtar Corporation, since 2013. Prior to Transtar, Mr. Bowes served as Executive Officer & President - Commercial Truck at Meritor Inc., which he joined in 2005. He has held various leadership positions during his 25-year automotive and industrial career, managing business operations, strategic opportunities and sales & marketing for multiple organizations. In addition to Transtar and Meritor, Mr. Bowes' career also includes working at Hilite International, Wescast Industries, Internet Corporation and ITT Automotive.

Alberto L. Satine, age 59, has been President - Driveline, Senior Vice President - AAM Corporate since August 2015. Prior to that, he served as Senior Vice President - Global Driveline Operations (since January 2014); Group Vice President - Global Sales & Business Development (since December 2011); Vice President - Strategic & Business Development (since November 2005); Vice President - Procurement (since January 2005); Executive Director, Global Procurement Direct Materials (since January 2004); General Manager, Latin American Driveline Sales and Operations (since August 2003) and General Manager of International Operations (since joining our Company in May 2001). Prior to joining our Company, Mr. Satine held several management positions at Dana Corporation, including the position of President of Dana's Andean Operations in South America from 1997 to 2000 and General Manager of the Spicer Transmission Division in Toledo, Ohio from 1994 to 1997.

Norman Willemse, age 59, has been President - Metal Formed Products, Senior Vice President - AAM Corporate since August 2015. Prior to that, he served as Vice President - Metal Formed Product Business Unit (since December 2011); Vice President - Global Metal Formed Product Business Unit (since October 2008); Vice President - Global Metal Formed Product Operations (since December 2007); General Manager - Metal Formed Products Division (since July 2006) and Managing Director - Albion Automotive (since joining our Company in August 2001). Prior to joining our Company, Mr. Willemse served at ATSAS for seven years as Executive Director Engineering & Commercial and John Deere for over 17 years in various engineering positions of increasing responsibility. Mr. Willemse is a professional certified mechanical engineer.

Mark S. Barrett, age 55, has been Group Vice President - Driveshafts since May 2015. Prior to that, he served as Group Vice President - Program Management, Material Cost Optimization, Procurement and Driveshaft Business Unit (since November 2014); Group Vice President - Procurement, Program Management and Driveshaft Business Unit (since August 2013); Group Vice President - Procurement and Program Management (since February 2013); Group Vice President - Engineering & Procurement (since November 2012); Group Vice President - Engineering, Product Development & Procurement (since December 2011); Vice President - Engineering & Product Development (since October 2008); Executive Director, Engineering & Product Development (since January 2008); Executive Director, Axle & Drivetrain (since November 2006); Executive Director, Powertrain, Driveshaft and Halfshaft Engineering (since January 2006); Executive Director, Released and Domestic Programs (since January 2004); Director, Mid Size Axle Programs (since December 1998) and Staff Project Engineer (since joining our Company in March 1994). Prior to joining our Company, Mr. Barrett served at General Motors for nine years in a variety of manufacturing and engineering positions.

Steven J. Proctor, age 59, has been Group Vice President - Strategic & Business Development since December 2014. Prior to that, he served as Group Vice President - Global Sales and Business Development (since January 2014); President - AAM Europe, Vice President - AAM Corporate (since June 2012), President - AAM Asia, Vice President - AAM Corporate (since October 2008); Vice President - Sales & Marketing (since June 2004); Executive Director, Driveline Sales & Marketing (since September 2003); President and Chief Operating Officer of AAM do Brasil (since September 1999); Director, GMT-360, I-10/GMT-355 (since December 1998); Director, Worldwide Programs (since February 1998); Director, Strategic Planning (since July 1996) and Director, General Motors Programs (since joining our Company in March 1994). Prior to joining our Company, Mr. Proctor worked for General Motors for 20 years in the areas of product and industrial engineering, production, material management and sales.

Michael J. Bly, age 48, has been President - AAM Europe, Vice President - AAM Corporate since joining our Company in January 2014. Prior to joining AAM, he spent more than 27 years with General Motors in a variety of management roles in the areas of powertrain, engineering and electrification. Mr. Bly's position prior to leaving General Motors was Vice President of European Powertrain Engineering.

David A. Culton, age 50, has been Vice President - Cost Engineering since May 2015. Prior to that, he served as Vice President - Material Cost Optimization (since January 2014); President - AAM Americas, Vice President - AAM Corporate (since June 2012); President - AAM Europe, Vice President - AAM Corporate (since November 2010); Vice President - Commercial (since September 2009); Vice President - Unibody Vehicle Business Unit (since October 2008); Controller (since April 2007); Executive Director, Sales (since July 2006); Director, Commercial Analysis (since August 2004); Director, Finance - Operations (Since June 2003); Finance Manager (since August 1999); and Assistant Finance Manager (since joining our Company in September 1998). Prior to joining our Company, Mr. Culton served at Chrysler Corporation for 10 years in a variety of management, finance, engineering and manufacturing positions.

Nigel J. Francis, age 55, has been Vice President - Advanced Engineering & Electrification Systems since December 2015. Prior to that, he served as Vice President - Electrification Systems since May 2015 and Vice President - Corporate Planning (since joining our Company in November 2014). Prior to joining AAM, Mr. Francis has nearly 30 years of experience in the global automotive sector having held executive-level positions at OEM and Tier I companies in North America and Europe including Senior Vice President, Automotive Office of the State of Michigan and Senior Adviser to the Governor of Michigan; Chief Engineering and Program Management - Tata Technologies; Chief Operating Officer and Chief Technology Officer - Trexa LLC; Executive Vice President - Bright Automotive; and Vice President of Vehicle Engineering - Mercedes-Benz Technology. Mr. Francis has spent the majority of his career in advanced design and engineering product development and in recent years has been closely involved with clean technology through hybrid and electric vehicle development and strategic planning in the global automotive sector.

Philip R. Guys, age 53, has been Vice President - Driveline Product Engineering since January 2015. Prior to that, he served as Vice President - Product Engineering & Development (since November 2012), and Vice President - Product Engineering (since joining AAM in December 2011). Prior to joining our Company, Mr. Guys served for four years at Linamar Corporation in various senior management positions, including Vice President - Engineering, and over 20 years in various engineering positions of increasing responsibility at Ford Motor Company and General Motors.

Donald L. Joseph, age 60, has been President - AAM Asia, Vice President - AAM Corporate since January 2015. Mr. Joseph joined AAM in 1994 as a Manufacturing Manager at AAM's Three Rivers Manufacturing Facility. Since then, he has served in various manufacturing and management positions with increasing responsibility throughout AAM's global operations, including his most recent position of Managing Director - AAM Asia. Mr. Joseph's professional career began with General Motors in 1977. While at General Motors, Mr. Joseph served in a variety of positions with increasing responsibility at the Hydra-matic and Saginaw Divisions. He also spent time at the NUMMI facility studying lean manufacturing.

Terri M. Kemp, age 50, has been Vice President - Human Resources since September 2012. Prior to that, she served as Executive Director - Human Resources & Labor Relations (since November 2010); Executive Director - Human Resources (since September 2009); Director - Human Resources Operations (since October 2008); Director - Program Management (since March 2008); Director - Program Management, Mexico (since August 2006); Launch Manager (since May 2006); Manager - Manufacturing (since August 2005); Manager - Manufacturing, Front Axles and Gears (since June 2005); Area Manager - Plant 1 (since October 2004); Director - Personnel, Detroit Gear and Axle (since January 2003); Area Manager - Plant 6 (since March 2002); Manager - Program Management (since February 2001); Area Manager - Manufacturing Plant 8 (since June 1999); Supervisor - I.E. Plants 1, 6 and 8 (since August 1998);

Production Coordinator (since September 1997); and Manager - Productivity since joining the Company in July 1996. Prior to joining our Company, Mrs. Kemp served for nine years at Corning Incorporated, where she progressed through a series of manufacturing positions with increasing responsibility, including Industrial Engineer, Department Head and Operations Manager.

Michael J. Lynch, age 51, has been Vice President - Driveline Business Performance & Cost Management since May 2015. Prior to that, he served as Vice President - Finance & Controller (since September 2012); Executive Director & Controller (since October 2008); Director - Commercial Analysis (since July 2006); Director - Finance, Driveline Americas (since March 2006); Director - Investment & Commercial Analysis (since November 2005); Director - Finance, Driveline (since October 2005); Director - Finance Operations, U.S. (since April 2005); Manager - Finance (since June 2003); Manager - Finance, Forge Division (since September 2001); Finance Manager - Albion Automotive (since October 1998); Supervisor - Cost Estimating (since February 1998) and Financial Analyst at the Detroit Manufacturing Facility since joining AAM in September 1996. Prior to joining our Company, Mr. Lynch served at Stellar Engineering for nine years in various capacities.

Christopher J. May, age 46, has been Vice President & Chief Financial Officer since August 2015. Prior to that, he served as Treasurer (since December 2011); Assistant Treasurer - Capital Markets & Risk Management (since September 2008); Director of Internal Audit (since September 2005); Divisional Finance Manager - Metal Formed Products (since June 2003); Finance Manager - Three Rivers Manufacturing Facility (since August 2000); Manager Financial Reporting (since November 1998) and Financial Analyst since joining AAM in 1994. Prior to joining AAM, Mr. May served as a Senior Accountant for Ernst & Young. Mr. May is a certified public accountant.

Allan R. Monich, age 62, has been Vice President - Global Quality, Warranty & AAM Operating Systems since October 2015. Prior to that, he served as Vice President - Quality, Warranty & Customer Satisfaction (since November 2010); Executive Director - Warranty (since January 2010); Vice President - Quality Assurance & Customer Satisfaction (since July 2006); Vice President - Program Management & Capital Planning (since October 2005); Vice President - Program Management & Launch (since May 2004); Vice President, Manufacturing Forging Division (since October 2001); Vice President, Human Resources (since 1998); Vice President, Personnel (since November 1997) and Plant Manager for the Buffalo Gear & Axle Plant in Buffalo, NY since the formation of our Company in March 1994. Prior to joining our Company in March 1994, Mr. Monich worked for General Motors for 22 years in the areas of manufacturing, quality assurance, sales and engineering, including four years as a Plant Manager.

Tolga I. Oal, age 44, has been President - AAM North America, Vice President - AAM Corporate since joining our Company in September 2015. Prior to joining AAM, Mr. Oal served as Vice President of Global Electronics for TRW Automotive, since 2012. Before that, Mr. Oal served in various manufacturing and management positions of increasing responsibility within TRW for Global Electronics, including Director of Operations and as Director of Finance. Prior to joining TRW, Mr. Oal held various leadership positions in engineering, sales, purchasing, and finance at Siemens VDO Automotive/Continental.

John S. Sofia, age 56, has been Vice President - Global Program Management since November 2012. Prior to that, he served as Vice President - Commercial Vehicle Business (since March 2008); Vice President - Product Engineering, Commercial Vehicle Operations & Chief Technology Officer (since December 2007); Vice President - Engineering & Product Development (since July 2006); Vice President - Quality Assurance & Customer Satisfaction (since October 2004); Director, Advanced Quality Planning (since August 2002); Plant Manager, Detroit Forge (since April 2001); Director, Product Engineering (since June 2000); Manager of the Current Production & Process Engineering Group (since September 1997) and Engineering Manager (since joining our Company in May 1994). Prior to joining our Company, Mr. Sofia served at Chrysler Corporation for 10 years in a variety of manufacturing and engineering positions.

Thomas J. Szymanski, age 54, has been Vice President - Driveline Manufacturing Services since November 2014. Prior to that, he served as President - AAM North America, Vice President - AAM Corporate (since January 2014), Vice President - Operations - AAM Americas (since November 2012), Vice President - Global Manufacturing Services (since November 2010); Executive Director - Manufacturing Planning (since October 2008); Executive

Director - Corporate Manufacturing Services Unibody Vehicles (since January 2008); Director - Cost Estimating & Advanced Manufacturing Engineering (since August 2006); President & Chief Operating Officer - Colfor Manufacturing, Inc. (since August 2004); Director - Corporate Manufacturing Engineering (since January 2003); Plant Manager - Three Rivers Gear & Axle (since March 2000); Plant Manager - Tonawanda Forge (since December 1998); Manufacturing Manager - Tonawanda Forge (since March 1994); and Area Manager, Axle Assembly - Buffalo Gear & Axle (since the formation of our Company in March 1994). Prior to joining our Company in March 1994, Mr. Szymanski worked for General Motors for 11 years in a variety of manufacturing and plant management positions.



## Internet Website Access to Reports

The website for American Axle & Manufacturing Holdings, Inc. is [www.aam.com](http://www.aam.com). Our Annual Reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to section 13(a) or 15(d) of the Securities Exchange Act of 1934 are available free of charge through our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the Securities and Exchange Commission (SEC). The SEC also maintains a website at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The information contained in the Company's website is not included, or incorporated by reference, in this Annual Report on Form 10-K.

## (d) Financial Information About Geographic Areas

International operations are subject to certain additional risks inherent in conducting business outside the U.S., such as changes in currency exchange rates, price and currency exchange controls, import restrictions, nationalization, expropriation and other governmental action. Financial information relating to our operations by geographic area is presented in the following table. Net sales are attributed to countries based upon location of customer. Long-lived assets exclude deferred income taxes.

	December 31, 2015 (in millions)	2014	2013	
Net sales				
United States	\$2,121.9	\$2,073.6	\$1,682.0	
Canada	119.3	64.6	74.4	
Mexico	1,060.2	1,055.5	865.6	
South America	106.6	156.5	201.1	
China	185.5	71.3	34.4	
All other Asia	185.2	167.3	220.8	
Europe and other	124.4	107.2	129.0	
Total net sales	\$3,903.1	\$3,696.0	\$3,207.3	
Long-lived assets				
United States	\$824.0	\$867.1	(a) \$827.9	(a)
Mexico	522.6	513.2	469.3	
South America	48.5	80.5	100.2	
China	85.8	59.8	63.8	
All other Asia	103.7	117.5	112.9	
Europe	120.3	94.0	93.2	
Total long-lived assets	\$1,704.9	\$1,732.1	(a) \$1,667.3	(a)

(a) These amounts have been adjusted to reflect the impact of retrospectively adopting the new debt issuance cost presentation accounting standard as described in Item 8. Financial Statements and Supplementary Data - Note 1 - Organization and Summary of Significant Accounting Policies.

## Item 1A. Risk Factors

The following risk factors and other information included in this Annual Report on Form 10-K should be considered. If any of the following risks occur, our business, financial condition, operating results and cash flows could be materially adversely affected.

Our business is significantly dependent on sales to GM and FCA.

We are the principal supplier of driveline components to GM for its full-size RWD light trucks and SUVs manufactured in North America, supplying substantially all of GM's rear axle and 4WD/AWD axle requirements for these vehicle platforms. Sales to GM were approximately 66% of our consolidated net sales in 2015, 68% in 2014, and 71% in 2013. A reduction in our sales to GM or a reduction by GM of its production of RWD light trucks or SUVs, as a result of market share losses of GM or otherwise, could have a material adverse effect on our results of operations and financial condition.

We also supply driveline system products for FCA's heavy-duty Ram full-size pickup trucks and its derivatives, the AWD Jeep Cherokee, the AWD Chrysler 200 and a passenger car driveshaft program. Sales to FCA accounted for approximately 20% of our consolidated net sales in 2015, 18% in 2014 and 12% in 2013. A reduction in our sales to FCA or a reduction by FCA of its production of the programs we support, as a result of market share losses of FCA or otherwise, could have a material adverse effect on our results of operations and financial condition.

Our business may also be adversely affected by reduced demand for the product programs we currently support, or anticipate supporting in the future, or if we do not obtain sales orders for successor programs that replace our current product programs.

Our business is dependent on the rear-wheel drive light truck and SUV market segments in North America.

A substantial portion of our revenue is derived from products supporting RWD light truck and SUV platforms in North America. Sales and production levels of light trucks and SUVs can be affected by many factors, including changes in consumer demand; product mix shifts favoring other types of light vehicles, such as front-wheel drive based crossover vehicles and passenger cars; fuel prices; and government regulation, such as the corporate average fuel economy (CAFE) regulations and related emissions standards promulgated by federal and state regulators. The U.S. CAFE standards for cars and light-duty trucks require the equivalent of 54.5 miles per gallon by 2025. Our customers are currently planning for these regulations and the potential impact on consumer preferences and demand for vehicles. A reduction in the market segment we currently supply could have a material adverse impact on our results of operations and financial condition.

We are under continuing pressure from our customers to reduce our prices.

Annual price reductions are a common practice in the automotive industry. The majority of our products are sold under long-term contracts with prices scheduled at the time the contracts are established. Many of our contracts require us to reduce our prices in subsequent years and most of our contracts allow us to adjust prices for engineering changes. If we must accommodate a customer's demand for higher annual price reductions and are unable to offset the impact of any such price reductions through continued technology improvements, cost reductions or other productivity initiatives, our results of operations and financial condition could be adversely affected.

Our business faces substantial competition.

The automotive industry is highly competitive. Our competitors include the driveline component manufacturing facilities controlled by OEMs, as well as many other domestic and foreign companies possessing the capability to

produce some or all of the products we supply. Some of our competitors are affiliated with OEMs and others have economic advantages as compared to our business, such as patents, existing underutilized capacity and lower wage and benefit costs. Technology, design, quality, delivery and cost are the primary elements of competition in our industry segment. As a result of these competitive pressures and other industry trends, OEMs and suppliers are developing strategies to reduce costs. These strategies include supply base consolidation and global sourcing. Our business may be adversely affected by increased competition from suppliers benefiting from OEM affiliate relationships or financial and other resources that we do not possess. Our business may also be adversely affected

if we do not sustain our ability to meet customer requirements relative to technology, design, quality, delivery and cost.

Our business could be adversely affected by disruptions in our supply chain and our customers' supply chain.

We depend on a limited number of suppliers for certain key components and materials needed for our products. We rely upon, and expect to continue to rely upon, certain suppliers for critical components and materials that are not readily available in sufficient volume from other sources. As we continue to expand our global manufacturing footprint, we need to rely on suppliers in local markets that have not yet proven their ability to meet our requirements. These supply chain characteristics make us susceptible to supply shortages and price increases. If production volumes increase rapidly, there can be no assurance that the suppliers of critical components and materials will be able or willing to meet our future needs on a timely basis.

Our supply chain as well as our customers' supply chain is also at risk of unanticipated events such as natural disasters that could cause a disruption in the supply of critical components to us and our customers. A significant disruption in the supply of these materials could have a material adverse effect on our results of operations and financial condition.

We may incur material losses and costs as a result of product recall or field action, product liability and warranty claims, litigation and other disputes and claims.

We are exposed to warranty, product recall or field action and product liability claims in the event that our products fail to perform as expected, and we may be required to participate in a recall of such products. We are not responsible for certain warranty claims that may be incurred by our customers, which include returned components for which no trouble was found upon inspection, discretionary acts of dealer goodwill, defects related to certain directed buy components, and build-to-print design issues. We review warranty claim activity in detail, and we may have disagreements with our customers as to responsibility for these types of costs incurred by our customers. In addition, as we continue to diversify our customer base, we expect our obligation to share in the cost of providing warranties as part of our agreements with new customers will increase. Costs and expenses associated with warranties, field actions, product recalls and product liability claims could have a material adverse impact on our results of operations and financial condition and may differ materially from the estimated liabilities that we have recorded in our consolidated financial statements.

In addition to warranty claims relating directly to products we produce, potential product recalls for our customers and their other suppliers, and the potential reputational harm that may result from such product recalls, could have a material adverse impact on our results of operations and financial condition.

We are also involved in various legal proceedings incidental to our business. Although we believe that none of these matters are likely to have a material adverse effect on our results of operations or financial condition, there can be no assurance as to the ultimate outcome of any such legal proceeding or any future legal proceedings.

Our company or our customers may not be able to successfully and efficiently manage the timing and costs of new product program launches.

Certain of our customers are preparing to launch, or have recently launched, new product programs for which we will supply newly developed driveline system products and related components. There can be no assurance that we will successfully complete the transition of our manufacturing facilities and resources to support these new product programs or other future product programs on a timely and cost efficient basis. Accordingly, the launch of new product programs may adversely affect production rates or other operational efficiency and profitability measures at our facilities. We may also experience difficulties with the performance of our supply chain on program launches, which could result in our inability to meet our contractual obligations to key customers. Production shortfalls or

production delays, if any, could result in our failure to effectively manage our material and freight costs relating to these program launches. In addition, our customers may delay the launch or fail to successfully execute the launch of these new product programs, or any additional future product program for which we will supply products. Our revenues, operating results and financial condition could be adversely impacted if our customers fail to timely launch such programs or if we are unable to manage the timing requirements and costs of new product program launches.

Our company may not realize all of the revenue expected from our new and incremental business backlog.

The realization of incremental revenues from awarded business is inherently subject to a number of risks and uncertainties, including the accuracy of customer estimates relating to the number of vehicles to be produced in new and existing product programs and the timing of such production, as well as the fluctuation in exchange rates for programs sourced in currencies other than our reporting currency. It is also possible that our customers may delay or cancel a product program that has been awarded to us. Our revenues, operating results and financial condition could be adversely affected relative to our current financial plans if we do not realize substantially all the revenue from our new and incremental business backlog.

A failure of our information technology (IT) networks and systems, or the inability to successfully implement upgrades to our enterprise resource planning systems, could adversely impact our business and operations.

We rely upon information technology networks and systems to process, transmit and store electronic information, and to manage or support a variety of business processes or activities. Additionally, we and certain of our third-party vendors collect and store personal information in connection with human resources operations and other aspects of our business. The secure operation of these information technology networks and systems and the proper processing and maintenance of this information are critical to our business operations. We cannot be certain that the security measures we have in place to protect these systems and data will be successful or sufficient to protect our IT systems from current and emerging technology threats and damage from computer viruses, unauthorized access, cyber attack and other similar disruptions. The occurrence of any of these events could compromise our networks, and the information stored there could be accessed, publicly disclosed or lost. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability or regulatory penalties under laws protecting the privacy of personal information, the disruption of our operations or damage to our reputation. We may be required to incur significant costs to protect against damage caused by these disruptions or security breaches in the future. On January 1, 2015, we began the implementation of a new release of our global Oracle enterprise resource planning (ERP) system at our U.S. locations, which includes upgrades to many of our existing operating and financial systems. We continued the implementation of these upgrades to our ERP system at our Brazil and Mexico locations, during the second and third quarter of 2015. We will continue to upgrade our ERP systems at our remaining global locations during the first quarter of 2016. Such an implementation is a major undertaking, both financially and from a management and personnel perspective. Should the remaining systems not be implemented successfully, or if the systems do not perform in a satisfactory manner once implementation is complete, our business and operations could be disrupted and our results of operations could be adversely affected, including our ability to report accurate and timely financial results.

Negative or unexpected tax consequences, as well as possible changes in foreign and domestic tax laws could adversely affect our results of operations.

There have been recent global proposals brought forward by the Organisation for Economic Co-operation and Development (OECD) alongside the Group of Twenty (G-20), for tax jurisdictions to evaluate reforming longstanding corporate tax law principles and treaties that could adversely affect multi-national companies. The focus is on the distribution of profits between affiliated entities in different tax jurisdictions, a concept known as Base Erosion and Profit Shifting (BEPS). Although the OECD does not enact tax law, proposals like this or others that lead to substantial changes in enacted tax law and treaties could have a material adverse impact on our results of operations and financial condition.

We file income tax returns in the U.S. federal jurisdiction, as well as various states and foreign jurisdictions. We are also subject to examinations of these income tax returns by the relevant tax authorities. Based on the status of these audits and the protocol of finalizing audits by the relevant tax authorities, it is not possible to estimate the impact of changes, if any, to previously recorded uncertain tax positions. Any negative or unexpected outcomes of these examinations and audits could have a material adverse impact on our results of operations and financial condition.



Our company's global operations are subject to risks and uncertainties.

We have business and technical offices and manufacturing facilities in many foreign countries, including Brazil, China, India, Mexico, Poland, Scotland, Sweden and Thailand. Approximately 9,440 of our 13,050 associates are located outside of the U.S. International operations are subject to certain risks inherent in conducting business outside the U.S., such as changes in currency exchange rates, tax laws, price and currency exchange controls, import restrictions, nationalization, expropriation and other governmental action. Our global operations also may be adversely affected by political events and domestic or international terrorist events and hostilities. These uncertainties could have a material adverse effect on the continuity of our business and our results of operations and financial condition. As we continue to expand our business globally, our success will depend, in part, on our ability to anticipate and effectively manage these and other risks.

Exchange rate fluctuations could adversely affect our company's global results of operations and financial condition.

As a result of our international operations, we are exposed to foreign currency risks that arise from our normal business operations, including risks associated with transactions that are denominated in currencies other than our local functional currencies. Gains and losses resulting from the remeasurement of assets and liabilities in a currency other than the functional currency of our foreign subsidiaries are reported in current period income. In the future, unfavorable changes in exchange rate relationships between the functional currencies of our subsidiaries and the currencies of their non-functional currency denominated assets and liabilities could have an adverse impact on our results of operations and financial condition. While we use, from time to time, foreign currency forward contracts to help mitigate certain of these risks and reduce the effects of fluctuations in exchange rates, our efforts to manage these risks may not be successful.

We are also subject to currency translation risk as we are required to translate the financial statements of our foreign subsidiaries to U.S. dollars. We report the effect of translation for our foreign subsidiaries that use the local currency as their functional currency as a separate component of stockholders' equity. Unfavorable changes in the exchange rate relationship between the U.S. dollar and the functional currencies of our foreign subsidiaries could have an adverse impact on our results of operations and financial condition.

We may be unable to consummate and successfully integrate acquisitions and joint ventures.

As we continue to expand globally and accelerate our diversification efforts, we may pursue strategic growth initiatives with greater frequency going forward. An inability to successfully achieve the levels of organic and inorganic growth from our strategic growth initiative could adversely impact our results of operations and financial condition. Further, engaging in acquisitions and joint ventures involves potential risks, including financial risks and failure to successfully integrate and realize the expected benefits of such acquisitions and joint ventures. Integrating acquired operations is a significant challenge and there is no assurance that we will be able to manage the integrations successfully. Failure to successfully integrate acquired operations or to realize the expected benefits of such acquisitions may have an adverse impact on our results of operations and financial condition.

Our business could be adversely affected if we fail to maintain satisfactory labor relations.

The majority of our hourly associates worldwide are members of industrial trade unions employed under the terms of collective bargaining agreements. Substantially all of our hourly associates in the U.S. are represented by the UAW. Approximately 3,960 of our hourly associates at our facilities in Mexico and Brazil are also covered by collective bargaining agreements which expire annually. There can be no assurance that future negotiations with our labor unions will be resolved favorably or that we will not experience a work stoppage or disruption that could have a material adverse impact on our results of operations and financial condition. In addition, there can be no assurance that such future negotiations will not result in labor cost increases or other terms and conditions that could adversely



affect our results of operations and financial condition or our ability to compete for future business.

Our business could be adversely affected by volatility in the price of raw materials.

Worldwide commodity market conditions in recent years have resulted in volatility in the cost of steel and other metallic materials we use in production. During periods of general economic improvement and increases in customer demands, we have seen the cost of steel and metallic materials needed for our products increase. If we are unable to pass such cost increases on to our customers, this could have a material adverse effect on our results of operations and financial condition.

If we are unable to respond timely to changes in regulation, technology, and market innovation, we risk not being able to develop our intellectual property into commercially viable products.

Our results of operations and financial condition are impacted, in part, by our competitive advantage in developing, engineering, and manufacturing innovative products. In the future, our ability to anticipate changes in technology, successfully develop, engineer, and bring to market new innovative proprietary products will have a significant impact on our market competitiveness. If we are unable to maintain our competitive advantage through innovation, there could be a material adverse effect on our results of operations and financial condition.

We use important intellectual property in our business. If we are unable to protect our intellectual property or if a third party makes assertions against us or our customers relating to intellectual property rights, our business could be adversely affected.

We own important intellectual property, including patents, trademarks, copyrights and trade secrets, and are involved in numerous licensing arrangements. Our intellectual property plays an important role in maintaining our competitive position in a number of the markets that we serve. Our competitors may develop technologies that are similar to our proprietary technologies or design around the patents we own or license. Further, as we expand our operations in jurisdictions where the protection of intellectual property rights is less robust, the risk of others duplicating our proprietary technologies increases, despite efforts we undertake to protect them. Developments or assertions by or against us relating to intellectual property rights, and any inability to protect these rights, could materially adversely affect our business and our competitive position.

Our company's ability to operate effectively could be impaired if we lose key personnel.

Our success depends, in part, on the efforts of our executive officers and other key associates, such as engineers and global operational leadership. In addition, our future success will depend on, among other factors, our ability to continue to attract and retain qualified personnel, particularly engineers and other employees with critical expertise and skills that support key customers and products. The loss of the services of our executive officers or other key associates, unexpected turnover, or the failure to attract or retain associates, could have a material adverse effect on our results of operations and financial condition.

Our financial condition and operations may be adversely affected by a violation of financial and other covenants.

Our revolving credit facility contains financial covenants related to secured and unsecured indebtedness leverage and interest coverage. The revolving credit facility limits our ability to make certain investments, loans and guarantees, declare dividends or distributions on capital stock, redeem or repurchase capital stock and certain debt obligations, incur liens, incur indebtedness, enter into certain restrictive agreements, merge, make acquisitions or sell all or substantially all of our assets. The indenture governing our senior unsecured notes also restricts our ability to incur debt secured by liens, engage in consolidations or mergers or sell all or substantially all of our assets, and engage in certain sale and leaseback transactions. The revolving credit facility also significantly restricts our ability to incur additional secured debt. The revolving credit facility and the indentures governing our senior unsecured notes also include customary events of default. Obligations under the revolving credit facility, the 7.75% senior unsecured notes due 2019 (7.75% Notes), the 6.625% senior unsecured notes due 2022 (6.625% Notes), the 6.25% senior unsecured notes due 2021 (6.25% Notes) and our 5.125% senior unsecured notes due 2019 (5.125% Notes) are required to be guaranteed by most of our U.S. subsidiaries that hold domestic assets. In addition, the revolving credit facility is secured on a first priority basis by all or substantially all of the assets of AAM, Inc., the assets of Holdings and each guarantor's assets, including a pledge of capital stock of our U.S. subsidiaries that hold domestic assets, including each guarantor, and a portion of the capital stock of the first tier foreign subsidiaries of AAM. A violation of any of these covenants or agreements could result in a default under these contracts, which could permit the lenders or note holders, as applicable, to accelerate repayment of any borrowings or notes outstanding at that time and levy on the collateral granted in connection with the revolving credit facility. A default or acceleration under the revolving credit facility or the indentures governing the senior unsecured notes may result in increased capital costs and defaults under our other debt agreements and may adversely affect our ability to operate our business, our subsidiaries' and guarantors' ability to operate their respective businesses and our results of operations and financial condition.

Our company faces substantial pension and other postretirement benefit obligations.

We have significant pension and other postretirement benefit obligations to certain of our associates and retirees. Our ability to satisfy the funding requirements associated with these obligations will depend on our cash flow from operations and our ability to access credit and the capital markets. The funding requirements of these benefit plans, and the related expense reflected in our financial statements, are affected by several factors that are subject to an inherent degree of uncertainty and volatility, including governmental regulation. Key assumptions used to value these benefit obligations and the cost of providing such benefits, funding requirements and expense recognition include the discount rate, the expected long-term rate of return on pension assets, mortality rates and the health care cost trend rate. If the actual trends in these factors are less favorable than our assumptions, this could have an adverse effect on our results of operations and financial condition.

Our business is subject to costs associated with environmental, health and safety regulations.

Our operations are subject to various federal, state, local and foreign laws and regulations governing, among other things, emissions to air, discharge to waters and the generation, handling, storage, transportation, treatment and disposal of waste and other materials. We believe that our operations and facilities have been and are being operated in compliance, in all material respects, with such laws and regulations, many of which provide for substantial fines and criminal sanctions for violations. The operation of our manufacturing facilities entails risks in these areas, however, and there can be no assurance that we will not incur material costs or liabilities. In addition, potentially significant expenditures could be required in order to comply with evolving environmental, health and safety laws, regulations or other pertinent requirements that may be adopted or imposed in the future by governmental authorities.

Item 1B. Unresolved Staff Comments

None.

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## Item 2. Properties

We operate in 13 countries and have 37 manufacturing, engineering and business office facilities worldwide of which the principal facilities are:

Name	Type of Interest	Function
Three Rivers Manufacturing Facility Three Rivers, MI	Owned	Front and rear axles, rear drive modules, power transfer units, driveheads and steering linkages
Colfor Manufacturing, Inc. Malvern, OH Minerva, OH	Owned	Forged products Forged and machined products, rear axles and stabilizer bars
MSP Industries Oxford, MI	Leased	Forged and machined products
Oxford Forge Oxford, MI	Owned	Forged products
AccuGear, Inc. Fort Wayne, IN	Owned	Forged and machined products
Auburn Hills Manufacturing, Inc. Auburn Hills, MI	Owned	Tool & die manufacturer, forged and machined products
Rochester Manufacturing Facility Rochester, IN	Owned	Machined products
Guanajuato Manufacturing Complex Guanajuato, Mexico	Owned	Rear axles and driveshafts, front axles, front auxiliary driveshafts, forging products, rear drive modules, power transfer units and transfer cases
Silao Manufacturing Facility Silao, Mexico	Leased	Machined products
AccuGear - Silao Silao, Mexico	Owned	Forged and machined products
Araucária Manufacturing Facility Araucária, Brazil	Owned	Front and rear axles, machining of forged and cast products and constant velocity joints
Rayong Manufacturing Facility Rayong, Thailand	Owned	Front and rear axles and driveshafts
Albion Automotive Glasgow, Scotland	Leased	Front and rear axles for medium and heavy-duty trucks and buses and transfer cases
Changshu Manufacturing Facility Changshu, China	Owned	Front axles, independent rear drive axles, rear drive modules, gear sets and machined cases
Pantnagar Manufacturing Facility Pantnagar, India	Owned	Rear axles and driveshafts
Pune Manufacturing Facility Pune, India	Owned	Rear axles and driveheads
Chennai Manufacturing Facility Chennai, India	Owned	Assembly of front and rear axles
Swidnica Manufacturing Facility Swidnica, Poland	Owned	Front and rear drive units, transmission differentials and machined products
World Headquarters Detroit, MI	Owned	Executive and administrative offices and engineering
Advanced Technology Development Center Detroit, MI	Leased	Technology benchmarking, prototypes, advanced technology development, supplier collaboration, customer showcasing and associate training

Technical Center  
Rochester Hills, MI

Owned

R&D, design engineering, metallurgy, testing and  
validation

We believe that our property and equipment is properly maintained and in good operating condition. We will continue to evaluate capacity requirements in light of current and projected market conditions. We also intend to continue redeploying assets in order to increase our capacity utilization and reduce future capital expenditures to support program launches.

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### Item 3. Legal Proceedings

We are involved in various legal proceedings incidental to our business. Although the outcome of these matters cannot be predicted with certainty, we do not believe that any of these matters, individually or in the aggregate, will have a material effect on our financial condition, results of operations or cash flows.

We are subject to various federal, state, local and foreign environmental and occupational safety and health laws, regulations and ordinances, including those regulating air emissions, water discharge, waste management and environmental cleanup. We closely monitor our environmental conditions to ensure that we are in compliance with applicable laws, regulations and ordinances. We have made, and will continue to make, capital and other expenditures to comply with environmental requirements, including recurring administrative costs. Such expenditures were not significant in 2015, 2014 and 2013.

### Item 4. Mine Safety Disclosures

Not applicable.

## Part II

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

#### Market Information

Our common stock, par value \$0.01 per share, is listed for trading on the New York Stock Exchange (NYSE) under the symbol "AXL."

#### Stockholders and High and Low Sales Prices

2015	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Full Year
High	\$25.86	\$26.04	\$21.45	\$22.76	\$26.04
Low	\$22.20	\$20.91	\$19.06	\$18.64	\$18.64
2014					
High	\$21.15	\$19.61	\$19.81	\$22.79	\$22.79
Low	\$17.84	\$17.29	\$16.77	\$16.40	\$16.40

Prices are the quarterly high and low closing sales prices for our common stock as reported by the NYSE. We had approximately 245 stockholders of record as of February 10, 2016.

#### Dividends

We did not declare or pay any cash dividends on our common stock in 2015. Our revolving credit agreement limits our ability to declare or pay dividends or distributions on capital stock.

## Issuer Purchases of Equity Securities

In the fourth quarter of 2015, we withheld and repurchased shares of AAM stock to satisfy employee tax withholding obligations due upon the vesting of restricted stock units and performance shares. The following table provides information about our equity security purchases during the quarter ended December 31, 2015:

Period	Total Number of Shares (Or Units) Purchased	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
October 1 - October 31, 2015	—	\$—	—	—
November 1 - November 30, 2015	—	—	—	—
December 1 - December 31, 2015	7,561	21.66	—	—
Total	7,561	\$21.66	—	—

## Securities Authorized for Issuance under Equity Compensation Plans

The information regarding our securities authorized for issuance under equity compensation plans is incorporated by reference from our Proxy Statement.



## Item 6. Selected Financial Data

## FIVE YEAR CONSOLIDATED FINANCIAL SUMMARY

Year Ended December 31,

	2015	2014	2013	2012	2011
	(in millions, except per share data)				
Statement of income data					
Net sales	\$3,903.1	\$3,696.0	\$3,207.3	\$2,930.9	\$2,585.0
Gross profit	635.4	522.8	478.7	399.7	458.0
Selling, general and administrative expenses	277.3	255.2	238.4	243.3	231.7
Operating income	358.1	267.6	240.3	156.4	226.3
Net interest expense	(96.6 )	(97.8 )	(115.3 )	(101.0 )	(82.7 )
Net income	235.6 (b)	143.0 (a)	94.5 (b)	366.7 (b)(c)(d)	139.5 (b)(e)
Net income attributable to AAM	235.6 (b)	143.0 (a)	94.5 (b)	367.7 (b)(c)(d)	145.2 (b)(e)
Diluted earnings per share	\$3.02	\$1.85	\$1.23	\$4.87	\$1.93
Balance sheet data					
Cash and cash equivalents	\$282.5	\$249.2	\$154.0	\$62.4	\$169.2
Total assets	3,202.7	3,240.4 (f)	3,005.4 (f)	2,843.5 (f)	2,311.2 (f)
Total long-term debt, net	1,375.7	1,504.6 (f)	1,537.0 (f)	1,433.1 (f)	1,164.2 (f)
Total AAM stockholders' equity (deficit)	301.5	113.4	40.5	(113.9 )	(418.6 )
Dividends declared per share	—	—	—	—	—
Statement of cash flows data					
Cash provided by (used in) operating activities	\$377.6	\$318.4	\$223.0	\$(175.5 )	\$(56.3 )
Cash used in investing activities	(188.1 )	(195.3 )	(218.7 )	(185.4 )	(184.1 )
Cash provided by (used in) financing activities	(143.6 )	(21.4 )	88.8	253.5	167.2
Other data					
Depreciation and amortization	\$198.4	\$199.9	\$177.0	\$152.2	\$139.4
Capital expenditures	193.5	206.5	251.9	207.6	163.1
Proceeds from government grants	5.1	2.1	—	—	—
Proceeds from sale-leaseback of equipment	—	—	24.1	12.1	—
Purchase buyouts of leased equipment	—	—	—	—	13.4

(a) Includes a settlement charge of \$23.1 million, net of tax, related to our terminated vested lump-sum pension payout in the U.S.

(b) Includes charges of \$0.5 million, net of tax, in 2015, \$35.1 million, net of tax, in 2013, \$19.8 million in 2012, and \$3.1 million in 2011 related to debt refinancing and redemption costs.

(c) Includes net special charges, curtailment gains, asset impairments and asset redeployment and other restructuring costs associated with plant closures of \$40.6 million (including \$28.7 million of expense related to contractual termination benefits provided to certain eligible UAW associates as a result of the Detroit Manufacturing Complex

and Cheektowaga Manufacturing Facility plant closures).

(d) Includes the impact of the reversal of our valuation allowance on U.S. federal deferred tax assets of \$337.5 million in the fourth quarter of 2012.

(e) Includes asset impairments, other non-recurring costs and tax refunds of \$16.6 million (including \$0.5 million related to the noncontrolling interest portion of a \$1.6 million asset impairment recorded by e-AAM).

(f) These amounts have been adjusted to reflect the impact of retrospectively adopting the new debt issuance cost presentation accounting standard as described in Item 8. Financial Statements and Supplementary Data - Note 1 - Organization and Summary of Significant Accounting Policies. As a result of implementation, total assets and total long-term debt, net decreased by \$18.8 million, \$22.1 million, \$21.0 million, and \$16.0 million for the years ended December 31, 2014, 2013, 2012 and 2011, respectively.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A)

COMPANY OVERVIEW

American Axle & Manufacturing Holdings, Inc. (Holdings) and its subsidiaries (collectively, we, our, us or AAM) is a Tier I supplier to the automotive industry. We manufacture, engineer, design and validate driveline and drivetrain systems and related components and chassis modules for light trucks, sport utility vehicles (SUVs), passenger cars, crossover vehicles and commercial vehicles. Driveline and drivetrain systems include components that transfer power from the transmission and deliver it to the drive wheels. Our driveline, drivetrain and related products include axles, chassis modules, driveshafts, power transfer units, transfer cases, chassis and steering components, driveheads, transmission parts, electric drive systems and metal-formed products. In addition to locations in the United States (U.S.) (Michigan, Ohio and Indiana), we also have offices or facilities in Brazil, China, Germany, India, Japan, Luxembourg, Mexico, Poland, Scotland, South Korea, Sweden and Thailand.

We are the principal supplier of driveline components to General Motors Company (GM) for its full-size rear-wheel drive (RWD) light trucks and SUVs manufactured in North America, supplying substantially all of GM's rear axle and four-wheel drive and all-wheel drive (4WD/AWD) axle requirements for these vehicle platforms. Sales to GM were approximately 66% of our consolidated net sales in 2015, 68% in 2014, and 71% in 2013.

We are the sole-source supplier to GM for certain axles and other driveline products for the life of each GM vehicle program covered by Lifetime Program Contracts and Long Term Program Contracts (collectively, LPCs). Substantially all of our sales to GM are made pursuant to the LPCs. The LPCs have terms equal to the lives of the relevant vehicle programs or their respective derivatives, which typically run 5 to 7 years, and require us to remain competitive with respect to technology, design, quality and cost.

We also supply driveline system products for FCA US LLC (FCA) for heavy-duty Ram full-size pickup trucks and its derivatives, the AWD Jeep Cherokee, the AWD Chrysler 200, and a passenger car driveshaft program. Sales to FCA were approximately 20% of our consolidated net sales in 2015, 18% in 2014 and 12% in 2013. In addition to GM and FCA, we supply driveline systems and other related components to Volkswagen AG (Volkswagen), Audi AG (Audi), Mercedes-Benz, Jaguar Land Rover Automotive PLC (JLR), Honda Motor Co., Ltd., Ford Motor Company (Ford), Nissan Motor Co., Ltd. (Nissan), PACCAR Inc., Harley-Davidson Inc., Daimler Truck and other original equipment manufacturers (OEMs) and Tier I supplier companies such as Jatco Ltd. and Hino Motors Ltd. Our consolidated net sales to customers other than GM increased 10% to \$1,317.1 million in 2015 as compared to \$1,199.9 million in 2014 and \$926.7 million in 2013.

INDUSTRY TRENDS

There are a number of significant trends affecting the highly competitive automotive industry. As general economic and industry specific conditions have improved, intense competition, volatility in fuel, steel, metallic and other commodity prices and significant pricing pressures persist within the global automotive industry. At the same time, the industry is intently focused on investing in future products that will incorporate the latest technology, meet changing customer demands and comply with more stringent government regulations. The continued advancement of technology and product innovation, as well as having the capability to source programs on a global basis, are critical to attracting and retaining business in today's automotive industry.

In 2015, the U.S. Seasonally Adjusted Annual Rate of sales (SAAR) increased to 17.4 million units, which compares to 16.4 million units in 2014 and 15.5 million units in 2013. As a result of a continued reduction in oil prices, improvement in employment rates, increases in customer demands and the availability of low interest credit, we believe that the U.S. domestic OEMs and their suppliers will continue to be able to capitalize on these trends in the near term.

**MORE STRINGENT GOVERNMENT REGULATIONS FOR FUEL EFFICIENCY AND EMISSIONS**

**REDUCTIONS** With a growing focus on environmental legislation and regulation, there has been an increased demand for technologies designed to help reduce emissions, increase fuel economy and minimize the environmental impact of vehicles. The U.S. CAFE standards for cars and light-duty trucks requires the equivalent of 54.5 miles per gallon by 2025. As a result, OEMs and suppliers are competing intensely to develop and market new and alternative technologies, such as electric vehicles, hybrid vehicles, fuel cells, fuel-efficient diesel engines and efficiency improvements of driveline systems to improve fuel economy and emissions.

We are responding to the increases in CAFE standards with ongoing research and development (R&D) efforts that focus on fuel economy, emission reduction and environmental improvements. These efforts have led to new business awards for products that support AWD and RWD passenger cars and crossover vehicles and further position us to compete in the marketplace. We are continuing to invest in the development of advanced products focused on fuel economy, mass reductions, vehicle safety and performance by integrating electronics and technology. Approximately 75% of AAM's new and incremental business backlog launching from 2016 to 2018, which is an estimated \$725 million, relates to AAM's newest AWD systems for passenger cars and crossover vehicles. These systems are designed to improve fuel efficiency by up to 30%, reduce CO<sub>2</sub> emissions and provide AWD capability with the additional benefit of improved vehicle stability when compared to traditional mechanical AWD systems. We also have developed and commercialized a disconnecting AWD system, which strengthens AAM's position as a leader in global driveline systems technology. AAM's EcoTrac® Disconnecting AWD system is an industry-first technology that seamlessly engages AWD functionality while improving fuel efficiency and reducing CO<sub>2</sub> emissions.

AAM has established a high-efficiency product portfolio that is designed to improve axle efficiency and fuel economy through innovative product design technology. Our lineup of high-efficiency axles for rear-wheel drive and AWD applications and our high efficiency rear-drive module are featured on multiple award winning vehicles. Through the development of our EcoTrac® Disconnecting AWD system, our high efficiency axles, PowerLite® axles, PowerDense® gears and our e-AAM™ hybrid and electric driveline systems, we have significantly advanced our efforts to improve fuel efficiency and ride and handling performance while reducing emissions and mass.

**INCREASE IN DEMAND FOR ELECTRONIC INTEGRATION** The electronic content of vehicles continues to expand, largely driven by consumer demand for greater vehicle performance, enhanced functionality, and affordable convenience options. This demand is also a result of increasingly stringent regulatory standards for energy efficiency, emissions reduction and increased safety. As electronically controlled systems continue to become more affordable, we expect this trend to continue. The increased use of electronics provides greater flexibility in vehicles to deliver the functionality required by both the consumer demand and regulatory requirements, and Suppliers, such as AAM, with enhanced capability in electronic integration have greater sourcing opportunities with OEMs and may be able to obtain more favorable pricing for these products.

**PRICE PRESSURE** Year-over-year price reductions are a common competitive practice in the automotive industry. As OEMs continue to demand cost cutting initiatives, we anticipate sustained pressure to reduce the cost of our own operations. The majority of our products are sold under long-term contracts with prices scheduled at the time the contracts are established. Many of our contracts require us to reduce our prices in subsequent years and most of our contracts allow us to adjust prices for engineering changes. We do not believe that the price reductions we have committed to our customers will have a material adverse impact on our future operating results because we intend to lessen the impact of such price reductions through continued cost reductions, efficiency improvements or other productivity initiatives.

**OEM RECALLS AND WARRANTY PROGRAMS** An unprecedented level of vehicle recalls occurred during 2014 and continued through 2015, which resulted in tremendous negative attention for the automotive industry and, consequently, pressure from legislators, media, regulators and the public. Throughout 2015, there has been a continuing focus by the National Highway Transportation Safety Administration, Environmental Protection Agency, automakers, the media, and consumers to demand a higher level of vehicle safety and regulatory compliance. As a result, OEMs are becoming more cautious as it relates to recalls and are initiating recalls for a wide range of components that in the past may not have resulted in recalls. Further, there is a notable rise in supplier identification related to these recalls. In an attempt to reduce warranty costs per vehicle, OEMs are increasing their efforts to have suppliers share the burden of these increasing warranty costs. This trend will put additional pressure on the need for robust quality systems throughout the supply chain and may also increase warranty related expenditures for the supply base.



**GLOBAL AUTOMOTIVE PRODUCTION** As our customers continue to design their products for global markets, they will continue to require global support from their suppliers. For this reason, it is critical that we maintain a global presence in these markets in order to compete for new contracts. Over the past several years, we significantly increased our global installed capacity to support current programs and future opportunities. We expanded our capacity in Brazil, China, Mexico, Poland, Thailand and the U.S. We also have engineering offices around the world to support these markets. As we continue to diversify our product portfolio, we plan to increase our investment in these resources in order to provide technical solutions to our customers on a regional basis. We expect our business activity in these markets to increase significantly over the next several years. More than half of our new and incremental business backlog is for end use markets outside the U.S. and nearly all has been sourced to our manufacturing facilities outside the U.S.

**EVOLUTION OF THE AUTOMOTIVE INDUSTRY AS DEMAND FOR CAR-SHARING, RIDE-SHARING AND AUTONOMOUS VEHICLES INCREASES** OEMs are increasingly focused on offering their own car-sharing rental businesses and ride-sharing services in addition to selling vehicles. Car-sharing typically allows consumers to rent an OEM's car for a short period of time, while ride-sharing matches people to available carpools or other services that provide on-demand rides with the use of an online application. With continued urbanization, population growth and increased government regulations to ease congestion, it is expected that the markets for these services will continue to grow. As such, many OEMs are vigorously exploring and expanding their own car-sharing and ride-sharing efforts.

Another trend developing is the expectation that autonomous, self-driving cars will become more common with continued advancements in technology. As the automotive industry remains one of the most highly regulated industries, the government and regulating bodies will play a very active role in dictating the pace at which autonomous vehicles become a viable option for consumers. These vehicles will radically change our current road systems, requiring an overhaul of driving laws, road signs, traffic management, insurance regulations and liability issues. Autonomous vehicles present many possible benefits, such as a reduction in deadly traffic collisions caused by human error and reduced traffic congestion, but there are also foreseeable challenges such as liability for damage, software reliability and the potential for a vehicle's computer being compromised.

AAM's advancements such as AAM's EcoTra<sup>®</sup> Technology, TracRite<sup>®</sup> Differential Technology and VecTrac<sup>™</sup> Torque Vectoring Technology correlate well with the autonomous vehicle developments. We will continue to develop our driveline systems and will pursue new opportunities to participate in these expanding markets.

## RESULTS OF OPERATIONS

**NET SALES** Net sales increased by 6% to \$3,903.1 million in 2015 as compared to \$3,696.0 million in 2014 and \$3,207.3 million in 2013.

The increase in sales in 2015, as compared to 2014, primarily reflects an increase of approximately 5% in production volumes for the North American light truck and SUV programs we currently support for GM and FCA, which was partially offset by a reduction in metal market pass throughs to our customers and foreign exchange related to translation adjustments. The increase in sales in 2015 also reflects higher sales supporting a global crossover program for GM and a passenger car driveshaft program for FCA, both of which launched in the second half of 2014.

The increase in sales in 2014, as compared to 2013, primarily reflected an increase of approximately 8% in production volumes for the North American light truck and SUV programs we supported for GM and FCA and higher sales in support of FCA's AWD Jeep Cherokee.

Our content-per-vehicle (CPV) (as measured by the dollar value of our products supporting our customers' North American light truck and SUV programs) was \$1,645 in 2015, as compared to \$1,667 in 2014 and \$1,550 in 2013.

The decrease in CPV in 2015 as compared to 2014, relates primarily to the reduction in metal market pass throughs to our customers. The increase in CPV in 2014 as compared to 2013, principally reflects additional content on GM and FCA's next generation full-size pickup truck programs.



Our 4WD/AWD penetration rate increased to 70.9% in 2015 as compared to 68.5% in 2014 and 66.1% in 2013. We define 4WD/AWD penetration as the total number of front axles we produce divided by the total number of rear axles we produce for the vehicle programs we support.

**GROSS PROFIT** Gross profit increased to \$635.4 million in 2015 as compared to \$522.8 million in 2014 and \$478.7 million in 2013. Gross margin was 16.3% in 2015 as compared to 14.1% in 2014 and 14.9% in 2013. The increase in gross profit in 2015 as compared to 2014, primarily reflects the benefit of higher contribution margin on increased sales, partially offset by higher warranty and incentive compensation accruals.

The increase in gross profit in 2014 as compared to 2013 is primarily due to the profit contribution from higher sales, including our largest North American light truck programs and other global launches. Gross profit in 2014 also included the adverse impact of a \$31.2 million settlement charge related to a voluntary lump-sum pension payout which was offered to eligible terminated vested participants in our U.S. hourly pension plans.

**SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (SG&A)** SG&A (including R&D) was \$277.3 million in 2015 as compared to \$255.2 million in 2014 and \$238.4 million in 2013. SG&A as a percentage of net sales was 7.1% in 2015, 6.9% in 2014 and 7.4% in 2013. R&D spending in product, process and systems, net of customer engineering, design and development (ED&D) recoveries, was \$113.9 million in 2015 as compared to \$103.9 million in 2014 and \$103.4 million in 2013. The change in SG&A in 2015 as compared to 2014 is primarily due to higher R&D expense, increases in our salaried workforce and higher incentive compensation accruals.

The change in SG&A in 2014 as compared to 2013 was primarily due to an increase in costs associated with upgrades to our enterprise resource planning systems. SG&A in 2014 also included the adverse impact of a \$4.3 million settlement charge related to a voluntary lump-sum pension payout which was offered to eligible terminated vested participants in our U.S. salaried pension plan.

**OPERATING INCOME** Operating income increased to \$358.1 million in 2015 as compared to \$267.6 million in 2014 and \$240.3 million in 2013. Operating margin was 9.2% in 2015 as compared to 7.2% in 2014 and 7.5% in 2013. The changes in operating income and operating margin in 2015, 2014 and 2013 were due to the factors discussed in Sales, Gross Profit and SG&A.

**INTEREST EXPENSE** Interest expense was \$99.2 million in 2015, \$99.9 million in 2014 and \$115.9 million in 2013. The decrease in interest expense in 2014 as compared to 2013 reflected the decrease in our weighted-average interest rate and lower average outstanding borrowings during 2014 as compared to 2013.

The weighted-average interest rate of our total debt outstanding was 6.3%, 6.3% and 7.3% during 2015, 2014 and 2013, respectively.

**INVESTMENT INCOME** Investment income was \$2.6 million in 2015, \$2.1 million in 2014, and \$0.6 million in 2013. Investment income includes interest earned on cash and cash equivalents during the period.

**OTHER INCOME (EXPENSE)** Following are the components of Other Income (Expense) for 2015, 2014 and 2013:

**Debt refinancing and redemption costs** In 2015, we expensed \$0.8 million of unamortized debt issuance costs related to a voluntary election to prepay all of our outstanding term facility. In 2013, we expensed \$36.8 million of unamortized debt issuance costs, discount and prepayment premiums related to the termination of our class C loan facility, the purchase and voluntary redemption of \$300.0 million of our 7.875% senior unsecured notes (7.875% Notes) and the voluntary redemption of the remaining \$340.0 million of our 9.25% senior secured notes (9.25% Notes).

Other, net Other, net, which includes the net effect of foreign exchange gains and losses and our proportionate share of earnings from equity in unconsolidated subsidiaries, was income of \$12.0 million and \$6.9 million in 2015 and 2014, respectively, and expense of \$1.9 million in 2013. The increase in Other, net in 2015, as compared to 2014, is primarily due to the remeasurement of U.S. dollar denominated assets in Brazil as the Reais weakened, as well as higher earnings from equity in our unconsolidated joint venture. The increase in Other, net in 2014, as compared to 2013, is primarily due to the remeasurement of our Peso denominated assets and liabilities, as the Peso continued to weaken against the U.S. dollar.

**INCOME TAX EXPENSE (BENEFIT)** Income tax expense (benefit) was expense of \$37.1 million and \$33.7 million in 2015 and 2014, respectively, as compared to a benefit of \$8.2 million in 2013. Our effective income tax rate was 13.6% in 2015 as compared to 19.1% in 2014 and negative 9.5% in 2013.

Our income tax expense and effective tax rate for 2015, 2014 and 2013 primarily reflect favorable foreign tax rates, along with our inability to realize a tax benefit for current foreign losses. In the fourth quarter of 2015, we recorded an \$11.5 million reduction in tax expense related to uncertain tax positions attributable to transfer pricing as a result of new information from our discussions with Mexican tax authorities.

In 2014, we recorded tax expense of \$23.1 million for changes to prior year uncertain tax positions related to transfer pricing and expense of \$3.4 million for a change in estimate for U.S. tax on unremitted foreign earnings. We also recorded a net tax benefit of \$20.1 million in 2014 related to our ability to utilize tax credits in future periods resulting in the recognition of a deferred tax asset.

In 2013, Mexican tax reform was enacted that, among other things, increased the tax rate related to Maquiladora Companies from 17.5% to 30%. We recorded a tax benefit of \$8.5 million as a result of revaluing our deferred tax assets at the newly enacted rate. In 2013, we recorded tax expense of \$4.8 million relating to changes in estimates in the U.S. and certain foreign jurisdictions. During 2013, we also settled various income tax audits resulting in a reduction of our liability for unrecognized income tax benefits of \$8.4 million and a cash payment of \$4.7 million.

As of December 31, 2015 and 2014, we have a valuation allowance of \$167.3 million and \$156.9 million, respectively, related to net deferred tax assets in several foreign jurisdictions and U.S. state and local jurisdictions.

**NET INCOME AND EARNINGS PER SHARE (EPS)** Net income was \$235.6 million in 2015 as compared to \$143.0 million in 2014 and \$94.5 million in 2013. Diluted earnings per share was \$3.02 in 2015 as compared to \$1.85 per share in 2014 and \$1.23 per share in 2013. Net Income and EPS were primarily impacted by the factors discussed in Gross Profit, SG&A, Debt Refinancing and Redemption Costs and Income Tax Expense (Benefit).

## LIQUIDITY AND CAPITAL RESOURCES

Our primary liquidity needs are to fund capital expenditures, debt service obligations and our working capital requirements. We believe that operating cash flow, available cash and cash equivalent balances and available committed borrowing capacity under our revolving credit facility will be sufficient to meet these needs.

**OPERATING ACTIVITIES** Net cash provided by operating activities was \$377.6 million in 2015 as compared to \$318.4 million in 2014 and \$223.0 million in 2013.

**Sales and production volumes** Cash provided by operating activities was favorably impacted by higher profits related to an increase in sales and production activity in 2015, 2014 and 2013.

**Pension and OPEB** In December 2015, we voluntarily contributed \$18.3 million to our U.K. pension trust, which satisfies our estimated U.K. regulatory funding requirements for 2016 through 2018. Due to the availability of our prefunding pension balances related to our U.S. pension plans, we were not required to make any cash payments in 2015, 2014 or 2013 to satisfy our regulatory funding requirements, nor do we expect to make any cash payments in 2016. Our annual pension charge, including settlements was income of \$4.3 million in 2015, and expense of \$32.0 million and \$5.7 million in 2014 and 2013, respectively.

Our cash outlay for OPEB, net of GM cost sharing, was \$14.2 million in 2015, \$11.8 million in 2014, and \$11.2 million in 2013. This compares to our annual postretirement cost of \$13.5 million in 2015, \$13.4 million in 2014, and

\$12.7 million in 2013. We expect our cash outlay for other postretirement benefit obligations in 2016, net of GM cost sharing, to be approximately \$16 million.

In 2014, we offered a voluntary one-time lump sum payment option to certain eligible terminated vested participants in our U.S. pension plans that settled our pension obligations to them. The lump sum settlements, which were paid from plan assets, reduced our liabilities and administrative costs going forward.

In total, 3,335 participants accepted the offer and we made a one-time lump sum payment from our pension trust of \$104.2 million in 2014. As a result of this settlement, we remeasured the assets and liabilities of our U.S. pension plans, which reduced our projected benefit obligation by \$131.1 million and resulted in a non-cash charge of \$35.5 million in 2014 related to the accelerated recognition of certain deferred losses.

**Deferred revenue** In 2014, we reached an agreement with GM to increase installed capacity and adjust product mix for our largest vehicle program. As a result of this agreement, we received \$32.8 million in 2014 and recorded the payments as deferred revenue. We recognized \$6.9 million and \$5.4 million of revenue related to this agreement in 2015 and 2014, respectively. As of December 31, 2015, we have \$6.9 million of deferred revenue that is classified as a current liability and \$13.6 million of deferred revenue that is recorded as a noncurrent liability on our Consolidated Balance Sheet.

Also in 2014, we reached an agreement with GM to recover certain costs related to the delay of another major product program. We received \$9.3 million in 2014 related to this agreement which was recorded as deferred revenue. We began recognizing this deferred revenue as revenue in the third quarter of 2014 when this program launched in certain markets. We recognized \$1.1 million and \$0.5 million of revenue related to this agreement in 2015 and 2014, respectively. As of December 31, 2015, we have recorded deferred revenue of \$7.7 million, \$1.1 million of which is classified as a current liability and \$6.6 million which is recorded as a noncurrent liability on our Consolidated Balance Sheet.

**Inventories** At year-end 2015, inventories were \$230.5 million as compared to \$248.8 million at year-end 2014 and \$261.8 million at year-end 2013. The decrease in inventory in 2015, as compared to 2014, primarily reflects a reduction in steel costs, foreign exchange and inventory reduction initiatives. The decrease in inventory in 2014, as compared to 2013, primarily reflects a reduction in launch related activities at year-end, as well as inventory reduction initiatives.

**Accounts receivable** Accounts receivable at year-end 2015 were \$539.1 million as compared to \$532.7 million at year-end 2014 and \$458.5 million at year-end 2013. The increase in our year-end 2014 accounts receivable balance, as compared to 2013, was primarily due to increased sales in November and December 2014 as compared to November and December 2013, as well as the timing of weekly payments from GM.

**Interest paid** Interest paid in 2015 was \$93.8 million as compared to \$91.1 million in 2014 and \$123.2 million in 2013. The decrease in interest paid in 2014 as compared to 2013 primarily related to a reduction in interest expense driven by lower average outstanding borrowings and lower average interest rates in 2014 as compared to 2013.

**Accounts payable** At year-end 2015, accounts payable were \$412.7 million as compared to \$444.3 million at year-end 2014 and \$437.4 million at year-end 2013. The decrease in our year-end 2015 accounts payable balance, as compared to 2014, was primarily due to a reduction in inventory levels and the timing of payments made to suppliers.

**Income taxes** In January 2016, we completed negotiations with the Mexican tax authorities to settle 2007 through 2009 transfer pricing audits. We made a payment of \$22.9 million on January 29, 2016 that fully satisfies our obligations for transfer pricing issues for tax years 2007 through 2013. Including this settlement, we expect our total transfer pricing related payments in 2016 to the Mexican tax authorities to be in the range of \$30 to \$40 million.

**INVESTING ACTIVITIES** Capital expenditures were \$193.5 million in 2015, \$206.5 million in 2014 and \$251.9 million in 2013. Our capital spending primarily supported our significant global program launches within our new and incremental business backlog, as well as the upgrades to our ERP systems.

We expect our capital spending in 2016 to be approximately 6.0% of sales, which includes support for our global program launches in 2016 and 2017 within our new and incremental business backlog.

We received proceeds of \$5.1 million and \$2.1 million in 2015 and 2014, respectively, related to a European Union government incentive for capital expenditures related to new technology.

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In 2014, we sold our Detroit Manufacturing Complex and received net proceeds of \$9.2 million related to this transaction. For the year ended December 31, 2014, we classified \$7.2 million of these proceeds, which represents the amount related to the land and building for which we will have no future continuing involvement, in the Investing Activities section of our Consolidated Statement of Cash Flows.

In 2013 we entered into various sale-leaseback transactions for equipment purchased. We received proceeds of \$24.1 million related to these transactions.

**FINANCING ACTIVITIES** Net cash used in financing activities was \$143.6 million and \$21.4 million in 2015 and 2014, respectively, as compared to cash provided by financing activities of \$88.8 million in 2013. Total debt outstanding, net of debt issuance costs, was \$1,379.0 million at year-end 2015, \$1,517.6 million at year-end 2014 and \$1,537.0 million at year-end 2013. The decrease in total debt outstanding at year-end 2015, as compared to year-end 2014, was primarily due to our voluntary election to prepay our term facility in full in 2015. The decrease in total debt outstanding at year-end 2014, as compared to year-end 2013, was primarily due to repayments on certain current maturities of long-term debt.

**REVOLVING CREDIT FACILITY AND TERM FACILITY** As of December 31, 2015, the revolving credit facility provided up to \$523.5 million of revolving bank financing commitments through September 13, 2018. At December 31, 2015, \$513.1 million was available under the revolving credit facility, which reflected a reduction of \$10.4 million for standby letters of credit issued against the facility.

The credit agreement provides for a senior secured term loan A facility in an aggregate principal amount of \$150.0 million (term facility). During 2015, we made principal payments of \$142.5 million on our term facility, of which \$135.9 million related to a voluntary election to prepay all outstanding principal, including \$2.8 million that was due in the fourth quarter of 2015. Upon prepayment, we expensed \$0.8 million in 2015 related to the write-off of the remaining unamortized debt issuance costs related to our term facility that we had been amortizing over the expected life of the borrowing.

We paid remaining debt issuance costs of \$0.1 million in 2014 associated with the execution of amendments to our revolving credit facility and term facility. In 2013 we paid debt issuance costs of \$6.9 million associated with the amendments and restatements of our revolving credit facility.

Borrowings under the revolving credit facility and term facility bear interest at rates based on adjusted LIBOR or an alternate base rate, plus an applicable margin. The applicable margin for LIBOR-based loans will be between 1.5% and 3.0%.

The revolving credit facility is secured on a first priority basis by all or substantially all of the assets of AAM and each guarantor under the collateral agreement dated as of November 7, 2008, as amended and restated as of September 13, 2013. In the event AAM achieves investment grade corporate credit ratings from Standard & Poor's and Moody's, AAM may elect to release all of the collateral from the liens granted pursuant to the collateral agreement, subject to notice requirements and other conditions.

The revolving credit facility provides back-up liquidity for our foreign credit facilities. We intend to use the availability of long-term financing under the revolving credit facility to refinance any current maturities related to such debt agreements that are not otherwise refinanced on a long-term basis in their local markets, except where otherwise reclassified to current portion of long-term debt on our Consolidated Balance Sheet.

In 2013, we terminated our class C loan facility of \$72.8 million, which would have matured on June 30, 2013. Upon termination, we expensed \$0.5 million of unamortized debt issuance costs related to the class C facility.

**9.25% NOTES** In 2009, we issued \$425.0 million of 9.25% senior secured notes due 2017 (9.25% Notes). The notes were issued at a discount of \$5.5 million. Pursuant to the terms of our 9.25% Notes, in 2013, we voluntarily redeemed the remaining outstanding 9.25% Notes using the proceeds from the term facility and the issuance of the 5.125% Notes. This resulted in a principal payment of \$340.0 million and \$18.9 million for redemption premiums, as well as payments of accrued interest. We expensed \$6.7 million in 2013 related to the write-off of the remaining unamortized debt discount and issuance costs related to our 9.25% Notes.



**7.875% NOTES** In 2007, we issued \$300.0 million of 7.875% senior unsecured notes due 2017 (7.875% Notes).

In 2013, we voluntarily purchased and redeemed \$300.0 million of our 7.875% Notes, and paid accrued interest. Upon purchase and redemption, we expensed \$8.5 million related to redemption premiums, \$0.1 million of professional fees and unamortized debt issuance costs of \$2.1 million related to this debt.

**7.75% NOTES** In 2011, we issued \$200.0 million of 7.75% senior unsecured notes due 2019 (7.75% Notes).

**6.625% NOTES** In 2012, we issued \$550.0 million of 6.625% senior unsecured notes due 2022 (6.625% Notes). Net proceeds from the 6.625% Notes were used to fund the purchase and redemption of \$250.0 million of the outstanding 5.25% senior unsecured notes, including the payment of interest, the redemption of \$42.5 million aggregate principal amount of our 9.25% Notes, certain pension obligations and for other general corporate purposes.

**6.25% NOTES** In 2013, we issued \$400.0 million of 6.25% senior unsecured notes due 2021 (6.25% Notes). Net proceeds from the 6.25% Notes were used to fund the purchase and redemption of our 7.875% Notes and for other general corporate purposes. We paid debt issuance costs of \$6.6 million in 2013 related to the 6.25% Notes.

**5.125% NOTES** In 2013, we issued \$200.0 million of 5.125% senior unsecured notes due 2019 (5.125% Notes). Net proceeds from the 5.125% Notes were used to redeem the remaining \$190.0 million outstanding under our 9.25% Notes. We paid debt issuance costs related to the 5.125% Notes of \$0.2 million and \$3.1 million in 2014 and 2013, respectively.

**Foreign credit facilities** We utilize local currency credit facilities to finance the operations of certain foreign subsidiaries. At December 31, 2015, \$38.0 million was outstanding under these facilities and an additional \$47.9 million was available.

**Credit ratings** To access public debt capital markets, the Company relies on credit rating agencies to assign short-term and long-term credit ratings to our securities as an indicator of credit quality for fixed income investors. A credit rating agency may change or withdraw its ratings based on its assessment of our current and future ability to meet interest and principal repayment obligations. Credit ratings affect our cost of borrowing under our revolving credit facility and may affect our access to debt capital markets and other costs to fund our business. The credit ratings and outlook currently assigned to our securities by the rating agencies are as follows:

	Corporate Family Rating	Senior Unsecured Notes Rating	Outlook
Standard & Poor's	BB-	BB-	Stable
Moody's Investors Services	B1	B2	Positive
Fitch Ratings	BB-	BB-	Positive

**Dividend program** We have not declared or paid any cash dividends on our common stock in 2015, 2014 or 2013.

**Stock repurchase** We repurchased shares of AAM common stock for \$3.1 million, \$0.3 million and \$0.4 million, in 2015, 2014 and 2013, respectively, to satisfy employee tax withholding obligations due upon the vesting of restricted stock units and performance shares.

**Exercise of employee stock options** We received \$0.8 million in 2015, \$1.2 million in 2014, and \$1.1 million in 2013 related to the exercise of employee stock options.

**Off-balance sheet arrangements** Our off-balance sheet financing relates principally to operating leases for machinery and equipment, commercial office and production facilities, vehicles and other assets. We lease certain machinery and

equipment under operating leases with various expiration dates. In 2013 we entered into various sale-leaseback transactions for \$24.1 million related to machinery and equipment. Pursuant to these operating leases, we may have the option to purchase the underlying equipment on specified dates. Remaining lease repurchase options are \$17.9 million through 2017.

Contractual obligations The following table summarizes payments due on our contractual obligations as of December 31, 2015:

	Payments due by period				
	Total (in millions)	<1yr	1-3 yrs	3-5 yrs	>5 yrs
Current and long-term debt	\$1,388.0	\$14.6	\$21.0	\$402.4	\$950.0
Interest obligations	496.3	92.8	183.0	140.9	79.6
Capital lease obligations	5.6	0.8	1.8	1.4	1.6
Operating leases <sup>(1)</sup>	63.2	20.4	26.1	8.8	7.9
Purchase obligations <sup>(2)</sup>	104.1	93.7	10.4	—	—
Other long-term liabilities <sup>(3)</sup>	625.9	78.4	136.1	112.5	298.9
Total	\$2,683.1	\$300.7	\$378.4	\$666.0	\$1,338.0

Operating leases include all lease payments through the end of the contractual lease terms, which includes elections (1) for repurchase options and excludes any non-exercised purchase options. These commitments include machinery and equipment, commercial office and production facilities, vehicles and other assets.

(2) Purchase obligations represent our obligated purchase commitments for capital expenditures and related project expense.

Other long-term liabilities represent our estimated pension and other postretirement benefit obligations, net of GM (3) cost sharing, that were actuarially determined through 2025, principal payments on a loan for a building we sold during 2014, as well as our unrecognized income tax benefits.

## CYCLICALITY AND SEASONALITY

Our operations are cyclical because they are directly related to worldwide automotive production, which is itself cyclical and dependent on general economic conditions and other factors. Our business is also moderately seasonal as our major OEM customers historically have an extended shutdown of operations (typically 1-2 weeks) in conjunction with their model year changeover and an approximate one-week shutdown in December. Accordingly, our quarterly results may reflect these trends.

## LEGAL PROCEEDINGS

We are involved in various legal proceedings incidental to our business. Although the outcome of these matters cannot be predicted with certainty, we do not believe that any of these matters, individually or in the aggregate, will have a material effect on our financial condition, results of operations or cash flows.

We are subject to various federal, state, local and foreign environmental and occupational safety and health laws, regulations and ordinances, including those regulating air emissions, water discharge, waste management and environmental cleanup. We closely monitor our environmental conditions to ensure that we are in compliance with applicable laws, regulations and ordinances. We have made, and will continue to make, capital and other expenditures, including recurring administrative costs, to comply with environmental requirements. Such expenditures were not significant in 2015, 2014 and 2013.

## EFFECT OF NEW ACCOUNTING STANDARDS

On November 20, 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2015-17 - Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes, which simplifies the

accounting for deferred tax assets (DTAs) and deferred tax liabilities (DTLs). Under the new guidance, entities would be required to classify all DTAs and DTLs as noncurrent in the balance sheet, as opposed to the current U.S. GAAP standard, which requires entities to split their DTAs and DTLs between current and noncurrent in the balance sheet based on the classification of the related asset or liability. The new standard will still require entities to net DTAs and DTLs within each tax jurisdiction and prohibit netting of DTAs and DTLs between different tax jurisdictions. The guidance becomes effective for AAM at the beginning of our 2017 fiscal

year, however as permitted, AAM elected to early adopt this standard using the prospective method in the fourth quarter of 2015. Prior periods were not retrospectively adjusted. See Note 1 - Organization and Summary of Significant Accounting Policies for more detail on the implementation of this new accounting guidance.

On May 1, 2015 the FASB issued ASU 2015-07 - Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent), which changes the disclosure requirements for investments in certain entities that calculate net asset value (NAV) per share. Under current accounting standards entities are permitted to estimate the fair value of certain investments using the investment's NAV as a practical expedient. The current disclosure guidance also permits entities to disclose the investment at NAV in the fair value hierarchy table as either Level 2 or Level 3, based upon certain criteria. The measurement basis utilizing NAV is different than the measurement criteria of all other investments which utilize inputs to calculate fair value. Due to this inconsistency, the FASB issued this ASU which requires entities to remove investments measured at NAV from the fair value hierarchy table. The guidance becomes effective for AAM at the beginning of our 2016 fiscal year. Other than the change in presentation, the adoption of this new guidance will not have an impact on our consolidated financial statements.

On April 7, 2015, the FASB issued ASU 2015-03 - Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, which changes the presentation of debt issuance costs in financial statements. Under the ASU, entities would present such costs in the balance sheet as a direct deduction of the related debt liability rather than as an asset. Amortization of the costs will continue to be reported as interest expense. This ASU becomes effective for AAM at the beginning of our 2016 fiscal year; however, as permitted, AAM elected to early adopt this standard as of December 31, 2015. Based on the amounts currently outstanding as of December 31, 2015, the effect of implementing this ASU on our consolidated financial statements was a reduction to both our other assets and deferred charges and long-term debt of \$14.6 million at December 31, 2015 and \$18.8 million at December 31, 2014.

In 2014, the FASB issued ASU 2014-09 - Revenue from Contracts with Customers (Topic 606), which outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The guidance is based on the principle that an entity should recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to fulfill a contract. Entities have the option of using either a full retrospective or a modified retrospective approach for the adoption of the new standard. On August 12, 2015, the FASB issued ASU 2015-14 - Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, to formally defer the initial standard's effective date by one-year, making this guidance effective for AAM at the beginning of our 2018 fiscal year. We are currently assessing the impact that this standard will have on our consolidated financial statements.

## CRITICAL ACCOUNTING ESTIMATES

In order to prepare consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP), we are required to make estimates and assumptions that affect the reported amounts and disclosures in our consolidated financial statements. These estimates are subject to an inherent degree of uncertainty and actual results could differ from our estimates.

Other items in our consolidated financial statements require estimation. In our judgment, they are not as critical as those disclosed below. We have discussed and reviewed our critical accounting estimates disclosure with the Audit Committee of our Board of Directors.



**PENSION AND OTHER POSTRETIREMENT BENEFITS** In calculating our assets, liabilities and expenses related to pension and OPEB, key assumptions include the discount rate, expected long-term rates of return on plan assets, mortality projections and rates of increase in health care costs.

The discount rates used in the valuation of our U.S. pension and OPEB obligations were based on an actuarial review of a hypothetical portfolio of long-term, high quality corporate bonds matched against the expected payment stream for each of our plans. In 2015, the weighted-average discount rates determined on that basis were 4.40% for the valuation of our pension benefit obligations and 4.45% for the valuation of our OPEB obligations. The discount rate used in the valuation of our United Kingdom (U.K.) pension obligation was based on a review of long-term bonds, including published indices in the applicable market. In 2015, the discount rate determined on that basis was 3.90%. The expected long-term rates of return on our plan assets were 7.50% for our U.S. plans and 5.00% for our U.K. plan in 2015. We developed these rates of return assumptions based on future capital market expectations for the asset classes represented within our portfolio and a review of long-term historical returns. The asset allocation for our plans was developed in consideration of the demographics of the plan participants and expected payment stream of the liability. Our investment policy allocates approximately 30-65% of the U.S. plans' assets to equity securities, depending on the plan, with the remainder invested in fixed income securities, hedge fund investments and cash. The rates of increase in health care costs are based on current market conditions, inflationary expectations and historical information.

All of our assumptions were developed in consultation with our actuarial service providers. While we believe that we have selected reasonable assumptions for the valuation of our pension and OPEB obligations at year-end 2015, actual trends could result in materially different valuations.

The effect on our pension plans of a 0.5% decrease in both the discount rate and expected return on assets is shown below as of December 31, 2015, our valuation date.

	Discount Rate (in millions)	Expected Return on Assets
Decline in funded status	\$47.1	N/A
Increase in 2015 expense	\$0.4	\$3.0

No changes in benefit levels or in the amortization of gains or losses have been assumed.

For 2016, we assumed a weighted-average annual increase in the per-capita cost of covered health care benefits of 6.75% for OPEB. The rate is assumed to decrease gradually to 5.0% by 2023 and remain at that level thereafter. A 0.5% decrease in the discount rate for our OPEB would have decreased total expense in 2015 and increased the postretirement obligation, net of GM cost sharing, at December 31, 2015 by \$0.9 million and \$21.8 million, respectively. A 1.0% increase in the assumed health care trend rate would have increased total service and interest cost in 2015 and the postretirement obligation, net of GM cost sharing, at December 31, 2015 by \$1.7 million and \$37.5 million, respectively.

AAM and GM share in the cost of OPEB for eligible retirees proportionally based on the length of service an employee had with AAM and GM. We estimate the future cost sharing payments and present it as an asset on our Consolidated Balance Sheet. As of December 31, 2015, we estimated \$256.3 million in future GM cost sharing. If, in the future, GM were unable to fulfill this financial obligation, our OPEB obligations could be different than our current estimates.





**PRODUCT WARRANTY** We record a liability and related charge to cost of goods sold for estimated warranty obligations at the dates our products are sold or when specific warranty issues are identified. Product warranties not expected to be paid within one year are recorded as a noncurrent liability on our Consolidated Balance Sheet. Our estimated warranty obligations for products sold are based on significant management estimates, with input from our warranty, sales, engineering, quality and legal departments. For products and customers with actual warranty payment experience, we estimate warranty costs principally based on past claims history. For certain products and customers, actual warranty payment experience does not exist or is not mature. In these cases, we estimate our costs based on the contractual arrangements with our customers, existing customers' warranty program terms and internal and external warranty data, which includes a determination of our responsibility for potential warranty issues or claims and estimates of repair costs. We actively study trends of our warranty claims and take action to improve product quality and minimize warranty claims. We continuously evaluate these estimates and our customers' administration of their warranty programs. We closely monitor actual warranty claim data and adjust the liability, as necessary, on a quarterly basis.

In addition to our ordinary warranty provisions with our customers, we are also liable for product recalls and field actions, which are recorded at the time our obligation is probable and can be reasonably estimated. For warranty obligations of this nature, we bear the full responsibility of these costs.

Our warranty accrual was \$36.6 million as of December 31, 2015 and \$12.4 million as of December 31, 2014. During 2015 and 2014, we made adjustments to our warranty accrual to reflect revised estimates regarding our projected future warranty obligations. Actual experience could differ from the amounts estimated requiring adjustments to these liabilities in future periods. It is possible that changes in our assumptions or future warranty issues could materially affect our financial position and results of operations.

**VALUATION OF DEFERRED TAX ASSETS AND OTHER TAX LIABILITIES** Because we operate in many different geographic locations, including several foreign, state and local tax jurisdictions, the evaluation of our ability to use all recognized deferred tax assets is complex.

We are required to estimate whether recoverability of our deferred tax assets is "more likely than not," based on forecasts of taxable income in the related tax jurisdictions. In these estimates, we use historical results, projected future operating results based upon approved business plans, eligible carryforward periods, tax planning opportunities and other relevant considerations. This includes the consideration of tax law changes, prior profitability performance and the uncertainty of future projected profitability.

As of December 31, 2015, we have a valuation allowance of approximately \$167.3 million related to net deferred tax assets in several foreign jurisdictions and U.S. state and local jurisdictions. As of December 31, 2014 and 2013, our valuation allowance was \$156.9 million and \$163.7 million, respectively.

If, in the future, we generate taxable income on a sustained basis in foreign and U.S. state jurisdictions for which we have recorded valuation allowances, our current estimate of the recoverability of our deferred tax assets could change and result in the future reversal of some or all of the valuation allowance. While we believe we have made appropriate valuations of our deferred tax assets, unforeseen changes in tax legislation, regulatory activities, audit results, operating results, financing strategies, organization structure and other related matters may result in material changes in our deferred tax asset valuation allowances or our tax liabilities.

We record uncertain tax positions on the basis of a two-step process whereby: (1) we determine whether it is "more likely than not" that the tax positions will be sustained based on the technical merits of the position; and (2) for those positions that meet the "more likely than not" recognition threshold, we recognize the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority. We record interest and penalties on uncertain tax positions in income tax expense (benefit).

As of December 31, 2015, 2014 and 2013, we recorded a liability for unrecognized income tax benefits and related interest and penalties of \$48.5 million, \$59.5 million and \$25.8 million, respectively. In January 2016, we completed negotiations with the Mexican tax authorities to settle 2007 through 2009 transfer pricing audits. We made a payment of \$22.9 million on January 29, 2016 that fully satisfies our obligations for transfer pricing issues for tax years 2007 through 2013. Based on the status of the Internal Revenue Service (IRS) audits and audits outside the U.S., and the protocol of finalizing audits by the relevant tax authorities, it is not possible to estimate the impact of changes, if any, to previously recorded uncertain tax positions. Although it is difficult to estimate with

certainly the amount of an audit settlement, we do not expect the settlement amounts will be materially different from what we have recorded. We will continue to monitor the progress and conclusions of all ongoing audits and will adjust our estimated liability as necessary.

**GOODWILL** We record goodwill when the purchase price of acquired businesses exceeds the value of their identifiable net tangible and intangible assets acquired. We periodically evaluate goodwill for impairment in accordance with the accounting guidance for goodwill and other indefinite-lived intangibles that are not amortized. We review our goodwill for impairment annually during the fourth quarter. In addition, we review goodwill for impairment whenever adverse events or changes in circumstances indicate a possible impairment. This review utilizes a two-step impairment test which is performed at a consolidated level, as AAM has a single reporting unit. The first step involves a comparison of the fair value of the reporting unit with its carrying amount, including goodwill. If the fair value of the reporting unit exceeds its carrying amount, goodwill of the reporting unit is not considered impaired and thus the second step of the impairment test is unnecessary. If the carrying amount of the reporting unit exceeds its fair value, the second step of the process involves a measurement and comparison of the fair value of goodwill with its carrying amount. If the carrying amount of the reporting unit's goodwill exceeds the fair value of that goodwill, an impairment loss is recognized in an amount equal to the excess.

The determination of our reporting unit and impairment indicators require us to make significant judgments. In order to approximate the fair value of our reporting unit for purposes of testing recoverability, we use the total market capitalization of AAM, a market approach, which is then compared to the total carrying amount of AAM. Under the market approach, the fair value is based on observed market prices. We performed our annual impairment test in the fourth quarter and determined there was no impairment to goodwill in 2015.

**IMPAIRMENT OF LONG-LIVED ASSETS** Long-lived assets, excluding goodwill and other indefinite-lived intangible assets, to be held and used are reviewed for impairment whenever adverse events or changes in circumstances indicate a possible impairment. Recoverability of each "held for use" asset group affected by impairment indicators is determined by comparing the forecasted undiscounted cash flows of the operations to which the assets relate to their carrying amount. If the carrying amount of an asset group exceeds the undiscounted cash flows and is therefore nonrecoverable, the assets in this group are written down to their estimated fair value. We estimate fair value based on market prices, when available, or on a discounted cash flow analysis. Long-lived assets held for sale are recorded at the lower of their carrying amount or fair value less cost to sell. Significant judgments and estimates used by management when evaluating long-lived assets for impairment include:

- An assessment as to whether an adverse event or circumstance has triggered the need for an impairment review;
- Determination of asset groups, the primary asset within each group, and the primary asset's average estimated useful life;
- Undiscounted future cash flows generated by the assets; and
- Determination of fair value when an impairment is deemed to exist, which may require assumptions related to future general economic conditions, future expected production volumes, product pricing and cost estimates, working capital and capital investment requirements, discount rates and estimated liquidation values.

**ESTIMATED USEFUL LIVES FOR DEPRECIATION** At December 31, 2015, approximately 81% of our capitalized investment in property, plant and equipment was related to productive machinery and equipment used in support of our manufacturing operations. The selection of appropriate useful life estimates for such machinery and equipment is a critical element of our ability to properly match the cost of such assets with the operating profits and cash flow generated by their use. We currently depreciate productive machinery and equipment on the straight-line method using composite useful life estimates up to 12 years.

While we believe that the useful life estimates currently being used for depreciation purposes reasonably approximate the period of time we will use such assets in our operations, unforeseen changes in product design and technology

standards or cost, quality and delivery requirements may result in actual useful lives that differ materially from the current estimates.

## Forward-Looking Statements

In this MD&A and elsewhere in this Annual Report, we make statements concerning our expectations, beliefs, plans, objectives, goals, strategies, and future events or performance. Such statements are “forward-looking” statements within the meaning of the Private Securities Litigation Reform Act of 1995 and relate to trends and events that may affect our future financial position and operating results. The terms such as “will,” “may,” “could,” “would,” “plan,” “believe,” “expect,” “anticipate,” “intend,” “project,” “target,” and similar words or expressions, as well as statements in future tense, are intended to identify forward-looking statements.

Forward-looking statements should not be read as a guarantee of future performance or results, and will not necessarily be accurate indications of the times at, or by, which such performance or results will be achieved. Forward-looking statements are based on information available at the time those statements are made and/or management’s good faith belief as of that time with respect to future events and are subject to risks and may differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause such differences include, but are not limited to:

- reduced purchases of our products by General Motors Company (GM), FCA US LLC (FCA), or other customers;
- reduced demand for our customers’ products (particularly light trucks and sport utility vehicles (SUVs) produced by GM and FCA);
- our ability to develop and produce new products that reflect market demand;
- lower-than-anticipated market acceptance of new or existing products;
- our ability to respond to changes in technology, increased competition or pricing pressures;
- our ability to attract new customers and programs for new products;
- our ability to achieve the level of cost reductions required to sustain global cost competitiveness;
- supply shortages or price increases in raw materials, utilities or other operating supplies for us or our customers as a result of natural disasters or otherwise;
- liabilities arising from warranty claims, product recall or field actions, product liability and legal proceedings to which we are or may become a party, or the impact of product recall or field actions on our customers;
- our ability or our customers’ and suppliers’ ability to successfully launch new product programs on a timely basis;
- our ability to realize the expected revenues from our new and incremental business backlog;
- our ability to successfully implement upgrades to our enterprise resource planning systems;
- negative or unexpected tax consequences;
- risks inherent in our international operations (including adverse changes in political stability, taxes and other law changes, potential disruptions of production and supply, and currency rate fluctuations);
- our ability to consummate and integrate acquisitions and joint ventures;
- our ability to maintain satisfactory labor relations and avoid work stoppages;
- our suppliers’, our customers’ and their suppliers’ ability to maintain satisfactory labor relations and avoid work stoppages;
- price volatility in, or reduced availability of, fuel;
- global economic conditions;
- our ability to protect our intellectual property and successfully defend against assertions made against us;
- our ability to attract and retain key associates;
- availability of financing for working capital, capital expenditures, research and development (R&D) or other general corporate purposes including acquisitions, as well as our ability to comply with financial covenants;
- our customers’ and suppliers’ availability of financing for working capital, capital expenditures, R&D or other general corporate purposes;
- changes in liabilities arising from pension and other postretirement benefit obligations;
- risks of noncompliance with environmental laws and regulations or risks of environmental issues that could result in unforeseen costs at our facilities;
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adverse changes in laws, government regulations or market conditions affecting our products or our customers' products (such as the Corporate Average Fuel Economy (CAFE) regulations);  
• our ability or our customers' and suppliers' ability to comply with the Dodd-Frank Act and other regulatory requirements and the potential costs of such compliance; and  
• other unanticipated events and conditions that may hinder our ability to compete.

It is not possible to foresee or identify all such factors and we make no commitment to update any forward-looking statement or to disclose any facts, events or circumstances after the date hereof that may affect the accuracy of any forward-looking statement.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

MARKET RISK

Our business and financial results are affected by fluctuations in world financial markets, including interest rates and currency exchange rates. Our hedging policy has been developed to manage these risks to an acceptable level based on management's judgment of the appropriate trade-off between risk, opportunity and cost. We do not hold financial instruments for trading or speculative purposes.

**CURRENCY EXCHANGE RISK** From time to time, we use foreign currency forward contracts to reduce the effects of fluctuations in exchange rates, primarily relating to the Mexican Peso, Euro, Pound Sterling, Thai Baht, Swedish Krona and Polish Zloty. At December 31, 2015 and December 31, 2014, we had forward contracts with a notional amount of \$190.0 million and \$99.3 million outstanding, respectively. The potential decrease in fair value of foreign exchange contracts, assuming a 10% adverse change in the foreign currency exchange rates, would be approximately \$17.3 million and \$9.0 million at December 31, 2015 and December 31, 2014, respectively.

Future business operations and opportunities, including the expansion of our business outside North America, may further increase the risk that cash flows resulting from these global operations may be adversely affected by changes in currency exchange rates. If and when appropriate, we intend to manage these risks by creating hedges in the structure of our global operations, utilizing local currency funding of these expansions and various types of foreign exchange contracts.

**INTEREST RATE RISK** We are exposed to variable interest rates on certain credit facilities. From time to time, we have used interest rate hedging to reduce the effects of fluctuations in market interest rates. As of December 31, 2015, there are no interest rate swaps in place. The pre-tax earnings and cash flow impact of a one-percentage-point increase in interest rates (approximately 15% of our weighted-average interest rate at December 31, 2015) on our long-term debt outstanding at December 31, 2015 and December 31, 2014 would be approximately \$0.3 million and \$1.8 million, respectively, on an annualized basis.

## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## Item 8. Financial Statements and Supplementary Data

Consolidated Statements of Income  
Year Ended December 31,

	2015	2014	2013
	(in millions, except per share data)		
Net sales	\$3,903.1	\$3,696.0	\$3,207.3
Cost of goods sold	3,267.7	3,173.2	2,728.6
Gross profit	635.4	522.8	478.7
Selling, general and administrative expenses	277.3	255.2	238.4
Operating income	358.1	267.6	240.3
Interest expense	(99.2	) (99.9	) (115.9
Investment income	2.6	2.1	0.6
Other income (expense)			
Debt refinancing and redemption costs	(0.8	) —	(36.8
Other, net	12.0	6.9	(1.9
Income before income taxes	272.7	176.7	86.3
Income tax expense (benefit)	37.1	33.7	(8.2
Net income	\$235.6	\$143.0	\$94.5
Basic earnings per share	\$3.03	\$1.85	\$1.23
Diluted earnings per share	\$3.02	\$1.85	\$1.23

See accompanying notes to consolidated financial statements



AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.

Consolidated Statements of Comprehensive Income  
Year Ended December 31,

	2015 (in millions)	2014	2013
Net income	\$235.6	\$143.0	\$94.5
Other comprehensive income (loss)			
Defined benefit plans, net of \$(8.5) million, \$23.2 million and \$(41.3) million of tax in 2015, 2014 and 2013, respectively	16.7	(42.7)	) 76.6
Foreign currency translation adjustments	(70.3	) (30.3	) (26.2)
Changes in cash flow hedges	(6.0	) (7.7	) (2.0)
Other comprehensive income (loss)	(59.6	) (80.7	) 48.4
Comprehensive income	\$176.0	\$62.3	\$142.9

See accompanying notes to consolidated financial statements

## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## Consolidated Balance Sheets

December 31,

	2015	2014
	(in millions, except per share data)	
Assets		
Current assets		
Cash and cash equivalents	\$282.5	\$249.2
Accounts receivable, net	539.1	532.7
Inventories, net	230.5	248.8
Deferred income taxes	—	40.2
Prepaid expenses and other	72.1	68.6
Total current assets	1,124.2	1,139.5
Property, plant and equipment, net	1,046.2	1,061.1
Deferred income taxes	373.6	368.8
Goodwill	154.4	155.0
GM postretirement cost sharing asset	243.2	274.5
Other assets and deferred charges	261.1	241.5
Total assets	\$3,202.7	\$3,240.4
Liabilities and Stockholders' Equity		
Current liabilities		
Current portion of long-term debt	\$3.3	\$13.0
Accounts payable	412.7	444.3
Accrued compensation and benefits	128.0	109.1
Deferred revenue	22.9	22.1
Deferred income taxes	—	0.1
Other accrued expenses	132.3	98.6
Total current liabilities	699.2	687.2
Long-term debt, net	1,375.7	1,504.6
Deferred income taxes	6.8	9.1
Deferred revenue	65.7	94.2
Postretirement benefits and other long-term liabilities	753.8	831.9
Total liabilities	2,901.2	3,127.0
Stockholders' equity		
Series A junior participating preferred stock, par value \$0.01 per share; 0.1 million shares authorized; no shares outstanding in 2015 or 2014	—	—
Preferred stock, par value \$0.01 per share; 10.0 million shares authorized; no shares outstanding in 2015 or 2014	—	—
Common stock, par value \$0.01 per share; 150.0 million shares authorized; 82.3 million and 81.9 million shares issued as of December 31, 2015 and 2014, respectively	0.8	0.8
Series common stock, par value \$0.01 per share; 40.0 million shares authorized; no shares outstanding in 2015 or 2014	—	—
Paid-in capital	638.9	623.7
Retained earnings (Accumulated deficit)	204.2	(31.4)
Treasury stock at cost, 6.2 million shares in 2015 and 6.1 million shares in 2014	(185.9)	(182.8)
Accumulated other comprehensive loss		

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Defined benefit plans, net of tax	(223.9	) (240.6	)
Foreign currency translation adjustments	(119.2	) (48.9	)
Unrecognized loss on cash flow hedges	(13.4	) (7.4	)
Total stockholders' equity	301.5	113.4	
Total liabilities and stockholders' equity	\$3,202.7	\$3,240.4	

See accompanying notes to consolidated financial statements

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## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

Consolidated Statements of Cash Flows  
Year Ended December 31,

	2015 (in millions)	2014	2013	
Operating activities				
Net income	\$235.6	\$143.0	\$94.5	
Adjustments to reconcile net income to net cash provided by operating activities				
Depreciation and amortization	198.4	199.9	177.0	
Deferred income taxes	26.4	(9.2)	(18.7)	)
Stock-based compensation	15.9	9.7	10.8	
Pensions and other postretirement benefits, net of contributions	(25.6)	) 31.8	6.5	
Loss (gain) on disposal of property, plant and equipment, net	4.2	(2.6)	(3.5)	)
Debt refinancing and redemption costs	0.8	—	9.2	
Changes in operating assets and liabilities				
Accounts receivable	(17.9)	) (78.3)	(0.3)	)
Inventories	11.2	10.9	(42.5)	)
Accounts payable and accrued expenses	(2.1)	) 13.7	66.3	
Deferred revenue	(26.8)	) 24.5	(5.6)	)
Other assets and liabilities	(42.5)	) (25.0)	(70.7)	)
Net cash provided by operating activities	377.6	318.4	223.0	
Investing activities				
Purchases of property, plant and equipment	(193.5)	) (206.5)	(251.9)	)
Proceeds from sale of property, plant and equipment	0.3	9.1	9.1	
Proceeds from sale-leaseback of equipment	—	—	24.1	
Proceeds from government grants	5.1	2.1	—	
Net cash used in investing activities	(188.1)	) (195.3)	(218.7)	)
Financing activities				
Net short-term repayments under credit facilities	—	—	(29.9)	)
Proceeds from issuance of long-term debt and other	16.8	5.0	786.7	
Payments of long-term debt, capital lease obligations and other	(157.0)	) (27.0)	(652.0)	)
Debt issuance costs	—	(0.3)	(16.7)	)
Purchase of noncontrolling interest	(1.1)	) —	—	
Employee stock option exercises	0.8	1.2	1.1	
Purchase of treasury stock	(3.1)	) (0.3)	(0.4)	)
Net cash provided by (used in) financing activities	(143.6)	) (21.4)	88.8	
Effect of exchange rate changes on cash	(12.6)	) (6.5)	(1.5)	)
Net increase in cash and cash equivalents	33.3	95.2	91.6	
Cash and cash equivalents at beginning of year	249.2	154.0	62.4	
Cash and cash equivalents at end of year	\$282.5	\$249.2	\$154.0	
Supplemental cash flow information				
Interest paid	\$93.8	\$91.1	\$123.2	

Income taxes paid, net	\$11.3	\$11.3	\$11.6
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See accompanying notes to consolidated financial statements

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## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## Consolidated Statement of Stockholders' Equity (Deficit)

	Common Stock		Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive	
	Shares Outstanding (in millions)	Par Value		(Accumulated Deficit)		Loss	
Balance at January 1, 2013	74.8	\$0.8	\$600.9	\$(268.9)	\$(182.1)	\$(264.6)	)
Net income				94.5			
Changes in cash flow hedges						(2.0)	)
Foreign currency translation						(26.2)	)
Defined benefit plans, net						76.6	
Exercise of stock options and vesting of restricted stock units	0.8		1.1				
Stock-based compensation			10.8				
Purchase of treasury stock	—				(0.4)		)
Balance at December 31, 2013	75.6	\$0.8	\$612.8	\$(174.4)	\$(182.5)	\$(216.2)	)
Net income				143.0			
Changes in cash flow hedges						(7.7)	)
Foreign currency translation						(30.3)	)
Defined benefit plans, net						(42.7)	)
Exercise of stock options and vesting of restricted stock units	0.2		1.2				
Stock-based compensation			9.7				
Purchase of treasury stock	—				(0.3)		)
Balance at December 31, 2014	75.8	\$0.8	\$623.7	\$(31.4)	\$(182.8)	\$(296.9)	)
Net income				235.6			
Changes in cash flow hedges						(6.0)	)
Foreign currency translation						(70.3)	)
Defined benefit plans, net						16.7	
Exercise of stock options and vesting of restricted stock units and performance shares	0.4		0.9				
Stock-based compensation			15.9				
Acquisition of noncontrolling interest			(1.6)				)
Purchase of treasury stock	(0.1)	)			(3.1)		)
Balance at December 31, 2015	76.1	\$0.8	\$638.9	\$204.2	\$(185.9)	\$(356.5)	)

See accompanying notes to consolidated financial statements



AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**ORGANIZATION** American Axle & Manufacturing Holdings, Inc. (Holdings) and its subsidiaries (collectively, we, our, us or AAM) is a Tier I supplier to the automotive industry. We manufacture, engineer, design and validate driveline and drivetrain systems and related components and chassis modules for light trucks, sport utility vehicles (SUVs), passenger cars, crossover vehicles and commercial vehicles. Driveline and drivetrain systems include components that transfer power from the transmission and deliver it to the drive wheels. Our driveline, drivetrain and related products include axles, chassis modules, driveshafts, power transfer units, transfer cases, chassis and steering components, driveheads, transmission parts, electric drive systems and metal-formed products. In addition to locations in the United States (U.S.) (Michigan, Ohio and Indiana), we also have offices or facilities in Brazil, China, Germany, India, Japan, Luxembourg, Mexico, Poland, Scotland, South Korea, Sweden and Thailand.

**PRINCIPLES OF CONSOLIDATION** We include the accounts of Holdings and its subsidiaries in our consolidated financial statements. We eliminate the effects of all intercompany transactions, balances and profits in our consolidation.

**REVENUE RECOGNITION** We recognize revenue when products are shipped to our customers and title transfers under standard commercial terms or when realizable in accordance with our commercial agreements. If we are uncertain as to whether we will be successful collecting a balance in accordance with our understanding of a commercial agreement, we do not recognize the revenue or cost recovery until such time as the uncertainty is removed.

In 2014, we reached an agreement with General Motors Company (GM) to increase installed capacity and adjust product mix for our largest vehicle program. As a result of this agreement, we received \$32.8 million in 2014 and recorded the payments as deferred revenue. This deferred revenue is being recognized into sales over the life of the program on a straight line basis over approximately 5 years, which is the period we expect GM to benefit from this capacity and mix change. We recognized \$6.9 million and \$5.4 million of revenue related to this agreement in 2015 and 2014, respectively. As of December 31, 2015, we have \$6.9 million of deferred revenue that is classified as a current liability and \$13.6 million of deferred revenue that is recorded as a noncurrent liability on our Consolidated Balance Sheet.

Also in 2014, we reached an agreement with GM to recover certain costs related to the delay of another major product program. We received \$9.3 million in 2014 related to this agreement which was recorded as deferred revenue. This deferred revenue is being recognized into sales over the life of the program on a straight-line basis over approximately 8 years, which is the period we expect GM to benefit from this agreement. We recognized \$1.1 million and \$0.5 million of revenue related to this agreement in 2015 and 2014, respectively. As of December 31, 2015, we have remaining deferred revenue of \$7.7 million, \$1.1 million of which is classified as a current liability and \$6.6 million which is recorded as a noncurrent liability on our Consolidated Balance Sheet.

In 2009, we entered into a settlement and commercial agreement (2009 Settlement and Commercial Agreement) with GM. As part of this agreement, we received \$110.0 million from GM, of which we recorded \$79.7 million as deferred revenue. As of December 31, 2015, our remaining deferred revenue related to the 2009 Settlement and Commercial Agreement is \$29.5 million, \$8.0 million of which is classified as a current liability and \$21.5 million of which is recorded as a noncurrent liability on our Consolidated Balance Sheet. We recognize this deferred revenue into revenue on a straight-line basis over 120 months, which ends September 2019 and is the period that we expect GM to benefit under the 2009 Settlement and Commercial Agreement. We recognized revenue of \$8.0 million, in 2015, 2014 and 2013 related to this agreement.



As of December 31, 2015, the majority of the remaining deferred revenue primarily relates to customer payments to implement capacity programs, which is generally recognized into revenue over the life of these programs. We recognized \$7.4 million, \$7.5 million and \$10.5 million of revenue for these programs in 2015, 2014 and 2013, respectively.

**RESEARCH AND DEVELOPMENT (R&D) COSTS** We expense R&D, as incurred, in selling, general and administrative expenses on our Consolidated Statement of Income. R&D spending, net of engineering, design and development recoveries, was \$113.9 million, \$103.9 million and \$103.4 million in 2015, 2014 and 2013, respectively.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

**CASH AND CASH EQUIVALENTS** Cash and cash equivalents include all cash balances, savings accounts, sweep accounts, and highly liquid investments in money market funds and certificates of deposit with maturities of 90 days or less at the time of purchase.

**ACCOUNTS RECEIVABLE** The majority of our accounts receivable are due from original equipment manufacturers (OEMs) in the automotive industry and are past due when payment is not received within the stated terms. Trade accounts receivable for our largest customer, GM, are generally due within approximately 50 days from the date of receipt.

Amounts due from customers are stated net of allowances for doubtful accounts. We determine our allowances by considering factors such as the length of time accounts are past due, our previous loss history, the customer's ability to pay its obligation to us, and the condition of the general economy and the industry as a whole. The allowance for doubtful accounts was \$4.3 million and \$4.6 million as of December 31, 2015 and 2014, respectively. We write-off accounts receivable when they become uncollectible.

**CUSTOMER TOOLING AND PRE-PRODUCTION COSTS RELATED TO LONG-TERM SUPPLY AGREEMENTS** Engineering, R&D, and other pre-production design and development costs for products sold on long-term supply arrangements are expensed as incurred unless we have a contractual guarantee for reimbursement from the customer. Costs for tooling used to make products sold on long-term supply arrangements for which we have either title to the assets or the noncancelable right to use the assets during the term of the supply arrangement are capitalized in property, plant and equipment. Capitalized items and customer receipts in excess of tooling costs specifically related to a supply arrangement are amortized over the shorter of the term of the arrangement or over the estimated useful lives of the related assets.

**INVENTORIES** We state our inventories at the lower of cost or market. The cost of our inventories is determined using the FIFO method. When we determine that our gross inventories exceed usage requirements, or if inventories become obsolete or otherwise not saleable, we record a provision for such loss as a component of our inventory accounts.

Inventories consist of the following:

	December 31,	
	2015	2014
	(in millions)	
Raw materials and work-in-progress	\$228.7	\$243.8
Finished goods	31.1	32.9
Gross inventories	259.8	276.7
Inventory valuation reserves	(29.3	) (27.9
Inventories, net	\$230.5	\$248.8

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

**PROPERTY, PLANT AND EQUIPMENT** We state property, plant and equipment, including amortizable tooling, at historical cost, as adjusted for impairments. Construction in progress includes costs incurred for the construction of buildings and building improvements, and machinery and equipment in process. Repair and maintenance costs that do not extend the useful life or otherwise improve the utility of the asset beyond its existing useful state are expensed in the period incurred.

We record depreciation and tooling amortization on the straight-line method over the estimated useful lives of the depreciable assets. Depreciation and tooling amortization amounted to \$163.6 million, \$166.5 million and \$151.8 million in 2015, 2014 and 2013, respectively.

Property, plant and equipment consists of the following:

	Estimated Useful Lives (years)	December 31, 2015 (in millions)	2014
Land	Indefinite	\$24.9	\$26.2
Land improvements	10-15	18.8	19.0
Buildings and building improvements	15-40	315.5	314.3
Machinery and equipment	3-12	1,853.1	1,770.7
Construction in progress		88.4	91.4
		2,300.7	2,221.6
Accumulated depreciation and amortization		(1,254.5	) (1,160.5
Property, plant and equipment, net		\$1,046.2	\$1,061.1

As of December 31, 2015, 2014 and 2013, we had unpaid purchases of plant and equipment in our Accounts Payable of \$43.6 million, \$31.4 million and \$46.2 million, respectively.

**IMPAIRMENT OF LONG-LIVED ASSETS** When impairment indicators exist, we evaluate the carrying value of long-lived assets for potential impairment. We consider projected future undiscounted cash flows, trends and other circumstances in making such estimates and evaluations. If impairment is deemed to exist, the carrying amount of the asset is adjusted based on its fair value. Recoverability of assets “held for use” is determined by comparing the forecasted undiscounted cash flows of the operations to which the assets relate to their carrying amount. When the carrying value of an asset group exceeds its fair value and is therefore nonrecoverable, those assets are written down to fair value. Fair value is determined based on market prices, when available, or a discounted cash flow analysis performed using management estimates.

**GOODWILL** We record goodwill when the purchase price of acquired businesses exceeds the value of their identifiable net tangible and intangible assets acquired. We test our goodwill annually, or more frequently if necessary, for impairment in accordance with the accounting guidance for goodwill and other indefinite-lived intangibles. We completed impairment tests in 2015 and 2014 and concluded that there was no impairment of our goodwill. The following table provides a reconciliation of changes in goodwill:

	December 31, 2015 (in millions)	2014
Beginning balance	\$155.0	\$156.4
Foreign currency translation	(0.6	) (1.4
Ending balance	\$154.4	\$155.0



## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

**INTANGIBLE ASSETS** During 2015, we launched global enterprise resource planning (ERP) systems at certain key locations to upgrade many of our existing operating and financial systems. In connection with the development of these ERP systems we have recorded an intangible asset on our Consolidated Balance Sheet. The intangible asset is related to costs incurred to obtain software licenses from a third party, as well as costs to design and develop this internal-use software. This intangible asset is classified as other assets and deferred charges on our Consolidated Balance Sheet and will be amortized over the estimated useful life of our ERP systems. We recorded \$3.2 million and \$0.4 million of expense for the amortization of these intangible assets in 2015 and 2014, respectively.

The following table provides the gross intangible asset balance and related amortization recorded on our Consolidated Balance Sheet as of December 31, 2015 and December 31, 2014:

	December 31,	
	2015	2014
	(in millions)	
Capitalized computer software intangible asset	\$28.7	\$19.7
Accumulated amortization	(3.7)	(0.5)
Capitalized computer software intangible asset, net	\$25.0	\$19.2

In connection with our e-AAM subsidiary, we have in-process research and development intangible assets which represent the technology that will be utilized in products to be launched in 2017. Accordingly, we will begin amortizing this asset on a straight-line basis at the start of production through the expected life cycle of the related products, which is expected to be approximately 5-7 years. These intangible assets are classified as other assets and deferred charges on our Consolidated Balance Sheet.

The following table provides a reconciliation of changes in the carrying value of our in-process research and development intangible assets:

	December 31,	
	2015	2014
	(in millions)	
Beginning balance	\$6.2	\$7.4
Foreign currency translation	(0.5)	(1.2)
Ending balance	\$5.7	\$6.2

**DEBT ISSUANCE COSTS** The costs related to the issuance or modification of long-term debt are deferred and amortized into interest expense over the life of each debt issue. Based on the early adoption of ASU 2015-03 - Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, our debt issuance costs associated with our term facility and senior unsecured notes have been retrospectively reclassified as a reduction to the related debt liability rather than a deferred asset as previously recorded. As of December 31, 2015 and December 31, 2014, our unamortized debt issuance costs were \$22.5 million and \$29.5 million, respectively. Debt issuance costs of \$7.9 million and \$10.7 million related to our revolving credit facility, for which there is no outstanding debt liability, remain classified as Other Assets and Deferred Charges on our Consolidated Balance Sheets as of December 31, 2015 and December 31, 2014, respectively. Deferred amounts associated with the extinguishment of debt are expensed and classified as debt refinancing and redemption costs on our Consolidated Statement of Income.

**DERIVATIVES** We recognize all derivatives on the balance sheet at fair value and we are not subject to master netting agreements. If a derivative qualifies under the accounting guidance as a hedge, depending on the nature of the hedge, changes in the fair value of the derivative are either offset against the change in fair value of the hedged asset,

liability or firm commitment through earnings or recognized in other comprehensive income until the hedged item is recognized in earnings. The ineffective portion of a derivative's change in fair value, and changes in the fair value of derivatives that do not qualify as hedges, are immediately recognized in earnings. See Note 3 - Derivatives and Risk Management, for more detail on our derivatives.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

**CURRENCY TRANSLATION AND REMEASUREMENT** We translate the assets and liabilities of our foreign subsidiaries to U.S. dollars at end-of-period exchange rates. We translate the income statement elements of our foreign subsidiaries to U.S. dollars at average-period exchange rates. We report the effect of translation for our foreign subsidiaries that use the local currency as their functional currency as a separate component of stockholders' equity. Gains and losses resulting from the remeasurement of assets and liabilities in a currency other than the functional currency of a subsidiary are reported in current period income. We also report any gains and losses arising from transactions denominated in a currency other than the functional currency of a subsidiary in current period income. These foreign currency gains and losses resulted in a gain of \$9.5 million and \$6.4 million and a loss of \$4.2 million, for the years ended 2015, 2014 and 2013, respectively, in Other Income (Expense).

**PENSION AND OTHER POSTRETIREMENT DEFINED BENEFIT PLANS** Net pension and postretirement benefit expenses and the related liabilities are determined on an actuarial basis. These plan expenses and obligations are dependent on management's assumptions developed in consultation with our actuaries. We review these actuarial assumptions at least annually and make modifications when appropriate. See Note 5 - Employee Benefit Plans, for more detail on our pension and other postretirement defined benefit plans.

**STOCK-BASED COMPENSATION** We have stock-based compensation in the form of stock options, restricted stock units (RSUs), performance shares, and performance awards. For non-performance based awards, the grant date fair value is measured as the stock price at the date of grant. For performance based awards, fair value is estimated using valuation techniques that require management to use estimates and assumptions. Certain awards require that management's estimates and assumptions be evaluated at each reporting date to determine if compensation expense related to the award should be adjusted, both on a catch-up and go-forward basis. Compensation expense is recognized over the period during which the requisite service is provided, referred to as the vesting period. See Note 6 - Stock-Based Compensation for more detail on our accounting for stock-based compensation.

**DEFERRED INCOME TAX ASSETS AND LIABILITIES AND VALUATION ALLOWANCES** Our deferred income tax assets and liabilities reflect the impact of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the basis of such assets and liabilities as measured by tax laws.

In accordance with the accounting guidance for income taxes, we estimate whether recoverability of our deferred tax assets is "more likely than not," based on forecasts of taxable income in the related tax jurisdictions. In this estimate, we use historical results, projected future operating results based upon approved business plans, eligible carryforward periods, tax planning opportunities and other relevant considerations. This includes the consideration of tax law changes, prior profitability performance and the uncertainty of future projected profitability. We record a valuation allowance to reduce our deferred tax assets to the amount that is "more likely than not," to be realized.

We record uncertain tax positions on the basis of a two-step process whereby: (1) we determine whether it is "more likely than not" that the tax positions will be sustained based on the technical merits of the position; and (2) for those positions that meet the "more likely than not" recognition threshold, we recognize the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority. We record interest and penalties on uncertain tax positions in income tax expense (benefit).

See Note 7 - Income Taxes, for more detail on our accounting for income taxes.

**PRODUCT WARRANTY** See Note 9 - Commitments and Contingencies, for more detail on our accounting for product warranties.

**USE OF ESTIMATES** In order to prepare consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP), we are required to make estimates and assumptions that affect the reported amounts and disclosures in our consolidated financial statements. Actual results could differ from those estimates.



AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

EFFECT OF NEW ACCOUNTING STANDARDS

On November 20, 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2015-17 - Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes, which simplifies the accounting for deferred tax assets (DTAs) and deferred tax liabilities (DTLs). Under the new guidance, entities would be required to classify all DTAs and DTLs as noncurrent in the balance sheet, as opposed to the current US GAAP standard, which requires entities to split their DTAs and DTLs between current and noncurrent in the balance sheet based on the classification of the related asset or liability. The new standard will still require entities to net DTAs and DTLs within each tax jurisdiction and prohibit netting of DTAs and DTLs between different tax jurisdictions. The guidance becomes effective for AAM at the beginning of our 2017 fiscal year, however as permitted, AAM elected to early adopt this standard using the prospective method in the fourth quarter of 2015. Prior periods were not retrospectively adjusted. The effect of implementing this ASU on our consolidated financial statements was a reduction to our current deferred income tax assets of \$39.2 million, a reduction to our current deferred income tax liabilities of \$0.1 million, an increase to our noncurrent deferred income tax assets of \$36.7 million, and a decrease to our noncurrent deferred income tax liabilities of \$2.4 million at December 31, 2015.

On May 1, 2015 the FASB issued ASU 2015-07 - Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent), which changes the disclosure requirements for investments in certain entities that calculate net asset value (NAV) per share. Under current accounting standards entities are permitted to estimate the fair value of certain investments using the investment's NAV as a practical expedient. The current disclosure guidance also permits entities to disclose the investment at NAV in the fair value hierarchy table as either Level 2 or Level 3, based upon certain criteria. The measurement basis utilizing NAV is different than the measurement criteria of all other investments which utilize inputs to calculate fair value. Due to this inconsistency, the FASB issued this ASU which requires entities to remove investments measured at NAV from the fair value hierarchy table. The guidance becomes effective for AAM at the beginning of our 2016 fiscal year. Other than the change in presentation, the adoption of this new guidance will not have an impact on our consolidated financial statements.

On April 7, 2015, the FASB issued ASU 2015-03 - Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, which changes the presentation of debt issuance costs in financial statements. Under the ASU, entities would present such costs in the balance sheet as a direct deduction of the related debt liability rather than as an asset. Amortization of the costs will continue to be reported as interest expense. This ASU becomes effective for AAM at the beginning of our 2016 fiscal year, however as permitted, AAM elected to early adopt this standard as of December 31, 2015. The effect of implementing this ASU on our consolidated financial statements was a reduction to both our other assets and deferred charges and long-term debt of \$14.6 million at December 31, 2015 and \$18.8 million at December 31, 2014.

In 2014, the FASB issued ASU 2014-09 - Revenue from Contracts with Customers (Topic 606), which outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The guidance is based on the principle that an entity should recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The guidance also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to fulfill a contract. Entities have the option of using either a full retrospective or a modified retrospective approach for the adoption of the new standard. On August 12, 2015, the FASB issued ASU 2015-14 - Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, to formally defer the

initial standard's effective date by one-year, making this guidance effective for AAM at the beginning of our 2018 fiscal year. We are currently assessing the impact that this standard will have on our consolidated financial statements.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

## 2. LONG-TERM DEBT AND LEASE OBLIGATIONS

Long-term debt, net consists of the following:

	December 31, 2015	2014
	(in millions)	
Revolving Credit Facility	\$—	\$—
Term Facility	—	142.5
7.75% Notes	200.0	200.0
6.625% Notes	550.0	550.0
6.25% Notes	400.0	400.0
5.125% Notes	200.0	200.0
Foreign credit facilities	38.0	38.9
Capital lease obligations	5.6	5.0
Debt	1,393.6	1,536.4
Less: Current portion of long-term debt	3.3	13.0
Long-term debt	1,390.3	1,523.4
Less: Debt issuance costs	14.6	18.8
Long-term debt, net	\$1,375.7	\$1,504.6

**REVOLVING CREDIT FACILITY AND TERM FACILITY** As of December 31, 2015, the revolving credit facility provided up to \$523.5 million of revolving bank financing commitments through September 13, 2018. At December 31, 2015, \$513.1 million was available under the revolving credit facility, which reflected a reduction of \$10.4 million for standby letters of credit issued against the facility.

The credit agreement provides for a senior secured term loan A facility in an aggregate principal amount of \$150.0 million (term facility). During 2015, we made principal payments of \$142.5 million on our term facility, of which \$135.9 million related to a voluntary election to prepay all outstanding principal, including \$2.8 million that was due in the fourth quarter of 2015. Upon prepayment, we expensed \$0.8 million in 2015 related to the write-off of the remaining unamortized debt issuance costs related to our term facility that we had been amortizing over the expected life of the borrowing.

We paid remaining debt issuance costs of \$0.1 million in 2014 associated with the execution of amending our revolving credit facility and term facility. In 2013, we paid debt issuance costs of \$6.9 million associated with the amendments and restatements of our revolving credit facility.

Borrowings under the revolving credit facility and term facility bear interest at rates based on adjusted LIBOR or an alternate base rate, plus an applicable margin. The applicable margin for LIBOR-based loans will be between 1.5% and 3.0%.

The revolving credit facility is secured on a first priority basis by all or substantially all of the assets of AAM and each guarantor under the collateral agreement dated as of November 7, 2008, as amended and restated as of September 13, 2013. In the event AAM achieves investment grade corporate credit ratings from Standard & Poor's and Moody's, AAM may elect to release all of the collateral from the liens granted pursuant to the collateral agreement, subject to notice requirements and other conditions. The revolving credit facility limits our ability to make certain investments, loans and guarantees, declare dividends or distributions on capital stock, redeem or repurchase capital stock and certain debt obligations, incur liens, incur indebtedness, enter into certain restrictive agreements, merge, make acquisitions or sell all or substantially all of our assets.



AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The revolving credit facility provides back-up liquidity for our foreign credit facilities. We intend to use the availability of long-term financing under the revolving credit facility to refinance any current maturities related to such debt agreements that are not otherwise refinanced on a long-term basis in their local markets, except where otherwise reclassified to current portion of long-term debt on our Consolidated Balance Sheet.

In 2013, we terminated our class C loan facility of \$72.8 million, which would have matured on June 30, 2013. Upon termination, we expensed \$0.5 million of unamortized debt issuance costs related to the class C facility.

**9.25% NOTES** In 2009, we issued \$425.0 million of 9.25% senior secured notes due 2017 (9.25% Notes). The notes were issued at a discount of \$5.5 million. Pursuant to the terms of our 9.25% Notes, in 2013, we voluntarily redeemed the remaining outstanding 9.25% Notes using the proceeds from the Term Facility and the issuance of the 5.125% Notes. This resulted in a principal payment of \$340.0 million and \$18.9 million for redemption premiums, as well as payments of accrued interest. We expensed \$6.7 million in 2013 related to the write-off of the remaining unamortized debt discount and issuance costs related to our 9.25% Notes.

**7.875% NOTES** In 2007, we issued \$300.0 million of 7.875% senior unsecured notes due 2017 (7.875% Notes). In 2013, we voluntarily purchased and redeemed \$300.0 million of our 7.875% Notes, and paid accrued interest. Upon purchase and redemption, we expensed \$8.5 million related to redemption premiums, \$0.1 million of professional fees and unamortized debt issuance costs of \$2.1 million related to this debt.

**7.75% NOTES** In 2011, we issued \$200.0 million of 7.75% senior unsecured notes due 2019 (7.75% Notes).

**6.625% NOTES** In 2012, we issued \$550.0 million of 6.625% senior unsecured notes due 2022 (6.625% Notes). Net proceeds from the 6.625% Notes were used to fund the purchase and redemption of \$250.0 million of the outstanding 5.25% senior unsecured notes, including the payment of interest, the redemption of \$42.5 million aggregate principal amount of our 9.25% Notes, certain pension obligations and for other general corporate purposes.

**6.25% NOTES** In 2013, we issued \$400.0 million of 6.25% senior unsecured notes due 2021 (6.25% Notes). Net proceeds from the 6.25% Notes were used to fund the purchase and redemption of our 7.875% Notes and for other general corporate purposes. We paid debt issuance costs of \$6.6 million in 2013 related to the 6.25% Notes.

**5.125% NOTES** In 2013, we issued \$200.0 million of 5.125% senior unsecured notes due 2019 (5.125% Notes). Net proceeds from the 5.125% Notes were used to redeem the remaining \$190.0 million outstanding under our 9.25% Notes. We paid debt issuance costs related to the 5.125% Notes of \$0.2 million and \$3.1 million in 2014 and 2013, respectively.

**LEASES** We lease certain facilities and furniture under capital leases expiring at various dates. The gross asset cost of our capital leases was \$7.9 million and \$6.7 million at December 31, 2015 and 2014, respectively. The net book value included in property, plant and equipment, net on the balance sheet was \$5.6 million and \$5.0 million at December 31, 2015 and 2014, respectively. The weighted-average interest rate on these capital lease obligations at December 31, 2015 was 7.2%.

We also lease certain manufacturing machinery and equipment, commercial office and production facilities, vehicles and other assets under operating leases expiring at various dates. In 2013 we entered into various sale-leaseback transactions for equipment to be used in production starting in 2013. We received proceeds of \$24.1 million in 2013 as a result of these transactions. Future minimum payments under noncancelable operating leases are as follows: \$20.4 million in 2016, \$17.0 million in 2017, \$9.1 million in 2018, \$4.4 million in 2019, and \$4.4 million in 2020. Our total

expense relating to operating leases was \$25.3 million, \$23.6 million and \$17.6 million in 2015, 2014 and 2013, respectively.

**FOREIGN CREDIT FACILITIES** We utilize local currency credit facilities to finance the operations of certain foreign subsidiaries. These credit facilities, some of which are guaranteed by Holdings and/or AAM, Inc., expire at various dates through July 2019. At December 31, 2015, \$38.0 million was outstanding under these facilities and an additional \$47.9 million was available.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

DEBT MATURITIES Aggregate maturities of long-term debt are as follows (in millions):

2016	\$15.4
2017	4.8
2018	18.0
2019	403.1
2020	0.7
Thereafter	951.6
Total	\$1,393.6

INTEREST EXPENSE AND INVESTMENT INCOME Interest expense was \$99.2 million in 2015, \$99.9 million in 2014 and \$115.9 million in 2013. The decrease in interest expense in 2014 as compared to 2013 is primarily due to the decrease in our weighted-average interest rate for the full year 2014 as compared to full year 2013. The decrease is also driven by lower average outstanding borrowings in 2014 as compared to 2013.

We capitalized interest of \$4.5 million in 2015, \$5.8 million in 2014 and \$6.6 million in 2013. The weighted-average interest rate of our long-term debt outstanding at December 31, 2015 was 6.5% as compared to 6.4% and 6.3% at December 31, 2014 and 2013, respectively.

Investment income was \$2.6 million in 2015 as compared to \$2.1 million and \$0.6 million in 2014 and 2013, respectively. Investment income includes interest earned on cash and cash equivalents and realized and unrealized gains and losses on our short-term investments during the period.

### 3.DERIVATIVES AND RISK MANAGEMENT

DERIVATIVE FINANCIAL INSTRUMENTS In the normal course of business, we are exposed to market risk associated with changes in foreign currency exchange rates and interest rates. To manage a portion of these inherent risks, we may purchase certain types of derivative financial instruments based on management's judgment of the trade-off between risk, opportunity and cost. We do not hold or issue derivative financial instruments for trading or speculative purposes. The ineffective portion of any hedge is included in current earnings. The impact of hedge ineffectiveness was not significant in any of the periods presented.

CURRENCY FORWARD CONTRACTS From time to time, we use foreign currency forward contracts to reduce the effects of fluctuations in exchange rates, primarily relating to the Mexican Peso, Euro, Pound Sterling, Thai Baht, Swedish Krona and Polish Zloty. We had forward contracts with a notional amount of \$190.0 million and \$99.3 million outstanding at December 31, 2015 and 2014, respectively, that hedge our exposure to changes in foreign currency exchange rates for certain payroll expenses through June 2018 and certain direct and indirect inventory and other working capital items through December 2016.

The following table summarizes the reclassification of pre-tax derivative gains (losses) into net income from accumulated other comprehensive income (loss) for those derivative instruments designated as hedging instruments under Accounting Standards Codification 815 - Derivatives and Hedging (ASC 815):

Location of Gain (Loss) Reclassified into Net Income	Gain (Loss) Reclassified During the Twelve Months Ended December 31,			Loss Expected to be Reclassified During the Next 12 Months
	2015	2014	2013	
	(in millions)			

Currency forward contracts	Cost of Goods Sold	\$(10.9	)	\$0.9	\$2.8	\$(7.5	)
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See Note 10 - Reclassifications Out of Accumulated Other Comprehensive Income (Loss) for amounts recognized in other comprehensive income (loss) during the years ended December 31, 2015, December 31, 2014 and December 31, 2013.

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AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes the amount and location of gains (losses) recognized in the Consolidated Statement of Income for those derivative instruments not designated as hedging instruments under ASC 815:

	Location of Gain (Loss) Reclassified into Net Income	Gain (Loss) Recognized During the Twelve Months Ended December 31,		
		2015	2014	2013
		(in millions)		
Currency forward contracts	Cost of Goods Sold	\$ (4.0	) \$ (1.8	) \$ 0.1
Currency forward contracts	Other Income (Expense), Net	(1.6	) —	—

**CONCENTRATIONS OF CREDIT RISK** In the normal course of business, we provide credit to customers. We periodically evaluate the creditworthiness of our customers and we maintain reserves for potential credit losses.

Sales to GM were approximately 66% of our consolidated net sales in 2015, 68% in 2014, and 71% in 2013. Accounts and other receivables due from GM were \$361.1 million at year-end 2015 and \$343.1 million at year-end 2014. Sales to FCA US LLC (FCA), were approximately 20% of our consolidated net sales in 2015, 18% in 2014 and 12% in 2013. Accounts receivable due from FCA were \$96.8 million at year-end 2015 and \$99.3 million at year-end 2014. No other single customer accounted for more than 10% of our consolidated net sales in any year presented.

In addition, our total GM postretirement cost sharing asset was \$256.3 million as of December 31, 2015 and \$287.8 million as of December 31, 2014. See Note 5 - Employee Benefit Plans for more detail on this cost sharing asset.

We diversify the concentration of invested cash and cash equivalents among different financial institutions and we monitor the selection of counterparties to other financial instruments to avoid unnecessary concentrations of credit risk.

## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

## 4. FAIR VALUE

The fair value accounting guidance defines fair value as “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” The definition is based on an exit price rather than an entry price, regardless of whether the entity plans to hold or sell the asset. This guidance also establishes a fair value hierarchy to prioritize inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

**FINANCIAL INSTRUMENTS** The estimated fair values of our financial assets and liabilities that are recognized at fair value on a recurring basis, using available market information and other observable data are as follows:

Balance Sheet Classification	December 31, 2015		December 31, 2014		Input
	Carrying Amount (in millions)	Fair Value	Carrying Amount	Fair Value	
Cash equivalents	\$61.7	\$61.7	\$35.3	\$35.3	Level 1
Currency forward contracts - Prepaid expenses and other current assets					
Undesignated currency forward contracts	0.2	0.2	—	—	Level 2
Currency forward contracts - Other accrued expenses					
Cash flow hedges	7.5	7.5	7.2	7.2	Level 2
Undesignated currency forward contracts	1.9	1.9	1.1	1.1	Level 2
Currency forward contracts - Other long-term liabilities					
Cash flow hedges	5.9	5.9	0.1	0.1	Level 2

The carrying values of our cash, accounts receivable, accounts payable and accrued liabilities approximate their fair values due to the short-term maturities of these instruments. The carrying values of our borrowings under the foreign credit facilities approximate their fair values due to the frequent resetting of the interest rates. We estimated the fair value of our outstanding debt using available market information and other observable data to be as follows:

	December 31, 2015		December 31, 2014		Input
	Carrying Amount (in millions)	Fair Value	Carrying Amount	Fair Value	
Revolving Credit Facility	\$—	\$—	\$—	\$—	Level 2
Term Facility	—	—	142.5	141.1	Level 2
7.75% Notes	200.0	218.5	200.0	224.0	Level 2
6.625% Notes	550.0	574.8	550.0	583.0	Level 2
6.25% Notes	400.0	415.0	400.0	419.0	Level 2
5.125% Notes	200.0	202.0	200.0	202.6	Level 2

Investments in our defined benefit pension plans are stated at fair value. See Note 5 - Employee Benefit Plans for additional fair value disclosures of our pension plan assets.

## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

## 5.EMPLOYEE BENEFIT PLANS

**PENSION AND OTHER POSTRETIREMENT DEFINED BENEFIT PLANS** We sponsor various qualified and non-qualified defined benefit pension plans for our eligible associates. We also maintain hourly and salaried benefit plans that provide postretirement medical, dental, vision and life insurance benefits (OPEB) to our eligible retirees and their dependents in the U.S.

AAM and GM share proportionally in the cost of OPEB for eligible retirees based on the length of service an employee had with AAM and GM. We have included in our OPEB obligation the amounts expected to be received pursuant to this agreement of \$256.3 million and \$287.8 million at December 31, 2015 and December 31, 2014, respectively. We have also recorded a corresponding asset for these amounts on our Consolidated Balance Sheet, \$13.1 million that is classified as a current asset and \$243.2 million that is classified as a noncurrent asset as of December 31, 2015.

Actuarial valuations of our benefit plans were made as of December 31, 2015 and 2014. The principal weighted-average assumptions used in the year-end valuation of our U.S. and U.K. plans appear in the following table. The U.S. discount rates are based on an actuarial review of a hypothetical portfolio of long-term, high quality corporate bonds matched against the expected payment stream for each of our plans. The U.K. discount rate is based on a review of long-term bonds, in consideration of the average duration of plan liabilities. The assumptions for expected return on plan assets are based on future capital market expectations for the asset classes represented within our portfolios and a review of long-term historical returns. The rates of increase in compensation and health care costs are based on current market conditions, inflationary expectations and historical information.

	Pension Benefits						OPEB					
	2015		2014		2013		2015		2014		2013	
	U.S.	U.K.	U.S.	U.K.	U.S.	U.K.						
Discount rate	4.40	% 3.90	% 4.10	% 3.70	% 5.00	% 4.50	% 4.45	% 4.15	% 4.95	%		
Expected return on plan assets	7.50	% 5.00	% 7.50	% 5.00	% 7.50	% 5.15	% N/A	N/A	N/A			
Rate of compensation increase	4.00	% 3.30	% 4.00	% 3.30	% 4.00	% 3.60	% 4.00	% 4.00	% 4.00	%		

## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The accumulated benefit obligation for all defined benefit pension plans was \$678.6 million and \$723.9 million at December 31, 2015 and December 31, 2014, respectively. As of December 31, 2015, the accumulated benefit obligation for our underfunded defined benefit pension plans was \$553.2 million, the projected benefit obligation was \$565.1 million and the fair value of assets for these plans was \$457.8 million. The following table summarizes the changes in projected benefit obligations and plan assets and reconciles the funded status of the benefit plans, which is the net benefit plan liability:

	Pension Benefits December 31, 2015      2014 (in millions)		OPEB December 31, 2015      2014	
Change in benefit obligation				
Benefit obligation at beginning of year	\$738.8	\$755.4	\$654.7	\$577.9
Service cost	3.2	3.5	0.4	0.3
Interest cost	28.6	36.1	15.0	15.3
Actuarial loss (gain)	(32.1)	) 119.3	(35.9)	) 41.2
Change in GM portion of OPEB obligation	—	—	(31.6)	) 31.8
Participant contributions	0.4	0.4	—	—
Settlements	—	(131.1)	) —	—
Benefit payments	(38.4)	) (36.5)	) (14.2)	) (11.8)
Currency fluctuations	(7.4)	) (8.3)	) —	—
Net change	(45.7)	) (16.6)	) (66.3)	) 76.8
Benefit obligation at end of year	\$693.1	\$738.8	\$588.4	\$654.7
Change in plan assets				
Fair value of plan assets at beginning of year	\$643.7	\$713.4	\$—	\$—
Actual return on plan assets	(5.0)	) 77.2	—	—
Employer contributions	20.1	1.9	14.2	11.8
Participant contributions	0.4	0.4	—	—
Benefit payments	(38.4)	) (36.5)	) (14.2)	) (11.8)
Settlements	—	(104.2)	) —	—
Currency fluctuations	(8.0)	) (8.5)	) —	—
Net change	(30.9)	) (69.7)	) —	—
Fair value of plan assets at end of year	\$612.8	\$643.7	\$—	\$—

During 2014, the Society of Actuaries issued updated mortality tables for our U.S. benefit plans. These new mortality tables increased our projected benefit obligations for our U.S. pension and OPEB plans at December 31, 2014 by \$25.2 million and \$19.0 million, respectively.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Amounts recognized in our Consolidated Balance Sheets are as follows:

	Pension Benefits December 31,		OPEB December 31,	
	2015	2014	2015	2014
	(in millions)			
Noncurrent assets	\$27.0	\$6.9	\$—	\$—
Current liabilities	(4.2	) (3.0	) (29.4	) (29.6
Noncurrent liabilities	(103.1	) (99.0	) (559.0	) (625.1
Net liability	\$(80.3	) \$(95.1	) \$(588.4	) \$(654.7

Pre-tax amounts recorded in accumulated other comprehensive income (loss) (AOCI), not yet recognized in net periodic benefit cost as of December 31, 2015 and 2014, consists of:

	Pension Benefits December 31,		OPEB December 31,	
	2015	2014	2015	2014
	(in millions)			
Net actuarial gain (loss)	\$(222.9	) \$(215.3	) \$1.1	\$(35.7
Net prior service credit	0.6	0.7	12.7	15.4
Total amounts recorded	\$(222.3	) \$(214.6	) \$13.8	\$(20.3

The components of net periodic benefit cost (credit) are as follows:

	Pension Benefits			OPEB		
	2015	2014	2013	2015	2014	2013
	(in millions)					
Service cost	\$3.2	\$3.5	\$3.4	\$0.4	\$0.3	\$0.4
Interest cost	28.6	36.1	33.8	15.0	15.3	13.2
Expected asset return	(42.0	) (48.4	) (45.8	) —	—	—
Amortized actuarial loss	6.0	5.4	8.9	0.8	0.5	0.9
Amortized prior service cost (credit)	(0.1	) (0.1	) 5.4	(2.7	) (2.7	) (1.8
Settlement charge	—	35.5	—	—	—	—
Net periodic benefit cost (credit)	\$(4.3	) \$32.0	\$5.7	\$13.5	\$13.4	\$12.7

Our postretirement cost sharing asset from GM is measured on the same basis as the portion of the obligation to which it relates. The actuarial gains and losses related to the GM portion of the OPEB obligation are recognized immediately in the Consolidated Statement of Income as an offset against the gains and losses related to the change in the corresponding GM postretirement cost sharing asset. These items are presented net in the change in benefit obligation and net periodic benefit cost components disclosed above. Remaining actuarial gains and losses are deferred and amortized over the expected future service periods of the active participants.

The estimated net actuarial loss and prior service credit for the defined benefit pension plans that is expected to be amortized from AOCI into net periodic benefit credit in 2016 are \$5.4 million and \$0.1 million, respectively. The estimated net actuarial loss and prior service credit for the other defined benefit postretirement plans that is expected to be amortized from AOCI into net periodic benefit cost in 2016 are \$0.5 million and \$2.7 million, respectively.



## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For measurement purposes, a weighted average annual increase in the per-capita cost of covered health care benefits of 6.75% was assumed for 2016. The rate was assumed to decrease gradually to 5.0% by 2023 and to remain at that level thereafter. Health care cost trend rates have a significant effect on the amounts reported for the health care plans. A 1.0% increase in the assumed health care cost trend rate would have increased total service and interest cost in 2015 and the postretirement obligation, net of GM cost sharing, at December 31, 2015 by \$1.7 million and \$37.5 million, respectively. A 1.0% decrease in the assumed health care cost trend rate would have decreased total service and interest cost in 2015 and the postretirement obligation, net of GM cost sharing, at December 31, 2015 by \$1.5 million and \$31.2 million, respectively.

The expected future pension and other postretirement benefits to be paid, net of GM cost sharing, for each of the next five years and in the aggregate for the succeeding five years thereafter are as follows: \$55.5 million in 2016; \$55.1 million in 2017; \$55.5 million in 2018; \$55.8 million in 2019; \$56.5 million in 2020 and \$295.5 million for 2021 through 2025. These amounts were estimated using the same assumptions that were used to measure our 2015 year-end pension and OPEB obligations and include an estimate of future employee service.

Contributions In December 2015, we voluntarily contributed \$18.3 million to our U.K. pension trust, which satisfies our estimated U.K. regulatory funding requirements for 2016 through 2018. Due to the availability of our prefunding pension balances related to our U.S. pension plans, we do not expect to make any cash payments in 2016 to satisfy our regulatory funding requirements. We expect our cash outlay, net of GM cost sharing, for OPEB to be approximately \$16 million in 2016.

Terminated vested lump sum payout offer In 2014, we offered a voluntary one-time lump sum payment option to certain eligible terminated vested participants in our U.S. pension plans that settled our pension obligations to them ("AAM Pension Payout Offer"). The lump sum settlements, which were paid from plan assets, reduced our liabilities and administrative costs going forward.

In total, 3,335 participants accepted the offer and we made a one-time lump sum payment from our pension trust of \$104.2 million in 2014. As a result of this settlement, we remeasured the assets and liabilities of our U.S. pension plans, which reduced our projected benefit obligation by \$131.1 million and resulted in a non-cash charge of \$35.5 million in 2014 related to the accelerated recognition of certain deferred losses.

Amendments to pension and OPEB plans and contractual termination benefits In 2013, we remeasured the AAM Supplemental Executive Retirement Plan (SERP) due to the passing of our Co-Founder and former Executive Chairman of the Board of Directors. As a result of this remeasurement, we recorded \$4.7 million in selling, general and administrative expense related to the acceleration of prior service cost.

Pension plan assets The weighted-average asset allocations of our pension plan assets at December 31, 2015 and 2014 appear in the following table. The asset allocation for our plans is developed in consideration of the demographics of the plan participants and expected payment stream of the benefit obligation.

	U.S.				U.K.		
	2015	2014	Target		2015	2014	Target
			Allocation				Allocation
Equity securities	34.8	% 33.1	% 30% - 65%		26.7	% 28.7	% 25% - 35%
Fixed income securities	46.2	47.3	35% - 55%		52.0	61.1	55% - 65%
Hedge funds	17.8	18.3	0% - 20%		9.6	10.1	5% - 15%
Cash	1.2	1.3	0% - 5%		11.7	0.1	0% - 5%
Total	100.0	% 100.0	%		100.0	% 100.0	%



The primary objective of our pension plan assets is to provide a source of retirement income for participants and beneficiaries. Our primary financial objectives for the pension plan assets have been established in conjunction with a comprehensive review of our current and projected financial requirements. These objectives include having the ability to pay all future benefits and expenses when due, maintaining flexibility and minimizing volatility. These objectives are based on a long-term investment horizon.

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## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

**Defined Benefit Pension Plan Assets** Investments in our defined benefit plans are stated at fair value. Level 1 assets are valued using quoted market prices that represent the asset value of the shares held by the trusts. The level 2 assets are investments in pooled funds, which are valued using a model to reflect the valuation of their underlying assets that are publicly traded with observable values. The fair value of our level 3 defined benefit pension plan assets are measured by compiling the portfolio holdings and independently valuing the securities in those portfolios. The fair values of our pension plan assets are as follows:

December 31, 2015

Asset Categories	Level 1 (in millions)	Level 2	Level 3	Total
Cash & Cash Equivalents	\$23.7	\$—	\$—	\$23.7
Equity				
U.S. Large Cap	77.1	—	—	77.1
U.S. Small/Mid Cap	28.2	—	—	28.2
World Equity	95.5	—	—	95.5
Fixed Income Securities				
Government & Agencies	68.1	35.8	—	103.9
Corporate Bonds - Investment Grade	138.4	—	—	138.4
Corporate Bonds - Non-investment Grade	24.8	—	—	24.8
Emerging Market Debt	18.1	—	—	18.1
Other	6.9	—	—	6.9
Hedge Funds				
Property Funds	—	—	54.6	54.6
Multi Strategy Hedge Fund	—	—	41.6	41.6
Total Plan Assets	\$480.8	\$35.8	\$96.2	\$612.8

December 31, 2014

Asset Categories	Level 1 (in millions)	Level 2	Level 3	Total
Cash & Cash Equivalents	\$6.7	\$—	\$—	\$6.7
Equity				
U.S. Large Cap	87.3	—	—	87.3
U.S. Small/Mid Cap	25.2	—	—	25.2
World Equity	94.2	—	—	94.2
Fixed Income Securities				
Government & Agencies	67.9	58.8	—	126.7
Corporate Bonds - Investment Grade	139.9	—	—	139.9
Corporate Bonds - Non-investment Grade	31.9	—	—	31.9
Emerging Market Debt	19.0	—	—	19.0
Other	7.2	—	—	7.2
Hedge Funds				
Property Funds	—	—	48.3	48.3
Multi Strategy Hedge Fund	—	—	57.3	57.3
Total Plan Assets	\$479.3	\$58.8	\$105.6	\$643.7



## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The changes in the fair value of our level 3 assets in the Property Funds and Multi Strategy Hedge Fund are as follows:

	December 31, 2015 (in millions)	2014
Beginning balance	\$105.6	\$64.5
Actual return on plan assets:		
Relating to assets still held at the reporting date	3.8	3.3
Purchases, sales and settlements, net	(13.2	) 37.8
Ending balance	\$96.2	\$105.6

**DEFINED CONTRIBUTION PLANS** Most of our salaried U.S. associates are eligible to participate in voluntary savings plans. Our maximum match is 50% of eligible salaried associates' contribution up to 10% of their eligible salary. Matching contributions amounted to \$4.6 million in 2015, \$3.9 million in 2014 and \$3.9 million in 2013. U.S. salaried associates are eligible annually to receive an additional AAM Retirement Contribution (ARC) benefit between 3% to 5% of eligible salary, depending on years of service. We made ARC contributions of \$5.3 million, \$4.9 million and \$4.6 million in 2015, 2014 and 2013, respectively.

Certain UAW represented associates at our original U.S. locations are eligible for a Company match on associate contributions made to the voluntary savings plans. Our maximum match is 25% of hourly associates' contribution up to the first 6% of their contributions. Matching contributions amounted to \$0.1 million in 2015, 2014 and 2013. Certain UAW represented associates are also eligible to receive an ARC benefit of 5% of eligible wages. We made ARC contributions of \$2.5 million in 2015, \$2.6 million in 2014 and \$1.9 million in 2013 related to these associates.

**DEFERRED COMPENSATION PLAN** Certain U.S. associates are eligible to participate in a non-qualified deferred compensation plan. Payments of \$0.7 million, \$1.2 million and \$6.1 million have been made in 2015, 2014 and 2013, respectively, to eligible associates that have elected distributions.

At December 31, 2015 and 2014, our deferred compensation liability was \$5.1 million and \$5.6 million, respectively. Due to the changes in the value of this deferred compensation plan we increased our liability by \$0.1 million, \$0.3 million and \$0.8 million in 2015, 2014 and 2013, respectively.

## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

## 6. STOCK-BASED COMPENSATION

At December 31, 2015, we had stock-based awards outstanding under stock incentive compensation plans approved by our stockholders. Under these plans, a total of 20.6 million shares have been authorized for issuance to our directors, officers and certain other associates in the form of options, unvested restricted stock units, performance shares or other awards that are based on the value of our common stock. Shares available for future grants at December 31, 2015 were 3.8 million. The current stock plan will expire in April 2022.

**STOCK OPTIONS** Under the terms of the plans, stock options were granted at the market price of the stock on the grant date. The contractual term of outstanding stock options is 10 years. We issue new shares to satisfy stock-based awards.

Stock option awards became exercisable in three approximately equal annual installments beginning one year from the initial date of grant.

The following table summarizes activity relating to our stock options:

	Number of Shares (in millions, except	Weighted- Average Exercise Price Per Share per share data)
Outstanding at January 1, 2013	3.0	\$27.08
Options granted	—	—
Options exercised	(0.1	) 10.59
Options canceled	(0.9	) 24.28
Outstanding at December 31, 2013	2.0	\$29.22
Options granted	—	—
Options exercised	(0.1	) 13.87
Options canceled	(1.0	) 37.70
Outstanding at December 31, 2014	0.9	\$20.66
Options granted	—	—
Options exercised	(0.1	) 17.13
Options canceled	(0.2	) 26.65
Outstanding at December 31, 2015	0.6	\$18.58
Exercisable at December 31, 2013	2.0	\$29.22
Exercisable at December 31, 2014	0.9	\$20.66
Exercisable at December 31, 2015	0.6	\$18.58

As of December 31, 2015, there were no unvested stock options. The total intrinsic value of options outstanding and exercisable as of December 31, 2015 was \$2.0 million. The total intrinsic value of stock options exercised was \$0.3 million in 2015, \$0.5 million in 2014 and \$0.8 million in 2013.

## AMERICAN AXLE &amp; MANUFACTURING HOLDINGS, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The following is a summary of the range of exercise prices for stock options that are outstanding and exercisable at December 31, 2015:

Range of Exercise Prices	Stock Options Outstanding and Exercisable (in millions, except per share data)	Weighted- Average Exercise Price Per Share	Weighted- Average Contractual Life (in years)
\$9.19 - \$10.08	0.2	\$9.43	2.6
\$15.58 - \$26.02	0.4	21.47	0.8