

AMERICAN AXLE & MANUFACTURING HOLDINGS INC  
Form 10-K  
February 10, 2017

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

FORM 10-K

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

For the fiscal year ended December 31, 2016

or

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 1-14303

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

DELAWARE 38-3161171  
(State or other jurisdiction of (I.R.S. Employer  
incorporation or organization) Identification No.)

ONE DAUCH DRIVE, DETROIT, MICHIGAN 48211-1198

(Address of principal executive offices) (Zip Code)

313-758-2000

(Registrant's telephone number, including area code)

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

Title of Each Class	Name of Each Exchange on Which Registered
COMMON STOCK, PAR VALUE \$0.01 PER SHARE	NEW YORK STOCK EXCHANGE
PREFERRED SHARE PURCHASE RIGHTS, PAR VALUE \$0.01 PER SHARE	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  No

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically 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, 2016 as reported on the New York Stock Exchange was \$14.48 per share and the aggregate market value of the registrant's Common Stock held by non-affiliates was approximately \$1,101.1 million.

As of February 8, 2017, the number of shares of the registrant's Common Stock, \$0.01 par value, outstanding was 76,478,463 shares.

#### Documents Incorporated by Reference

Portions of the registrant's Annual Report to Stockholders for the year ended December 31, 2016 and Proxy Statement for use in connection with its Annual Meeting of Stockholders to be held on May 4, 2017, to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after December 31, 2016, 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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## 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 12 - Segment and Geographic Information” included in this report.

#### (c) Narrative Description of Business

##### Company Overview

We are a global 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), crossover vehicles, passenger cars 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 67% of our consolidated net sales in 2016, 66% in 2015, and 68% in 2014.

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 under purchase orders pursuant to the LPCs. The LPCs have terms equal to the lives of the relevant vehicle programs or their respective derivatives, which typically run five to seven years, and require us to remain competitive with respect to technology, design, quality and cost.

We also supply driveline system products to FCA US LLC (FCA) for heavy-duty Ram full-size pickup trucks and its derivatives, the AWD Jeep Cherokee, and a passenger car driveshaft program. Sales to FCA were approximately 18% of our consolidated net sales in 2016, 20% in 2015 and 18% in 2014. In addition to GM and FCA, we supply driveline systems and other related components to Nissan Motor Co., Ltd. (Nissan), Mercedes-Benz, Volkswagen AG (Volkswagen), Audi AG (Audi), Jaguar Land Rover Automotive PLC (JLR), Honda Motor Co., Ltd., Ford Motor Company (Ford), PACCAR Inc., Daimler Truck, AB Volvo (Volvo), Harley-Davidson Inc. 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 were \$1,287.8 million in 2016 as compared to \$1,317.1 million in

2015 and \$1,199.9 million in 2014.

Our principal served market is the driveline market, which consists of driveline, drivetrain, and related components, including metal-formed products and chassis modules for light trucks, SUVs, crossover vehicles, passenger cars 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,		
	2016	2015	2014
Axles and driveshafts	84 %	83 %	82 %
Drivetrain components, forged products and other	16 %	17 %	18 %
Total	100%	100%	100%

### Business Strategy

We have aligned our business strategy to build value for our key stakeholders. We accomplish our strategic objectives by capitalizing on our competitive strengths and continuing to diversify our customer, product and geographic sales mix, while providing exceptional value to our customers.

### Competitive Strengths

We achieve our strategic objectives by emphasizing a commitment to deliver industry leading quality, technology leadership and operational excellence through:

Maintaining 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 2016.

In 2015 and 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.

In 2015, our Changshu Manufacturing Facility was recognized with the Benz Qualified Supplier Award and our Swidnica Manufacturing Facility in Poland was recognized with JLR "Q" Certification for delivery and quality 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.

Achieving 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.

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. We are currently designing the next generation of our EcoTrac® Disconnecting AWD system (EcoTrac® Gen II), which is smaller, lighter in weight and aims to recover up to 90% of fuel penalty, compared to 80% currently. EcoTrac® Gen II is expected to launch in 2018.

In 2016, our Changshu Manufacturing Facility was awarded an Innovation Ability Award in the categories of innovation, technology and competitiveness from Automobile & Parts, an established industry publication in China, for the manufacturing of EcoTrac®.

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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. In 2015, we secured a new driveline systems contract featuring patented e-AAM™ electric driveline systems technology with a premier global OEM, which we expect to launch in 2018.

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 AWD applications for plug-in hybrid electric vehicles to full-electric vehicles. AAM's Quantum™ lightweight axle technology features a revolutionary design, which offers significant mass reduction and increased fuel economy and efficiency that is scalable across multiple applications without loss of performance or power.

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. AAM has established a new facility in Michigan dedicated to mechatronic technology, where we engineer, design and develop new products such as VecTrac™, an enhanced torque vectoring technology.

To accelerate AAM's technological advancements, we recently launched our Advanced Technology Development Center (ATDC) at our Detroit campus. This state-of-the-art facility is our center for technology benchmarking, prototype development, advanced technology development, supplier collaboration, customer showcasing and associate training on our future products, processes, and systems.

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

In 2016, we successfully launched 16 programs and facilities to support our customers. These launches included front and rear drive axles for a new global crossover vehicle program for JLR at our Swidnica Manufacturing Facility and front and rear axles for a full-size pickup truck program for Nissan at our Guanajuato Manufacturing Complex in Mexico. We also successfully localized the production of certain Power Transfer Units and Rear Drive Modules to our Changshu Manufacturing Facility in 2016.

In 2016, our Three Rivers Manufacturing Facility in Michigan and our Guanajuato Manufacturing Complex were recognized with Certificates of Excellence - Gold Supplier Status for outstanding on-time shipping performance to GM Customer Care and Aftersales.

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.

#### Diversification of Customer, Product and Geographic Sales Mix

Another element of building value for our key stakeholders is the diversification of our business through the growth of new and existing customer relationships and expansion of our product portfolio.

We continue to evaluate and consider strategic opportunities that will complement our core strengths and supplement our diversification strategies while providing future, profitable growth prospects. On November 3, 2016, AAM entered into a definitive merger agreement with Metaldyne Performance Group, Inc. (MPG) under which AAM will acquire MPG for approximately \$1.7 billion in cash and stock plus the assumption of approximately \$1.7 billion in net debt (comprised of approximately \$1.8 billion in debt, reduced by approximately \$0.1 billion of MPG cash and cash equivalents). Our pending acquisition of MPG is a key step in achieving our goals of customer, product and

geographic diversification.

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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 2016 included key international customers such as JLR, Nissan, Mercedes-Benz, Isuzu and others.

We have accelerated the development and launch of products for crossover vehicles and passenger cars and the global light truck and commercial vehicle markets. We have approximately \$875 million of new and incremental business backlog launching from 2017 to 2019, of which approximately 80% relates to AWD and RWD applications for crossover vehicles and passenger cars.

Approximately 60% of our new and incremental business backlog launching from 2017 to 2019 is for customers other than GM. In addition, we are working on approximately \$1 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 a significant portion features advanced technology such as our EcoTrac<sup>®</sup> Disconnecting AWD system and e-AAM<sup>™</sup> electric driveline systems technology.

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 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.

Approximately 40% of our \$875 million of new and incremental business backlog launching from 2017 to 2019 is for end use markets outside the U.S.

We expect our EcoTrac<sup>®</sup> Disconnecting AWD products to support three global markets by 2019.

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.

#### Providing Exceptional Value

We provide exceptional value to our key stakeholders by achieving solid financial performance.

Over the past five years, AAM's compound annual growth rate (CAGR) for sales has exceeded the growth rate of the industry.

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 manufacturing and engineering facilities in Brazil, China, Germany, India, Mexico, Poland, Sweden, Thailand and the U.S.



## 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 exceptional 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 2016.

As global OEM's work 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 continue increasing 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 may need to 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 2016, R&D spending was \$139.8 million as compared to \$113.9 million in 2015 and \$103.9 million in 2014. The focus of this investment continues to be developing innovative driveline and drivetrain systems and related components for light trucks, SUVs, crossover vehicles, passenger cars 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.

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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<sup>®</sup> Disconnecting AWD system technology seamlessly engages AWD functionality while improving fuel efficiency and reducing CO<sub>2</sub> emissions. This technology is featured on the Jeep Cherokee and its derivatives, and will be featured on the newly designed Chevrolet Equinox and GMC Terrain beginning in 2017.

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 JLR.

Our e-AAM subsidiary engineers and develops battery electric and hybrid driveline systems to be commercialized for crossover vehicles and passenger cars. 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.

Through the development of our EcoTrac<sup>®</sup> Disconnecting AWD system, our high efficiency axles and our e-AAM<sup>™</sup> hybrid and electric driveline systems, we have significantly improved fuel efficiency and safety, 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 Quantum<sup>™</sup> axles, PowerLite<sup>®</sup> axles, PowerDense<sup>®</sup> gears and PowerFilm<sup>®</sup> 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 \$875 million for programs launching from 2017 to 2019. Approximately 80% of our new and incremental business backlog relates to AWD and RWD applications for crossover vehicles and passenger cars. Approximately 40% of our new and incremental business backlog will be for end use markets outside the U.S and approximately 60% 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.

#### Cyclicality 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.

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## 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 2016, 2015 and 2014.

## Associates

We employ approximately 13,100 associates on a global basis (including our joint venture affiliates) of which approximately 3,600 are employed in the U.S. Approximately 2,000 of these U.S. associates are represented by the UAW, of which approximately 1,300 are hourly associates at our Three Rivers Manufacturing Facility in Michigan who are subject to a stand alone UAW agreement that expires March 6, 2021. An additional 700 associates at our MSP Industries Corporation and Colfor Manufacturing, Inc. subsidiaries are represented by the UAW under collective bargaining agreements that expire August 14, 2020 and June 8, 2018, respectively. In addition, approximately 100 associates at our Albion Automotive subsidiary in Scotland, approximately 100 associates at our Chennai Manufacturing Facility in India, approximately 4,300 associates at our Guanajuato Manufacturing Complex in Mexico and approximately 500 associates at our Araucária Manufacturing Facility in Brazil are represented by labor unions that are subject to collective bargaining agreements. The current collective bargaining agreements at Albion and Chennai will expire on March 31, 2017 and March 31, 2019, respectively. The collective bargaining agreements in Mexico and Brazil expire and are renegotiated annually.

## Executive Officers of the Registrant

Name	Age	Position
David C. Dauch .....	52	Chairman of the Board & Chief Executive Officer
Michael K. Simonte .....	53	President
Timothy E. Bowes .....	53	Senior Vice President - Strategic & Business Development
Alberto L. Satine .....	60	President - Driveline
Norman Willemse .....	60	President - Metal Formed Products
Mark S. Barrett .....	56	Vice President - Driveline Product Engineering
Michael J. Bly .....	49	President - AAM Europe
David A. Culton .....	51	Vice President - Cost Engineering
Philip R. Guys .....	54	Vice President - Global Product Engineering & Chief Technology Officer
Donald L. Joseph.....	61	President - AAM Asia
Terri M. Kemp .....	51	Vice President - Human Resources
Michael J. Lynch .....	52	Vice President - Driveline Business Performance & Cost Management
Christopher J. May .....	47	Vice President & Chief Financial Officer
Allan R. Monich .....	63	Vice President - Global Quality, Warranty & AAM Operating Systems
Tolga I. Oal .....	45	President - AAM North America
John S. Sofia .....	56	Vice President - Global Program Management
Thomas J. Szymanski .....	55	Vice President - Driveline Manufacturing Services

David C. Dauch, age 52, 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 53, 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 53, has been Senior Vice President - Strategic & Business Development since April 2016. Bowes previously served as Senior Vice President - Corporate Planning (since 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 60, has been President - Driveline 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 60, has been President - Metal Formed Products 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 56, has been Vice President - Driveline Product Engineering since August 2016. Barrett previously served as Group Vice President - Driveshafts (since May 2015); 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.

Michael J. Bly, age 49, has been President - AAM Europe 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 51, 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.

Philip R. Guys, age 54, has been Vice President - Global Product Engineering & Chief Technology Officer since August 2016. Guys previously served as Vice President - Driveline Product Engineering (since January 2015); 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 61, has been President - AAM Asia 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 51, 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 52, 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 47, 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 63, 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 45, has been President - AAM North America 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.

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Thomas J. Szymanski, age 55, 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,		
	2016	2015	2014
	(in millions)		
Net sales			
United States	\$2,147.9	\$2,121.9	\$2,073.6
Canada	94.7	119.3	64.6
Mexico	1,061.9	1,060.2	1,055.5
South America	124.6	106.6	156.5
China	203.4	185.5	71.3
All other Asia	208.8	185.2	167.3
Europe and other	106.7	124.4	107.2
Total net sales	\$3,948.0	\$3,903.1	\$3,696.0
Long-lived assets			
United States	\$831.0	\$824.0	\$867.1
Mexico	529.2	522.6	513.2
South America	61.5	48.5	80.5
China	129.8	85.8	59.8
All other Asia	92.0	103.7	117.5
Europe	111.7	120.3	94.0
Total long-lived assets	\$1,755.2	\$1,704.9	\$1,732.1



## Item 1A. Risk Factors

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

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 67% of our consolidated net sales in 2016, 66% in 2015, and 68% in 2014. 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 and a passenger car driveshaft program. Sales to FCA accounted for approximately 18% of our consolidated net sales in 2016, 20% in 2015 and 18% in 2014. 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 currently 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 purchase orders pursuant to 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. In addition to traditional competitors in the automotive sector, the trend towards advanced electronic integration has increased the level of new market entrants, including technology companies. 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.

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

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. On November 3, 2016, AAM entered into a definitive merger agreement with Metaldyne Performance Group Inc. (MPG). Failure to successfully consummate and integrate the MPG acquisition, or to realize the expected benefits and efficiencies of such acquisition, may have a material adverse impact on our results of operations and financial condition.

As we continue to expand globally and accelerate our diversification efforts, we may pursue strategic growth initiatives with greater frequency. An inability to successfully achieve the levels of organic and inorganic growth from our strategic initiatives could adversely impact our results of operations and financial condition.

A failure of our information technology (IT) networks and systems, or a failure to successfully integrate the IT systems of acquired companies, 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. If the Company is able to consummate its pending acquisition of MPG, there is no assurance we would be able to successfully integrate their IT systems, which could have a material adverse effect on our results of operations and financial condition.

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

We have business and technical offices and manufacturing facilities in many foreign countries. Approximately 9,500 of our 13,100 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. Current events, including the recent U.S. presidential election, the United Kingdom's vote to exit the European Union, potential changes in immigration policies and tax reform proposals, create a level of uncertainty for multi-national companies. As U.S. companies continue to expand globally, increased complexity exists due to the possibility of renegotiated trade deals, revised international tax law treaties, and changes to the U.S. corporate tax code. These uncertainties could have a material adverse effect on 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.

Our business is dependent on our Guanajuato Manufacturing Complex

A high concentration of our global business is supported by our Guanajuato Manufacturing Complex (GMC) in Mexico. In 2016, GMC represented approximately half of our consolidated net sales, and represented a significant portion of our profitability and cash flow. We expect GMC to continue to represent a substantial portion of these metrics for the foreseeable future. A significant disruption to our GMC operations as a result of changes in trade agreements between Mexico and the U.S., tariffs, natural disaster or otherwise could have a material adverse impact on our results of operations and financial condition.

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.

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.

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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 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 may 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 or changes in governmental regulations 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.

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.





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 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 with a functional currency other than the U.S. dollar 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.

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.

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 4,800 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.

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 goodwill, other intangible assets, and long-lived assets are at risk of impairment if our business or market conditions indicate that the carrying value of those assets exceeds their fair value.

Accounting principles generally accepted in the United States of America (GAAP) require that companies evaluate the carrying value of goodwill, other intangible assets, and long-lived assets routinely in order to assess whether any indication of asset impairment exists. Goodwill and other indefinite-lived intangible assets are required to be evaluated on an annual basis, while finite-lived intangible assets and long-lived assets should be evaluated only when events and circumstances exist that indicate an asset or group of assets may be impaired.

The pending acquisition of MPG is expected to significantly increase the value of our goodwill and other intangible assets and is also expected to result in a change to our current organizational structure from one reporting unit to multiple reporting units. If the acquisition does result in the creation of multiple reporting units, the threshold for analyzing impairment of goodwill will be reduced from an evaluation of the carrying value of our consolidated operations and its related fair value, to an analysis performed at the reporting unit level. This could potentially provide greater risk that goodwill becomes impaired in future operating periods. Further, the expected increase to goodwill and other intangible asset balances, upon acquisition, provides a greater chance that an impairment of these assets would 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.

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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.

#### Risks Related to AAM's Pending Merger with MPG

We cannot provide any assurance that the merger will be completed.

The completion of the merger is subject to customary closing conditions described in the merger agreement, including, among others, (i) adoption by MPG stockholders of the merger agreement and approval of the transactions contemplated by the merger agreement, (ii) approval by AAM stockholders of the AAM share issuance, (iii) obtaining antitrust and other regulatory approvals in certain jurisdictions and (iv) the absence of any event, circumstance, change, condition, occurrence or effect that, individually or in the aggregate, has or would reasonably be expected to have, a material adverse effect on MPG's or AAM's business.

Although AAM has agreed in the merger agreement to use its reasonable best efforts to consummate and make effective the merger and the other transactions contemplated by the merger agreement, these and other conditions to the merger may not be satisfied. In addition, satisfying the conditions to the merger may take longer than, and could cost more than, expected. Any delay in completing the merger may adversely affect the benefits that AAM expects to achieve from the merger and the integration of MPG's business.

There can be no assurance that regulatory authorities will not impose conditions, terms, obligations or restrictions and that such conditions, terms, obligations or restrictions will not have the effect of delaying the completion of the merger, imposing additional material costs on or materially limiting the revenues of the combined company following the merger or otherwise reduce the anticipated benefits of the merger if the merger were consummated successfully within the expected timeframe. In addition, we cannot provide assurance that any such conditions, terms, obligations or restrictions will not result in the delay or abandonment of the merger. Additionally, the completion of the merger is conditioned on the absence of certain restraining orders or injunctions by judgment, court order or law that would prohibit the completion of the merger.



Our inability to satisfy and comply with conditions under our existing financing arrangements or raise additional or replacement financing could delay or prevent the completion of the merger.

Our obligations under the merger agreement are not subject to any conditions regarding our ability to finance, or obtain financing for, the transactions contemplated by the merger agreement, and we are obligated under the merger agreement to have sufficient funds available to satisfy our obligations under the merger agreement. If we are unable to satisfy the conditions required under our financing commitments or any definitive financing documentation, we may not have available the funds necessary to fund the cash portion of the merger consideration. In addition, one or more financing sources under the financing commitments may default on its obligation to provide the financing and the commitments of any such defaulting financing source may not be replaced on a timely basis. Any such failure to have available the necessary funds to fund the cash portion of the merger consideration could delay or prevent the completion of the merger.

We will incur transaction and integration costs in connection with the merger.

We expect to incur significant costs in connection with consummating the merger. In addition, we expect to incur integration and restructuring costs following the completion of the merger as we integrate the businesses of the two companies. There can be no assurances that the expected benefits and efficiencies related to the integration of the businesses will be realized to offset these transaction, integration and restructuring costs over time. We will also incur significant fees and expenses relating to the financing arrangements in connection with the merger, as well as significant legal, financial advisor, accounting, banking and consulting fees, fees relating to regulatory filings and notices, SEC filing fees, printing and mailing fees and other costs associated with the merger. Some of these costs are payable regardless of whether the merger is completed.

Further, upon consummation of the merger, all MPG stock options and restricted shares will be accelerated and any unvested awards will vest at the effective time of the merger. Upon closing, we will record a one-time charge to earnings for the acceleration of these awards equal to the fair value on the closing date of the unvested portion of the awards that were accelerated and vested as a result of the merger.

The merger agreement restricts our conduct of business prior to the completion of the merger and limits our ability to pursue an alternative acquisition proposal to the merger.

Under the merger agreement, we are subject to certain restrictions on the conduct of our businesses prior to completing the merger, which restrictions may adversely affect our ability to exercise certain business strategies. These restrictions may prevent us from pursuing otherwise attractive business opportunities and making other changes to our business prior to the completion of the merger or termination of the merger agreement.

In addition, the merger agreement prohibits us from (A) soliciting, initiating, facilitating or encouraging any inquiry, proposal or offer relating to alternative business combination transactions, or (B) engaging in discussions or negotiations regarding, or providing any nonpublic information in connection with, proposals relating to alternative business combination transactions, in each case, subject to certain exceptions set forth in the merger agreement. In certain circumstances, upon termination of the merger agreement, we would be required to pay a termination fee to MPG ranging from \$50,897,000 to \$101,794,000, depending on the circumstances giving rise to the right to terminate the merger agreement, and we would be required to reimburse MPG for its transaction-related expenses, subject to a \$15 million limit (provided that the amount of any expenses paid by us to MPG will be credited against any termination fee to be paid by us if the termination fee subsequently becomes payable). These provisions may limit our ability to pursue offers from third parties that could result in greater value to our stockholders than the value resulting from the merger. The termination fee may also discourage third parties from pursuing an alternative acquisition proposal with us, or might result in third parties proposing to pay a lower value per share to acquire us than it might

otherwise have been willing to pay.

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While the merger is pending, we will be subject to business uncertainties that could adversely affect our business.

Uncertainty about the effect of the merger on employees, customers and suppliers may have an adverse effect on our business. These uncertainties may impair our ability to attract, retain and motivate key personnel until the merger is consummated and for a period of time thereafter, and could cause our customers, suppliers and other business partners to delay or defer certain business decisions or to seek to change existing business relationships with us. Employee retention may be particularly challenging during the pendency of the merger because employees may experience uncertainty about their future roles with the combined company. If, despite our retention efforts, key employees depart because of issues relating to the uncertainty and difficulty of integration or a desire not to remain with the companies as combined, our business could be seriously harmed. Any delay in completing the merger may further increase such uncertainties and the adverse effects related thereto.

Failure to complete the merger could materially and adversely impact our financial conditions, results of operations or stock price.

As described above, the conditions to the completion of the merger may not be satisfied. If the merger is not completed for any reason, we will be subject to several risks, including the following:

- being required to pay a termination fee ranging from \$50,897,000 to \$101,794,000 under certain circumstances provided in the merger agreement;
  - being required to reimburse MPG for certain fees and expenses relating to the merger, such as legal, financial advisor, accounting, banking, consulting and printing fees and expenses up to \$15 million under certain circumstances provided in the merger agreement (provided that the amount of any expenses paid to MPG will be credited against any termination fee to be paid by us if the termination fee subsequently becomes payable);
  - having had the focus of management diverted from day-to-day operations and other opportunities that could have been beneficial to us;
  - the market prices of our shares of common stock might decline to the extent that the current market prices reflect a market assumption that the merger will be completed;
  - customers and suppliers may seek to modify their relationship with us and our ability to attract new employees and retain existing employees may be harmed by the failure to complete the merger;
  - being subject to potential litigations related to a failure to complete the merger or to enforce our obligations under the merger agreement; and
- if we seek out another merger or business combination following termination of the merger agreement, we may not be able to negotiate a transaction with another party on terms comparable to, or better than, the terms of the merger agreement with MPG.

Any such events could have a material adverse impact on our financial condition, results of operations or stock price.

We will incur substantial additional indebtedness in connection with financing the merger.

Following the merger, on a combined basis, we will have substantial additional indebtedness and related debt service obligations. This additional indebtedness and related debt service obligations could have important consequences, including:

- reducing flexibility in planning for, or reacting to, changes in our business, the competitive environment and the industries in which we operate, and to technological and other changes;
- lowering credit ratings;
- reducing access to capital and increasing borrowing costs generally or for any additional indebtedness to finance future operating and capital expenses and for general corporate purposes;
- reducing funds available for operations, capital expenditures and other activities; and

•creating competitive disadvantages relative to other companies with lower debt levels.

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Our stockholders will have a reduced ownership and voting interest in AAM after the merger and will exercise less influence over the board of directors, management and policies of AAM.

Our stockholders currently have the right to vote in the election of the AAM board of directors and on other matters affecting AAM. Since new shares of our common stock will be issued to MPG stockholders in connection with the completion of the merger, each AAM stockholder's percentage ownership of AAM will be smaller than such stockholder's percentage ownership of AAM prior to the merger. Because of this, current AAM stockholders, as a group, may have less influence on the board of directors, management and policies of AAM than they now have on the board of directors, management and policies of AAM.

The merger will result in changes to the AAM board of directors that may affect the strategy and operations of the combined company as compared to that of AAM as it currently exists.

If the merger is completed, the composition of the AAM board of directors will change. Upon completion of the merger, the board of directors of the combined company will consist of eleven members, including three new members designated by American Securities, LLC (the controlling stockholder of MPG). There can be no assurance that the newly constituted board of directors of the combined company will function effectively as a team and that there will not be any adverse effect on the combined company's business as a result.

The obligations and liabilities of MPG, some of which may be unanticipated or unknown, may be greater than anticipated, which may diminish the value of our shares.

MPG's obligations and liabilities, some of which may be unanticipated or unknown, may be greater than anticipated or reflected or reserved for in MPG's historical financial statements. The obligations and liabilities of MPG could have a material adverse effect on our business, financial condition, or results of operations following the merger. Any such liabilities could substantially reduce our earnings and cash flows or otherwise materially and adversely affect our business, financial condition, or results of operations following the merger.

The merger may result in a loss of customers, clients, suppliers and strategic alliances.

Some of the customers, clients, suppliers, potential customers or clients or strategic partners of AAM or MPG may terminate their business relationship with AAM or MPG following the merger. Potential clients, suppliers, or strategic partners may delay entering into, or decide not to enter into, a business relationship with AAM or MPG because of the merger. Further, certain of MPG's existing customer contracts may require the purchaser's consent to the change of control of MPG, and there can be no assurance that such consent will be forthcoming. If customer, supplier or client relationships or strategic alliances are adversely affected by the merger, our business and financial performance following the merger could suffer.

#### Item 1B. Unresolved Staff Comments

None.

## Item 2. Properties

We operate in 13 countries and have 36 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 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	Forged and machined products, tool manufacturer
Rochester Manufacturing Facility Rochester, IN	Owned	Machined products
Guanajuato Manufacturing Complex Guanajuato, Mexico	Owned	Front and rear axles, driveshafts, 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	Independent rear drive axles, rear drive modules, power transfer units, gear sets and machined cases
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 2016, 2015 and 2014.

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

2016	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Full Year
High	\$ 18.52	\$ 16.97	\$ 18.00	\$ 19.51	\$19.51
Low	\$ 11.75	\$ 13.76	\$ 14.32	\$ 13.45	\$11.75
2015					
High	\$ 25.86	\$ 26.04	\$ 21.45	\$ 22.76	\$26.04
Low	\$ 22.20	\$ 20.91	\$ 19.06	\$ 18.64	\$18.64

Prices are the quarterly high and low closing sales prices for our common stock as reported by the NYSE. We had approximately 238 stockholders of record as of February 8, 2017.

Dividends

We did not declare or pay any cash dividends on our common stock in 2016. Our revolving credit agreement limits our ability to declare or pay dividends or distributions on capital stock.

### Issuer Purchases of Equity Securities

On May 5, 2016, AAM's Board of Directors authorized a share repurchase program of up to \$100 million of AAM's common shares through December 31, 2018 as part of AAM's overall capital allocation strategy. The repurchase of shares may be made in the open market or in privately negotiated transactions and will be funded through available cash balances and cash flow from operations. The timing and amount of any share repurchases will be determined based on market and economic conditions, share price, alternative uses of capital and other factors. During the second quarter of 2016, we completed an initial share repurchase of 100,000 shares for \$1.5 million under the program. As of December 31, 2016 there is approximately \$98.5 million available for repurchase.

We did not withhold or repurchase any shares of AAM stock in the fourth quarter of 2016.

### 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.

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## Item 6. Selected Financial Data

## FIVE YEAR CONSOLIDATED FINANCIAL SUMMARY

Year Ended December 31,

	2016	2015	2014	2013	2012	
	(in millions, except per share data)					
Statement of income data						
Net sales	\$3,948.0	\$3,903.1	\$3,696.0	\$3,207.3	\$2,930.9	
Gross profit	726.1	635.4	522.8	478.7	439.2	
Selling, general and administrative expenses	319.2	277.3	255.2	238.4	242.2	
Restructuring and acquisition-related costs	26.2	—	—	—	40.6	
Operating income	380.7	358.1	267.6	240.3	156.4	
Net interest expense	(90.5 )	(96.6 )	(97.8 )	(115.3 )	(101.0 )	
Net income	240.7	(a) 235.6	(b) 143.0	(c) 94.5	(b) 366.7	(b)(d)(e)
Net income attributable to AAM	240.7	(a) 235.6	(b) 143.0	(c) 94.5	(b) 367.7	(b)(d)(e)
Diluted earnings per share	\$3.06	\$3.02	\$1.85	\$1.23	\$4.87	
Balance sheet data						
Cash and cash equivalents	\$481.2	\$282.5	\$249.2	\$154.0	\$62.4	
Total assets	3,448.1	3,202.7	3,240.4	3,005.4	2,843.5	
Total long-term debt, net	1,400.9	1,375.7	1,504.6	1,537.0	1,433.1	
Total AAM stockholders' equity (deficit)	530.0	301.5	113.4	40.5	(113.9 )	
Dividends declared per share	—	—	—	—	—	
Statement of cash flows data						
Cash provided by (used in) operating activities	\$407.6	\$377.6	\$318.4	\$245.5	(f) \$(157.2 )	(f)
Cash used in investing activities	(227.7 )	(188.1 )	(195.3 )	(213.7 )	(f) (185.4 )	
Cash provided by (used in) financing activities	18.4	(143.6 )	(21.4 )	61.3	(f) 235.2	(f)
Other data						
Depreciation and amortization	\$201.8	\$198.4	\$199.9	\$177.0	\$152.2	
Capital expenditures	223.0	193.5	206.5	251.9	207.6	
Proceeds from government grants	2.8	5.1	2.1	—	—	
Purchase buyouts of leased equipment	4.6	—	—	—	—	
Proceeds from sale-leaseback of equipment	—	—	—	24.1	12.1	

Includes acquisition and integration related charges of \$7.1 million, net of tax, asset impairment and plant closure (a) costs of \$4.7 million and implementation costs, including professional expenses, relating to restructuring of \$6.6 million, net of tax.

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

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

(d)



Includes net special charges, curtailment gains, asset impairments and asset redeployment and other restructuring costs associated with plant closures of \$26.4 million, net of tax.

- (e) 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.

- (f) These amounts have been adjusted to reflect the impact of retrospectively adopting the new cash flow classification guidance in Accounting Standards Update 2016-15, as described in Item 8. Financial Statements and Supplementary Data - Note 1 - Organization and Summary of Significant Accounting Policies. In 2013, we made cash payments of \$27.5 million for redemption premiums, tender

premiums and professional fees associated with the repayment of our remaining 9.25% Notes and 7.875% Notes. These cash payments were classified within operating activities in 2013 and the table above reflects reclassification of these payments to financing activities as required by ASU 2016-15. Also in 2013, we received \$5.0 million as the beneficiary of a key man life insurance policy upon the passing of our Co-Founder and former Executive Chairman of the Board of Directors. This cash receipt was classified within operating activities in 2013 and the table above reflects reclassification of the cash receipt to investing activities as required by ASU 2016-15. In 2012, we made cash payments of \$18.3 million for redemption premiums, tender premiums, make-whole premiums and professional fees associated with the repayment of a portion of our 9.25% Notes and all of our remaining 5.25% Notes. These cash payments were classified within operating activities in 2012 and the table above reflects reclassification of these payments to financing activities as required by ASU 2016-15.

## 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 global 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), crossover vehicles, passenger cars 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 67% of our consolidated net sales in 2016, 66% in 2015, and 68% in 2014.

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 under purchase orders pursuant to the LPCs. The LPCs have terms equal to the lives of the relevant vehicle programs or their respective derivatives, which typically run five to seven 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, and a passenger car driveshaft program. Sales to FCA were approximately 18% of our consolidated net sales in 2016, 20% in 2015 and 18% in 2014. In addition to GM and FCA, we supply driveline systems and other related components to Nissan Motor Co., Ltd. (Nissan), Mercedes-Benz, Volkswagen AG (Volkswagen), Audi AG (Audi), Jaguar Land Rover Automotive PLC (JLR), Honda Motor Co., Ltd., Ford Motor Company (Ford), PACCAR Inc., Daimler Truck, AB Volvo (Volvo), Harley-Davidson Inc. 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 were \$1,287.8 million in 2016 as compared to \$1,317.1 million in 2015 and \$1,199.9 million in 2014.

Our pending acquisition of Metaldyne Performance Group Inc. (MPG) is expected to significantly increase diversification in our product portfolio, as well as accelerate customer diversification initiatives. Upon successful consummation of the acquisition, sales to GM and FCA as a percentage of consolidated net sales are expected to be reduced.

## INDUSTRY TRENDS

There are a number of significant trends affecting the highly competitive global automotive industry. Intense competition, volatility in fuel, steel, metallic and other commodity prices and significant pricing pressures remain. 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 the capability to source programs on a global basis, are critical to attracting and retaining business in the global automotive industry.

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**MORE STRINGENT GOVERNMENT REGULATIONS FOR FUEL EFFICIENCY AND EMISSIONS REDUCTIONS** With a 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 currently require the equivalent of 54.5 miles per gallon by 2025. As a result, OEMs and suppliers are competing to develop and market new and alternative technologies, such as electric vehicles, hybrid vehicles, fuel cells, and fuel-efficient diesel engines. At the same time, OEMs and suppliers are improving driveline systems to increase fuel economy and reduce emissions through lightweighting and efficiency initiatives.

We are responding to the increases in CAFE standards with ongoing research and development (R&D) efforts that focus on fuel economy, emissions reductions and environmental improvements. These efforts have led to new business awards for products that support AWD and RWD crossover vehicles and passenger cars 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 80% of AAM's new and incremental business backlog launching from 2017 to 2019, which is an estimated \$875 million, relates to AAM's newest AWD systems for crossover vehicles and passenger cars. AAM's EcoTrac<sup>®</sup> Disconnecting AWD system technology seamlessly engages AWD functionality while improving fuel efficiency and reducing CO<sub>2</sub> emissions. Our e-AAM<sup>™</sup> hybrid and electric driveline 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.

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<sup>®</sup> Disconnecting AWD system, our e-AAM<sup>™</sup> hybrid and electric driveline systems, our Quantum<sup>™</sup> lightweight axle technology, our high efficiency axles, PowerLite<sup>®</sup> axles and PowerDense<sup>®</sup> gears, we have significantly advanced our efforts to improve fuel efficiency and safety, ride and handling performance while reducing emissions and mass.

In addition to AAM's organic growth in technology and processes, our pending acquisition of MPG provides a significant opportunity for AAM to leverage complementary technologies, expand our product portfolio, significantly diversify our global customer base, and strengthen our long-term financial profile through greater scale. The anticipated synergies of this acquisition are expected to enhance AAM's ability to compete in today's technological and regulatory environment, while remaining cost competitive through increased scale and integration.

**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. As electronic components become an increasingly larger focus for OEMs and suppliers, the industry will likely continue to see the addition of new market entrants from non-traditional automotive companies, including increased competition from technology companies. An area of focus will be the product development cycle and bridging the gap between the shorter development cycles of IT hardware and software and the longer development cycles of traditional powertrain components. AAM's Mechatronics Technical Center in Michigan is a facility dedicated to the engineering, design and development of driveline systems that include electronic components. In addition, AAM's product portfolio including e-AAM<sup>™</sup> hybrid and electric driveline systems, EcoTrac<sup>®</sup> Disconnecting AWD system, VecTrac<sup>™</sup> Torque Vectoring Technology and TracR<sup>®</sup> Differential Technology, are examples of AAM's enhanced capabilities in electronic integration.

**GLOBAL AUTOMOTIVE PRODUCTION AND INDUSTRY CONSOLIDATION** Asia and Eastern Europe continue to be an area of focus for automotive capital investment as well as strategic regions for innovation and new product development. 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 suppliers maintain a global presence in these markets in order to compete for new contracts. Over the past several years, we increased our global installed capacity to support current programs and future opportunities, including expansion in the emerging markets of China, Poland, and Thailand. We also have engineering offices around the world to support our global locations. 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.

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The cyclical nature of the automotive industry, volatile oil prices, and the shifting demands of consumer preference and regulatory requirements, require OEMs and suppliers to remain agile with regard to product development and global capability. A critical objective for OEMs and suppliers will be the ability to meet these global demands while effectively managing costs. OEMs and suppliers are preparing for these challenges through merger and acquisition activity, development of strategic partnerships and reduction of vehicle platform complexity. In order to effectively drive technology development, recognize cost synergies, and increase global footprint, the industry may continue to see consolidation in the supply base as companies recognize and respond to the need for scalability. AAM's pending acquisition of MPG is a critical step in achieving the aforementioned objectives.

**OEM RECALLS AND WARRANTY PROGRAMS** An unprecedented level of vehicle recalls occurred over the past several years, which resulted in increased attention on the automotive industry and, consequently, pressure from legislators, media, regulators and the public. There is 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, which has resulted in a trend of increased recall activity. Further, there has been 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 places additional pressure on the need for robust quality systems throughout the supply chain and may also increase warranty related expenditures for the supply base. As part of our ongoing commitment to deliver industry leading quality, we have recently implemented an enhanced internal quality assurance system that drives continuous improvement to not only meet but exceed the growing expectations of our OEM customers.

**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 a 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 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. 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 and software reliability. The increased integration of electronics that will likely be required in autonomous vehicle developments will provide an opportunity for suppliers, such as AAM, with advanced capabilities in this area to be competitive in this expanding market.

## RESULTS OF OPERATIONS

**NET SALES** Net sales increased to \$3,948.0 million in 2016 as compared to \$3,903.1 million in 2015 and \$3,696.0 million in 2014.

The increase in sales in 2016, as compared to 2015, primarily reflects an increase of approximately 8% in production volumes for the North American light truck and SUV programs we currently support, which was partially offset by a reduction of approximately \$51.0 million in commercial vehicle sales due to an expired program, and reductions in both metal market pass-throughs to our customers and the impact of foreign exchange related to translation adjustments.

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, 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 drivetrain program for FCA, both of which launched in the second half of 2014.

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 \$1,617 in 2016, as compared to \$1,645 in 2015 and \$1,667 in 2014. The change in CPV in 2016 as compared to 2015, relates primarily to the reduction in metal market pass-throughs to our customers, as well as the impact of annual productivity price-downs for certain programs. The change in CPV in 2015 as compared to 2014, relates primarily to the reduction in metal market pass throughs to our customers.

Our 4WD/AWD penetration rate was 71% in 2016 and 2015, as compared to 69% in 2014. 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.

**COST OF GOODS SOLD** Cost of goods sold decreased to \$3,221.9 million in 2016 as compared to \$3,267.7 million in 2015 and \$3,173.2 million in 2014. The change in cost of goods sold reflects a net reduction of approximately \$6.0 million related to an increase in sales volumes and a product mix change in 2016, as compared to 2015, that was more than offset by the impact of lower net manufacturing costs, including the impact of foreign exchange, lower warranty expense, and productivity initiatives. Cost of goods sold was also impacted by a reduction of approximately \$39.0 million related to metal market pass-through costs and foreign exchange related to translation adjustments.

The change in cost of goods sold in 2015, as compared to 2014, reflects the impact of an increase in sales volumes in 2015, as compared to 2014, partially offset by a reduction related to metal market pass-through costs and foreign exchange related to translation adjustments.

Materials costs as a percentage of total cost of goods sold were approximately 68% in 2016 and 2015, and 69% in 2014.

**GROSS PROFIT** Gross profit increased to \$726.1 million in 2016 as compared to \$635.4 million in 2015 and \$522.8 million in 2014. Gross margin was 18.4% in 2016 as compared to 16.3% in 2015 and 14.1% in 2014. The increase in gross profit in 2016, as compared to 2015, reflects the benefit of increased contribution margin on higher production volumes for the North American light truck and SUV programs that we support.

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.

Gross profit and gross margin were also impacted by the other factors discussed in Net Sales and Cost of Goods Sold above.

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**SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (SG&A)** SG&A (including R&D) was \$319.2 million in 2016 as compared to \$277.3 million in 2015 and \$255.2 million in 2014. SG&A as a percentage of net sales was 8.1% in 2016, 7.1% in 2015 and 6.9% in 2014. R&D spending in product, process and systems was \$139.8 million in 2016 as compared to \$113.9 million in 2015 and \$103.9 million in 2014. The change in SG&A in 2016, as compared to 2015, is primarily due to higher R&D expense and higher incentive compensation accruals.

The change in SG&A in 2015 as compared to 2014 was primarily due to higher R&D expense, increases in our salaried workforce and higher incentive compensation accruals.

**RESTRUCTURING AND ACQUISITION-RELATED COSTS** Restructuring and acquisition related costs were \$26.2 million in 2016 and we did not incur any such costs in 2015 or 2014. In the fourth quarter of 2016, AAM initiated actions under a global restructuring program focusing on creating a more streamlined organization in addition to reducing our cost structure and preparing for upcoming acquisition integration activities. As part of our restructuring actions, we incurred severance charges of approximately \$0.6 million, as well as other implementation costs, including professional fees, of approximately \$10.2 million in 2016. We expect to incur approximately \$20 to \$25 million of additional charges under our global restructuring program in 2017.

In the third quarter of 2016, we identified an indicator of impairment at our Pantnagar Manufacturing Facility in India due to changes in forecasted cash flows. Accordingly, we performed an assessment of the recoverability of these assets and, as a result, recorded an impairment charge of \$3.4 million to write the assets down to fair value. In the fourth quarter of 2016, we recorded an additional charge of \$1.1 million relating to the announced closure of the facility.

On November 3, 2016, AAM announced entry into a definitive merger agreement with MPG. As part of our pending acquisition of MPG and other strategic initiatives, we incurred expense of approximately \$10.9 million primarily related to legal and other pre-merger integration activities in the second half of 2016. We expect to incur additional acquisition and integration related charges of approximately \$40 million in 2017 in conjunction with our pending acquisition of MPG and other strategic initiatives.

**OPERATING INCOME** Operating income increased to \$380.7 million in 2016 as compared to \$358.1 million in 2015 and \$267.6 million in 2014. Operating margin increased to 9.6% in 2016 as compared to 9.2% in 2015 and 7.2% in 2014. The changes in operating income and operating margin in 2016, 2015 and 2014 were due to the factors discussed in Net Sales, Cost of Goods Sold, Gross Profit and SG&A.

**INTEREST EXPENSE** Interest expense was \$93.4 million in 2016, \$99.2 million in 2015 and \$99.9 million in 2014. The decrease in interest expense in 2016, as compared to 2015, reflects the decrease in our average outstanding borrowings due to our voluntary election to prepay the outstanding principal balance on our term facility in the fourth quarter of 2015.

The weighted-average interest rate of our total debt outstanding was 6.6% in 2016 and 6.3% in both 2015 and 2014.

**INVESTMENT INCOME** Investment income was \$2.9 million in 2016, \$2.6 million in 2015, and \$2.1 million in 2014. 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 2016, 2015 and 2014:

**Debt refinancing and redemption costs** In 2015, we expensed \$0.8 million of unamortized debt issuance costs related to a voluntary election to prepay our outstanding term facility.

**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 \$8.8 million in 2016, \$12.0 million in 2015,

and \$6.9 million in 2014.

**INCOME TAX EXPENSE** Income tax expense was \$58.3 million in 2016, \$37.1 million in 2015, and \$33.7 million in 2014. Our effective income tax rate was 19.5% in 2016 as compared to 13.6% in 2015 and 19.1% in 2014.

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Our income tax expense and effective tax rate for 2016, 2015 and 2014, as compared to the U.S. federal statutory rate of 35%, primarily reflect favorable foreign tax rates, partially offset by our inability to realize a tax benefit for current foreign losses. Our effective tax rate for 2016 is higher than our effective tax rate for 2015 primarily due to the impact of an \$11.5 million reduction in tax expense related to uncertain tax positions attributable to transfer pricing in the fourth quarter of 2015.

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.

As of December 31, 2016 and 2015, we have a valuation allowance of \$164.8 million and \$167.3 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 \$240.7 million in 2016 as compared to \$235.6 million in 2015 and \$143.0 million in 2014. Diluted earnings per share was \$3.06 in 2016 as compared to \$3.02 per share in 2015 and \$1.85 per share in 2014. Net Income and EPS were primarily impacted by the factors discussed in Net Sales, Cost of Goods Sold, SG&A, Restructuring and Acquisition-Related Costs and Income Tax Expense.

## LIQUIDITY AND CAPITAL RESOURCES

Our primary liquidity needs are to fund capital expenditures, debt service obligations and our working capital requirements, in addition to ongoing strategic initiatives. 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.

As a result of our pending acquisition of Metaldyne Performance Group Inc. (MPG), we expect to incur significant new indebtedness to fund the cash consideration payable in connection with the merger, related fees and expenses, to refinance any indebtedness outstanding under the existing AAM senior secured revolving credit facility and certain existing indebtedness of MPG, and for general corporate purposes.

**OPERATING ACTIVITIES** Net cash provided by operating activities increased to \$407.6 million in 2016 as compared to \$377.6 million in 2015 and \$318.4 million in 2014. The following factors impacted cash provided by operating activities:

**Pension and Other Postretirement Benefits (OPEB)** Due to the availability of our prefunded pension balances related to our U.S. pension plans, we were not required to make any cash payments in 2016, 2015 or 2014 to satisfy our regulatory funding requirements, nor do we expect to make any cash payments in 2017. In 2015, we voluntarily contributed \$18.3 million to our U.K. pension trust to satisfy our estimated U.K. regulatory funding requirements for 2016 through 2018. Our annual pension charge, including settlements was income of \$5.0 million in 2016, income of \$4.3 million in 2015 and expense of \$32.0 million in 2014, respectively.

Our cash outlay for OPEB, net of GM cost sharing, was \$17.0 million in 2016, \$14.2 million in 2015, and \$11.8 million in 2014. This compares to our annual postretirement cost of \$12.1 million in 2016, \$13.5 million in 2015, and \$13.4 million in 2014. We expect our cash outlay for other postretirement benefit obligations in 2017, 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** During the fourth quarter of 2016, we reached an agreement with a customer to increase installed capacity for a program we support. In the fourth quarter of 2016, we received \$20.0 million associated with this capacity increase and recorded the payment as deferred revenue, classified as a noncurrent liability on our Consolidated Balance Sheet.

In 2014, we reached an agreement with a customer 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 revenue related to this agreement of \$6.9 million in 2016 and 2015, and \$5.4 million in 2014. As of December 31, 2016, we have \$6.9 million of deferred revenue that is classified as a current liability and \$6.9 million of deferred revenue that is recorded as a noncurrent liability on our Consolidated Balance Sheet.

Also in 2014, we reached an agreement with a customer to recover certain costs related to the delay of a 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 revenue related to this agreement of \$1.1 million in 2016 and 2015, and \$0.5 million in 2014. As of December 31, 2016, we have recorded deferred revenue of \$6.6 million, \$1.1 million of which is classified as a current liability and \$5.5 million which is recorded as a noncurrent liability on our Consolidated Balance Sheet.

**Inventories** At year-end 2016, inventories were \$219.5 million as compared to \$230.5 million at year-end 2015 and \$248.8 million at year-end 2014. The decrease in inventory in 2016, as compared to 2015, primarily reflects the impact of inventory reduction initiatives, as well as the reduction of inventory at certain facilities as a result of expiring programs. The decrease in inventory in 2015, as compared to 2014, primarily reflects a reduction in steel costs, foreign exchange and inventory reduction initiatives.

**Accounts receivable** Accounts receivable at year-end 2016 were \$560.0 million as compared to \$539.1 million at year-end 2015 and \$532.7 million at year-end 2014.

**Interest paid** Interest paid in 2016 was \$87.2 million as compared to \$93.8 million in 2015 and \$91.1 million in 2014. The decrease in interest paid in 2016, as compared to 2015, primarily relates to our voluntary election to prepay the outstanding principal balance on our term facility in the fourth quarter of 2015.

**Accounts payable** At year-end 2016, accounts payable were \$382.3 million as compared to \$412.7 million at year-end 2015 and \$444.3 million at year-end 2014. The decreases in our year-end 2016 accounts payable balance, as compared to 2015, as well as our year-end 2015 accounts payable balance, as compared to 2014, were 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 in January 2016 that fully satisfied our obligations for transfer pricing issues for tax years 2007 through 2013. Including these settlements, we made payments of approximately \$28 million in 2016 to the Mexican tax authorities related to transfer pricing matters.

**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 as compared to 2014.

**Restructuring and Acquisition-Related Costs** In 2017, we expect to incur \$20 to \$25 million of cash charges under our global restructuring program, as well as acquisition and integration related cash charges of approximately \$40 million in conjunction with our pending acquisition of MPG and other strategic initiatives.

**INVESTING ACTIVITIES** Capital expenditures were \$223.0 million in 2016, \$193.5 million in 2015 and \$206.5 million in 2014. 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 2017 to be in the range of 6.5% to 7% of sales, which includes support for our global program launches in 2017 and 2018 within our new and incremental business backlog, as well as program capacity increases and future launches of replacement programs.

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In the fourth quarter of 2016, we executed early buyout options to purchase certain leased equipment in the amount of \$4.6 million. We have the ability to exercise additional early buyout options to purchase leased equipment and we expect our cash outlay associated with these additional early buyout options to be approximately \$13 million in 2017.

We received proceeds of \$2.8 million, \$5.1 million and \$2.1 million in 2016, 2015 and 2014, respectively, related to a European Union government incentive for capital expenditures related to new technology.

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.

On November 3, 2016, AAM entered into a definitive merger agreement with MPG under which AAM will acquire MPG for approximately \$1.7 billion in cash and stock. Under the terms of the agreement, each share of MPG's common stock will be converted into the right to receive \$13.50 per share in cash and 0.5 of a share of AAM common stock. We expect the transaction to close in the first half of 2017.

**FINANCING ACTIVITIES** Net cash provided by financing activities was \$18.4 million in 2016, and net cash used in financing activities was \$143.6 million and \$21.4 million in 2015 and 2014, respectively. Total debt outstanding, net of debt issuance costs, was \$1,404.2 million at year-end 2016, \$1,379.0 million at year-end 2015 and 1,517.6 million at year-end 2014. The increase in total debt outstanding, net of debt issuance costs, at year-end 2016, as compared to year-end 2015, was primarily due to increased borrowings on our foreign credit facilities. The decrease in total debt outstanding, net of debt issuance costs, 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.

**Revolving Credit Facility and Term Facility** As of December 31, 2016, the revolving credit facility provided up to \$523.5 million of revolving bank financing commitments through September 13, 2018. At December 31, 2016, \$507.3 million was available under the revolving credit facility, which reflected a reduction of \$16.2 million for standby letters of credit issued against the facility.

The credit agreement provided for a senior secured term loan A facility in an aggregate principal amount of \$150.0 million (term facility). In 2015, we made principal payments of \$142.5 million on our term facility to prepay all outstanding principal. 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.

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.

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.

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**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. During 2016, we increased the borrowings on our foreign credit facilities, primarily to fund capital expenditures and working capital in preparation for the launch of programs in China, which began in the fourth quarter of 2016. At December 31, 2016, \$60.4 million was outstanding under these facilities and an additional \$62.0 million was available.

**Financing related to the pending acquisition of MPG** In connection with the pending acquisition of MPG, AAM obtained a commitment letter that provides for up to \$1.65 billion in senior secured term loan facilities and up to \$800 million in a senior secured revolving credit facility. In addition, AAM intends to issue up to \$1.2 billion in new senior unsecured notes, subject to market conditions. To the extent AAM does not receive gross proceeds of at least \$1.2 billion from such an issuance, the commitment letter also provides for up to \$1.2 billion in a senior unsecured bridge facility.

These financing commitments have been obtained to fund the cash consideration payable in connection with the merger, related fees and expenses, to refinance any indebtedness outstanding under the existing AAM senior secured revolving credit facility and certain existing indebtednesses of MPG, and for general corporate purposes.

**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	BA3	B1	Under Review for Downgrade
Fitch Ratings	BB	BB	Rating Watch Negative

**Dividend program** We have not declared or paid any cash dividends on our common stock in 2016, 2015 or 2014.

**Stock repurchase** We repurchased shares of AAM common stock for \$5.2 million, \$3.1 million and \$0.3 million, in 2016, 2015 and 2014, respectively, to satisfy employee tax withholding obligations due upon the vesting of restricted stock units and performance shares, as well as an initial share repurchase under the authorized share repurchase program.

On May 5, 2016, AAM's Board of Directors authorized a share repurchase program of up to \$100 million of AAM's common shares through December 31, 2018 as part of AAM's overall capital allocation strategy. The repurchase of shares may be made in the open market or in privately negotiated transactions and will be funded through available cash balances and cash flow from operations. The timing and amount of any share repurchases will be determined

based on market and economic conditions, share price, alternative uses of capital and other factors. During the second quarter of 2016, we completed an initial share repurchase of 100,000 shares for \$1.5 million under the program. As of December 31, 2016 there is approximately \$98.5 million available for repurchase.

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Exercise of employee stock options We received \$0.3 million in 2016, \$0.8 million in 2015, and \$1.2 million in 2014 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 with various expiration dates.

Contractual obligations The following table summarizes payments due on our contractual obligations as of December 31, 2016:

	Payments due by period				
	Total	<1yr	1-3	3-5	>5
		yrs	yrs	yrs	yrs
	(in millions)				
Current and long-term debt	\$1,410.4	\$41.5	\$418.9	\$400.0	\$550.0
Interest obligations	401.5	93.1	168.9	106.0	33.5
Capital lease obligations	5.5	1.1	1.9	1.7	0.8
Operating leases <sup>(1)</sup>	72.4	23.7	25.3	11.5	11.9
Purchase obligations <sup>(2)</sup>	203.0	182.7	20.3	—	—
Other long-term liabilities <sup>(3)</sup>	605.7	59.7	130.7	119.4	295.9
Total	\$2,698.5	\$401.8	\$766.0	\$638.6	\$892.1

Operating leases include all lease payments through the end of the contractual lease terms, which includes elections (1) for repurchase 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 primarily represent our estimated pension and other postretirement benefit obligations, (3) net of GM cost sharing, that were actuarially determined through 2026, 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 adverse 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 2016, 2015 and 2014.

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## EFFECT OF NEW ACCOUNTING STANDARDS

### Accounting Standards Update 2016-16

On October 24, 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-16 - Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory. Existing income tax guidance prohibits the recognition of current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party. This existing guidance is deemed an exception to the principle of comprehensive recognition of current and deferred income taxes in accounting principles generally accepted in the United States of America (GAAP). Due to the limited authoritative guidance about this exception, diversity in practice exists. ASU 2016-16 eliminates this exception for intra-entity transfers of assets other than inventory and requires that entities recognize the income tax consequences when the transfers occur. This guidance becomes effective at the beginning of our 2018 fiscal year, however early adoption is permitted. The guidance requires a modified retrospective transition method. We are currently assessing the impact that this standard will have on our consolidated financial statements.

### Accounting Standards Update 2016-15

On August 26, 2016, the FASB issued ASU 2016-15 - Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. The update addresses the following eight specific cash flow issues: 1) debt prepayment or debt extinguishment costs; 2) settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; 3) contingent consideration payments made after a business combination; 4) proceeds from the settlement of insurance claims; 5) proceeds from the settlement of corporate-owned life insurance policies (including bank-owned life insurance policies); 6) distributions received from equity method investees; 7) beneficial interests in securitization transactions; and 8) separately identifiable cash flows and application of the predominance principle.

Historically, we have classified certain cash flows related to debt prepayment or debt extinguishment costs as operating cash flows. Upon adoption, the guidance in ASU 2016-15 requires that these cash flows be classified as financing cash flows. We do not feel that the adoption of this guidance as it relates to any of the other seven cash flow issues specified will have a material impact on our Consolidated Statement of Cash Flows.

This guidance becomes effective at the beginning of our 2018 fiscal year, however as permitted, we have elected to early adopt this standard in the fourth quarter of 2016. As retrospective application of this guidance is required under the standard, we have updated the information in Item 6, "Selected Financial Data" accordingly. The retrospective adoption of this guidance did not impact any of the periods presented in the Consolidated Statements of Cash Flows in the three years ended December 31, 2016.

### Accounting Standards Update 2016-09

On March 31, 2016, the FASB issued ASU 2016-09 - Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The update is intended to simplify the current guidance for stock-based compensation for a range of issues including: the timing of income statement impact for tax benefits or deficiencies in excess of compensation cost, the classification of tax-related cash flows resulting from share based payments, the allowable threshold for tax withholding without resulting in liability award classification, and a policy election for estimating forfeiture rates or recognizing forfeitures as they occur. This guidance becomes effective at the beginning of our 2017 fiscal year, however as permitted, AAM elected to early adopt this guidance in the fourth quarter of 2016. The guidance requires a retrospective, modified-retrospective, or prospective transition method depending on the applicable section of the ASU. The effect of implementing this ASU on our Consolidated Balance Sheet was an increase to our deferred tax assets and retained earnings of \$4.8 million as of January 1, 2016,

using the modified-retrospective transition method, for the cumulative-effect adjustment of excess tax benefits that were not previously recognized because the related tax deduction had not reduced current taxes payable. We have evaluated the aspects of this new guidance and, other than this one-time increase in deferred tax assets and retained earnings, the adoption of this ASU did not have a material impact on our accounting for share-based payments.

#### Accounting Standards Update 2016-02

On February 25, 2016, the FASB issued ASU 2016-02 - Leases (Topic 842), which supersedes the existing lease accounting guidance and establishes new criteria for recognizing lease assets and liabilities. The most significant impact of the update, to AAM, is that a lessee will be required to recognize a "right-of-use" asset and lease liability for operating lease agreements that were not previously included on the balance sheet under the existing lease guidance. A lessee will be permitted to make a policy election, excluding recognition of the right-of-use asset and associated liability for lease terms of 12 months or less. Expense recognition in the statement of income along with cash flow statement classification for both financing (capital) and operating leases under the new standard will not be significantly changed from existing lease guidance. This guidance becomes effective for AAM at the beginning of our 2019 fiscal year and requires transition under a modified retrospective method. We are currently assessing the impact that this standard will have on our consolidated financial statements.

#### Accounting Standards Update 2015-07

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 prohibits entities from categorizing investments measured at NAV within the fair value hierarchy. Other than the change in presentation, which requires retrospective application, the adoption of this new guidance did not have an impact on our consolidated financial statements. AAM adopted this policy on January 1, 2016.

#### Accounting Standards Update 2014-09

In 2014, the FASB issued ASU 2014-09 - Revenue from Contracts with Customers (Topic 606), and has subsequently issued ASUs 2015-14 - Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, 2016-08 - Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross Versus Net), 2016-10 - Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing, 2016-12 - Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients, and 2016-20 - Revenue from Contracts with Customers (Topic 606): Technical Corrections and Improvements to Topic 606 (collectively, the Revenue Recognition ASUs).

The Revenue Recognition ASUs outline a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersede 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. This guidance is effective for AAM beginning on January 1, 2018 and entities have the option of using either a full retrospective or a modified retrospective approach for the adoption of the new standard. We are evaluating whether we will adopt this guidance using the full retrospective or modified retrospective approach.

We are concluding the assessment phase of implementing this guidance. We have evaluated each of the five steps in the new revenue recognition model, which are as follows: 1) Identify the contract with the customer; 2) Identify the

performance obligations in the contract; 3) Determine the transaction price; 4) Allocate the transaction price to the performance obligations; and 5) Recognize revenue when (or as) performance obligations are satisfied. Our preliminary conclusion is that the determination of what constitutes a contract with our customers (step 1), our performance obligations under the contract (step 2), and the determination and allocation of the transaction price (steps 3 and 4) under the new revenue recognition model will not result in significant changes in comparison to the current revenue recognition guidance.

With regard to recognizing revenue when (or as) a performance obligation is satisfied (step 5), we are thoroughly reviewing the language in our contracts with each customer to determine whether the customer obtains

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control of the goods at a point in time or over time. Under current revenue recognition guidance, 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. Topic 606 provides certain criteria that, if met, require companies to recognize revenue as the product is produced (over time) instead of at a point of time (i.e. upon shipment). We are evaluating our contracts in the context of the criteria for recognizing revenue over time. If we conclude that we meet the criteria for recognizing revenue over time, our timing of revenue recognition would be accelerated, however, as we utilize lean manufacturing principles and deliver to our customers on a just-in-time basis, we do not expect any acceleration of revenue under the new guidance to be material.

There are also certain considerations related to internal control over financial reporting that are associated with implementing the new guidance under Topic 606. We are currently evaluating our control framework for revenue recognition and identifying any changes that may need to be made in response to the new guidance. Disclosure requirements under the new guidance in Topic 606 have been significantly expanded in comparison to the disclosure requirements under the current guidance. Designing and implementing the appropriate controls over gathering and reporting the information required under Topic 606 is currently in process.

### CRITICAL ACCOUNTING ESTIMATES

In order to prepare consolidated financial statements in conformity with 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.

**ACCOUNTING FOR ACQUISITIONS** On November 3, 2016 we entered into a definitive merger agreement with Metaldyne Performance Group Inc. (MPG). Upon successful consummation of this merger, we will be subject to the accounting guidance as prescribed by ASC 805 - Business Combinations. We are required to allocate the purchase price of an acquired business to its identifiable assets and liabilities based on fair value. The excess purchase price over the fair value of identifiable assets and liabilities, if any, is recorded as goodwill. Determining the fair values of assets acquired and liabilities assumed, especially with regards to intangible assets, requires significant levels of estimates and assumptions made by management. In order to assist management, we utilize third party valuation experts in determining the fair values.

If the initial accounting for an acquisition is incomplete by the end of the reporting period in which the acquisition occurs, we record provisional amounts for the incomplete items. We have the ability to make measurement period adjustments, as necessary, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the measurement of the amounts recognized on the date of acquisition. The measurement period ends once we receive the information that was not obtainable as of the acquisition date, and should not exceed one year from the acquisition date.

**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 2016, the weighted-average discount rates determined on that basis were 4.15% for the valuation of our pension benefit obligations and 4.20% 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 2016, the discount rate determined on that basis was 2.70%. 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 2016. 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 2016, 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, 2016, our valuation date.

	Discount Rate	Expected Return on Assets
	(in millions)	
Decline in funded status	\$49.9	N/A
Increase in 2016 expense	\$0.5	\$ 3.1

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

For 2017, we assumed a weighted-average annual increase in the per-capita cost of covered health care benefits of 6.50% 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 2016 and increased the postretirement obligation, net of GM cost sharing, at December 31, 2016 by \$0.5 million and \$21.2 million, respectively. A 1.0% increase in the assumed health care trend rate would have increased total service and interest cost in 2016 and the postretirement obligation, net of GM cost sharing, at December 31, 2016 by \$1.5 million and \$36.3 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, 2016, we estimated \$249.0 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 may be responsible for certain costs associated with product recalls and field actions, which are recorded at the time our obligation is probable and can be reasonably

estimated.

Our warranty accrual was \$42.9 million as of December 31, 2016 and \$36.6 million as of December 31, 2015. During 2016 and 2015, 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.

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**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, 2016, we have a valuation allowance of approximately \$164.8 million related to net deferred tax assets in several foreign jurisdictions and U.S. state and local jurisdictions. As of December 31, 2015 and 2014, our valuation allowance was \$167.3 million and \$156.9 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, 2016, 2015 and 2014, we had a liability for unrecognized income tax benefits and related interest and penalties of \$30.7 million, \$48.5 million and \$59.5 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 in January 2016 that fully satisfied our obligations for transfer pricing issues for tax years 2007 through 2013. Including these settlements, we made payments of \$28 million in 2016 to the Mexican tax authorities related to transfer pricing matters. 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 certainty 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 2016.

**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.

## 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 consummate and integrate acquisitions and joint ventures;
- risks inherent in our international operations (including adverse changes in trade agreements, tariffs, immigration policies, political stability, taxes and other law changes, potential disruptions of production and supply, and currency rate fluctuations, including those resulting from the recent United States presidential election and the United Kingdom's vote to exit the European Union);
- negative or unexpected tax consequences;
- 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 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;
- 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;
- risks related to a failure of our information technology systems and networks, and risks associated with current and emerging technology threats and damage from computer viruses, unauthorized access, cyber attack and other similar disruptions;
- global economic conditions;
- 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;
- 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;
- 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 currency exchange rates and interest 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, Brazilian Real, British Pound Sterling, Thai Baht, Swedish Krona, Chinese Yuan and Polish Zloty. At December 31, 2016 and December 31, 2015, we had forward contracts with a notional amount of \$156.0 million and \$190.0 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 \$14.2 million at December 31, 2016 and was approximately \$17.3 million at December 31, 2015.

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, 2016, 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, 2016) on our long-term debt outstanding at December 31, 2016 would be approximately \$0.6 million and was approximately \$0.3 million at December 31, 2015, 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,

	2016	2015	2014
	(in millions, except per share data)		
Net sales	\$3,948.0	\$3,903.1	\$3,696.0
Cost of goods sold	3,221.9	3,267.7	3,173.2
Gross profit	726.1	635.4	522.8
Selling, general and administrative expenses	319.2	277.3	255.2
Restructuring and acquisition-related costs	26.2	—	—
Operating income	380.7	358.1	267.6
Interest expense	(93.4 )	(99.2 )	(99.9 )
Investment income	2.9	2.6	2.1
Other income (expense)			
Debt refinancing and redemption costs	—	(0.8 )	—
Other, net	8.8	12.0	6.9
Income before income taxes	299.0	272.7	176.7
Income tax expense	58.3	37.1	33.7
Net income	\$240.7	\$235.6	\$143.0
Basic earnings per share	\$3.08	\$3.03	\$1.85
Diluted earnings per share	\$3.06	\$3.02	\$1.85

See accompanying notes to consolidated financial statements

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

Consolidated Statements of Comprehensive Income  
Year Ended December 31,

	2016	2015	2014
	(in millions)		
Net income	\$240.7	\$235.6	\$143.0
Other comprehensive income (loss)			
Defined benefit plans, net of \$4.7 million, \$(8.5) million and \$23.2 million of tax in 2016, 2015 and 2014, respectively	(19.6 )	16.7	(42.7 )
Foreign currency translation adjustments	(3.2 )	(70.3 )	(30.3 )
Changes in cash flow hedges	(10.3 )	(6.0 )	(7.7 )
Other comprehensive income (loss)	(33.1 )	(59.6 )	(80.7 )
Comprehensive income	\$207.6	\$176.0	\$62.3

See accompanying notes to consolidated financial statements

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

## Consolidated Balance Sheets

December 31,

	2016	2015
	(in millions, except per share data)	
Assets		
Current assets		
Cash and cash equivalents	\$481.2	\$282.5
Accounts receivable, net	560.0	539.1
Inventories, net	219.5	230.5
Prepaid expenses and other	75.8	72.1
Total current assets	1,336.5	1,124.2
Property, plant and equipment, net	1,093.7	1,046.2
Deferred income taxes	356.4	373.6
Goodwill	154.0	154.4
GM postretirement cost sharing asset	236.1	243.2
Other assets and deferred charges	271.4	261.1
Total assets	\$3,448.1	\$3,202.7
Liabilities and Stockholders' Equity		
Current liabilities		
Current portion of long-term debt	\$3.3	\$3.3
Accounts payable	382.3	412.7
Accrued compensation and benefits	139.3	128.0
Deferred revenue	24.6	22.9
Other accrued expenses	102.0	132.3
Total current liabilities	651.5	699.2
Long-term debt, net	1,400.9	1,375.7
Deferred income taxes	15.0	6.8
Deferred revenue	70.8	65.7
Postretirement benefits and other long-term liabilities	779.9	753.8
Total liabilities	2,918.1	2,901.2
Stockholders' equity		
Series A junior participating preferred stock, par value \$0.01 per share; 0.1 million shares authorized; no shares outstanding in 2016 or 2015	—	—
Preferred stock, par value \$0.01 per share; 10.0 million shares authorized; no shares outstanding in 2016 or 2015	—	—
Series common stock, par value \$0.01 per share; 40.0 million shares authorized; no shares outstanding in 2016 or 2015	—	—
Common stock, par value \$0.01 per share; 150.0 million shares authorized; 83.0 million and 82.3 million shares issued as of December 31, 2016 and 2015, respectively	0.9	0.8
Paid-in capital	660.1	638.9
Retained earnings	449.7	204.2
Treasury stock at cost, 6.5 million shares in 2016 and 6.2 million shares in 2015	(191.1 )	(185.9 )
Accumulated other comprehensive loss		
Defined benefit plans, net of tax	(243.5 )	(223.9 )
Foreign currency translation adjustments	(122.4 )	(119.2 )

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Unrecognized loss on cash flow hedges	(23.7 )	(13.4 )
Total stockholders' equity	530.0	301.5
Total liabilities and stockholders' equity	\$3,448.1	\$3,202.7

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,

	2016	2015	2014
	(in millions)		
<b>Operating activities</b>			
Net income	\$240.7	\$235.6	\$143.0
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation and amortization	201.8	198.4	199.9
Impairment of property, plant and equipment	3.4	—	—
Deferred income taxes	33.2	26.4	(9.2 )
Stock-based compensation	21.0	15.9	9.7
Pensions and other postretirement benefits, net of contributions	(12.6 )	(25.6 )	31.8
Loss (gain) on disposal of property, plant and equipment, net	4.3	4.2	(2.6 )
Debt refinancing and redemption costs	—	0.8	—
Changes in operating assets and liabilities			
Accounts receivable	(19.3 )	(17.9 )	(78.3 )
Inventories	12.2	11.2	10.9
Accounts payable and accrued expenses	(14.2 )	(2.1 )	13.7
Deferred revenue	7.2	(26.8 )	24.5
Other assets and liabilities	(70.1 )	(42.5 )	(25.0 )
Net cash provided by operating activities	407.6	377.6	318.4
<b>Investing activities</b>			
Purchases of property, plant and equipment	(223.0 )	(193.5 )	(206.5 )
Proceeds from sale of property, plant and equipment	1.7	0.3	9.1
Purchase buyouts of leased equipment	(4.6 )	—	—
Proceeds from government grants	2.8	5.1	2.1
Final distribution of Reserve Yield Plus Fund	1.0	—	—
Acquisition of business, net	(5.6 )	—	—
Net cash used in investing activities	(227.7 )	(188.1 )	(195.3 )
<b>Financing activities</b>			
Proceeds from issuance of long-term debt	30.3	16.8	5.0
Payments of long-term debt, capital lease obligations and other	(7.0 )	(157.0 )	(27.0 )
Debt issuance costs	—	—	(0.3 )
Purchase of noncontrolling interest	—	(1.1 )	—
Employee stock option exercises	0.3	0.8	1.2
Purchase of treasury stock	(5.2 )	(3.1 )	(0.3 )
Net cash provided by (used in) financing activities	18.4	(143.6 )	(21.4 )
Effect of exchange rate changes on cash	0.4	(12.6 )	(6.5 )
Net increase in cash and cash equivalents	198.7	33.3	95.2
Cash and cash equivalents at beginning of year	282.5	249.2	154.0
Cash and cash equivalents at end of year	\$481.2	\$282.5	\$249.2
Supplemental cash flow information			

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Interest paid	\$87.2	\$93.8	\$91.1
Income taxes paid, net	\$48.6	\$11.3	\$11.3

See accompanying notes to consolidated financial statements

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

## Consolidated Statement of Stockholders' Equity

	Common Stock Share Outstanding (in millions)	Par Value	Paid-in Capital	Retained Earnings (Accumulated Deficit)	Treasury Stock	Accumulated Other Comprehensive Loss
Balance at January 1, 2014	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 adjustments						(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 adjustments						(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 )
Net income				240.7		
Changes in cash flow hedges						(10.3 )
Foreign currency translation adjustments						(3.2 )
Defined benefit plans, net						(19.6 )
Exercise of stock options and vesting of restricted stock units and performance shares	0.7	0.1	0.2			
Stock-based compensation			21.0			
Modified-retrospective application of ASU 2016-09				4.8		
Purchase of treasury stock	(0.3 )				(5.2 )	
Balance at December 31, 2016	76.5	\$ 0.9	\$ 660.1	\$ 449.7	\$(191.1)	\$ (389.6 )

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 global 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), crossover vehicles, passenger cars 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.

**ACQUISITION OF METALDYNE PERFORMANCE GROUP INC. (MPG)** On November 3, 2016, AAM entered into a definitive merger agreement with MPG under which AAM will acquire MPG for approximately \$1.7 billion in cash and stock. The acquisition is anticipated to close in the first half of 2017 subject to shareholder and regulatory approval and other customary closing conditions.

In connection with the pending acquisition of MPG, AAM obtained a commitment letter that provides for up to \$1.65 billion in senior secured term loan facilities and up to \$800 million in a senior secured revolving credit facility. In addition, AAM intends to issue up to \$1.2 billion in new senior unsecured notes, subject to market conditions. To the extent AAM does not receive gross proceeds of at least \$1.2 billion from such an issuance, the commitment letter also provides for up to \$1.2 billion in a senior unsecured bridge facility.

These financing commitments have been obtained to fund the cash consideration payable in connection with the merger, related fees and expenses, to refinance any indebtedness outstanding under the existing AAM senior secured revolving credit facility and certain existing indebtednesses of MPG, and for general corporate purposes.

**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.

During the fourth quarter of 2016, we reached an agreement with a customer to increase installed capacity for a program we support. In the fourth quarter of 2016, we received \$20.0 million associated with this capacity increase and recorded the payment as deferred revenue, classified as a noncurrent liability on our Consolidated Balance Sheet. We expect to begin recognizing this deferred revenue in 2018 into revenue on a straight line basis over a period of approximately five years, which is the period that we expect the customer to benefit from this increase in installed capacity.

In 2014, we reached an agreement with a customer 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 recognize this deferred revenue into revenue on a straight line basis over a period of

approximately five years, which is the period we expect the customer to benefit from this capacity and mix change. We recognized revenue related to this agreement of \$6.9 million in 2016 and 2015, and \$5.4 million in 2014. As of December 31, 2016, we have \$6.9 million of deferred revenue that is classified as a current liability and \$6.9 million of deferred revenue that is recorded as a noncurrent liability on our Consolidated Balance Sheet.

Also in 2014, we reached an agreement with a customer to recover certain costs related to the delay of a major product program. We received \$9.3 million in 2014 related to this agreement which was recorded as deferred revenue. We recognize this deferred revenue into revenue on a straight line basis over a period of approximately eight years, which is the period we expect the customer to benefit from this agreement. We recognized revenue

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

related to this agreement of \$1.1 million in 2016 and 2015, and \$0.5 million in 2014. As of December 31, 2016, we have remaining deferred revenue of \$6.6 million, \$1.1 million of which is classified as a current liability and \$5.5 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, 2016, our remaining deferred revenue related to the 2009 Settlement and Commercial Agreement is \$21.6 million, \$8.0 million of which is classified as a current liability and \$13.6 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 2016, 2015 and 2014 related to this agreement.

As of December 31, 2016, the majority of the remaining deferred revenue primarily relates to payments from customers to implement capacity programs and reimbursement for engineering, design and development (ED&D) costs on awarded programs. These deferred revenues are generally recognized into revenue over the life of these programs. We recognized \$8.9 million, \$7.4 million and \$7.5 million of revenue for these programs in 2016, 2015 and 2014, 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 was \$139.8 million, \$113.9 million and \$103.9 million in 2016, 2015 and 2014, respectively.

**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 \$3.1 million and \$4.3 million as of December 31, 2016 and 2015, 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. Reimbursements received for pre-production costs relating to awarded programs are deferred and recognized into revenue over the life of the associated program. Reimbursements received for pre-production costs relating to future programs that have not been awarded, or amounts received for programs that become discontinued prior to production, are recorded as a reduction of expense.

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. Reimbursable costs for tooling assets for which our customer has title and we do not have a noncancelable right to use during the term of the supply arrangement, are recorded in accounts receivable in our consolidated balance sheets. The reimbursement for the customer-owned tooling is recorded as a reduction of accounts receivable upon collection. 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.

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

**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,	
	2016	2015
	(in millions)	
Raw materials and work-in-progress	\$212.7	\$228.7
Finished goods	33.8	31.1
Gross inventories	246.5	259.8
Inventory valuation reserves	(27.0 )	(29.3 )
Inventories, net	\$219.5	\$230.5

**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 using the straight-line method over the estimated useful lives of the depreciable assets. Depreciation and tooling amortization amounted to \$160.4 million, \$163.6 million and \$166.5 million in 2016, 2015 and 2014, respectively.

Property, plant and equipment consists of the following:

	Estimated Useful Lives (years)	December 31,	
		2016	2015
		(in millions)	
Land	Indefinite	\$24.9	\$24.9
Land improvements	10-15	19.2	18.8
Buildings and building improvements	15-40	345.5	315.5
Machinery and equipment	3-12	1,976.0	1,853.1
Construction in progress		109.9	88.4
		2,475.5	2,300.7
Accumulated depreciation and amortization		(1,381.8 )	(1,254.5 )
Property, plant and equipment, net		\$1,093.7	\$1,046.2

As of December 31, 2016, 2015 and 2014, we had unpaid purchases of plant and equipment in our accounts payable of \$19.0 million, \$43.6 million and \$31.4 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.

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

In the third quarter of 2016, we identified an indicator of impairment at our Pantnagar Manufacturing Facility in India due to changes in forecasted cash flows. Accordingly, we performed an assessment of the recoverability of these assets and, as a result, recorded an impairment charge of \$3.4 million to write the assets down to fair value.

**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 2016 and 2015 and concluded that there was no impairment of our goodwill. The following table provides a reconciliation of changes in goodwill:

	December 31,	
	2016	2015
	(in millions)	
Beginning balance	\$ 154.4	\$ 155.0
Foreign currency translation	(0.4 )	(0.6 )
Ending balance	\$ 154.0	\$ 154.4

**INTANGIBLE ASSETS** During the first quarter of 2016, we completed the final stages of implementing upgrades to our global enterprise resource planning (ERP) systems at certain remaining global locations. This implementation included upgrades to 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 \$5.0 million, \$3.2 million and \$0.4 million of expense for the amortization of these intangible assets in 2016, 2015 and 2014, respectively. Estimated amortization expense for these assets for the next five years is as follows: \$5.0 million in 2017, \$4.0 million in 2018, \$3.4 million in 2019, \$2.9 million in 2020, and \$2.5 million in 2021.

The following table provides the gross intangible asset balance and related amortization recorded on our Consolidated Balance Sheet as of December 31, 2016 and December 31, 2015:

	December 31,	
	2016	2015
	(in millions)	
Capitalized computer software intangible asset	\$ 31.7	\$ 28.7
Accumulated amortization	(8.5 )	(3.7 )
Capitalized computer software intangible asset, net	\$ 23.2	\$ 25.0

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 2018. 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,	
	2016	2015
	(in millions)	



Beginning balance	\$5.7	\$6.2
Foreign currency translation	(0.4 )	(0.5 )
Ending balance	\$5.3	\$5.7

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

**DEBT ISSUANCE COSTS** The costs related to the issuance or modification of long-term debt are deferred and amortized into interest expense over the expected life of the borrowings. As of December 31, 2016 and December 31, 2015, our unamortized debt issuance costs were \$16.7 million and \$22.5 million, respectively. Debt issuance costs associated with our senior unsecured notes are recorded as a reduction to the related debt liability. Debt issuance costs of \$5.0 million and \$7.9 million related to our revolving credit facility, for which there is no outstanding debt liability, are classified as Other Assets and Deferred Charges on our Consolidated Balance Sheets as of December 31, 2016 and December 31, 2015, respectively. Unamortized debt issuance costs that exist upon 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 4 - Derivatives and Risk Management, for more detail on our derivatives.

**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 net gain of \$5.8 million, \$9.5 million and \$6.4 million, for the years ended 2016, 2015 and 2014, 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 6 - 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) and performance shares. 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 7 - 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)

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

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 8 - Income Taxes, for more detail on our accounting for income taxes.

**EARNINGS PER SHARE (EPS)** We present EPS using the two-class method. This method allocates undistributed earnings between common shares and non-vested share based payment awards that entitle the holder to nonforfeitable dividend rights. Our participating securities include non-vested restricted stock units. See Note 9 - Earnings Per Share (EPS), for more detail on our accounting for EPS.

**SHARE REPURCHASE PROGRAM** On May 5, 2016, AAM's Board of Directors authorized a share repurchase program of up to \$100 million of AAM's common shares through December 31, 2018 as part of AAM's overall capital allocation strategy. The repurchase of shares may be made in the open market or in privately negotiated transactions and will be funded through available cash balances and cash flow from operations. The timing and amount of any share repurchases will be determined based on market and economic conditions, share price, alternative uses of capital and other factors. During the second quarter of 2016, we completed an initial share repurchase of 100,000 shares for \$1.5 million under the program. As of December 31, 2016 there is approximately \$98.5 million available for repurchase.

**PRODUCT WARRANTY** See Note 10 - 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.

#### EFFECT OF NEW ACCOUNTING STANDARDS

##### Accounting Standards Update 2016-16

On October 24, 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-16 - Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory. Existing income tax guidance prohibits the recognition of current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party. This existing guidance is deemed an exception to the principle of comprehensive recognition of current and deferred income taxes under GAAP. Due to the limited authoritative guidance about this exception, diversity in practice exists. ASU 2016-16 eliminates this exception for intra-entity transfers of assets other than inventory and requires that entities recognize the income tax consequences when the transfers occur. This guidance becomes effective at the beginning of our 2018 fiscal year, however early adoption is permitted. The guidance requires a modified retrospective transition method. We are currently assessing the impact that this standard will have on our consolidated financial statements.

##### Accounting Standards Update 2016-15

On August 26, 2016, the FASB issued ASU 2016-15 - Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. The update addresses the following eight specific cash flow issues: 1) debt prepayment or debt extinguishment costs; 2) settlement of zero-coupon debt instruments or other debt instruments

with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; 3) contingent consideration payments made after a business combination; 4) proceeds from the settlement of insurance claims; 5) proceeds from the settlement of corporate-owned life insurance policies (including bank-owned life insurance policies); 6) distributions received from equity method investees; 7) beneficial interests in securitization transactions; and 8) separately identifiable cash flows and application of the predominance principle.

Historically, we have classified certain cash flows related to debt prepayment or debt extinguishment costs as operating cash flows. Upon adoption, the guidance in ASU 2016-15 requires that these cash flows be classified as financing cash flows. We do not feel that the adoption of this guidance as it relates to any of the other seven cash flow issues specified will have a material impact on our Consolidated Statement of Cash Flows.

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

This guidance becomes effective at the beginning of our 2018 fiscal year, however as permitted, we have elected to early adopt this standard in the fourth quarter of 2016. The retrospective adoption of this guidance did not impact any of the periods presented in the Consolidated Statements of Cash Flows in the three years ended December 31, 2016.

Accounting Standards Update 2016-09

On March 31, 2016, the FASB issued ASU 2016-09 - Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The update is intended to simplify the current guidance for stock-based compensation for a range of issues including: the timing of income statement impact for tax benefits or deficiencies in excess of compensation cost, the classification of tax-related cash flows resulting from share based payments, the allowable threshold for tax withholding without resulting in liability award classification, and a policy election for estimating forfeiture rates or recognizing forfeitures as they occur. This guidance becomes effective at the beginning of our 2017 fiscal year, however as permitted, AAM elected to early adopt this guidance in the fourth quarter of 2016. The guidance requires a retrospective, modified-retrospective, or prospective transition method depending on the applicable section of the ASU. The effect of implementing this ASU on our Consolidated Balance Sheet was an increase to our deferred tax assets and retained earnings of \$4.8 million as of January 1, 2016, using the modified-retrospective transition method, for the cumulative-effect adjustment of excess tax benefits that were not previously recognized because the related tax deduction had not reduced current taxes payable. We have evaluated the aspects of this new guidance and, other than this one-time increase in deferred tax assets and retained earnings, the adoption of this ASU did not have a material impact on our accounting for share-based payments.

Accounting Standards Update 2016-02

On February 25, 2016, the FASB issued ASU 2016-02 - Leases (Topic 842), which supersedes the existing lease accounting guidance and establishes new criteria for recognizing lease assets and liabilities. The most significant impact of the update, to AAM, is that a lessee will be required to recognize a "right-of-use" asset and lease liability for operating lease agreements that were not previously included on the balance sheet under the existing lease guidance. A lessee will be permitted to make a policy election, excluding recognition of the right-of-use asset and associated liability for lease terms of 12 months or less. Expense recognition in the statement of income along with cash flow statement classification for both financing (capital) and operating leases under the new standard will not be significantly changed from existing lease guidance. This guidance becomes effective for AAM at the beginning of our 2019 fiscal year and requires transition under a modified retrospective method. We are currently assessing the impact that this standard will have on our consolidated financial statements.

Accounting Standards Update 2015-07

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 prohibits entities from categorizing investments measured at NAV within the fair value hierarchy. Other than the change in presentation, which requires retrospective application, the adoption of this new guidance did not have an impact on our consolidated financial statements. AAM adopted this policy on January 1, 2016.

Accounting Standards Update 2014-09

In 2014, the FASB issued ASU 2014-09 - Revenue from Contracts with Customers (Topic 606), and has subsequently issued ASUs 2015-14 - Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, 2016-08 - Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross Versus Net), 2016-10 - Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing, 2016-12 - Revenue from Contracts with Customers (Topic 606): Narrow-

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

Scope Improvements and Practical Expedients, and 2016-20 - Revenue from Contracts with Customers (Topic 606): Technical Corrections and Improvements to Topic 606 (collectively, the Revenue Recognition ASUs).

The Revenue Recognition ASUs outline a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersede 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. This guidance is effective for AAM beginning on January 1, 2018 and entities have the option of using either a full retrospective or a modified retrospective approach for the adoption of the new standard. We are evaluating whether we will adopt this guidance using the full retrospective or modified retrospective approach.

We are concluding the assessment phase of implementing this guidance. We have evaluated each of the five steps in the new revenue recognition model, which are as follows: 1) Identify the contract with the customer; 2) Identify the performance obligations in the contract; 3) Determine the transaction price; 4) Allocate the transaction price to the performance obligations; and 5) Recognize revenue when (or as) performance obligations are satisfied. Our preliminary conclusion is that the determination of what constitutes a contract with our customers (step 1), our performance obligations under the contract (step 2), and the determination and allocation of the transaction price (steps 3 and 4) under the new revenue recognition model will not result in significant changes in comparison to the current revenue recognition guidance.

With regard to recognizing revenue when (or as) a performance obligation is satisfied (step 5), we are thoroughly reviewing the language in our contracts with each customer to determine whether the customer obtains control of the goods at a point in time or over time. Under current revenue recognition guidance, 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. Topic 606 provides certain criteria that, if met, require companies to recognize revenue as the product is produced (over time) instead of at a point of time (i.e. upon shipment). We are evaluating our contracts in the context of the criteria for recognizing revenue over time. If we conclude that we meet the criteria for recognizing revenue over time, our timing of revenue recognition would be accelerated, however, as we utilize lean manufacturing principles and deliver to our customers on a just-in-time basis, we do not expect any acceleration of revenue under the new guidance to be material.

There are also certain considerations related to internal control over financial reporting that are associated with implementing the new guidance under Topic 606. We are currently evaluating our control framework for revenue recognition and identifying any changes that may need to be made in response to the new guidance. Disclosure requirements under the new guidance in Topic 606 have been significantly expanded in comparison to the disclosure requirements under the current guidance. Designing and implementing the appropriate controls over gathering and reporting the information required under Topic 606 is currently in process.



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

2. RESTRUCTURING AND ACQUISITION-RELATED COSTS

In the fourth quarter of 2016, AAM initiated actions under a global restructuring program focusing on creating a more streamlined organization in addition to reducing our cost structure and preparing for upcoming acquisition integration activities. A summary of this activity for 2016 is shown below:

	Severance Charges	Implementation Costs	Asset Impairment Charges	Total
	(in millions)			
Accrual as of January 1, 2016	\$—	\$ —	\$ —	\$—
Charges	0.6	10.2	4.5	15.3
Cash utilization	—	(1.0)	—	(1.0)
Non-cash utilization	—	—	(4.5)	(4.5)
Accrual adjustments	—	—	—	—
Accrual as of December 31, 2016	\$0.6	\$ 9.2	\$ —	\$9.8

As part of our restructuring actions, we incurred severance charges of approximately \$0.6 million, as well as implementation costs, including professional expenses, of approximately \$10.2 million in 2016. We expect to incur approximately \$20 to \$25 million of additional charges under our global restructuring program in 2017.

In the third quarter of 2016, we identified an indicator of impairment at our Pantnagar Manufacturing Facility in India due to changes in forecasted cash flows. Accordingly, we performed an assessment of the recoverability of these assets and, as a result, recorded an impairment charge of \$3.4 million to write the assets down to fair value. In the fourth quarter of 2016, we recorded an additional charge of \$1.1 million relating to the announced closure of the facility.

On November 3, 2016, AAM announced entry into a definitive merger agreement with MPG. The following table represents a summary of acquisition-related charges incurred in 2016 related to the pending acquisition of MPG and other strategic initiatives:

	Acquisition-Related Costs	Integration Expenses	Other	Total
	(in millions)			
Charges	\$9.5	\$ 1.4	\$ —	\$10.9

Total restructuring and  
 acquisition-related charges \$26.2

Acquisition-related costs primarily consist of advisory, legal, accounting, valuation and certain other professional or consulting fees incurred. Integration expenses reflect consulting fees incurred in preparation for the upcoming acquisition and ongoing integration activities. Total charges associated with our global restructuring program and acquisition-related charges of \$26.2 million are shown on a separate line item titled "Restructuring and Acquisition-Related Costs" in our Consolidated Statements of Income.

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

### 3. LONG-TERM DEBT AND LEASE OBLIGATIONS

Long-term debt, net consists of the following:

	December 31,	
	2016	2015
	(in millions)	
Revolving Credit Facility	\$—	\$—
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	60.4	38.0
Capital lease obligations	5.5	5.6
Debt	1,415.9	1,393.6
Less: Current portion of long-term debt	3.3	3.3
Long-term debt	1,412.6	1,390.3
Less: Debt issuance costs	11.7	14.6
Long-term debt, net	\$1,400.9	\$1,375.7

**REVOLVING CREDIT FACILITY AND TERM FACILITY** We have a revolving credit facility that provides up to \$523.5 million of revolving bank financing commitments through September 13, 2018. At December 31, 2016, \$507.3 million was available under the revolving credit facility, which reflected a reduction of \$16.2 million for standby letters of credit issued against the facility.

The credit agreement provided for a senior secured term loan A facility in an aggregate principal amount of \$150.0 million (term facility). In 2015, we made principal payments of \$142.5 million on our term facility to prepay all outstanding principal. 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.

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.

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.



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

**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 \$8.8 million and \$7.9 million at December 31, 2016 and 2015, respectively. The net book value included in property, plant and equipment, net on the balance sheet was \$5.5 million and \$5.6 million at December 31, 2016 and 2015, respectively. The weighted-average interest rate on these capital lease obligations at December 31, 2016 was 6.6%.

We also lease certain manufacturing machinery and equipment, commercial office and production facilities, vehicles and other assets under operating leases expiring at various dates. Future minimum payments under noncancelable operating leases are as follows: \$23.7 million in 2017, \$16.5 million in 2018, \$8.8 million in 2019, \$6.3 million in 2020, and \$5.2 million in 2021. Our total expense relating to operating leases was \$26.9 million, \$25.3 million and \$23.6 million in 2016, 2015 and 2014, 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. During 2016, we increased the borrowings on our foreign credit facilities, primarily to fund capital expenditures and working capital in preparation for the launch of programs in China, which began in the fourth quarter of 2016. At December 31, 2016, \$60.4 million was outstanding under these facilities and an additional \$62.0 million was available.

**FINANCING RELATED TO THE PENDING ACQUISITION OF MPG** In connection with the pending acquisition of MPG, AAM obtained a commitment letter that provides for up to \$1.65 billion in senior secured term loan facilities and up to \$800 million in a senior secured revolving credit facility. In addition, AAM intends to issue up to \$1.2 billion in new senior unsecured notes, subject to market conditions. To the extent AAM does not receive gross proceeds of at least \$1.2 billion from such an issuance, the commitment letter also provides for up to \$1.2 billion in a senior unsecured bridge facility.

These financing commitments have been obtained to fund the cash consideration payable in connection with the merger, related fees and expenses, to refinance any indebtedness outstanding under the existing AAM senior secured revolving credit facility and certain existing indebtednesses of MPG, and for general corporate purposes.

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

2017	\$42.6
2018	17.5
2019	403.3
2020	0.8
2021	400.9
Thereafter	550.8
Total	\$1,415.9

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

**INTEREST EXPENSE AND INVESTMENT INCOME** Interest expense was \$93.4 million in 2016, \$99.2 million in 2015 and \$99.9 million in 2014. The decrease in interest expense in 2016, as compared to 2015, reflects the decrease in our average outstanding borrowings due to our voluntary election to prepay the outstanding principal balance on our term facility in the fourth quarter of 2015.

We capitalized interest of \$6.5 million in 2016, \$4.5 million in 2015 and \$5.8 million in 2014. The weighted-average interest rate of our long-term debt outstanding at December 31, 2016 was 6.6% as compared to 6.5% and 6.4% at December 31, 2015 and 2014, respectively.

Investment income was \$2.9 million in 2016 as compared to \$2.6 million and \$2.1 million in 2015 and 2014, 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.

#### 4. 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, Brazilian Real, British Pound Sterling, Thai Baht, Swedish Krona, Chinese Yuan and Polish Zloty. We had forward contracts with a notional amount of \$156.0 million and \$190.0 million outstanding at December 31, 2016 and 2015, respectively, that hedge our exposure to changes in foreign currency exchange rates for certain payroll expenses into the fourth quarter of 2019 and the purchase of certain direct and indirect inventory and other working capital items into the second quarter of 2017.

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 cash flow hedges 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	
	2016	2015	2014	Next 12 Months	
	(in millions)				
Currency forward contracts	Cost of Goods Sold	\$(10.5)	\$(10.9)	\$0.9	\$ (12.3 )

See Note 11 - Reclassifications Out of Accumulated Other Comprehensive Income (Loss) for amounts recognized in other comprehensive income (loss) during the years ended December 31, 2016, December 31, 2015 and December 31,

2014.

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 Loss Recognized in Net Income	Loss Recognized During the Twelve Months Ended December 31,		
	2016	2015	2014
Currency forward contracts Cost of Goods Sold	\$(5.8)	\$(4.0)	\$(1.8)
Currency forward contracts Other Income (Expense), Net	(0.7 )	(1.6 )	—

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

**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 67% of our consolidated net sales in 2016, 66% in 2015, and 68% in 2014. Accounts and other receivables due from GM were \$369.1 million at year-end 2016 and \$361.1 million at year-end 2015. Sales to FCA US LLC (FCA), were approximately 18% of our consolidated net sales in 2016, 20% in 2015 and 18% in 2014. Accounts and other receivables due from FCA were \$87.3 million at year-end 2016 and \$96.8 million at year-end 2015. 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 \$249.0 million as of December 31, 2016 and \$256.3 million as of December 31, 2015. See Note 6 - 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 & MANUFACTURING HOLDINGS, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

## 5. 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, 2016		December 31, 2015		Input
	Carrying Amount	Fair Value	Carrying Amount	Fair Value	
Cash equivalents	\$187.2	\$187.2	\$61.7	\$61.7	Level 1
Currency forward contracts - Prepaid expenses and other					
Nondesignated currency forward contracts	—	—	0.2	0.2	Level 2
Currency forward contracts - Other accrued expenses					
Cash flow hedges	12.3	12.3	7.5	7.5	Level 2
Nondesignated currency forward contracts	1.4	1.4	1.9	1.9	Level 2
Currency forward contracts - Postretirement benefits and other long-term liabilities					
Cash flow hedges	11.4	11.4	5.9	5.9	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, 2016		December 31, 2015		Input
	Carrying Amount	Fair Value	Carrying Amount	Fair Value	
Revolving Credit Facility	\$ —	\$ —	\$ —	\$ —	Level 2
7.75% Notes	200.0	211.0	200.0	218.5	Level 2
6.625% Notes	550.0	566.1	550.0	574.8	Level 2
6.25% Notes	400.0	412.0	400.0	415.0	Level 2
5.125% Notes	200.0	201.7	200.0	202.0	Level 2

Investments in our defined benefit pension plans are stated at fair value. See Note 6 - Employee Benefit Plans for additional fair value disclosures of our pension plan assets.

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

6. 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 \$249.0 million and \$256.3 million at December 31, 2016 and December 31, 2015, respectively. We have also recorded a corresponding asset for these amounts on our Consolidated Balance Sheet, \$12.9 million that is classified as a current asset and \$236.1 million that is classified as a noncurrent asset as of December 31, 2016.

Actuarial valuations of our benefit plans were made as of December 31, 2016 and 2015. 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		
	2016	2015	2014		2016	2015	2014
	U.S.	U.K.	U.S.	U.K.	U.S.	U.K.	
Discount rate	4.15%	2.70%	4.40%	3.90%	4.10%	3.70%	4.20% 4.45% 4.15%
Expected return on plan assets	7.50%	5.00%	7.50%	5.00%	7.50%	5.00%	N/A N/A N/A
Rate of compensation increase	4.00%	3.45%	4.00%	3.30%	4.00%	3.30%	4.00% 4.00% 4.00%

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

The accumulated benefit obligation for all defined benefit pension plans was \$702.2 million and \$678.6 million at December 31, 2016 and December 31, 2015, respectively. As of December 31, 2016, the accumulated benefit obligation for our underfunded defined benefit pension plans was \$567.6 million, the projected benefit obligation was \$580.2 million and the fair value of assets for these plans was \$461.1 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		OPEB	
	December 31,		December 31,	
	2016	2015	2016	2015
	(in millions)			
Change in benefit obligation				
Benefit obligation at beginning of year	\$693.1	\$738.8	\$588.4	\$654.7
Service cost	2.9	3.2	0.3	0.4
Interest cost	28.8	28.6	14.0	15.0
Actuarial loss (gain)	54.8	(32.1 )	(6.8 )	(35.9 )
Change in GM portion of OPEB obligation	—	—	(7.2 )	(31.6 )
Participant contributions	0.3	0.4	—	—
Benefit payments	(38.1 )	(38.4 )	(17.0 )	(14.2 )
Currency fluctuations	(24.2 )	(7.4 )	—	—
Net change	24.5	(45.7 )	(16.7 )	(66.3 )
Benefit obligation at end of year	\$717.6	\$693.1	\$571.7	\$588.4
Change in plan assets				
Fair value of plan assets at beginning of year	\$612.8	\$643.7	\$—	\$—
Actual return on plan assets	61.7	(5.0 )	—	—
Employer contributions	2.3	20.1	17.0	14.2
Participant contributions	0.3	0.4	—	—
Benefit payments	(38.1 )	(38.4 )	(17.0 )	(14.2 )
Currency fluctuations	(27.7 )	(8.0 )	—	—
Net change	(1.5 )	(30.9 )	—	—
Fair value of plan assets at end of year	\$611.3	\$612.8	\$—	\$—

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

Amounts recognized in our Consolidated Balance Sheets are as follows:

	Pension Benefits		OPEB	
	December 31,		December 31,	
	2016	2015	2016	2015
	(in millions)			
Noncurrent assets	\$12.9	\$27.0	\$—	\$—
Current liabilities	(5.7 )	(4.2 )	(29.1 )	(29.4 )
Noncurrent liabilities	(113.5 )	(103.1 )	(542.6 )	(559.0 )
Net liability	\$(106.3)	\$(80.3)	\$(571.7)	\$(588.4)

Pre-tax amounts recorded in accumulated other comprehensive income (loss) (AOCI), not yet recognized in net periodic benefit cost (credit) as of December 31, 2016 and 2015, consists of:

	Pension Benefits		OPEB	
	December 31,		December 31,	
	2016	2015	2016	2015
	(in millions)			
Net actuarial gain (loss)	\$(247.9)	\$(222.9)	\$8.5	\$1.1
Net prior service credit	0.5	0.6	9.9	12.7
Total amounts recorded	\$(247.4)	\$(222.3)	\$18.4	\$13.8

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

	Pension Benefits			OPEB		
	2016	2015	2014	2016	2015	2014
	(in millions)					
Service cost	\$2.9	\$3.2	\$3.5	\$0.3	\$0.4	\$0.3
Interest cost	28.8	28.6	36.1	14.0	15.0	15.3
Expected asset return	(42.1 )	(42.0 )	(48.4 )	—	—	—
Amortized actuarial loss	5.5	6.0	5.4	0.5	0.8	0.5
Amortized prior service credit	(0.1 )	(0.1 )	(0.1 )	(2.7 )	(2.7 )	(2.7 )
Settlement charge	—	—	35.5	—	—	—
Net periodic benefit cost (credit)	\$(5.0)	\$(4.3)	\$32.0	\$12.1	\$13.5	\$13.4

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 2017 are \$7.1 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 2017 are \$0.5 million and \$2.7 million, respectively.



AMERICAN AXLE & 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 6.50% was assumed for 2017. 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 2016 and the postretirement obligation, net of GM cost sharing, at December 31, 2016 by \$1.5 million and \$36.3 million, respectively. A 1.0% decrease in the assumed health care cost trend rate would have decreased total service and interest cost in 2016 and the postretirement obligation, net of GM cost sharing, at December 31, 2016 by \$1.3 million and \$30.1 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: \$59.6 million in 2017; \$54.0 million in 2018; \$53.9 million in 2019; \$55.1 million in 2020; \$56.1 million in 2021 and \$292.7 million for 2022 through 2026. These amounts were estimated using the same assumptions that were used to measure our 2016 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 to satisfy our estimated U.K. regulatory funding requirements for 2016 through 2018. Due to the availability of our prefunded pension balances related to our U.S. pension plans, we do not expect to make any cash payments in 2017 to satisfy our regulatory funding requirements. We expect our cash outlay, net of GM cost sharing, for OPEB to be approximately \$16 million in 2017.

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. 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.

Pension plan assets The weighted-average asset allocations of our pension plan assets at December 31, 2016 and 2015 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.		
	2016	2015	Target Allocation	2016	2015	Target Allocation
Equity securities	42.0 %	34.8 %	30% - 65%	27.3 %	26.7 %	25% - 35%
Fixed income securities	48.0	46.2	35% - 55%	57.0	52.0	55% - 65%
Hedge funds	9.0	17.8	0% - 20%	11.7	9.6	5% - 15%
Cash	1.0	1.2	0% - 5%	4.0	11.7	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 & 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 values of our pension plan assets are as follows:

December 31, 2016

Asset Categories	Level 1	Level 2	Level 3	Total
	(in millions)			
Cash & Cash Equivalents	\$10.4	\$—	\$—	—\$10.4
Equity				
U.S. Large Cap	90.9	—	—	90.9
U.S. Small/Mid Cap	37.3	—	—	37.3
World Equity	106.5	—	—	106.5
Fixed Income Securities				
Government & Agencies	74.7	33.1	—	107.8
Corporate Bonds - Investment Grade	143.7	—	—	143.7
Corporate Bonds - Non-investment Grade	26.2	—	—	26.2
Emerging Market Debt	24.2	—	—	24.2
Other	5.0	—	—	5.0
Hedge Funds				
Property Funds <sup>(a)</sup>	—	—	—	45.5
Multi Strategy Hedge Fund <sup>(a)</sup>	—	—	—	8.8
Structured Credit Fund <sup>(a)</sup>	—	—	—	5.0
Total Plan Assets	\$518.9	\$33.1	\$—	—\$611.3

December 31, 2015

Asset Categories	Level 1	Level 2	Level 3	Total
	(in millions)			
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 <sup>(a)</sup>	—	—	—	54.6
Multi Strategy Hedge Fund <sup>(a)</sup>	—	—	—	41.6
Total Plan Assets	\$480.8	\$35.8	\$—	—\$612.8

(a) In accordance with Subtopic 820-10, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the Consolidated Balance Sheets.

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

**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 \$5.2 million in 2016, \$4.6 million in 2015 and \$3.9 million in 2014. 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 \$5.8 million, \$5.3 million and \$4.9 million in 2016, 2015 and 2014, 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 \$0.4 million in 2016, and \$0.1 million in 2015 and 2014. Certain UAW represented associates are also eligible to receive an ARC benefit of 5% of eligible wages. We made ARC contributions of \$1.9 million in 2016, \$2.5 million in 2015 and \$2.6 million in 2014 related to these associates.

**DEFERRED COMPENSATION PLAN** Certain U.S. associates are eligible to participate in a non-qualified deferred compensation plan. Payments of \$0.5 million, \$0.7 million and \$1.2 million have been made in 2016, 2015 and 2014, respectively, to eligible associates that have elected distributions.

At December 31, 2016 and 2015, our deferred compensation liability was \$5.3 million and \$5.1 million, respectively. Due to the changes in the value of this deferred compensation plan we increased our liability by \$0.2 million, \$0.1 million and \$0.3 million in 2016, 2015 and 2014, respectively.

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

## 7. STOCK-BASED COMPENSATION

At December 31, 2016, we had stock-based awards outstanding under stock incentive compensation plans approved by our stockholders. Under these plans, 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, 2016 were 2.7 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 per share data)	Weighted- Average Exercise Price Per Share
Outstanding at January 1, 2014	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
Options granted	—	—
Options exercised	(0.1)	10.08
Options canceled	(0.2)	16.08
Outstanding at December 31, 2016	0.3	\$ 20.71
Exercisable at December 31, 2014	0.9	\$ 20.66
Exercisable at December 31, 2015	0.6	\$ 18.58
Exercisable at December 31, 2016	0.3	\$ 20.71

As of December 31, 2016, there were no unvested stock options. The total intrinsic value of options outstanding and exercisable as of December 31, 2016 was \$1.1 million. The total intrinsic value of stock options exercised was \$0.2 million in 2016, \$0.3 million in 2015 and \$0.5 million in 2014.



AMERICAN AXLE & 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, 2016:

Range of Exercise Prices	Stock Options Outstanding and Exercisable	Weighted-Average Price Per Share	Remaining Weighted-Average Contractual Life
	(in millions, except per share data)		(in years)
\$9.19 - \$10.08	0.1	\$ 9.27	1.6
\$26.02	0.2	26.02	0.2
	0.3	\$ 20.71	0.6

**RESTRICTED STOCK UNITS** We have awarded restricted stock units (RSUs). Compensation expense associated with RSUs settled in stock is recorded to paid-in-capital ratably over the three-year vesting period.

The following table summarizes activity relating to our RSUs:

	Number of Shares/Units	Weighted-Average Grant Date Fair Value per Share/Unit
Outstanding at January 1, 2014	1.3	\$ 12.24
Granted	0.5	19.58
Vested	(0.1)	13.95
Canceled	(0.1)	12.76
Outstanding at December 31, 2014	1.6	\$ 14.54
Granted	0.5	25.21
Vested	(0.3)	11.03
Canceled	(0.1)	19.99
Outstanding at December 31, 2015	1.7	\$ 18.19
Granted	0.9	15.41
Vested	(0.7)	13.23
Canceled	(0.1)	18.75
Outstanding at December 31, 2016	1.8	\$ 18.70

As of December 31, 2016, unrecognized compensation cost related to unvested RSUs totaled \$12.2 million. The weighted average period over which this cost is expected to be recognized is approximately one year. In 2016 and 2015, the total fair market value of RSUs vested was \$10.5 million and \$9.5 million, respectively.

**PERFORMANCE SHARES** As of December 31, 2016, we have performance shares (PS) outstanding under our 2012 Omnibus Incentive Plan. We grant performance shares payable in stock to officers which vest in full over a three-year performance period. These grants are based equally on a total shareholder return (TSR) measure and AAM's

three-year earnings before interest, taxes, depreciation and amortization (EBITDA) margin. The TSR metric compares our TSR over the three-year performance period relative to the TSR of our pre-defined competitor peer group. Share price appreciation and dividends paid are measured over the performance period to determine TSR. As these awards are settled in stock, the compensation expense booked ratably over the vesting period is recorded to paid-in-capital.

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

The following table summarizes activity relating to our performance shares:

	Weighted Average Number of Date Fair Value Shares per Share (in millions, except per share data)	Grant
<b>EBITDA Awards</b>		
Outstanding at January 1, 2014	—	\$ —
Granted	0.2	27.66
Vested	—	—
Canceled	—	—
Outstanding at December 31, 2014	0.2	\$ 27.66
Granted	0.1	37.68
Vested	—	—
Canceled	—	—
Outstanding at December 31, 2015	0.3	\$ 32.27
Granted	0.2	28.04
Vested	—	—
Canceled	—	—
Outstanding at December 31, 2016	0.5	\$ 30.19
<b>TSR Awards</b>		
Outstanding at January 1, 2014	—	\$ —
Granted	0.2	21.11
Vested	—	—
Canceled	—	—
Outstanding at December 31, 2014	0.2	\$ 21.11
Granted	0.1	31.22
Vested	—	—
Canceled	—	—
Outstanding at December 31, 2015	0.3	\$ 25.77
Granted	0.2	13.16
Vested	—	—
Canceled	—	—
Outstanding at December 31, 2016	0.5	\$ 19.55

We estimate the fair value of our EBITDA performance shares on the date of grant using our estimated three-year EBITDA margin, based on AAM's budget and long-range plan assumptions at that time, and adjust quarterly as necessary. We estimate the fair value of our TSR performance shares on the date of grant using the Monte Carlo simulation approach. The Monte Carlo simulation approach utilizes inputs on volatility assumptions, risk free rates, the price of the Company's and our competitor peer group's common stock and their correlation as of each valuation date. Volatility assumptions are based on historical and implied volatility measurements.



Based on the current fair value, the estimated unrecognized compensation cost related to unvested PS totaled \$10.6 million, as of December 31, 2016. The weighted-average period over which this cost is expected to be recognized is approximately one year.

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

**PERFORMANCE AWARDS** As of December 31, 2016, we have no TSR performance awards outstanding. We granted performance awards payable in cash to our officers and executives which vested in full over a three year performance period. The payout of these awards was based on a TSR measure that compared our TSR over the three-year performance period relative to the TSR of our pre-defined competitor peer group. Share price appreciation and dividends paid were measured over the performance period to determine TSR.

According to the applicable accounting guidance, these awards were considered to be stock-based compensation because the final payout amount was based “at least in part” on the price of our shares. However, as these awards were settled in cash, they are determined to be liability awards and have been remeasured at the end of each reporting period until settlement. The fair value of the performance awards was calculated on a quarterly basis using the Monte Carlo simulation approach, described above, and the liability was adjusted accordingly based on changes to the fair value and the percentage of time vested.

We recognized compensation expense associated with these performance awards of approximately \$1.4 million in 2014. We made a cash payment of \$3.7 million and \$8.5 million in 2015 and 2014, respectively, related to the TSR performance awards.

## 8. INCOME TAXES

Income before income taxes for U.S. and non-U.S. operations was as follows:

	2016	2015	2014
	(in millions)		
U.S. income	\$90.0	\$88.3	\$12.0
Non - U.S. income	209.0	184.4	164.7
Total income before income taxes	\$299.0	\$272.7	\$176.7

The following is a summary of the components of our provisions for income taxes:

	2016	2015	2014
	(in millions)		
Current			
Federal	\$0.4	\$0.5	\$0.6
Other state and local	—	0.2	0.1
Foreign	27.5	10.8	44.2
Total current	\$27.9	\$11.5	\$44.9
Deferred			
Federal	\$31.2	\$26.4	\$(11.6)
Foreign	(0.8 )	(0.8 )	0.4
Total deferred	30.4	25.6	(11.2 )
Total income tax expense	\$58.3	\$37.1	\$33.7

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

The following is a reconciliation of our provision for income taxes to the expected amounts using statutory rates:

	2016	2015	2014
Federal statutory	35.0 %	35.0 %	35.0 %
Foreign income taxes	(20.5)	(17.6)	(25.1)
Change in enacted tax rate	(0.2 )	—	—
State and local	—	0.1	0.1
Tax credits	(1.1 )	(1.3 )	(11.4)
Valuation allowance	0.4	2.6	4.5
U.S. tax on unremitted foreign earnings	0.2	0.2	1.9
Uncertain tax positions	0.5	(5.7 )	13.0
Other	5.2	0.3	1.1
Effective income tax rate	19.5 %	13.6 %	19.1 %

Our income tax expense and effective tax rate for 2016, 2015 and 2014, as compared to the U.S. federal statutory rate of 35%, primarily reflect favorable foreign tax rates, partially offset by our inability to realize a tax benefit for current foreign losses. Our effective tax rate for 2016 is higher than our effective tax rate for 2015 primarily due to the impact of an \$11.5 million reduction in tax expense related to uncertain tax positions attributable to transfer pricing in the fourth quarter of 2015.

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.

As of December 31, 2016 and 2015, we have refundable income taxes of \$3.4 million and \$2.5 million, respectively, classified as prepaid expenses and other on our Consolidated Balance Sheet. We also have income taxes payable of \$0.9 million and \$6.8 million classified as other accrued expenses on our Consolidated Balance Sheet as of December 31, 2016 and 2015, respectively. As of December 31, 2016 and 2015, we have accrued value added tax payable of \$34.2 million and \$35.8 million, respectively, classified as other accrued expenses on our Consolidated Balance Sheet.

In 2015 AAM early adopted ASU 2015-17 - Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes. Based on the early adoption of this standard, all of AAM's deferred tax assets and liabilities, in 2016 and 2015, are classified as noncurrent in our Consolidated Balance Sheets.

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

The following is a summary of the significant components of our noncurrent deferred tax assets and liabilities:

	December 31,	
	2016	2015
	(in millions)	
Noncurrent deferred tax assets		
Employee benefits	\$219.3	\$211.1
Inventory	8.9	9.4
Net operating loss (NOL) carryforwards	126.7	117.0
Tax credit carryforwards	35.1	25.8
Capital allowance carryforwards	11.6	13.6
Fixed assets	15.9	13.5
Deferred revenue	19.3	15.0
Capitalized expenditures	71.9	120.5
Other	20.5	22.4
Valuation allowances	(164.8 )	(167.3 )
Noncurrent deferred tax assets	\$364.4	\$381.0
Noncurrent deferred tax liabilities		
Fixed assets and other	(23.0 )	(14.2 )
Noncurrent deferred tax asset, net	\$341.4	\$366.8

Noncurrent deferred tax assets and liabilities recognized in our Consolidated Balance Sheets are as follows:

	December 31,	
	2016	2015
	(in millions)	
U.S. federal and state deferred tax asset, net	\$333.1	\$354.7
Other foreign deferred tax asset, net	8.3	12.1
Noncurrent deferred tax asset, net	\$341.4	\$366.8

**DEFERRED INCOME TAX ASSETS AND LIABILITIES AND VALUATION ALLOWANCES** The deferred income tax assets and liabilities summarized above 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. As of December 31, 2016 and December 31, 2015, we had deferred tax assets from domestic and foreign NOL and tax credit carryforwards of \$173.4 million and \$156.4 million, respectively. Approximately \$98.4 million of the deferred tax assets at December 31, 2016 relate to tax credits that can be carried forward indefinitely with the remainder having carryover periods of 5 to 20 years.

Accounting guidance for income taxes requires a deferred tax liability to be established for the U.S. tax impact of undistributed earnings of foreign subsidiaries unless it can be shown that these earnings will be permanently reinvested outside the U.S. Deferred income taxes have not been provided on \$931.8 million of undistributed earnings of certain foreign subsidiaries as such amounts are considered permanently reinvested. The remittance of these undistributed earnings may subject us to U.S. income taxes and certain foreign withholding taxes at the time of remittance, however, the determination of the amount of unrecognized deferred tax liability relating to the remittance of undistributed earnings is not practicable.



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

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 carry forward 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.

Under applicable GAAP, a sustained period of profitability in our operations is required before we would change our judgment regarding the need for a valuation allowance against our net deferred tax assets. During 2016, our business in China turned to a position of cumulative profitability on a pre-tax basis, considering our operating results for the current year and the previous two years. We have concluded that this record of cumulative profitability in recent years, in addition to our long range forecast showing continued profitability, has provided positive evidence that it is more likely than not that our net deferred tax assets in China will be realized. Accordingly, in the fourth quarter of 2016, we released our valuation allowance in China resulting in a \$5.4 million tax benefit in our 2016 provision for income taxes.

As of December 31, 2016 and December 31, 2015, we have a valuation allowance of \$164.8 million and \$167.3 million, respectively, related to net deferred tax assets in several foreign jurisdictions and U.S. state and local jurisdictions.

**UNRECOGNIZED INCOME TAX BENEFITS** To the extent our uncertain tax positions do not meet the “more likely than not” threshold, we have derecognized such positions. To the extent our uncertain tax positions meet the “more likely than not” threshold, we have measured and recorded the highest probable benefit, and have established appropriate reserves for benefits that exceed the amount likely to be sustained upon examination.

A reconciliation of the beginning and ending amounts of unrecognized income tax benefits is as follows:

	Unrecognized Income Tax Benefits (in millions)	Interest and Penalties
Balance at January 1, 2014	\$21.7	\$ 4.1
Increase in prior year tax positions	10.5	8.1
Decrease in prior year tax positions	(0.5 )	—
Increase in current year tax positions	15.6	—
Balance at December 31, 2014	\$47.3	\$ 12.2
Increase in prior year tax positions	—	1.4
Decrease in prior year tax positions	(9.4 )	(4.9 )
Increase in current year tax positions	8.8	—
Foreign currency remeasurement adjustment	\$(5.1 )	\$(1.8 )
Balance at December 31, 2015	\$41.6	\$ 6.9
Increase in prior year tax positions	0.4	2.0
Decrease in prior year tax positions	(2.5 )	(0.5 )
Increase in current year tax positions	9.3	—
Settlement	(17.3 )	(5.6 )
Foreign currency remeasurement adjustment	(3.3 )	(0.3 )
Balance at December 31, 2016	\$28.2	\$ 2.5

At December 31, 2016 and December 31, 2015, we had \$28.2 million and \$41.6 million of net unrecognized income tax benefits, respectively. The decrease in net unrecognized income tax benefits at December 31, 2016, as compared to December 31, 2015, is primarily attributable to settlements during the year. 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 in January 2016 that fully satisfied our obligations for transfer pricing issues for tax years 2007 through 2013. Including these settlements, we made payments of approximately \$28 million in 2016 to the Mexican tax authorities related to transfer pricing matters.

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

In 2016, 2015, and 2014, we recognized expense of \$1.5 million, a benefit of \$3.5 million and expense of \$8.1 million, respectively, related to interest and penalties in income tax expense on our Consolidated Statement of Income. We have a liability of \$2.5 million and \$6.9 million related to the estimated future payment of interest and penalties at December 31, 2016 and 2015, respectively. The amount of the uncertain tax position as of December 31, 2016 that, if recognized, would affect the effective tax rate is \$30.7 million.

We file income tax returns in the U.S. federal jurisdiction, as well as various states and foreign jurisdictions. U.S. federal income tax examinations for the years 2012 and 2013 were settled in January of 2017 and U.S. federal income tax examinations for the years 2010 and 2011 were settled in 2015. These settlements resulted in no cash payment or reduction in our liability for unrecognized income tax benefits. In 2015, we closed our transfer pricing examination for the 2010-11 tax year with the India Tax Authorities with no resulting adjustments. We are no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations by tax authorities for years before 2011. At this time, we have audits underway in Germany for the 2012 through 2014 tax years and in India for the 2011-2012 and 2013-2014 tax years. We are not aware of any other examinations underway in any other tax jurisdiction.

Based on the status of the 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 certainty the amount of an audit settlement, we do not expect the settlement 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.



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

## 9. EARNINGS PER SHARE (EPS)

We present EPS using the two-class method. This method allocates undistributed earnings between common shares and non-vested share based payment awards that entitle the holder to nonforfeitable dividend rights. Our participating securities include non-vested restricted stock units.

The following table sets forth the computation of our basic and diluted EPS available to shareholders of common stock (excluding participating securities):

	2016	2015	2014
	(in millions, except per share data)		
Numerator			
Net income	\$240.7	\$235.6	\$143.0
Less: Net income allocated to participating securities	(5.5 )	(5.3 )	(2.9 )
Net income attributable to common shareholders - Basic and Dilutive	\$235.2	\$230.3	\$140.1
Denominators			
Basic common shares outstanding -			
Weighted-average shares outstanding	78.2	77.7	77.3
Less: Participating securities	(1.8 )	(1.8 )	(1.6 )
Weighted-average common shares outstanding	76.4	75.9	75.7
Effect of dilutive securities -			
Dilutive stock-based compensation	0.5	0.4	0.2
Diluted shares outstanding -			
Adjusted weighted-average shares after assumed conversions	76.9	76.3	75.9
Basic EPS	\$3.08	\$3.03	\$1.85
Diluted EPS	\$3.06	\$3.02	\$1.85

Certain exercisable stock options were excluded in the computations of diluted EPS because the exercise price of these options was greater than the average annual market prices of our stock. The number of stock options outstanding excluded from the calculation of diluted EPS was 0.2 million at year-end 2016, 0.2 million at year-end 2015 and 0.5 million at year-end 2014. The exercise price related to these stock options was \$26.02 at year-end 2016 and 2015 and a range of \$19.54 - \$26.65 at year-end 2014.

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

## 10. COMMITMENTS AND CONTINGENCIES

**PURCHASE COMMITMENTS** Obligated purchase commitments for capital expenditures and related project expenses were approximately \$203.0 million at December 31, 2016 and \$104.1 million at December 31, 2015.

**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 will continue to closely monitor our environmental conditions to ensure that we are in compliance with all 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 during 2016, 2015 and 2014.

**ENVIRONMENTAL OBLIGATIONS** Due to the nature of our manufacturing operations, we have legal obligations to perform asset retirement activities pursuant to federal, state, and local requirements. The process of estimating environmental liabilities is complex. Significant uncertainty may exist related to the timing and method of the settlement of these obligations. Therefore, these liabilities are not reasonably estimable until a triggering event occurs that allows us to estimate a range and assess the probabilities of potential settlement dates and the potential methods of settlement.

In the future, we will update our estimated costs and potential settlement dates and methods and their associated probabilities based on available information. Any update may change our estimate and could result in a material adjustment to this liability.

**PRODUCT WARRANTIES** We record a liability for estimated warranty obligations at the dates our products are sold. These estimates are established using sales volumes and internal and external warranty data where there is no payment history and historical information about the average cost of warranty claims for customers with prior claims. We estimate our costs based on the contractual arrangements with our customers, existing customer warranty terms and internal and external warranty data, which includes a determination of our warranty claims and take actions 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.

During 2016 and 2015, we also made adjustments to our warranty accrual to reflect revised estimates regarding our projected future warranty obligations. The following table provides a reconciliation of changes in the product warranty liability:

	December 31,	
	2016	2015
	(in millions)	
Beginning balance	\$36.6	\$12.4
Accruals	16.0	17.0
Settlements	(7.3 )	(6.1 )
Adjustments to prior period accruals	(2.3 )	14.0
Foreign currency translation	(0.1 )	(0.7 )
Ending balance	\$42.9	\$36.6



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

11. RECLASSIFICATIONS OUT OF ACCUMULATED OTHER COMPREHENSIVE  
INCOME (LOSS)

Reclassification adjustments and other activity impacting accumulated other comprehensive income (loss) (AOCI) during the year ended December 31, 2016, December 31, 2015 and December 31, 2014 are as follows (in millions):

	Defined Benefit Plans	Foreign Currency Translation Adjustments	Unrecognized Loss on Cash Flow Hedges	Total
Balance at January 1, 2014	\$(197.9)	\$ (18.6 )	\$ 0.3	\$(216.2)
Other comprehensive loss before reclassifications	(104.7 )	(30.3 )	(6.8 )	(141.8 )
Income tax effect of other comprehensive loss before reclassifications	36.6	—	—	36.6
Amounts reclassified from accumulated other comprehensive income (loss) into net income	38.8	(a)(c)—	(0.9 )	(b)37.9
Income taxes reclassified into net income	(13.4 )	—	—	(13.4 )
Net current period other comprehensive loss	(42.7 )	(30.3 )	(7.7 )	(80.7 )
Balance at December 31, 2014	\$(240.6)	\$ (48.9 )	\$ (7.4 )	\$(296.9)
Other comprehensive income (loss) before reclassifications	21.2	(70.3 )	(16.9 )	(66.0 )
Income tax effect of other comprehensive income (loss) before reclassifications	(7.2 )	—	—	(7.2 )
Amounts reclassified from accumulated other comprehensive loss into net income	4.0	(a)—	10.9	(b)14.9
Income taxes reclassified into net income	(1.3 )	—	—	(1.3 )
Net current period other comprehensive income (loss)	16.7	(70.3 )	(6.0 )	(59.6 )
Balance at December 31, 2015	\$(223.9)	\$ (119.2 )	\$ (13.4 )	\$(356.5)
Other comprehensive income (loss) before reclassifications	(27.5 )	(3.2 )	(20.8 )	(51.5 )
Income tax effect of other comprehensive income (loss) before reclassifications	5.8	—	—	5.8
Amounts reclassified from accumulated other comprehensive loss into net income	3.2	(a)—	10.5	(b)13.7
Income taxes reclassified into net income	(1.1 )	—	—	(1.1 )
Net current period other comprehensive loss	(19.6 )	(3.2 )	(10.3 )	(33.1 )
Balance at December 31, 2016	\$(243.5)	\$ (122.4 )	\$ (23.7 )	\$(389.6)

(a) The amount reclassified from AOCI included \$4.4 million in cost of goods sold (COGS) and \$(1.2) million in selling, general & administrative expenses (SG&A) for the year ended December 31, 2016, \$4.8 million in COGS and \$(0.8) million in SG&A for the year ended December 31, 2015 and \$36.0 million in COGS and \$2.8 million in SG&A

for the year ended December 31, 2014.

(b) The amounts reclassified from AOCI are included in COGS.

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

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

## 12. SEGMENT AND GEOGRAPHIC INFORMATION

We operate in one reportable segment: the manufacture, engineer, design and validation of driveline systems and related components and chassis modules for light trucks, SUVs, crossover vehicles, passenger cars and commercial vehicles. 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,		
	2016	2015	2014
	(in millions)		
Net sales			
United States	\$2,147.9	\$2,121.9	\$2,073.6
Canada	94.7	119.3	64.6
Mexico	1,061.9	1,060.2	1,055.5
South America	124.6	106.6	156.5
China	203.4	185.5	71.3
All other Asia	208.8	185.2	167.3
Europe and other	106.7	124.4	107.2
Total net sales	\$3,948.0	\$3,903.1	\$3,696.0
Long-lived assets			
United States	\$831.0	\$824.0	\$867.1
Mexico	529.2	522.6	513.2
South America	61.5	48.5	80.5
China	129.8	85.8	59.8
All other Asia	92.0	103.7	117.5
Europe	111.7	120.3	94.0
Total long-lived assets	\$1,755.2	\$1,704.9	\$1,732.1

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

## 13. UNAUDITED QUARTERLY FINANCIAL DATA

	Three Months Ended,			
	March 31	June 30	September 30	December 31
	(in millions, except per share data)			
2016				
Net sales	\$969.2	\$1,025.4	\$1,006.9	\$ 946.5
Gross profit	174.0	191.4	181.2	179.5 <sup>(2)</sup>
Net income	61.1	71.0	61.7	46.9
Basic EPS <sup>(1)</sup>	\$0.78	\$0.91	\$0.79	\$ 0.60
Diluted EPS <sup>(1)</sup>	\$0.78	\$0.90	\$0.78	\$ 0.59
2015				
Net sales	\$969.1	\$1,004.0	\$971.6	\$ 958.4
Gross profit	152.8	164.5	158.3	159.8
Net income	53.2	58.6	60.9	62.9
Basic EPS <sup>(1)</sup>	\$0.69	\$0.75	\$0.78	\$ 0.81
Diluted EPS <sup>(1)</sup>	\$0.68	\$0.75	\$0.78	\$ 0.81

(1) Full year basic and diluted EPS will not necessarily agree to the sum of the four quarters because each quarter is a separate calculation.

(2) In the third quarter of 2016, we identified an indicator of impairment at our Pantnagar Manufacturing Facility in India due to changes in forecasted cash flows and, as a result, recorded an impairment charge of \$3.4 million to write the assets down to fair value. This impairment charge was recorded to Cost of Goods Sold in the third quarter of 2016 but has been reclassified to Restructuring and Acquisition-Related Costs in the Consolidated Statement of Income for the full year 2016. This reclassification occurred in the fourth quarter of 2016 as a result of the announced closure of the facility.

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

## 14. SUPPLEMENTAL GUARANTOR CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

Holdings has no significant assets other than its 100% ownership in AAM, Inc. and no direct subsidiaries other than AAM, Inc. The 7.75% Notes, 6.625% Notes, 6.25% Notes and 5.125% Notes are senior unsecured obligations of AAM Inc.; all of which are fully and unconditionally guaranteed, on a joint and several basis, by Holdings and substantially all domestic subsidiaries of AAM, Inc., which are 100% indirectly owned by Holdings.

These Condensed Consolidating Financial Statements are prepared under the equity method of accounting whereby the investments in subsidiaries are recorded at cost and adjusted for the parent's share of the subsidiaries' cumulative results of operations, capital contributions and distributions, and other equity changes.

## Condensed Consolidating Statements of Income

2016	Holdings	AAM Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Elims	Consolidated
	(in millions)					
Net sales						
External	\$—	\$1,109.6	\$ 212.2	\$ 2,626.2	\$—	\$ 3,948.0
Intercompany	—	8.3	241.6	16.1	(266.0 )	—
Total net sales	—	1,117.9	453.8	2,642.3	(266.0 )	3,948.0
Cost of goods sold	—	1,063.8	375.4	2,048.7	(266.0 )	3,221.9
Gross profit	—	54.1	78.4	593.6	—	726.1
Selling, general and administrative expenses	—	248.6	—	70.6	—	319.2
Restructuring and acquisition-related costs	—	21.1	—	5.1	—	26.2
Operating income (loss)	—	(215.6 )	78.4	517.9	—	380.7
Non-operating income (expense), net	—	(96.6 )	10.9	4.0	—	(81.7 )
Income (loss) before income taxes	—	(312.2 )	89.3	521.9	—	299.0
Income tax expense	—	27.4	4.2	26.7	—	58.3
Earnings (loss) from equity in subsidiaries	240.7	267.4	(16.7 )	—	(491.4 )	—
Net income (loss) before royalties	240.7	(72.2 )	68.4	495.2	(491.4 )	240.7
Royalties	—	312.9	—	(312.9 )	—	—
Net income after royalties	240.7	240.7	68.4	182.3	(491.4 )	240.7
Other comprehensive loss, net of tax	(33.1 )	(33.1 )	(1.2 )	(12.1 )	46.4	(33.1 )
Comprehensive income	\$207.6	\$207.6	\$ 67.2	\$ 170.2	\$(445.0)	\$ 207.6



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

2015	Holdings	AAM Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Elims	Consolidated
Net sales						
External	\$—	\$1,149.0	\$ 210.3	\$ 2,543.8	\$—	\$ 3,903.1
Intercompany	—	9.4	258.3	19.0	(286.7 )	—
Total net sales	—	1,158.4	468.6	2,562.8	(286.7 )	3,903.1
Cost of goods sold	—	1,114.5	385.2	2,054.7	(286.7 )	3,267.7
Gross profit	—	43.9	83.4	508.1	—	635.4
Selling, general and administrative expenses	—	210.6	0.1	66.6	—	277.3
Operating income (loss)	—	(166.7 )	83.3	441.5	—	358.1
Non-operating income (expense), net	—	(99.3 )	10.1	3.8	—	(85.4 )
Income (loss) before income taxes	—	(266.0 )	93.4	445.3	—	272.7
Income tax expense	—	21.6	5.5	10.0	—	37.1
Earnings (loss) from equity in subsidiaries	235.6	262.3	(20.8 )	—	(477.1 )	—
Net income (loss) before royalties	235.6	(25.3 )	67.1	435.3	(477.1 )	235.6
Royalties	—	260.9	—	(260.9 )	—	—
Net income after royalties	235.6	235.6	67.1	174.4	(477.1 )	235.6
Other comprehensive loss, net of tax	(59.6 )	(59.6 )	(63.6 )	(68.4 )	191.6	(59.6 )
Comprehensive income	\$ 176.0	\$ 176.0	\$ 3.5	\$ 106.0	\$(285.5)	\$ 176.0
2014	Holdings	AAM Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Elims	Consolidated
Net sales						
External	\$—	\$1,099.5	\$ 225.1	\$ 2,371.4	\$—	\$ 3,696.0
Intercompany	—	13.1	246.9	21.6	(281.6 )	—
Total net sales	—	1,112.6	472.0	2,393.0	(281.6 )	3,696.0
Cost of goods sold	—	1,112.4	396.1	1,946.3	(281.6 )	3,173.2
Gross profit	—	0.2	75.9	446.7	—	522.8
Selling, general and administrative expenses	—	194.0	0.2	61.0	—	255.2
Operating income (loss)	—	(193.8 )	75.7	385.7	—	267.6
Non-operating income (expense), net	—	(103.0 )	9.0	3.1	—	(90.9 )
Income (loss) before income taxes	—	(296.8 )	84.7	388.8	—	176.7
Income tax expense (benefit)	—	(11.8 )	0.9	44.6	—	33.7
Earnings (loss) from equity in subsidiaries	143.0	204.0	(23.3 )	—	(323.7 )	—
Net income (loss) before royalties	143.0	(81.0 )	60.5	344.2	(323.7 )	143.0
Royalties	—	224.0	—	(224.0 )	—	—
Net income after royalties	143.0	143.0	60.5	120.2	(323.7 )	143.0
Other comprehensive loss, net of tax	(80.7 )	(80.7 )	(23.5 )	(34.8 )	139.0	(80.7 )
Comprehensive income	\$ 62.3	\$ 62.3	\$ 37.0	\$ 85.4	\$(184.7)	\$ 62.3

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

## Condensed Consolidating Balance Sheets

2016	Holdings	AAM Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Elims	Consolidated
	(in millions)					
<b>Assets</b>						
<b>Current assets</b>						
Cash and cash equivalents	\$—	\$84.3	\$ 1.6	\$ 395.3	\$—	\$ 481.2
Accounts receivable, net	—	126.7	21.9	411.4	—	560.0
Intercompany receivables	—	442.6	326.0	9.1	(777.7 )	—
Inventories, net	—	46.0	29.1	144.4	—	219.5
Other current assets	—	29.4	0.5	45.9	—	75.8
Total current assets	—	729.0	379.1	1,006.1	(777.7 )	1,336.5
Property, plant and equipment, net	—	213.7	102.9	777.1	—	1,093.7
Goodwill	—	—	147.8	6.2	—	154.0
Intercompany notes and accounts receivable	—	343.9	242.2	—	(586.1 )	—
Other assets and deferred charges	—	662.6	37.1	164.2	—	863.9
Investment in subsidiaries	851.8	1,559.0	—	—	(2,410.8 )	—
Total assets	\$851.8	\$3,508.2	\$ 909.1	\$ 1,953.6	\$(3,774.6)	\$ 3,448.1
<b>Liabilities and stockholders' equity</b>						
<b>Current liabilities</b>						
Current portion of long-term debt	\$—	\$—	\$ —	\$ 3.3	\$—	\$ 3.3
Accounts payable	—	80.6	35.8	265.9	—	382.3
Intercompany payables	—	324.8	153.4	299.5	(777.7 )	—
Other current liabilities	—	142.2	4.3	119.4	—	265.9
Total current liabilities	—	547.6	193.5	688.1	(777.7 )	651.5
Intercompany notes and accounts payable	321.8	14.6	7.5	242.2	(586.1 )	—
Long-term debt, net	—	1,339.7	4.1	57.1	—	1,400.9
Investment in subsidiaries obligation	—	—	124.7	—	(124.7 )	—
Other long-term liabilities	—	754.5	0.6	110.6	—	865.7
Total liabilities	321.8	2,656.4	330.4	1,098.0	(1,488.5 )	2,918.1
Total stockholders' equity	530.0	851.8	578.7	855.6	(2,286.1 )	530.0
Total liabilities and stockholders' equity	\$851.8	\$3,508.2	\$ 909.1	\$ 1,953.6	\$(3,774.6)	\$ 3,448.1
2015	Holdings	AAM Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Elims	Consolidated
<b>Assets</b>						
<b>Current assets</b>						
Cash and cash equivalents	\$—	\$52.0	\$ —	\$ 230.5	\$—	\$ 282.5
Accounts receivable, net	—	127.2	19.7	392.2	—	539.1
Intercompany receivables	—	311.8	249.7	9.4	(570.9 )	—
Inventories, net	—	59.8	31.1	139.6	—	230.5
Other current assets	—	30.4	0.5	41.2	—	72.1
Total current assets	—	581.2	301.0	812.9	(570.9 )	1,124.2
Property, plant and equipment, net	—	214.1	91.9	740.2	—	1,046.2
Goodwill	—	—	147.8	6.6	—	154.4
Intercompany notes and accounts receivable	—	393.5	252.2	—	(645.7 )	—
Other assets and deferred charges	—	683.6	41.4	152.9	—	877.9
Investment in subsidiaries	622.3	1,315.9	—	—	(1,938.2 )	—

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Total assets	\$622.3	\$3,188.3	\$ 834.3	\$ 1,712.6	\$(3,154.8)	\$ 3,202.7
Liabilities and stockholders' equity						
Current liabilities						
Current portion of long-term debt	\$—	\$—	\$ —	\$ 3.3	\$—	\$ 3.3
Accounts payable	—	103.0	35.8	273.9	—	412.7
Intercompany payables	—	248.7	154.9	167.3	(570.9)	—
Other current liabilities	—	134.2	4.1	144.9	—	283.2
Total current liabilities	—	485.9	194.8	589.4	(570.9)	699.2
Intercompany notes and accounts payable	320.8	10.3	—	314.6	(645.7)	—
Long-term debt, net	—	1,336.5	4.5	34.7	—	1,375.7
Investment in subsidiaries obligation	—	—	111.7	—	(111.7)	—
Other long-term liabilities	—	733.3	0.5	92.5	—	826.3
Total liabilities	320.8	2,566.0	311.5	1,031.2	(1,328.3)	2,901.2
Total stockholders' equity	301.5	622.3	522.8	681.4	(1,826.5)	301.5
Total liabilities and stockholders' equity	\$622.3	\$3,188.3	\$ 834.3	\$ 1,712.6	\$(3,154.8)	\$ 3,202.7

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

## Condensed Consolidating Statements of Cash Flows

2016	AAM Holdings Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Elims	Consolidated
	(in millions)				
Net cash provided by operating activities	\$—\$78.3	\$ 25.3	\$ 304.0	\$ —	\$ 407.6
Investing activities					
Purchases of property, plant and equipment	— (36.8 )	(18.0 )	(168.2 )	—	(223.0 )
Proceeds from sale of property, plant and equipment	— —	0.3	1.4	—	1.7
Purchase buyouts of leased equipment	— (4.6 )	—	—	—	(4.6 )
Proceeds from government grants	— —	—	2.8	—	2.8
Final distribution of Reserve Yield Plus Fund	— 1.0	—	—	—	1.0
Acquisition of business, net	— —	(5.6 )	—	—	(5.6 )
Net cash used in investing activities	— (40.4 )	(23.3 )	(164.0 )	—	(227.7 )
Financing activities					
Net debt activity	— (0.7 )	(0.4 )	24.4	—	23.3
Employee stock option exercises	— 0.3	—	—	—	0.3
Purchase of treasury stock	(5.2)	—	—	—	(5.2 )
Intercompany activity	5.2 (5.2 )	—	—	—	—
Net cash provided by (used in) financing activities	— (5.6 )	(0.4 )	24.4	—	18.4
Effect of exchange rate changes on cash	— —	—	0.4	—	0.4
Net increase in cash and cash equivalents	— 32.3	1.6	164.8	—	198.7
Cash and cash equivalents at beginning of period	— 52.0	—	230.5	—	282.5
Cash and cash equivalents at end of period	\$—\$84.3	\$ 1.6	\$ 395.3	\$ —	\$ 481.2
2015	AAM Holdings Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Elims	Consolidated
Net cash provided by operating activities	\$—\$163.7	\$ 68.1	\$ 145.8	\$ —	\$ 377.6
Investing activities					
Purchases of property, plant and equipment	— (36.4 )	(12.8 )	(144.3 )	—	(193.5 )
Proceeds from sale of property, plant and equipment	— 0.1	0.1	0.1	—	0.3
Proceeds from government grants	— —	—	5.1	—	5.1
Intercompany activity	— —	(55.0 )	—	55.0	—
Net cash used in investing activities	— (36.3 )	(67.7 )	(139.1 )	55.0	(188.1 )
Financing activities					
Net debt activity	— (142.8 )	(0.4 )	3.0	—	(140.2 )
Employee stock option exercises	— 0.8	—	—	—	0.8
Purchase of treasury stock	(3.1)	—	—	—	(3.1 )
Purchase of noncontrolling interest	— —	—	(1.1 )	—	(1.1 )
Intercompany activity	3.1 (3.1 )	—	55.0	(55.0)	—
Net cash provided by (used in) financing activities	— (145.1 )	(0.4 )	56.9	(55.0)	(143.6 )
Effect of exchange rate changes on cash	— —	—	(12.6 )	—	(12.6 )
Net increase (decrease) in cash and cash equivalents	— (17.7 )	—	51.0	—	33.3
Cash and cash equivalents at beginning of period	— 69.7	—	179.5	—	249.2
Cash and cash equivalents at end of period	\$—\$52.0	\$ —	\$ 230.5	\$ —	\$ 282.5



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

2014	Holdings	AAM Inc.	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Elims	Consolidated
Net cash provided by operating activities	\$ —	\$ 83.4	\$ 41.9	\$ 193.1	\$ —	\$ 318.4
Investing activities						
Purchases of property, plant and equipment	—	(51.3 )	(18.6 )	(136.6 )	—	(206.5 )
Proceeds from sale of property, plant and equipment	—	7.9	0.4	0.8	—	9.1
Proceeds from government grants	—	—	—	2.1	—	2.1
Intercompany activity	—	—	(23.3 )	—	23.3	—
Net cash used in investing activities	—	(43.4 )	(41.5 )	(133.7 )	23.3	(195.3 )
Financing activities						
Net debt activity	—	(7.8 )	(0.4 )	(13.8 )	—	(22.0 )
Debt issuance costs	—	(0.3 )	—	—	—	(0.3 )
Employee stock option exercises	—	1.2	—	—	—	1.2
Purchase of treasury stock	(0.3 )	—	—	—	—	(0.3 )
Intercompany activity	0.3	(0.3 )	—	23.3	(23.3)	—
Net cash provided by (used in) financing activities	—	(7.2 )	(0.4 )	9.5	(23.3)	(21.4 )
Effect of exchange rate changes on cash	—	—	—	(6.5 )	—	(6.5 )
Net increase in cash and cash equivalents	—	32.8	—	62.4	—	95.2
Cash and cash equivalents at beginning of period	—	36.9	—	117.1	—	154.0
Cash and cash equivalents at end of period	\$ —	\$ 69.7	\$ —	\$ 179.5	\$ —	\$ 249.2

#### 15. SUBSEQUENT EVENTS

On February 9, 2017, AAM entered into an agreement pursuant to which, at the time of closing, AAM will acquire 100% of a subsidiary of U.S. Manufacturing Corporation for \$162.5 million, subject to adjustment at the closing of the transaction. This acquisition is expected to close in the first quarter of 2017 and we will fund the purchase price with available cash. The acquisition will be accounted for under the acquisition method and the purchase price will be allocated to the identifiable assets and liabilities of the acquired company based on the respective fair values of the assets and liabilities.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of American Axle & Manufacturing Holdings, Inc.:  
Detroit, Michigan

We have audited the accompanying consolidated balance sheets of American Axle & Manufacturing Holdings, Inc. and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, cash flows and stockholders' equity for each of the three years in the period ended December 31, 2016. Our audits also included the financial statement schedule listed in the Index at Item 15. We also have audited the Company's internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these financial statements and financial statement schedule, and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.





In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of American Axle & Manufacturing Holdings, Inc. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

/s/ Deloitte & Touche LLP

Detroit, Michigan  
February 10, 2017

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

None

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

Under the direction of our Chief Executive Officer and Chief Financial Officer, we evaluated our disclosure controls and procedures and internal control over financial reporting and concluded that our disclosure controls and procedures (as defined in Rules 13a - 15(e) or 15d - 15(e) under the Securities Exchange Act of 1934 (the "Exchange Act")) were effective as of December 31, 2016.

Management Report on Internal Control over Financial Reporting

We are responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control system was designed to provide reasonable assurance to our management and Board of Directors regarding the preparation and fair presentation of our consolidated financial statements.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2016. In making this assessment, we used criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our assessment, management concluded that, as of December 31, 2016, our internal control over financial reporting was effective based on those criteria.

The attestation report of our independent registered public accounting firm regarding internal control over financial reporting is included in Item 8, "Financial Statements and Supplementary Data."

Change in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the fourth quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None

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Part III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by Item 401(b), (d) (e) and (f) of Regulation S-K about our executive officers is furnished in Part I of this Form 10-K, Annual Report under the caption “Executive Officers of the Registrant.” All other information required by Item 10 is incorporated herein by reference from our Proxy Statement which we expect to file on or about March 23, 2017.

We have adopted a code of ethics that applies to our Chief Executive Officer and Chief Financial Officer and the senior financial executives who report directly to our Chief Financial Officer. This code of ethics is available on our website at [www.aam.com](http://www.aam.com). We will post on our website any amendment to or waiver from the provisions of the code of ethics or our code of business conduct that applies to executive officers or directors of the Company.

Item 11. Executive Compensation

The information required by Item 11 is incorporated by reference from our Proxy Statement.

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

The information required by Item 12 is incorporated by reference from our Proxy Statement.

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

The information required by Item 13 under Items 404 and 407(a) of Regulation S-K is incorporated by reference from our Proxy Statement.

Item 14. Principal Accounting Fees and Services

The information required by Item 8(e) of Schedule 14A is incorporated by reference from our Proxy Statement.

Part IV

Item 15. Exhibits and Financial Statement Schedules

The following documents are filed as a part of this report:

1. All Financial Statements

Consolidated Statements of Income  
Consolidated Statements of Comprehensive Income  
Consolidated Balance Sheets  
Consolidated Statements of Cash Flows  
Consolidated Statements of Stockholders' Equity  
Notes to Consolidated Financial Statements  
Report of Independent Registered Public Accounting Firm

2. Financial Statement Schedules

Schedule II - Valuation and Qualifying Accounts for the years ended December 31, 2016, 2015 and 2014 is filed as part of this Form 10-K.

All other schedules have been omitted because they are not applicable or not required.

3. Exhibits

The following exhibits were previously filed unless otherwise indicated:

Number Description of Exhibit

- |      |  |
|------|--|
| 2.1  | Agreement and Plan of Merger by and among American Axle & Manufacturing Holdings, Inc., ALPHA SPV I, Inc. and Metaldyne Performance Group Inc.<br>(Incorporated by reference to Exhibit 2.1 of Current Report on Form 8-K dated November 8, 2016.) |
| 3.01 | Amended and Restated Certificate of Incorporation<br>(Incorporated by reference to Exhibit 3.01 filed with American Axle & Manufacturing Holdings, Inc. Registration Statement on Form S-1 (Registration No. 333-53491))                           |
| 3.02 | Amended and Restated Bylaws of American Axle & Manufacturing Holdings, Inc.<br>(Incorporated by reference to Exhibit 3.02 filed with American Axle & Manufacturing Holdings, Inc. Form 10-K for the year ended December 31, 2009.)                 |
| 3.03 | Second Amended and Restated Bylaws of American Axle & Manufacturing Holdings, Inc.<br>(Incorporated by reference to Exhibit 3.03 of Current Report on Form 8-K dated August 3, 2016.)  |
| 4.01 | Specimen Certificate for shares of the Company's Common Stock<br>(Incorporated by reference to Exhibit 4.01 filed with American Axle & Manufacturing Holdings, Inc. Registration Statement on Form S-1 (Registration No. 333-53491))               |
| 4.02 | Form of Indenture, among American Axle & Manufacturing, Inc., American Axle & Manufacturing Holdings, Inc., as guarantor, certain subsidiary guarantors and U.S. Bank National Association, as trustee   |



Number	Description of Exhibit
4.03	Indenture, dated as of November 3, 2011, among American Axle & Manufacturing, Inc., the Guarantors and U.S. Bank National Association, as trustee (Incorporated by Reference to Exhibit 4.1 of Current Report on Form 8-K dated October 31, 2011.)
4.04	Form of 7.75% Senior Notes due 2019 (Incorporated by Reference to Exhibit 4.2 of Current Report on Form 8-K dated October 31, 2011.)
4.05	Form of 6.625% Notes due 2022 (Incorporated by Reference to Exhibit 4.1 of Current Report on Form 8-K dated September 17, 2012.)
4.06	Form of 6.25% Notes due 2021 (Incorporated by Reference to Exhibit 4.1 of Current Report on Form 8-K dated February 28, 2013.)
4.07	Form of 5.125% Notes due 2019 (Incorporated by Reference to Exhibit 4.1 of Current Report on Form 8-K dated November 12, 2013.)
10.01	Asset Purchase Agreement, dated February 18, 1994, between AAM, Inc. and GM, and all amendments thereto  (Incorporated by reference to Exhibit 10.01 filed with American Axle & Manufacturing Holdings, Inc. Registration Statement on Form S-1 (Registration No. 333-53491))
10.02	Lifetime Program Contract for GMT-900 Products, between GM and AAM, Inc. (Incorporated by reference to Exhibit 10.51 filed with American Axle & Manufacturing Holdings, Inc. Form 10-Q for the quarterly period ended June 30, 2003.)
++10.03	Letter Agreement dated April 22, 2004 by and between DaimlerChrysler Corporation and AAM, Inc. (Incorporated by reference to Exhibit 10.43 filed with American Axle & Manufacturing Holdings, Inc. Form 10-Q for the quarterly period ended June 30, 2004.)
‡10.04	Forms of Restricted Stock and Restricted Stock Unit Agreements under 1999 Stock Incentive Plan  (Incorporated by reference to Exhibit 10.45 filed with American Axle & Manufacturing Holdings, Inc. Form 10-Q for the quarterly period ended September 30, 2004.)
‡10.05	Form of Nonqualified Stock Option Agreement (Incorporated by reference to Exhibit 10.5 of Current Report on Form 8-K dated October 26, 2005.)
‡10.06	Restated 1999 American Axle & Manufacturing Holdings, Inc. Stock Incentive Compensation Plan  (Incorporated by reference to Exhibit 10.51 filed with American Axle & Manufacturing Holdings, Inc. Form 10-K for the year ended December 31, 2005.)



Number	Description of Exhibit
++10.07	Letter Agreement between General Motors Corporation and American Axle & Manufacturing, Inc. dated June 29, 2007 (Incorporated by reference to Exhibit 99.1 of Current Report on Form 8-K dated June 29, 2007.)
‡10.08	Form of 2008 Stock Option Award Agreement for executive officers of American Axle & Manufacturing Holdings, Inc. (Incorporated by reference to Exhibit 10.52 filed with American Axle & Manufacturing Holdings, Inc. Form 10-K for the year ended December 31, 2007.)
10.09	Agreement between General Motors Corporation and American Axle & Manufacturing, Inc. dated May 3, 2008, as amended May 16, 2008 (Incorporated by reference to Exhibit 10.1 of Current Report on Form 8-K dated May 23, 2008.)
‡10.10	Amended and Restated AAM 2009 Long-Term Incentive Plan (Incorporated by reference to Exhibit 10.61 filed with American Axle & Manufacturing Holdings, Inc. Form 10-Q for the quarter ended June 30, 2009.)
++10.11	Settlement and Commercial Agreement, dated as of September 16, 2009, among General Motors Company, American Axle & Manufacturing Holdings, Inc. and American Axle & Manufacturing, Inc. (Incorporated by reference to Exhibit 10.62 of Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2009.)
‡10.12	Form of Nonqualified Stock Option Award Agreement under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.2 of Current Report on Form 8-K dated May 1, 2012.)
‡10.13	Form of Restricted Stock Unit Award Agreement for Non-employee Directors under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.3 of Current Report on Form 8-K dated May 1, 2012.)
‡10.14	Form of Restricted Stock Unit Award Agreement (Cliff Vesting) for Executive Officers under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.4 of Current Report on Form 8-K dated May 1, 2012.)
‡10.15	Form of Restricted Stock Unit Award Agreement (Installment Vesting) for Executive Officers under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.5 of Current Report on Form 8-K dated May 1, 2012.)
‡10.16	Form of Performance Unit Award Agreement for Executive Officers under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.6 of Current Report on Form 8-K dated May 1, 2012.)
‡10.17	American Axle & Manufacturing, Inc. Amended and Restated Supplemental Executive Retirement Program Document (Incorporated by reference to Exhibit 10.37 of Quarterly Report on Form 10-Q dated July 27, 2012.)





Number	Description of Exhibit
10.18	Amendment and Restatement Agreement dated as of September 13, 2013, among American Axle & Manufacturing Holdings, Inc., JPMorgan Chase Bank, N.A., as Administrative Agent and as Collateral Agent, and each financial institution party thereto as a lender, including as Exhibit A thereto, the Amended and Restated Credit Agreement dated as of January 9, 2004 and amended and restated as of September 13, 2013 among American Axle & Manufacturing, Inc., American Axle & Manufacturing Holdings, Inc., the Lenders party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent (Incorporated by reference to Exhibit 10.1 of Current Report on Form 8-K dated September 16, 2013.)
10.19	Guarantee Agreement dated as of January 9, 2004, as amended and restated as of September 13, 2013, among American Axle & Manufacturing, Inc., American Axle & Manufacturing Holdings, Inc., certain subsidiaries of American Axle & Manufacturing, Inc. identified therein, and JPMorgan Chase Bank, N.A. as Administrative Agent for the lenders referred to therein (Incorporated by reference to Exhibit 10.2 of Current Report on Form 8-K dated September 16, 2013.)
10.20	Collateral Agreement dated as of November 7, 2008, as amended and restated as of September 13, 2013, among American Axle & Manufacturing Holdings, Inc., American Axle & Manufacturing, Inc., certain subsidiaries of American Axle & Manufacturing, Inc. identified therein and JPMorgan Chase Bank, N.A., as Collateral Agent (Incorporated by reference to Exhibit 99.1 of Current Report on Form 8-K dated September 16, 2013.)
‡10.21	Form of Performance Share Award Agreement (Relative TSR) for Executive Officers under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.35 of Annual Report on Form 10-K dated February 7, 2014.)
‡10.22	Form of Performance Share Award Agreement (EBITDA) for Executive Officers under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.36 of Annual Report on Form 10-K dated February 7, 2014.)
‡10.23	Form of Restricted Stock Unit Award Agreement (Cliff Vesting) for Executive Officers under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.37 of Annual Report on Form 10-K dated February 7, 2014.)
‡10.24	Form of Restricted Stock Unit Award Agreement for Board of Directors under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.1 of Quarterly Report on Form 10-Q dated May 2, 2014.)
‡10.25	Amended and Restated Employment Agreement dated February 19, 2015 by and between the Company and David C. Dauch (Incorporated by reference to Exhibit 10.1 of Current Report on Form 8-K dated February 26, 2015.)
‡10.26	AAM Executive Officer Change in Control Plan dated February 19, 2015 (Incorporated by reference to Exhibit 10.2 of Current Report on Form 8-K dated February 26, 2015.)



Number	Description of Exhibit
‡10.27	Form of Performance Share Award Agreement (Relative TSR) for Executive Officers under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.3 of Current Report on Form 8-K dated February 26, 2015.)
‡10.28	Form of Performance Share Award Agreement (EBITDA) for Executive Officers under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.4 of Current Report on Form 8-K dated February 26, 2015.)
‡10.29	Form of Restricted Stock Unit Award Agreement for Executive Officers under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.5 of Current Report on Form 8-K dated February 26, 2015.)
‡10.30	Form of Restricted Stock Unit Award Agreement for Non-Employee Directors under the 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.6 of Current Report on Form 8-K dated February 26, 2015.)
‡10.31	Amended and Restated American Axle & Manufacturing Holdings, Inc. 2012 Omnibus Incentive Plan (Incorporated by reference to Exhibit 10.1 of Current Report on Form 8-K dated May 1, 2015.)
‡10.32	Employment Agreement dated as of August 1, 2015 by and between the Company and Michael K. Simonte (Incorporated by reference to Exhibit 10.1 of Current Report on Form 8-K dated July 31, 2015.)
‡10.33	Second Amended and Restated American Axle & Manufacturing, Inc. Incentive Compensation Plan for Executive Officers effective as of January 1, 2016 (Incorporated by reference to Exhibit 10.38 of Annual Report on Form 10-K dated February 12, 2016.)
‡10.34	Voting Agreement (Incorporated by reference to Exhibit 10.1 of Current Report on Form 8-K dated November 8, 2016.)
*12	Computation of Ratio of Earnings to Fixed Charges
*21	Subsidiaries of the Registrant
*23	Consent of Independent Registered Public Accounting Firm
*31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act
*31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act
*32	Certifications of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Number	Description of Exhibit
**101.INS	XBRL Instance Document
**101.SCH	XBRL Taxonomy Extension Schema Document
**101.PRE	XBRL Extension Presentation Linkbase Document
**101.LAB	XBRL Taxonomy Extension Label Linkbase Document
**101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
**101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

(All other exhibits are not applicable.)

- ++ Confidential Treatment Request Granted by the SEC
- ‡ Reflects Management or Compensatory Contract
- \* Shown only in the original filed with the Securities and Exchange Commission
- \*\* Submitted electronically with the original filed with the Securities and Exchange Commission

## Schedule II - VALUATION AND QUALIFYING ACCOUNTS

	Additions			
	Charged	Deductions		Balance
Balance at Beginning of Period (in millions)	to	-	See Notes	At End of Period
	Expenses	Below		
	(in millions)			
Year Ended December 31, 2014				
Allowance for doubtful accounts	\$ 4.9	\$ 1.3	\$ 1.6	(1) \$ 4.6
Allowance for deferred taxes	163.7	13.8	20.6	(3) 156.9
Inventory valuation allowance	27.3	10.6	10.0	(2) 27.9
Year Ended December 31, 2015				
Allowance for doubtful accounts	4.6	2.5	2.8	(1) 4.3
Allowance for deferred taxes	156.9	31.9	21.5	(4) 167.3
Inventory valuation allowance	27.9	11.1	9.7	(2) 29.3
Year Ended December 31, 2016				
Allowance for doubtful accounts	4.3	0.4	1.6	(1) 3.1
Allowance for deferred taxes	167.3	318.4	20.9	(5) 164.8
Inventory valuation allowance	29.3	7.5	9.8	(2) 27.0

(1) Uncollectible accounts charged off net of recoveries.

(2) Primarily relates to inventory adjustments for physical quantity discrepancies and write-offs of excess and obsolete inventories.

(3) Primarily relates to the reversal of a valuation allowance against an expiring net operating loss in China.

(4) Primarily reflects a reduction in deferred tax assets at various foreign locations due to foreign currency translation.

(5) Primarily reflects a reduction in deferred tax assets at various foreign locations due to foreign currency translation, as well as the reversal of the valuation allowance of \$5.4 million against our deferred tax assets in China.



Signatures

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

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.  
(Registrant)

/s/ Christopher J. May  
Christopher J. May  
Vice President & Chief Financial Officer  
(Chief Accounting Officer)

Date: February 10, 2017



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

Signature	Title	Date
/s/ David C. Dauch David C. Dauch	Chairman of the Board & Chief Executive Officer	February 10, 2017
/s/ Christopher J. May Christopher J. May	Vice President & Chief Financial Officer	February 10, 2017
/s/ Elizabeth A. Chappell Elizabeth A. Chappell	Director	February 10, 2017
/s/ William L. Kozyra William L. Kozyra	Director	February 10, 2017
/s/ Peter D. Lyons Peter D. Lyons	Director	February 10, 2017
/s/ James A. McCaslin James A. McCaslin	Director	February 10, 2017
/s/ William P. Miller II William P. Miller II	Director	February 10, 2017
/s/ John F. Smith John F. Smith	Director	February 10, 2017
/s/ Samuel Valenti III Samuel Valenti III	Director	February 10, 2017